



ORJİNAL MAKALE / ORIGINAL ARTICLE

Balıkesir Sağlık Bilimleri Dergisi / BAUN Sağ Bil Derg
Balıkesir Health Sciences Journal / BAUN Health Sci J
ISSN: 2146-9601- e ISSN: 2147-2238
Doi: <https://doi.org/10.53424/balikesirsbd.1080326>



The Impact of Job Satisfaction on Nursing Performance: The Moderating Effect of Job Stress

Maysoon Fayiz ALMASHAYEKH¹, Niusha EIVAZZADEH¹, Mehmet YEŞİLTAŞ¹

¹ Cyprus International University, Faculty of Economics and Administrative Sciences
Department of Business Administration

Geliş Tarihi / Received: 28.02.2022, Kabul Tarihi / Accepted: 28.02.2023

ABSTRACT

Objective: The purpose of this study was to analyze the relationship between job satisfaction impact on nursing performance and to find out how the job stress play as a moderate variable effect on the relationship between job Satisfaction and nursing performance. **Materials and Methods:** To obtain information regarding demographic data, job performance, job satisfaction and job stress from participants, a survey questionnaire was conducted to nurses in one of the public hospital in the United Arab Emirates after taking the approval from hospital administration. Out of 120 nurses 111 have been participated in the current study. To test the hypothesis, two different statistical analyses were utilized, namely Pearsons correlation analysis and liner regression analysis. **Results:** The study finds that there is a positive correlation between nurses' job satisfaction and nursing performance. In addition, the job stress moderator negatively affected on the relationship between job satisfaction and nursing performance. **Conclusion:** In an atmosphere of pressure, tension and division of work, Nurses' performance is one of the most basic challenges that healthcare services face. The reason for this is that performance is linked to work satisfaction and stress on one hand, and management, funding, and organizational growth on the other. Furthermore, Nurse's performance is naturally connected to patient safety. This research useful to health care managements to develop and enhance polices and rules to increase satisfaction and decrease job stress to enhance the nursing performance.

Keywords: Job Satisfaction, Job Stress, Nursing Performance, United Arab Emirates.

İş Memnuniyetinin Hemşirelik Performansı Üzerindeki Etkisi: İş Stresinin Aracılık Etkisi

ÖZ

Amaç: Bu çalışmanın amacı, iş tatmininin hemşirelik performansı üzerindeki etkisini analiz etmek ve iş stresinin, iş tatmini ile hemşirelik performansı üzerinde nasıl bir aracılık rolü oynadığını bulmaktır. **Gereç ve Yöntem:** Birleşik Arap Emirlikleri'ndeki devlet hastanelerinden birindeki hemşirelere hastane yönetiminden onay alındıktan sonra anket uygulanmıştır. Bu anket ile katılımcılardan demografik veriler, iş performansı, iş tatmini ve iş stresi hakkında bilgi toplanmıştır. Hastane yönetimi, anketi doldurmaları için tüm hemşirelere bir bağlantı göndermiştir. Ankete toplam 120 hemşireden 111'i katılmıştır. Hipotezi test etmek için Pearson korelasyon analizi ve liner regresyon analizi olmak üzere iki farklı istatistiksel analiz kullanılmıştır. **Bulgular:** Çalışma, hemşirelerin iş tatmini ile hemşirelik performansı arasında pozitif bir ilişki olduğunu bulmuştur. Ayrıca iş stresi moderatörü iş tatmini ile hemşirelik performansı arasındaki ilişkiyi olumsuz yönde etkilemiştir. **Sonuç:** Stres, gerilim ve işbölümü ortamında çalışan hemşirelerin performansı sağlık hizmetlerinin karşılaştığı en temel zorluklardan biridir. Bunun nedeni, performansın bir yanda iş tatmini ve stres, diğer yanda yönetim, finansman ve organizasyonel büyüme ile bağlantılı olmasıdır. Ayrıca, Hemşire'nin performansı doğal olarak hasta güvenliği ile bağlantılıdır. Bu araştırmanın sonuçları, hemşirelik performansının artırılması için, hemşirelerin iş memnuniyetini artırmak ve iş stresini azaltmaya yönelik politikalar geliştirilmesinde hastane yönetimlerine yardımcı olabilir.

