

THE RELATIONSHIP BETWEEN PERCEIVED WORKLOAD AND ORGANIZATIONAL JUSTICE TOWARD NURSES' INTENTION TO LEAVE THEIR PROFESSION

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ABSTRACT

Perceived workload and organizational justice are significantly correlated with nurses' intention to leave. However, limited studies have used a large sample to investigate this association. Therefore, this study aims to identify the association between perceived workload and organizational justice on nurses' intention to leave. A cross-sectional online survey was conducted among 278 nurses by the simplified snowball sampling technique method from five hospitals in Surabaya, East Java Province, Indonesia. Adjusted odds ratios (AORs) and multiple linear regression were employed for data analysis. Perceived workload had increased intention to leave by 0.251-fold (95% CI = 0.20 to 0.31; $p = <0.001$). In addition, individuals with a high score of organizational justice are negatively associated with intention to leave -0.144 (95% CI = -0.19 to -0.10; $p = <0.001$) after the covariate variable has been adjusted. This study found a significant independent correlation between perceived workload and organizational justice toward nurses' intention to leave. This suggests that nurses are more likely to consider leaving their jobs when they perceive a more significant workload and receive less organizational justice through policies and practices that intend to replenish resources.

Keywords: Intention to leave; organizational justice; nurses; perceived workload



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INTRODUCTION

The global nursing shortage has been a significant issue and a growing concern for the healthcare system (Bourgault, 2022; Marc et al., 2019). The position's escalating turnover rate is one of the primary causes of nursing shortage (Al Zamel et al., 2020; Burmeister et al., 2019), and central to predicting turnover is the nurses' intention to leave (Slater et al., 2021). Turnover is frequently superseded by intentions to leave the organization (Huang et al., 2019). Notably, the intention to leave is a thinking process that includes decision-making about leaving a job position. Although this is one of the stages taken before employees resign, it does not always lead to actual leaving (Chao et al., 2015; Sharififard et al., 2019). Previous studies revealed that globally, there are various rates for an employee's intention to leave, such as 18.29% in China (Huang et al., 2019) and 21% in the United States (Koehler & Olds, 2022). Furthermore, intention to

leave rates varies from 15.1% to 44.3% in developing countries (Duffield et al., 2014). In Indonesia, previous studies revealed that approximately 26.50% (Lukman et al., 2020) to 55.79% (Dewi et al., 2020) of nurses had the intention to leave. Interestingly, no extensive research with a large sample has explored the factors contributing to the high level of intention to leave among nurses in Indonesia. Thus, a study investigating the reasons behind nurses' intention to leave their profession in Indonesia is of high importance.

Perceived workload goes beyond staffing measurements to capture nurses' perceptions and experiences, as it also provides a thorough assessment of nurses' work from their perspective and personal experiences (Dhaini et al., 2022; Magalhães et al., 2017). Perceived workload as a multidimensional concept describes the time required to complete a task as well as its mental and physical demands

(Smith & Smith, 2017). Moreover, workloads that affect the health and work-life balance satisfaction of nurses are some of the factors considered before leaving the occupation (Holland et al., 2019; MacPhee et al., 2017). However, no study with a large sample size has explored the relationship between perceived workload and intention to leave among nursing, especially in Surabaya, East Java Province, Indonesia.

Organizational justice is one of the key factors behind the intention to leave among nurses (Fardid et al., 2018). Furthermore, organizational justice may extend beyond nurse retention and has major implications for both organizational and nursing staff (Xu et al., 2020). In other words, nurses who perceive greater organizational justice are more committed to their organizations and are less likely to leave their hospitals (Hashish, 2020; Mengstie, 2020). Consequently, identifying the relationship between organizational justice and its influence on nurses' intention to leave an organization should be further explored.

