



A Comprehensive Study Investigating Multilevel Predictors of Job Stress in Nurses

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ABSTRACT:

Job stress significantly impacts the mental and physical health of nurses, affecting their job satisfaction, performance, and retention rates. This research seeks to explore the various factors contributing to job stress in nursing, both at the individual and organizational levels. The study employs a cross-sectional approach, collecting data from nurses in different healthcare environments. It looks at how personal factors, such as age, gender, and experience, along with job-related aspects like workload, shift schedules, and role clarity, influence stress perceptions. Additionally, organizational conditions, such as management support, resources, and workplace culture, are examined for their effects on stress levels. The study uses advanced statistical methods, including multivariate regression and structural equation modeling, to identify the most significant stress factors and their relative influence. The findings emphasize the intricate relationships between personal, organizational, and environmental elements in shaping nurses' stress experiences. "This research provides valuable insights for healthcare administrators and policymakers to develop targeted strategies aimed at reducing job stress, boosting job satisfaction, and improving overall well-being for nursing professionals.

1. Introduction

The term "stress" may refer to either an emotional or physiological condition that a person experiences when confronted with particular traits or situations that pose a risk to their well-being. One common cause of stress, according to Hossini and Hossini (2012), is discontent with both the demands of daily life and the resources available to people in relation to their surroundings. "The harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker." That's how stress is described by NIOSH, the National Institute for Occupational Safety and Health. A person's mental, emotional, and physiological well-being may all be affected by stress. Workplace stress can also be defined as an adverse response to job demands and pressures, an emotional breakdown brought on by metallurgical stress, employees' lack of training or

experience making it difficult for them to make decisions or meet job demands, and workers' low pay, disrespect, and benefits in comparison to their efforts. You may think of all of these things as sources of stress at work. Appropriate resources, such as knowledge, equipment, assistance, and education, place constraints on the demands of the workplace. Even if there is a degree of disagreement between these ideas, this remains true. Symptoms of chronically high levels of stress include, as stated by Dr.Naveen Prasadula. (2024), the following: anxiety, insomnia, depression, irritability, restlessness, diminished resistance, dementia, abnormal weariness, susceptibility to recurrent infections, impaired concentration, memory problems, headaches, and difficulty solving problems. Those who have been under constant, intense pressure are more likely to exhibit these signs. There are a lot of reasons why public hospital employees face higher stress than private hospital employees (Tyson and



Pongruengphant, 2004). These factors greatly impact how well the person does their work. High levels of stress may be caused by several things, such as limited time, disrespect from physicians, working shifts, hospital and physician administration, interpersonal relationships, insufficient support, and low pay. From anecdotal evidence, it seems that the qualities and organisational structures of a corporation do influence the productivity of its employees. It is widely accepted that organisational characteristics including large size, high centralisation, and strong formalisation significantly impact employee attitudes and behaviour (Parsons et al., 1979). This stands in stark contrast to less formalised groups and those whose communication channels are not well-established. The quality of nursing care has an effect on patients' health outcomes, as stated by Cho et al. (2015). Assessing patients' states, addressing health concerns, and educating patients on how to react to nursing interventions are just a few of the many things that nurses need to do effectively in order to provide high-quality care (Chou, Hwang, and Jang, 2017). The growing severity of patients' diseases in healthcare institutions highlights the urgent need for research on the organisational and personal aspects of nurses that impact nursing. The mental health of nurses is significantly impacted by their work environment, according to several studies (Lake et al., 2019; Havaei, et al., 2021; Kutney-Lee, et al., 2013; Van Bogaert et al., 2013; Van Bogaert et al., 2014). Structured empowerment, magnet hospitals, and worklife areas are the three main foci of worldwide research on nursing workplaces (Wagner et al., 2010; Fragkos et al., 2020; Cicolini, et al., 2014; Boamah & Laschinger, 2016; Lake et al., 2019). Based on Kanter's theory of organisational power, Laschinger et al. (2001) proposed a system of structural empowerment for employees. According to Havaei and Dahinten (2017), one way to quantify structural empowerment is using the Conditions of Work Environment Questionnaire II (CWEQ-II). Knowledge, resources, opportunities, supports, and official and informal power pathways are the six things that nurses feel contribute to their empowerment on the workplace. Other works discuss the concept of a magnet hospital, which arose in the 1980s in reaction to a severe shortage of nurses in the United States. When comparing the ability of different hospitals to recruit and retain nurses, some, known as