Anahtar Kelimeler: İş Memnuniyeti, İş Stresi, Hemşirelik Performansı, Birleşik Arap Emirlikleri

Sorumlu Yazar / Corresponding Author: Niusha EIVAZZADEH, Cyprus International University, Faculty of Economics and Administrative Sciences, Department of Business Administration, Nicosia, North Cyprus.

E-mail: nkaljahi@ciu.edu.tr

Bu makaleye atıf yapmak için / Cite this article: Almashayekh, M. F., Eivazzadeh, N., Yesiltas, M. (2023). The impact of job satisfaction on nursing performance: the moderating effect of job stress. *BAUN Health Sci J*, 12(3), 473-479. <https://doi.org/10.53424/balikesirsbd.1080326>.



BAUN Health Sci J, OPEN ACCESS <https://dergipark.org.tr/pub/balikesirsbd>
This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License

INTRODUCTION

Supplying hospital services and care giving delivery to patients necessitates several efforts by members of staff, specifically registered nurses (RNs), to provide personalized health care. Also from the opposite side, there is widespread concern and struggle regarding nurse shortages around the world. Nursing is a mission to care; nursing is the first employee in hospitals to care for patients' needs, to keep patients happy with their cheerful and sympathetic touch and attention that the nurse delivers to the patient (Ramsay, 2005). Several factors and variables influence nurse satisfaction and performance, such as stress, workload, compensation, promotion, motivation and, others. Therefore, it is important to stabilize the nursing workforce, by giving for his job fulfilment and to give space for nurses to give all power to keep life and safety and excellent performance for the client. Job satisfaction is depicted as a nurse's passionate sensation or affective reaction to all aspects of his or her career (Smith et al., 1969). The Hospital of the current study is a general public hospital in the United Arab Emirates, where pleased nursing staff is required to increase service quality in the face of increasing hospital competition and an advanced burden of high-quality services for patients. The Hospital of the current study has had a decreased service quality for some years. It's crucial to look at this phenomenon and figure out what factors contributed to nurses becoming dissatisfied, as well as the impact on their works. Because no prior study has about these concerns, the effects of work satisfaction on nursing performance have yet to be determined. The study's goal is to see how job satisfaction correlated with nurses' performance and how job stress affects that relationship if entered as a moderator factor. One of the most crucial criteria for nurses in the system of health care is satisfaction with the task. Nurses are responsible for at least 50% of health services and above to 80% of health care in the countries. As a result, their contentment has an impact on the success and quality of health treatment (Farzianpour et al., 2016).

The research questions have been conducted as below:

- What is the relationship of job satisfaction on a nurse performance?
- What role does job stress play on the relationship between nursing performance and job satisfaction if entered as a moderating factor?

Performance on specific dimensions such as work quality and quantity is described as an individual's overall performance, task competency, or performance on specific dimensions such as work quality and quantity (Henriksen et al., 2017). The process through which managers of businesses evaluate employee act performance is known as performance assessment (Leineweber et al., 2016). For a nurse, a patient, a customer, and a hospital to survive, duty performance is critical. Patient safety, workers' productivity and performance, as well as care quality, retention and

turnover, and commitment to the company may all be affected (Rothschild et al., 2005).

Job satisfaction in the life of medical staff is a major source of concern all over the world (Van der Doef et al., 2012). All hospitals and companies want employees and nursing staff that enjoy coming to work and interacting, with those who are enthusiastic about their employment. Furthermore, their job satisfaction is high. Because, they believe that they are treated equally at work and that their occupations provide them with chances such as variety, challenge, adequate compensation and benefits, autonomy, and helpful coworkers, among others. This emphasizes that employees who are satisfied at work will devote personal time to their works, will be imaginative and devoted, and will devise solutions to any problems that may develop (Keykaleh et al., 2018). The goal of the study was to discover the many components of occupational satisfaction, evaluate the relative importance of each component, and look into the impact of these components on worker productivity.