The correlation between perceived workload and organizational justice on intention to leave has also been found in developing and developed countries, such as the United States and Canada. However, the different cultural perspectives of perceived workload and organizational justice conduction may prevent the applicability of other studies' effects on Indonesian nurses. Previous studies have found that cultural differences could still impact organizational justice (Hashish, 2020) and workload (Viotti et al., 2018) as it relates to workplace misconduct as well as intention to leave. Moreover, perceived workload and organizational justice were found to be significantly correlated with nurses' intention to leave, but limited studies have used a large sample size to investigate this association. Therefore, the relationship between organizational work justice and workload on the intention to leave among nurses in Indonesia is important to examine. This study investigates the effect of perceived workload and organizational justice regarding the intention to leave among Indonesian nurses at five hospitals in Surabaya, East Java Province, Indonesia.

METHOD

Study design

A cross-sectional design was used to investigate the effect of perceived workload and organizational justice regarding the intention to leave among Indonesian nurses at five hospitals in Surabaya, East Java Province, Indonesia.

Setting and sample

Primary data was collected by using a clinical-based survey of a representative sample of respondents from five hospitals, consisting of two public hospitals and three private hospitals in Surabaya, East Java, Indonesia. The inclusion criteria were nurses who provided direct patient care, have been employed as nurses for more than six months, and volunteered to participate willingly. Unit managers and clinical resource nurses were excluded from this study because they dictated organizational policies, processes, and procedures. Moreover, they oversee registered nurses but do not provide direct patient care.

To estimate the sample size, G-Power Version 3.1 was used with Cohen's effect size of 0.37 (Mengstie, 2020), an alpha level of 0.05, and a power value of 0.8. The sample size generated was 187 participants. Considering an estimated attrition rate of 20%, we elevated our total sample size to 224 participants. However, after the data collection process, our final sample size reached up to 278 participants.

Data collection

The online survey was distributed through a Google Form that was shared through a social media platform, i.e., WhatsApp, to the head of nursing and some nurses in the target hospitals. The respondents were chosen by using a simplified snowball sampling technique and were requested to forward the invitation to their colleagues; the survey was predicted to take 15 minutes to complete. During the data collection period from 20 February 2022 to 20 March 2022, a variety of methods was utilized to obtain as many respondents as possible from the target hospitals. A total of 278 nurses filled out the Google Form survey.

The Google Form survey had four sections: (1) Before allowing participants to proceed with the survey questions, the first section informed them of the study's objectives and eligibility requirements. Next, the respondents indicated their informed consent by checking the box "Agree", which confirmed that they understood the authorization information and met the inclusion and exclusion criteria. This section also indicated the respondents' decision to participate voluntarily and acknowledgment that they have the freedom to withdraw at any time; (2) The second section comprised of questions correlated to sociodemographic factors; (3) The third section contained several questionnaires regarding perceived workload, organizational justice, and intention to leave. Finally, the last page expressed our gratitude and encouragement for all individuals who completed the survey to persuade their colleagues to participate by forwarding the link to the online survey.

Measurements

Demographic characteristics and work-related variables

The demographic and work-related variable questions contained age, gender, marital status, educational level, total years worked at the current hospital, work department, income, total bed count, type of hospital, and religion.

Nurses' intention to leave

This study used the nurses' level of adaptation (Kim & Leung, 2007) and modification (Zahednezhad et al., 2021) to measure their intention to leave. Three question items were assessed on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), with higher scores representing higher intention to leave work. Kim and Leung (2007) reported that Cronbach's alpha of the questionnaire in American, Korean, Chinese, and Japanese samples were 0.92, 0.91, 0.92, and 0.93, respectively. In previous studies, Cronbach's alpha was used to measure the reliability of the scale and was estimated to be 0.90 (Zahednezhad et al., 2021). Therefore, for this present study, the Cronbach's alpha used was 0.88.

Organizational justice

The organizational justice measure was used to explore nurses' perceptions of organizational justice (Niehoff & Moorman, 1993). This study used an adaptation of the organizational justice questionnaire which contains 22 questions and used a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). Previous studies have found that higher scores indicate a greater perception of justice and implementation in a nursing population with a Cronbach's alpha of 0.80 (Zahednezhad et al., 2021). Thus, the Cronbach's alpha used for this study was 0.90.