"magnet hospitals," showed a distinct edge. disjointed channels of interaction. A positive attitude and regular physical activity were associated with increased likelihood that patients would follow the nurse's lead (2012). This could be due to the fact that these nurses had a greater grasp of what their patients needed in order to effectively advise them on how to lead healthier lives. When nurses prioritise their personal health and make positive changes, it may have a positive impact on their energy and effectiveness at work. However, studies investigating the link between nurses' health-promoting habits and their performance in the field are few. Prior research has mostly focused on individual environmental and personal variables and their effects on nurses' job performance, rather than examining the interplay between internal and external factors (Bogaert et al., 2013; Fie et al., 2012). Since unit-level work settings are representative of nurses' shared experiences, they have recently been the focus of study on nurses' working conditions (McCusker, et al., 2004). Additionally, nurses' self-reports of their experiences on the job at the unit level may provide more light on the topic than data acquired at the individual level. The purpose of this study was to examine the connection between nurses' work environments and their health behaviours in order to identify the elements that contribute to their high levels of job stress.

2. Study of Objectives

1. To examine the relationship between nurses' reported levels of stress on the job and demographic factors.
- 2 To examine the association between physiological factors and job stress levels in nurses.
- 3 To evaluate the psychological, physiological, and organisational aspects that contribute to the stress that nurses experience on the job.
- 4: The goal is to find out how much stress certain nurses experience on the job is related to a sense of helplessness.

3. Study of Hypothesis

H1: A nurse's degree of work stress is significantly related to their own personal traits (accepted).



H2: Nurses' physiological variables are significantly correlated with their professional stress levels.

H3: Among nurses, there is a robust correlation between organisational climate and levels of occupational stress.

H4: Occupational stress levels and behavioural characteristics are strongly correlated in the nursing profession.

H5: Lack of Control is significantly associated with high levels of occupational stress in the nursing profession.

4. Methodology

Two hundred forty-four registered nurses from Andhra Pradesh's Guntur and Vijayawada hospitals participated in the study. Following the guidelines provided by Bill Godden (2004), we used a cross-sectional descriptive design to determine the sample size for this study. Based on the estimated population proportion of 40%, 240 participants were chosen for the research.

5. Result and Discussion

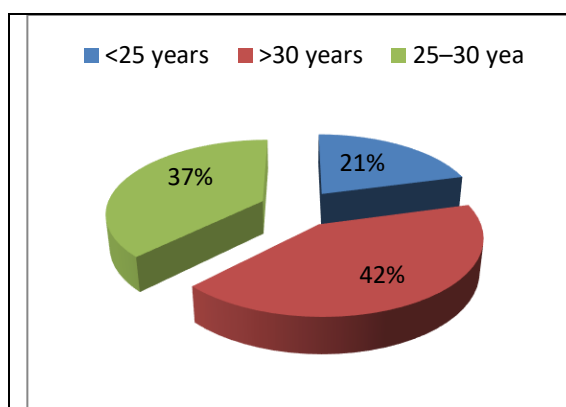


Figure 1: Bar chart on frequency analysis on Age

Examining and interviewing nurses from these two locations will take place over the span of six months. The first stage in gathering data is to fill out a demographic information form that enquires about gender, age, education level, and years of employment. Both the Perceived Stress Scale (PSS) and the Expanded Nursing Stress Scale (ENSS) consist of ten questions each. There are a number of factors that might cause stress for nurses, including physiological factors, organisational climate, behavioural factors, psychological factors, and a lack of control. Each of these categories has five things. Additionally, a pair of standardised stress tests will be administered. High workplace demands, unfavourable attitudes from colleagues and bosses, ambiguous tasks, unreasonable expectations, toxic work relationships, and issues with one's career and performance are just a few examples of the many possible sources of stress. On five consecutive times, we will evaluate each element using a 5-point Likert scale. To begin, bar charts were used for frequency analysis. Then, Analysis of Variance was used to examine all of the hypotheses.

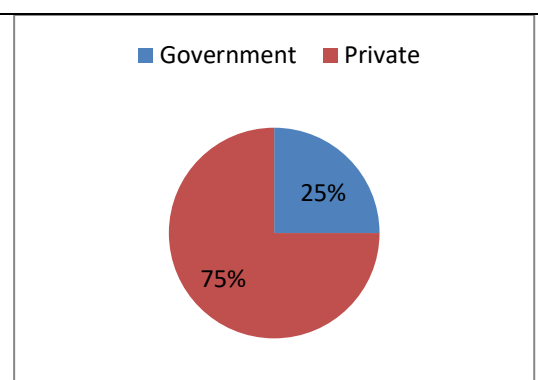


Figure 2: Bar chart on frequency analysis on type of hospital currently employed

According to the numbers, over half of the population is under the age of 25, while almost half (41.7% to be exact) is beyond the age of 30. Individuals in this age bracket make up 37.5% of the overall population, making them the most populous demographic category. The results may provide light on the participants' preferences, risk factors, and professional aspirations.