Stress increases people's quality of life and health up to a degree since it is healthy and necessary for them to face obstacles in their lives (Leineweber et al., 2016) but from other hand, if the pressure is too high, it loses its beneficial effects and becomes harmful (Dagget et al., 2016). Because it is a reaction that occurs when people are stressed or have a variety of demands placed on them, and it occurs when they are frightened that they will not be able to cope (Atkinson, 2004). The negative consequences of function stress are not restricted to the workplace and may be evident outside of it as well. According to the "American Institute of Stress (AIS)", stress is the root cause of over 80% of all workplace accidents and 40% of productivity deficits (Atkinson, 2004). Major investments are wasted as a result of employees' medical and mental illnesses, decreased productivity, act, leaving, and stress-related work changes (Zamanian et al., 2016). Career stress occurs in many occupations, but it appears that nurses suffer higher stress than other healthcare personnel (Dagget et al., 2016).

In the highlight of hospital services and patient care found that necessitates a variety of efforts from registered nurses (RNS) in order to deliver personalized health care, So, when the nurse in the hospital meets their peak results, they help the company reach its objectives and performance target. While also ensuring that all clients are pleased with the company operations, boosting the hospital's competitive advantages, and this is which is vital Like what, In Taiwan, the majority of nurses are employed by medical centers, Nurses are becoming an important part of a medical team as a result of evolving population dynamics and widespread diseases and the Nursing teams need stable, outstanding, and strong performance nurses to deliver health care services (Leineweber et al., 2016). Individuals with a high level of job contentment perform better for their employers than those with a low level of job satisfaction.

Meanwhile, as stated by (McCausland et al., 2005). According to previous studies, nurses' working day shifts were less vulnerable than those working at night shifts. Because evening shift workers are more probably to have negative emotional and behavioral impacts than day shift workers (Conway et al., 2008). As a result, of cyclic night and day shifts, circadian cycles are compromised and disrupt and increase stress (Brown et al., 2009). And from being worth noting as, patient safety is a vital component of health care quality, according to the authors, Nurses are the most common caregivers for patients, and teaching safe nursing techniques can help to minimize the number of events, injuries, morbidity, and death. This demonstrates that increased level job stress might lead to poor quality of nursing care provided (Keykaleh et al., 2018). Furthermore, providing patients with high-quality and safe nursing care leads to fewer referrals and readmissions, higher client satisfaction, and improved health and performance. (Farzianpour et al., 2016). The previous result of researchers all focuses on the many variables for job satisfaction and how the effect on nurse performance, some of the previous research finds positive relationship and others found negative relationship, but cannot find any research in UAE taking about this relationship between job satisfaction and nursing performance, how the job stress play role as moderating on the relationship, so the primary goal of this study is to further investigate the correlation between nurse job satisfaction and their nursing performance in the UAE, job stress effect as moderating, there was not much research that used statistic mathematics to ensure the relationship between variables and nurse jobs (Figure 1).

Hypotheses

H1: There is a positive relationship between job satisfaction and nursing performance among nurses.

H2: Job Stress will moderate the association between job satisfaction and nursing performance so that when job stress is low, the influence of job satisfaction on nursing performance is high, and when job stress is high, the impact of job satisfaction on nursing performance is low.

MATERIALS AND METHODS

Study type and sampling

This is survey type study that was conducted through distribution of questionnaires between nurses of a hospital in United Arab Emirates on December 2021. The sample hospital is a general public hospital in the United Arab Emirates, where pleased nursing staff is required to increase service quality in the face of increasing hospital competition and an advanced

burden of high-quality services for patients. The Hospital has had a decreased service quality for some years. It's crucial to look at this phenomenon and figure out what factors contributed to nurses becoming dissatisfied, as well as the impact on their works. Because no prior study has about these concerns, the effects of work satisfaction on nursing performance have yet to be determined.

Data collection

The present research focuses on the nursing sector, which was done in the hospital, a public hospital in the United Arab Emirates. The respondents and the population for this study are nurses. The surveys were given to each nurse and were collected immediately after they were completed. Out of a whole of 120, 111 survey respondents were received from the hospital nurses.

Nurses' Job Performance Scale: The job performance scale developed by (Williams and Anderson 1991), nurse performance is monitored by the nursing supervisor. The participants used a 5-point Likert- category scale to indicate their agreement (1=strongly disagree to 5= strongly agree). The Cronbach's Alpha was determined to be .727, which is a good level of internal consistency.