Perceived workload

The perception of quantitative workload was evaluated using Spector and Jex's (1998) five-item questions with a five-point scale. The responses to each question ranged from 1 (less than once each month) to 5 (multiple times per day) (Spector

& Jex, 1998). Higher scores indicate a high level of workload status. Previous studies have found that a Cronbach's alpha of 0.77 indicates acceptable reliability. Therefore, for this research, the Cronbach's alpha was 0.88.

Data analysis

The frequency (n), percentages (%), and distribution of the demographic characteristics and determining factors between groups were calculated. Continuous variables were also examined with an independent t-test, Pearson's correlation, or Spearman's rank correlation, as applicable, using means and standard deviations (SD). Furthermore, Z-scores for skewness and kurtosis were used to assess the normality of the data, and Z-scores of <3.29 were considered to have normal distribution (Kim, 2013; Rias et al., 2020). Multicollinearity was assessed using a variance inflation factor (VIF) of <10 (García et al., 2015; Kurniasari et al., 2021). This study had a maximum VIF of 3.76, this indicates that our data has a low impact on multicollinearity. The adjusted coefficients and 95% confidence intervals (CIs) were derived by applying a multiple linear regression for the intention to leave due to exposure of interest. This is done after controlling for potential confounding variables such as age, gender, marital status, educational level, total years worked at the current hospital, area of practice, nationality, salary, and working hours per week.

Ethical consideration

The Ethical Review Board of Institut Ilmu Kesehatan STRADA Indonesia analyzed and approved the protocol to guarantee that the rights of the participants were fully protected (No : 2875/KEPK/II/2022). The respondents were well-informed about the objectives of the research. After the written informed consent from each participant was obtained, all data were gathered and handled with confidentiality and anonymity.

RESULTS

Table 1 shows the participants' demographic characteristics. In total, 51.8% of this study's participants were female participants and 81.7% were Moslems. Furthermore, a total of 86.0% of participants had a higher educational level of bachelor's or postgraduate degree. Most participants were between 20-31 years old (44.6%), single (79.5%), worked at a public hospital (65.1%), have had 10-20 years of work experience (43.9%), and have had a total bed count of >251 beds (57.2%). Except for education, there were significantly different in levels of anxiety in all sociodemographic variables (all $p < 0.05$).

Table 1. Comparison of participants' sociodemographic characteristics and intention to leave (n = 278)

Variables	Total participants		Intention to leave	
	n (%)	Mean (SD)	p-value ^a	
Age (years)				
<20-31	124 (44.6)	7.35 (3.06)		
31-40	53 (19.1)	8.83 (2.85)		0.001 ^b
>41	101 (36.6)	5.13 (2.31)		
Gender				
Male	134 (48.2)	5.11 (5.72)		
Female	144 (51.8)	4.05 (4.43)		0.001
Religion				
Moslem	227 (81.7)	3.68 (4.01)		<0.001
Non-moslem	51 (18.3)	4.93 (5.44)		
Education				
Diploma	39 (14.0)	6.95 (2.08)		0.720
Bachelors/postgraduate	239 (86.0)	6.81 (3.23)		
Type of hospital				
Public	181 (65.1)	5.65 (2.42)		<0.001
Private	97 (34.9)	9.03 (3.02)		
Marital status				
Single/divorced	221 (79.5)	6.62 (3.21)		0.031
Married	57 (20.5)	7.61 (2.49)		
Income (IDR)				
<4.375.479	79 (28.4)	9.34 (2.11)		<0.001
≥4.375.479	199 (71.6)	5.83 (2.85)		
Department				
Non-intensive care and emergency	226 (81.3)	7.20 (3.14)		<0.001
Intensive care and emergency	52 (18.7)	5.19 (2.22)		
Work experience (years)				
<5	79 (28.4)	7.92 (3.86)		0.002 ^b
5-9	50 (18.0)	6.56 (0.61)		
10-20	122 (43.9)	6.45 (3.29)		
≥ 20	27 (9.7)	5.81 (0.83)		
Total bed				
≤100	70 (25.5)	8.29 (2.62)		<0.001
101-250	49 (17.6)	6.12 (3.11)		
> 251	159 (57.2)	6.40 (3.09)		