Two hundred forty-four nurses took part in the study; seventy-five percent worked for private hospitals and twenty-five percent for public ones. A disproportionate number of private hospitals are included in the sample, suggesting that the employment settings are not well represented. Future studies should investigate how the differences in working conditions and patient



populations between public and private hospital nurses impact the findings' applicability.

H1: Individual traits are significantly associated with occupational stress levels in the nursing profession (accepted).

Table 1: Analysis of variance test for nurses' levels of occupational stress as a result of individual variables

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Perceived Stress Scale	Between Groups	2372.583	11	215.689	14.693	.000
	Within Groups	3347.000	228	14.680		
	Total	5719.583	239			
Expanded Nursing Stress Scale	Between Groups	6135.333	11	557.758	7.324	.000
	Within Groups	17363.000	228	76.154		
	Total	23498.333	239			

The ANOVA table shows that there was a significant relationship between the Expanded Nursing Stress Scale (7.324) and the Perceived Stress Scale (14.693), with a significance level of 0.000% for the former and 0.000% for the latter. Based on these numbers, we may assume that the same set of independent factors had a substantial effect on both measures. The results provide strong evidence in favour of H1, which states that nurses' levels of occupational stress are significantly impacted by their individual characteristics. These findings highlight the need of doing more studies to investigate the potential connections between occupational stress and individual

variables such character characteristics, coping strategies, and life events. Improving stress management tactics for nurses would be possible if we have a better understanding of these relationships, which might lead to more personalised therapy. According to the results, nurses' work stress is significantly influenced by their unique personal traits. In order to develop thorough strategies for stress management and to improve the health of this essential healthcare workforce, it is necessary to address this critical component.

H2: Physiological variables are significantly correlated with occupational stress levels in the nursing profession.

Table 2: ANOVA test on job stress levels due to Physiological factors among the nurses

		Sum of Squares	df	Mean Square	F	Sig.
Perceived Stress Scale	Between Groups	3379.583	12	281.632	27.321	.000
	Within Groups	2340.000	227	10.308		
	Total	5719.583	239			
Expanded Nursing Stress Scale	Between Groups	16349.167	12	1362.431	43.260	.000
	Within Groups	7149.167	227	31.494		
	Total	23498.333	239			



Physiological factors showed a strong correlation with both the Perceived Stress Scale and the Expanded Nursing Stress Scale, as seen in the ANOVA table above. Psychological and physiological factors were significantly related on the Perceived Stress Scale ($f = 27.321, p = 0.000\%$) and the Expanded Nursing Stress Scale ($f = 43.260, p = 0.000\%$). The relationship between nurses' physiological characteristics and professional stress was the focus of this study. The findings indicate a robust correlation between the two variables, indicating that physiological factors significantly impact the stress levels experienced

by nurses. Consistent with other research, the present findings highlight the complex link between stress and physiological reactions. Physiological factors are major causes of professional stress among nurses, according to this study. Incorporating various approaches to address these characteristics might improve their overall health, decrease their sense of stress, and ultimately result in a stronger and more resilient workforce.

H3: Among nurses, there is a robust correlation between organisational climate and levels of occupational stress.

Table 3: ANOVA analysis of the nurses' work-related stress levels as a function of organisational climate

		Sum of Squares	df	Mean Square	F	Sig.
Perceived Stress Scale	Between Groups	1669.583	8	208.698	11.904	.000
	Within Groups	4050.000	231	17.532		
	Total	5719.583	239			
Expanded Nursing Stress Scale	Between Groups	6148.000	8	768.500	10.232	.000
	Within Groups	17350.333	231	75.110		
	Total	23498.333	239			

The perceived stress scale (f test value = 11.904) and the extended nursing stress scale (f test value = 10.232), with significance levels of 0.000% and 0.000%, respectively, are strongly connected with organisational environment, according to the results of the analysis of variance (ANOVA) table. The purpose of this study was to examine the link between nurses' work environments and occupational stress. The findings demonstrate a strong correlation between the two variables, highlighting the significance of a safe workplace for nurses' health. These findings corroborate previous research that has shown how healthcare workers' stress levels are affected by their work environment. Features

that have the potential to lessen stress and improve nurses' well-being characterise a pleasant work environment. The findings of this study provide strong evidence that nurses experience occupational stress due in large part to their work environment. Nurses' resilience and well-being may be enhanced by focused interventions that promote positive work environments. This, in turn, can lead to better patient care and healthcare outcomes.