Job satisfaction Scale: The Scale Generic Job Satisfaction was applied to measurement job satisfaction at work in this study (MacDoald and Maclntyre, 1997). The 5-Point Likert Scale was utilized on the work satisfaction section, and participants choose a number from 1 to 5 choices, with each number representing an expression (1=Strongly Disagree, 2=Disagree, 3=natural, 4=Agree, 5=Strongly Agree). High scores indicate a high level of job satisfaction, whereas low scores show a poor level of work satisfaction. Cronbach's alpha was found to be 0.947 which is a good level of internal consistency for the 10 work satisfaction items in our study.

Job stress Scale: The job stress scale questionnaire comprising of developed by (Parker and DeCotiis, 1983) contains from 13 items, also used the same scale above Likert scale for answered. The 5-Point Likert Scale was utilized on the work stress section, and participants choose a number from 1 to 5 choices, with each number representing an expression (1=Strongly Disagree, 2=Disagree, 3=natural, 4=Agree, 5=Strongly Agree). High scores indicate a high level of job stress, whereas low scores show a poor level of work stress. Cronbach's alpha was found to be 0.837 which is a good level of internal consistency.

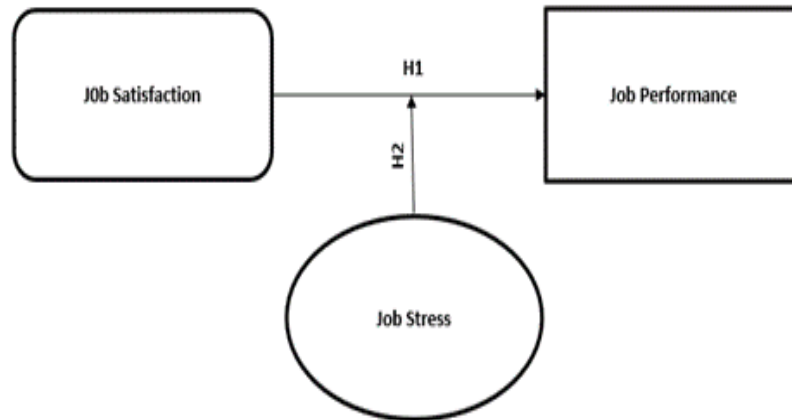


Figure 1. Conceptual framework of relationship between job satisfaction of nurses on their performance: moderating effects of job stress.

Ethical considerations

The Ethical Committee of the AL Dhafra Hospitals - Marfa - in the United Arab Emirates gave this study ethical approval, number (ADH-IREC-021-004). Each participant has provided information voluntary. To protect participants' anonymity, obtained data was masked so that no one could guess who they were.

RESULTS

Statistical analyses

The current study used Cronbach's Alpha for reliability analysis, applied correlation coefficient, and performed linear regression analysis to investigate the regression between independent, dependent and moderating variables. All the statistical analyses has been performed in SPSS program. Table 1 displays the correlation between job performance and job satisfaction, which are the independent, and dependent variables respectively. Table 2 demonstrates the result of testing the first hypothesis by regression analysis (the direct effect of job satisfaction on job performance). In addition, table 3 shows the result of testing the second hypothesis by regression analysis (the moderated effect of job stress on the relationship between job satisfaction and job performance).

Validity and reliability analysis

In the reliability of the study, the report results for reliability measure by SPSS using Cronbach's Alpha. Revealed that it indicates that the group of items is acceptable and reliable. Mean for nurse performance is reliable by 72.7 % for 21 items are represented, for job satisfaction, reliability represents 94.7 % for 10 items, and the last job Stress there is 13 items represent reliably 83.7%. That's mean my data is reliable (>0.70) for each constructed in the study. Pearson's product correlation coefficient and regression analysis were used to analyze the relationship between the independent and dependent variables. According to Table 1, the correlation coefficient is $r=0.540^{**}$ which is a positive correlation. Also, it is significant as its p-value is .000 is less than the significance level ($\alpha=5\%$).

Table 2 demonstrates the regression analysis for H1, in which the R square (R^2) value is .291, which means the job performance explained by job satisfaction represent by 29%, and can be concluded that the fitted model is significant $F=44.810$, p value <0.000 less than the significance level (5%), and the regression coefficient of nursing performance on job satisfaction is found .248 which implies that any increase in job satisfaction led to increasing in job performance by 248, Also, the regression coefficient is significant as p-value $p<0.000$ is less than significant level 5%. So, we accepted hypothesis H1. That's result indicates that if the nursing satisfaction is high the nursing performance will be high among nurses in The Hospital.