Note: IDR, Indonesian Rupiah; SD, standard deviation. Data were presented as mean \pm SD, frequency, and percentage, and p-values were calculated using ^a independent sample t-test and ^b one-way ANOVA. A p-value of <0.05 indicates statistical significance.

The values of the AOR and 95% CIs of perceived workload, organizational justice, and intention to leave among respondents are presented in Table 2. Perceived workload had an increased intention to leave by 0.251-fold (95% CI = 0.20 to 0.31; $p = <0.001$) after adjusting for the covariate

variable. In addition, individuals with a high score of organizational justice were found to be negatively associated with intention to leave -0.144 (95% CI = -0.19 to -0.10 ; $p = <0.001$) after adjusting for the covariate variable.

Table 2. AOR and 95% CIs for perceived workload, organizational justice, and intention to leave among the respondents (n = 278)

Variables	Unadjusted OR (95% CI)	p-value	AOR (95% CI)	p-value
Perceived workload	0.247 (0.17 to 0.33)	<0.001	0.251 (0.20 to 0.31) *	<0.001
Organizational justice	-0.155 (-0.20 to -0.11)	<0.001	-0.144 (-0.19 to -0.10)	<0.001

Note: Adjusted beta-coefficients and 95% CIs were estimated using multiple linear regression after adjusting for age, gender, marital status, educational level, total years worked at the current hospital, work department, income, total bed count, type of hospital, and religion.

DISCUSSION

This study demonstrated that a high score of perceived workload is significantly related to a high score of intention to leave. In line with this study's findings, a previous study in Canada revealed that perceived workload is significantly correlated with escalated intention to leave among nurses (Holland et al., 2019). It is well-documented that nurses' perceptions of their workload have a negative impact on their well-being, and the retention of this workforce is becoming a significant concern. Moreover, high-involvement work practices mitigate the negative effect of heavy workloads on nurse health (Holland et al., 2019). A previous study that investigated 33,659 nurses from 488 European hospitals revealed that basic nursing tasks were neglected due to increased workload. The inability to perform fundamental nursing tasks as a vital indicator of quality patient care was also associated with lower job satisfaction and higher turnover (Kutney-Lee et al., 2013). Interestingly, according to previous studies, the nursing staff's intention to leave has been linked to long shifts of caring for patients with mental disturbances, as well as social or physical health issues (Gómez-Urquiza et al., 2017; Phillips, 2020). Moreover, a previous study in Indonesia found that workload was significantly associated with the intention to leave the profession in private hospitals in North Sumatra (Subramania, A., & Ramli, C., 2019). These findings imply that the improvement of the management of workload systems can decrease the nurses' intention to leave the profession and vice versa. In this study, the high score of perceived workload was significantly associated with the participants' intention to leave their profession.

The results of this study revealed that organizational justice is correlated with the participants' intention to leave. Our findings are consistent with a previous study conducted in six teaching hospitals in Tehran, Iran, which showed that the level of perceived organizational justice was a significant factor in influencing an employee's decision to remain in or leave a healthcare occupation. Additionally, among healthcare professionals, nurses are said to receive the least perceived organizational justice and have the highest intention to leave their current position (Zahednezhad et al., 2021). According to a study conducted by Yanchus et al. (2015) on the mental health of 11,726 health care professionals including nurses, psychiatrists, and social workers, justice was directly significantly correlated with the intention to leave their profession. This suggests that the hospital's environmental factors were associated with the organizational justice of the nursing staff and their intention to leave. From a clinical perspective, these findings may be helpful for hospitals to develop strategies for minimizing their

staff's intention to leave to ensure continuity of care (Yanchus et al., 2015).