H4: Occupational stress levels and behavioural characteristics are strongly correlated in the nursing profession.

**Table 4: Analysis of variance test on nurses' levels of occupational stress caused by behavioural variables**

		Sum of Squares	df	Mean Square	F	Sig.
Perceived Stress Scale	Between Groups	3697.083	11	336.098	37.889	.000
	Within Groups	2022.500	228	8.871		
	Total	5719.583	239			
Expanded Nursing Stress Scale	Between Groups	9388.333	11	853.485	13.791	.000
	Within Groups	14110.000	228	61.886		
	Total	23498.333	239			

The ANOVA table shows that there was a significant relationship between the behavioural variables and both the Perceived Stress Scale and the Expanded Nursing Stress Scale. There was a 0.000% level of significance for the f-test values of 37.889 and 13.791, respectively, for the behavioural components of the Perceived Stress Scale and the Expanded Nursing Stress Scale. Nurses' stress levels and other behavioural traits were the focus of this study. Findings from the Perceived Stress Scale (PSS) and the Expanded Nursing Stress Scale (ENSS) provide strong evidence that behavioural factors significantly impact changes in occupational stress levels.

These findings corroborate research showing that people's actions have a significant effect on stress management. Stress levels in high-pressure healthcare environments may rise or fall depending on how people act. Findings from this study emphasise the role of behavioural factors in the development of occupational stress in the nursing profession. We can create a more positive workplace and boost nurses' health and resilience by addressing these factors with various therapies and promoting good coping mechanisms.

H5: Nurses report high rates of both occupational stress and a lack of control over their work environment.

Table 5: statistical analysis of variance on physiologically-related occupational stress in nurses

		Sum of Squares	df	Mean Square	F	Sig.
Perceived Stress Scale	Between Groups	3221.250	9	357.917	32.950	.000
	Within Groups	2498.333	230	10.862		
	Total	5719.583	239			
Expanded Nursing Stress Scale	Between Groups	12351.333	9	1372.370	28.317	.000
	Within Groups	11147.000	230	48.465		
	Total	23498.333	239			



The following ANOVA table shows that there was a significant relationship between psychological factors and the Expanded Nursing Stress Scale and the Perceived Stress Scale. At the 0.000% level of significance, the f-test values for the psychological components of the Perceived Stress Scale (32.950) and the Expanded Nursing Stress Scale (28.317) were found to be positive. The correlation between nurses' feelings of helplessness and occupational stress was the focus of this study. Based on the findings from the Perceived Stress Scale (PSS) and the Expanded Nursing Stress Scale (ENSS), it is evident that nurses experience greater levels of stress due in large part to a lack of

control. These findings emphasise the need of reducing stress and improving nurses' well-being by addressing the causes that cause them to feel helpless. A lack of agency is associated with high levels of stress in the nursing profession, according to this study. Nurse morale may be lifted, patient care might improve, and the hospital could become more environmentally friendly if this critical component were addressed via targeted initiatives.

H6: There is some differences in job stress level due to Lack of Control among nurses(Accepted)

Table 6: ANOVA test on job stress levels due to Lack of Control among the nurses

		Sum of Squares	df	Mean Square	F	Sig.
Perceived Stress Scale	Between Groups	929.268	16	58.079	2.704	.001
	Within Groups	4790.315	223	21.481		
	Total	5719.583	239			
Expanded Nursing Stress Scale	Between Groups	8588.714	16	536.795	8.029	.000
	Within Groups	14909.619	223	66.859		
	Total	23498.333	239			

Both the enlarged nursing stress scale (f test value = 8.029) and the perceived stress scale (f test value = 2.704) were substantially connected to a lack of control, according to the results of the analysis of variance (ANOVA) table. The significance levels for the former were 0.000% and the latter were 0.000%. The correlation between stress and nurses' perceptions of powerlessness in the workplace was the focus of this study. Both the general stress level (as evaluated by the Perceived Stress Scale) and the nursing-specific stress level (as measured by the Expanded Nursing Stress Scale) are significantly increased by a lack of control, according to the findings. This study highlights the significant role that a lack of control has in increasing nurses' stress levels. Nurses' health and happiness may increase along with patient care if extensive efforts are made to empower them and provide a more controlled work environment.