The moderation effect of job stress on relationship between job satisfaction and nursing performance

Linear Regression analysis was used to test affect job stress on the strength and direction association between nursing performance and job satisfaction, if adding as moderator variable on relationship. As it shown in Table 3, results revealed that the moderate effect of job stress ($\beta=-0.093$, Beta=-0.287, $p<0.000$) on the relationship between job satisfaction and nursing performance. The interaction between job satisfaction and job stress ($\beta=0.086$, beta, .287, $p<0.000$) as the constants was ($B0=3.395$, $p<0.000$) which result indicates that job stress is a negative moderator effect on the relationship between job satisfaction and nurse performance in The Hospital, which means that the hypothesis is accepted. These findings indicate that the relationship between job satisfaction and nurse performance effect becomes reduced with increased job stress. More specifically, the relation between job satisfaction and job performance tends to be stronger for employees with low job stress than for employees with high job stress. Likewise, performance is highest of all when high job satisfaction and job stress are low.

Table 1. Correlations between job satisfaction and nursing performance.

		Job Performance	Job Satisfaction
Job Performance	r	1	0.540**
	p		0.000
	n	111	111
Job Satisfaction	r	0.540**	1
	p		
	n	111	111

** Correlation is significant at the .01 level (2-tailed).

Table 2. Hypothesis (1) and regression results.

Model		Unstandardized Coefficients		Standardized Coefficients	t	p
		B	Std. Error	Beta		
1	(Constant)	2.483	0.139		17.856	<0.001
	Job Satisfaction	0.248	0.037	0.540	6.694	<0.001

a. Dependent Variable: Job Performance, $R^2=.291$, adjusted $R^2=.285$, $F = 44.810$, $p=0.000$

Table 3. Hypothesis (2) and moderated variable's regression result.

Model		Unstandardized Coefficients		Standardized Coefficients	t	p
		B	Std. Error	Beta		
1	(Constant)	3.398	0.025		13.816	<0.001
	Job Satisfaction	0.177	0.025	0.547	7.154	<0.001
	Job Stress	-0.090	0.025	-0.278	-3.636	<0.001
2	(Constant)	3.395	0.023		146.922	<0.001
	Job Satisfaction	0.184	0.023	0.567	7.896	<0.001
	Job Stress	-0.093	0.023	0-.287	-4.003	<0.001
	interact	0.086	0.022	0.287	3.998	<0.001

a. Dependent Variable: Job Performance.

DISCUSSION

Enhancing the efficiency of nursing care delivery for clients is a key issue and big defy for nurses and there are numerous factors that influence nurse job satisfaction and performance in hospitals, including stress, workload, motivation, job satisfaction, and others. However, job stress and job satisfaction in this situation are very important, where nurses are living with the transmitted disease and newly discovered diseases, and there is no study for these variables on nurses in the UAE. The significant findings of this present study reveal that there is a statistically relevant relationship positive relationship between job satisfaction and performance. That's result indicates that if the nursing satisfaction is high the nursing performance will be high among nurses in The Hospital. That's means, if a nurse is more job satisfied, nursing will work harder to attain goals and will work more to provide high-quality nursing care for the patient. The finding also revealed a partial negative moderation effect of job stress on the relationship between job satisfaction and nursing performance, in which high job stress led to decrease nursing performance. finally, if the job satisfaction and performance level are high, must be keep nursing in low job stress, This is an important result if increased job stress will be job performance will be

decreased, as well as increased error, poor treatment, mortality, and morbidity. Based on the previous result, if the employees are satisfied and their stress levels are low, this will lead to maintaining levels of performance, productivity, and profit for the company, as well as increased customer satisfaction. As a result, decision-makers must do their best to create an environment and good working conditions that will increase employee job satisfaction, as well as ensure that their employees' stress levels remain low. As a consequence, the personnel's performance may be maintained and even improved.