Interestingly, the empirical basis for previous studies revealed that some nursing managers could use evidence-based guidelines to develop their organization's justice environment to boost nurses' job satisfaction and retain the current nursing staff. In addition, nursing administrators must be mindful of the effects of nurses' conceptions of justice on their job happiness, intention to leave, and other outcomes, such as a decline in quality-of-care services and patient satisfaction. In this regard, a nursing manager's exclusive focus on fair human resource management may not suffice as the results and outcomes of these procedures should also be fair. In addition to seeking fair processes, nurses must also obtain equitable compensation and be treated with dignity and fairness in their interpersonal interactions (Zahednezhad et al., 2021).

Several limitations should be considered when interpreting our findings. Due to the study's cross-sectional design, participant follow-up, the estimation of the turnover rate, and its association with the desire to leave were not feasible. In addition, the data gathering instrument was a self-reported questionnaire, which may be affected by social desirability bias. Further studies should implement a larger sample size and sampling of nurses from diversified healthcare organizations to increase the generalizability of the results.

CONCLUSION AND RECOMMENDATION

It is clear from this study's findings that an increasingly demanding work environment strains the perceived organizational justice and the workforce's ability to recover among nursing at five hospitals in East Java Province, Indonesia. Therefore, management must address these issues before highly skilled nurses leave their profession. Current research suggests that nurses are more likely to consider leaving their jobs when they perceive a more significant workload and receive less organizational justice through policies and practices that replenish their resources. This research suggests that policymakers should prioritize initiatives that strengthen organizational support to enhance the well-being of nurses. As a result, management education could benefit from additional research focused on balancing these frequently competing needs of organizational justice and workload.