7. Conclusion

Among the few studies that have attempted to identify the causes of the extreme stress that nurses face on the job, this one provides a comprehensive evaluation. Policy and practice measures to improve nurses' mental health should be informed by frequent private evaluations of their mental health. The findings of this study highlight the critical need for immediate action to address work-life balance, psychological protection, and workload management in the nursing profession. This study aimed to investigate occupational stress among nurses in great detail. It aimed to comprehend the factors that cause this stress, which includes physiological components, organisational context, patterns of behaviour, emotions of helplessness, and individual differences in the perception of stress. Nurses' well-being and stress levels are affected by a multitude of factors, as shown by the findings. The causes of occupational stress in the nursing profession



are examined in detail in this study. To improve healthcare outcomes and patient care, we must first acknowledge the complexity of the situation and then implement strategies to support nurses in being successful in their roles.

References

1. Albion, M. J., Fogarty, G. J., & Anthony Machin, M. (2005). Benchmarking occupational stressors and strain levels for rural nurses and other health sector workers. *Journal of nursing Management*, 13(5), 411-418.
2. Bass, B. M., & Stogdill, R. M. (1990). *Handbook of leadership* (Vol. 11). New York: Free Press
3. Boamah, S. A., & Laschinger, H. (2016). The influence of areas of worklife fit and work-life interference on burnout and turnover intentions among new graduate nurses. *Journal of nursing management*, 24(2), E164-E174.
4. Bogaert, P., Clarke, S., Willems, R., & Mondelaers, M. (2013). Nurse practice environment, workload, burnout, job outcomes, and quality of care in psychiatric hospitals: A structural equation model approach. *Journal of Advanced Nursing*, 69(7), 1515-1524. <https://doi.org/10.1111/jan.12010>
5. Choi, E., Hwang, J., & Jang, I. (2017). Effects of nursing practice environment and self-esteem on critical thinking disposition among clinical nurses. *Journal of Korean Academy of Nursing*, 23(2), 161-169. <https://doi.org/10.1111/jkana.2017.23.2.161>
6. Dr.Naveen Prasadula(2023) : Nurses' Work-Related Stress: A Systematic Review of the Literature on Multilevel Predictors
7. Choi, Y. J., & Sung, Y. H. (2013). Psychological well-being, perceived health status, and health promoting behavior of clinical nurses. *Journal of Korean Academy of Nursing Administration*, 19(5), 589-598. <https://doi.org/10.1111/jkana.2013.19.5.589>
8. Cicolini, G., Comparcini, D., & Simonetti, V. (2014). Workplace empowerment and nurses' job satisfaction: a systematic literature review. *Journal of nursing management*, 22(7), 855-871.
9. Dobbins, G. H., Cardy, R. L., & Platz-Vieno, S. J. (1990). A contingency approach to appraisal satisfaction: An initial investigation of the joint effects of organizational variables and appraisal characteristics. *Journal of Management*, 16(3), 619-632.
10. Fie, S., Norman, I. J., & While, A. E. (2012). The relationship between physicians' and nurses' personal physical activity habits and their health-promotion practice: A systematic review. *Health Education Journal*, 72(1), 102-119. <https://doi.org/10.1177/0017896911430763>
11. Fitzgerald, G. A., & Desjardins, N. M. (2004). Organizational values and their relation to organizational performance outcomes. *Atlantic Journal of Communication*, 12(3), 121-145
12. Fragkos, K. C., Makrykosta, P., & Frangos, C. C. (2020). Structural empowerment is a strong predictor of organizational commitment in nurses: A systematic review and meta-analysis. *Journal of Advanced Nursing*, 76(4), 939-962.
13. Havaei, F., & Dahinten, V. S. (2017). How well does the CWEQ II measure structural empowerment? Findings from applying item response theory. *Administrative Sciences*, 7(2), 15.
14. Havaei, F., Ma, A., Staempfli, S., & MacPhee, M. (2021, January). Nurses' workplace conditions impacting their mental health during COVID-19: A cross-sectional survey study. In *Healthcare* (Vol. 9, No. 1, p. 84). MDPI.
15. Havaei, F., Park, M., & Astivia, O. L. O. (2021). The National Standard of psychological health and safety in the workplace: a psychometric and descriptive study of the nursing workforce in British Columbia hospitals. *Canadian Journal of Nursing Research*, 53(4), 405-416.
16. Hussein, N., & Amiruddin, N. S. (2020). Job crafting, psychological capital and work engagement: an empirical evidence of a sustainable high-performance GLC. *Journal of Emerging Economies and Islamic Research*, 8(2), 60-72.
17. Khanmohammadi, S., Hajibeglo, A., Rashidan, M., & Bekmaz, K. (2020). Relationship of resilience with occupational stress among nurses in coronavirus ward of Khatam Al-Anbia Hospital, Gonbad Kavous, 2020. *Neuropsychiatry i*