Nursing is the pillar of the hospital, Nursing is a healthcare profession that focuses on the provision of healthcare services for individuals, families, and communities in order for them to reach, maintain, or enhance their optimal health and quality of life. Nurses are, after all, the most valuable asset in any hospital, thus it is critical that employers take them into account. Hospitals can only do so much with their staff if they understand the reasons for turnover and the factors that influence it. As a result, this may be accomplished through study, assessment, and policy change. 1. Decision-makers in hospitals must define and knows what makes their employees satisfied and alleviate stress by distributing job opportunities to all nurses and without threatening job

terminations at all times. 2. Before making any decisions, there should be extensive dialogue and Workers should be allowed to share their opinions on topics that impact them. This will make it easier to fix issues and increase satisfaction. 3. Of those who are responsible, they should be able to distinguish stress elements and potential causes in the environment. 4. Allow time for employees to engage in another activity and spend time with his family. 5. Provide and expand the number of nurses to reduce stress and provide staff time to take on new responsibilities and be innovative in order to improve health care quality. 6. Interventional efforts are advised to boost job fulfilment among nurses through decision making, therapeutic approaches, and relationship skills improvement. Finally, the importance of employee happiness for the organization was to increase staff retention, increase production, raise customer satisfaction and training costs, and so on. There were fewer squanders and breakages, there will be fewer accidents, 43 absenteeism has dropped, loyalty and satisfaction has increased, employees are more engaged. The ability to operate as a team has increased. Higher-quality products and/or services are generated as a result of more knowledgeable and passionate staff. Enhances a company's image. Employee satisfaction, on the other hand, is critical because staff members will start believing that collaboration for the company will be rewarding in the long run, they will be focused on the quality of their job role, they will develop and produce growing patients value and they will be more invested in the institution. Employee satisfaction also benefits patients by improving care quality, decreasing mistakes, minimizing mortality, and reducing disease.

CONCLUSION

The outcomes of this study will certainly serve as a new addition to the reservoir of knowledge, the variation explained by the suggested model in the current study for nurses' performance rate at The Hospital in the United Arab Emirates. Especially that to the author's knowledge, this is the first study to look at the function of job stress as a moderating factor in the link between job satisfaction. According to the current study, job stress acts as a moderator in the association between job satisfaction and performance. As a result, this study provides empirical evidence for the theoretical importance of job satisfaction and job stress in predicting nursing performance among The Hospital nurses. Furthermore, the new directions of the important results help not just The Hospital but also the local government authorities in the UAE. By incorporating the findings, a number of practical consequences were discovered, including increasing management behavior, job satisfaction, and decreased stress/workload, all of which led to improved job satisfaction and lower workplace stress, hence

improving work quality. The important results, particularly the offered recommendations, are intended to aid in the support of The Hospital policy efforts, particularly to improve performance as part of the work at all levels of the hospital.

Nursing is the pillar of the hospital, Nursing is a healthcare profession that focuses on the provision of healthcare services for individuals, families, and communities in order for them to reach, maintain, or enhance their optimal health and quality of life. Nurses are, after all, the most valuable asset in any hospital, thus it is critical that employers take them into account. Hospitals can only do so much with their staff if they understand the reasons for turnover and the factors that influence it. As a result, this may be accomplished through study, assessment, and policy change. Decision-makers in hospitals must define and knows what makes their employees satisfied and alleviate stress by distributing opportunities to all nurses and without threatening job terminations at all times. Provide and expand the number of nurses to reduce stress and provide staff time to take on new responsibilities and be innovative in order to improve health care quality. Interventional efforts are advised to boost job fulfilment among nurses through decision making, therapeutic approaches, and relationship skills improvement.

Finally, the importance of employee satisfaction for the organization was to increase staff retention, increase production, raise customer satisfaction and training costs, and so on. There were fewer squanders and breakages, there will be fewer accidents, absenteeism has dropped, loyalty and satisfaction has increased, and employees are more engaged. The ability to operate as a team has increased. Higher-quality products and/or services are generated as a result of more knowledgeable and passionate staff. Enhances a company's image.

Acknowledgement

The authors would like to extend their sincere thanks to anyone who contributed to this study.

Conflict of Interest

The author declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Author Contributions

Plan, design: AMF, MY; **Material, methods and data collection:** AMF; **Data analysis and comments:** NE; **Writing and corrections:** AMF, NE, MY.