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REFERENCES

- Al Zamel, L. G., Lim Abdullah, K., Chan, C. M., & Piaw, C. Y. (2020). Factors influencing nurses' intention to leave and intention to stay: An integrative review. *Home Health Care Management & Practice*, 32(4), 218-228. <https://doi.org/10.1177/1084822320931363>
- Bourgault, A. M. (2022). The nursing shortage and work expectations are in critical condition: is anyone listening? *Critical Care Nurse*, 42(2), 8-11. <https://doi.org/10.4037/ccn2022909>
- Burmeister, E. A., Kalisch, B. J., Xie, B., Doumit, M. A., Lee, E., Ferraresion, A., Terzioglu, F., & Bragadóttir, H. (2019). Determinants of nurse absenteeism and intent to leave: An international study. *Journal of Nursing Management*, 27(1), 143-153. <https://doi.org/10.1111/jonm.12659>
- Chao, M.-C., Jou, R.-C., Liao, C.-C., & Kuo, C.-W. (2015). Workplace stress, job satisfaction, job performance, and turnover intention of health care workers in rural Taiwan. *Asia Pacific Journal of Public Health*, 27(2), 1827-1836. <https://doi.org/10.1177/1010539513506604>
- Dewi, N. M. U. K., Januraga, P. P., & Suarjana, K. (2020). The relationship between nurse job satisfaction and turnover intention: a private hospital case study in Bali, Indonesia. 4th International Symposium on Health Research. Atlantis Press, 2020. P. 599-603. <https://doi.org/10.2991/ahsr.k.200215.117>
- Dhaini, S. R., Abed Al Ahad, M., Simon, M., Ausserhofer, D., Abu-Saad Huijjer, H., & Elbejjani, M. (2022). Repeated assessments and predictors of nurses' shift-specific perceived workload. *Nursing Forum*, 2022; 1-8. <https://doi.org/10.1111/nuf.12776>
- Duffield, C. M., Roche, M. A., Homer, C., Buchan, J., & Dimitrelis, S. (2014). A comparative review of nurse turnover rates and costs across countries. *Journal of advanced nursing*, 70(12), 2703-2712. <https://doi.org/10.1111/jan.12483>
- Fardid, M., Hatam, N., & Kavosi, Z. (2018). A path analysis of the effects of nurses' perceived organizational justice, organizational commitment, and job satisfaction on their turnover intention. *Nursing and Midwifery Studies*, 7(4), 157-164. https://doi.org/10.4103/nms.nms_13_18
- García, C., García, J., López Martín, M., & Salmerón, R. (2015). Collinearity: Revisiting the variance inflation factor in ridge regression. *Journal of Applied Statistics*, 42(3), 648-661. <https://doi.org/10.1080/0264763.2014.980789>
- Gómez-Urquiza, J. L., De la Fuente-Solana, E. I., Albendín-García, L., Vargas-Pecino, C., Ortega-Campos, E. M., & Cañadas-De la Fuente, G. A. (2017). Prevalence of Burnout Syndrome in Emergency Nurses: A Meta-Analysis. *Critical Care Nurse*, 37(5), 1-9. <https://doi.org/10.4037/ccn2017508>
- Hashish, E. A. A. (2020). Nurses' perception of organizational justice and its relationship to their workplace deviance. *Nursing ethics*, 27(1), 273-288. <https://doi.org/10.1177/0969733019834978>
- Holland, P., Tham, T. L., Sheehan, C., & Cooper, B. (2019). The impact of perceived workload on nurse satisfaction with work-life balance and intention to leave the occupation. *Applied nursing research*, 49, 70-76. <https://doi.org/10.1016/j.apnr.2019.06.001>
- Huang, X., Li, Z., & Wan, Q. (2019). From organizational justice to turnover intention among community nurses: A mediating model. *Journal of clinical nursing*, 28(21-22), 3957-3965. <https://doi.org/10.1111/jocn.15031>
- Kim, H.-Y. (2013). Statistical notes for clinical researchers: assessing normal distribution (2) using skewness and kurtosis. *Restorative dentistry & endodontics*, 38(1), 52-54. <https://doi.org/10.5395/rde.2013.38.1.52>
- Kim, T.-Y., & Leung, K. (2007). Forming and reacting to overall fairness: A cross-cultural comparison. *Organizational Behavior and Human Decision Processes*, 104(1), 83-95. <https://doi.org/10.1016/j.obhdp.2007.01.004>
- Koehler, T., & Olds, D. (2022). Generational differences in nurses' intention to leave. *Western Journal of Nursing Research*, 44(5), 446-455. <https://doi.org/10.1177/0193945921999608>
- Kurniasari, M. D., Karwur, F. F., Rayanti, R. E., Dharmana, E., Rias, Y. A., Chou, K. R., & Tsai, H.-T. (2021). Second-hand smoke and its synergistic effect with a body-mass index of > 24.9 kg/m² increase the risk of gout arthritis in Indonesia. *International Journal of Environmental Research and Public Health*, 18(8), 4324. <https://doi.org/10.3390/ijerph18084324>
- 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. <https://doi.org/10.1016/j.ijnurstu.2012.07.014>
- Lukman, S., Dasman, H., & Bachtiar, A. (2020). Turnover Intention Factors among Private Hospital Nurses in Indonesia. *Journal of Clinical & Diagnostic Research*, 14(7), 1-4. <https://doi.org/10.7860/JCDR/2020/44088.13869>
- MacPhee, M., Dahinten, V. S., & Havaei, F. (2017). The Impact of Heavy Perceived Nurse Workloads on Patient and Nurse Outcomes. *Administrative Sciences*, 7(1), 7-27. <https://doi.org/10.3390/admsci7010007>
- Magalhães, A. M. M. d., Costa, D. G. d., Riboldi, C. d. O., Mergen, T., Barbosa, A. d. S., & Moura, G. M. S. S. d. (2017). Association between workload of the nursing staff and patient safety outcomes. *Revista da Escola de Enfermagem da USP*, 51.
- Marć, M., Bartosiewicz, A., Burzyńska, J., Chmiel, Z., & Januszewicz, P. (2019). A nursing shortage—a prospect of global and local policies. *International Nursing Review*, 66(1), 9-16. <https://doi.org/10.1111/inr.12473>
- Mengstie, M. M. (2020). Perceived organizational justice and turnover intention among hospital healthcare workers. *BMC Psychol*, 8(1), 19. <https://doi.org/10.1186/s40359-020-0387-8>
- Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management journal*, 36(3), 527-556. <https://doi.org/10.5465/256591>
-