Neuropsychologia/Neuropsychiatry and
Neuropsychology, 15(1), 1-6.

18. Kutney-Lee, A., Wu, E. S., Sloane, D. M., & Aiken, L. H. (2013). Changes in hospital nurse work environments and nurse job outcomes: an analysis of panel data. *International journal of nursing studies*, 50(2), 195-201.
19. Lake ET. Development of the practice environment scale of the Nursing Work Index. *Res Nurs Health*. 2002 Jun;25(3):176-88. doi: 10.1002/nur.10032. PMID: 12015780.
20. Lake, E. T., Sanders, J., Duan, R., Riman, K. A., Schoenauer, K. M., & Chen, Y. (2019). A meta-analysis of the associations between the nurse work environment in hospitals and 4 sets of outcomes. *Medical care*, 57(5), 353.
21. Laschinger, H. K. S., Finegan, J., Shamian, J., & Wilk, P. (2001). Impact of structural and psychological empowerment on job strain in nursing work settings: Expanding Kanter's model. *JONA: The Journal of Nursing Administration*, 31(5), 260-272.
22. Laschinger, H. K. S., Finegan, J., Shamian, J., & Wilk, P. (2001). Impact of structural and psychological empowerment on job strain in nursing work settings: Expanding Kanter's model. *JONA: The Journal of Nursing Administration*, 31(5), 260-272.
23. Leiter, M. P., Gascón, S., & Martínez-Jarreta, B. (2010). Making sense of work life: A structural model of burnout. *Journal of Applied Social Psychology*, 40(1), 57-75.
24. McCusker, J., Dendukuri, N., Cardinal, L., Laplante, J., & Bambonye, L. (2004). Nursing work environment and quality of care: Differences between units at the same hospital. *International Journal of Health Care Quality Assurance*, 17(6), 313-322. <https://doi.org/10.1108/09526860410557561>
25. Mental Health Commission of Canada(2013.). National Standard of Canada: Psychological health and safety in the workplace—Prevention, promotion, and guidance to staged implementation. Ottawa: Canadian Federation of Nurses Unions; Available from: <https://www.csagroup.org/storeresources/documents/codes-and-standards/2421865.pdf>
26. Mental Health Commission of Canada(2017). Mental Health Commission of Canada releases implementation findings on National Standard for Psychological Health and Safety in the Workplace. Ottawa: Canadian Federation of Nurses Unions; 2017. Available from: <https://www.mentalhealthcommission.ca/English/csrp-news-release>
27. Taylor, S., White, B., & Muncer, S. (1999). Nurses' cognitive structural models of work-based stress. *Journal of Advanced Nursing*, 29(4), 974-983.
28. Tyson, P. D., & Pongruengphant, R. (2004). Five-year follow-up study of stress among nurses in public and private hospitals in Thailand. *International journal of Nursing Studies*, 41(3), 247-254
29. Van Bogaert, P., Kowalski, C., Weeks, S. M., & Clarke, S. P. (2013). The relationship between nurse practice environment, nurse work characteristics, burnout and job outcome and quality of nursing care: a cross-sectional survey. *International journal of nursing studies*, 50(12), 1667-1677.
30. Van Bogaert, P., Timmermans, O., Weeks, S. M., van Heusden, D., Wouters, K., & Franck, E. (2014). Nursing unit teams matter: Impact of unit-level nurse practice environment, nurse work characteristics, and burnout on nurse reported job outcomes, and quality of care, and patient adverse events—A cross-sectional survey. *International journal of nursing studies*, 51(8), 1123-1134.
31. Wagner, J. I., Cummings, G., Smith, D. L., Olson, J., Anderson, L., & Warren, S. (2010). The relationship between structural empowerment and psychological empowerment for nurses: a systematic review. *Journal of nursing management*, 18(4), 448-462.