REFERENCES

- Atkinson, W. (2004). Stress: risk management's most serious challenge?. *Risk Management*, 51(6), 20.
- Bakotić, D. (2016). Relationship between job satisfaction and organisational performance. *Economic research-Ekonomska istraživanja*, 29(1), 118-130. <https://doi.org/10.1080/1331677X.2016.1163946>.

- Brown, D. L., Feskanich, D., Sánchez, B. N., Rexrode, K. M., Schernhammer, E. S., & Lisabeth, L. D. (2009). Rotating night shift work and the risk of ischemic stroke. *American Journal of Epidemiology*, *169*(11), 1370-1377. <https://doi.org/10.1093/aje/kwp056>.
- Conway, P. M., Campanini, P., Sartori, S., Dotti, R., & Costa, G. (2008). Main and interactive effects of shiftwork, age and work stress on health in an Italian sample of healthcare workers. *Applied Ergonomics*, *39*(5), 630-639. <https://doi.org/10.1016/j.apergo.2008.01.007>.
- Daget, T., Molla, A., & Belachew, T. (2016). Job related stress among nurses working in Jimma Zone public hospitals, South West Ethiopia: a cross sectional study. *BMC Nursing*, *15*(1), 1-10. <https://doi.org/10.1186/s12912-016-0158-2>.
- Farzianpour, F., Nosrati, S. A., Foroushani, A. R., Hasanpour, F., Jelodar, Z. K., Keykale, M. S., & Sadeghi, N. S. (2016). Relationship between shift work and personality traits of nurses and their coping strategies. *Global Journal of Health Science*, *8*(5), 166. <https://doi.org/10.5539/gjhs.v8n5p166>.
- Henriksen, K., Dymek, C., Harrison, M. I., Brady, P. J., & Arnold, S. B. (2017). Challenges and opportunities from the Agency for Healthcare Research and Quality (AHRQ) research summit on improving diagnosis: a proceedings review. *Diagnosis*, *4*(2), 57-66. DOI: 10.1515/dx-2017-0016.
- Keykaleh, M. S., Safarpour, H., Yousefian, S., Faghisolouk, F., Mohammadi, E., & Ghomian, Z. (2018). The relationship between nurse's job stress and patient safety. *Open Access Macedonian Journal of Medical Sciences*, *6*(11), 2228. <https://doi.org/10.3889/oamjms.2018.351>.
- Leineweber, C., Chungkham, H. S., Lindqvist, R., Westerlund, H., Runesdotter, S., Alenius, L. S., & Tishelman, C. (2016). Nurses' practice environment and satisfaction with schedule flexibility is related to intention to leave due to dissatisfaction: A multi-country, multilevel study. *International Journal of Nursing Studies*, *58*, 47-58. <https://doi.org/10.1016/j.ijnurstu.2016.02.003>.
- Macdonald, S., & MacIntyre, P. (1997). The generic job satisfaction scale: Scale development and its correlates. *Employee Assistance Quarterly*, *13*(2), 1-16.
- McCausland, W. D., Pouliakas, K., & Theodossiou, I. (2005). Some are punished and some are rewarded: A study of the impact of performance pay on job satisfaction. *International Journal of Manpower*, *26*(7/8), 636-659.
- Parker, D. F., & DeCotiis, T. A. (1983). Organizational determinants of job stress. *Organizational Behavior and Human Performance*, *32*(2), 160-177.
- Ramsay, J. D. (2005). A new look at nursing safety: The development and use of JHAs in the Emergency Department. In *ASSE Professional Development Conference and Exposition. OnePetro*.
- Rothschild, J. M., Landrigan, C. P., Cronin, J. W., Kaushal, R., Lockley, S. W., Burdick, E., & Bates, D. W. (2005). The Critical Care Safety Study: The incidence and nature of adverse events and serious medical errors in intensive care. *Critical Care Medicine*, *33*(8), 1694-1700.
- Smith, P. C. (1969). The measurement of satisfaction in work and retirement: A strategy for the study of attitudes.
- Van der Doef, M., Mbazzi, F. B., & Verhoeven, C. (2012). Job conditions, job satisfaction, somatic complaints and burnout among East African nurses. *Journal of Clinical Nursing*, *21*(11-12), 1763-1775. <https://doi.org/10.1111/j.1365-2702.2011.03995.x>.