- Phillips, C. (2020). Relationships between workload perception, burnout, and intent to leave among medical–surgical nurses. *JBHI Evidence Implementation*, 18(2), 265-273. <https://doi.org/10.1097/xeb.0000000000000220>
- Rias, Y. A., Kurniasari, M. D., Traynor, V., Niu, S. F., Wiratama, B. S., Chang, C. W., & Tsai, H. T. (2020). Synergistic effect of low neutrophil–lymphocyte ratio with physical activity on quality of life in type 2 diabetes mellitus: A community-based study. *Biological Research for Nursing*, 22(3), 378-387. <https://doi.org/10.1177/1099800420924126>
- Shariffard, F., Asayesh, H., Rahmani-Anark, H., Qorbani, M., Akbari, V., & Jafarizadeh, H. (2019). Intention to Leave the Nursing Profession and Its Relation with Work Climate and Demographic Characteristics. *Iran J Nurs Midwifery Res*, 24(6), 457-461. https://doi.org/10.4103/ijnmr.IJNMR_209_18
- Slater, P., Roos, M., Eskola, S., McCormack, B., Hahtela, N., Kurjenluoma, K., & Suominen, T. (2021). Challenging and redesigning a new model to explain intention to leave nursing. *Scandinavian Journal of Caring Sciences*, 35(2), 626-635. <https://doi.org/10.1111/scs.12884>
- Smith, A. P., & Smith, H. N. (2017). Workload, fatigue and performance in the rail industry. *International Symposium on Human Mental Workload: Models and Applications*, 251-256. https://doi.org/10.1007/978-3-319-61061-0_17
- Spector, P. E., & Jex, S. M. (1998). Development of four self-report measures of job stressors and strain: interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *Journal of Occupational Health Psychology*, 3(4), 356.
- Subramaniam, A., & Ramli, C. (2019). The role of job burnout, work-life balance and workload on the intention to leave the profession among health professionals: A cross-sectional study in a hospital setting in Indonesia. In 9th Global Conference on Business and Social Sciences on.189-198.
- Viotti, S., Converso, D., Hamblin, L. E., Guidetti, G., & Arnetz, J. E. (2018). Organizational efficiency and co-worker incivility: A cross-national study of nurses in the USA and Italy. *Journal of Nursing Management*, 26(5), 597-604. <https://doi.org/10.1111/jonm.12587>
- Xu, S., Wichaikhum, O.-A., & Abhichartitbutra, K. (2020). Organizational Justice and Voice Behavior of Nurses in Tertiary Hospitals of Dali, the People's Republic of China. *Nursing Journal*, 47(2), 502-513.
- Yanchus, N. J., Periard, D., Moore, S. C., Carle, A. C., & Osatuke, K. (2015). Predictors of job satisfaction and turnover intention in VHA mental health employees: A comparison between psychiatrists, psychologists, social workers, and mental health nurses. *Human Service Organizations: Management, Leadership & Governance*, 39(3), 219-244. <https://doi.org/10.1080/23303131.2015.1014953>
- Zahednezhad, H., Hoseini, M. A., Ebadi, A., Farokhnezhad Afshar, P., & Ghanei Gheshlagh, R. (2021). Investigating the relationship between organizational justice, job satisfaction, and intention to leave the nursing profession: A cross-sectional study. *Journal of advanced nursing*, 77(4), 1741-1750. <https://doi.org/10.1111/jan.14717>