



New Trends and Issues Proceedings on Humanities and Social Sciences



Volume 4, Issue 2 (2017) 267-274

ISSN 2421-8030

www.prosoc.eu

Selected Papers of 1st International Congress on Nursing (ICON-2017) 16 – 18 March 2017 Grand Park Lara Convention Center, Lara – Antalya, Turkey

The link between nurse workplace environment and patient satisfaction with nursing care services

Hayder AL-Hadrawi^{a*}, University of Babylon, Alhila City, Babylon, Iraq.

Deeyaa Al-Biaty^b, University of Kufa, Alkufa City, AL-Najaf, Iraq.

Sadeq AL-Fayyadh^c, University of Baghdad, Bab-Almuatham City, Baghdad, Iraq.

Safi Alzeyadi^d, University of Kerbala, Kerbala City, Kerbala, Iraq.

Suggested Citation:

AL-Hadrawi, H., Al-Biaty, D., AL-Fayyadh, S., & Alzeyadi, S. (2017). The link between nurse workplace environment and patient satisfaction with nursing care services. *New Trends and Issues Proceedings on Humanities and Social Sciences*. [Online]. 4(2), pp 267-274. Available from: www.prosoc.eu

Selection and peer review under responsibility of Prof. Dr. Nesrin Nural, *Karadeniz Technical University*, Turkey
©2017 SciencePark Research, Organization & Counseling. All rights reserved.

Abstract

Patient satisfaction has become an integral part of the process of measuring the quality of the provided care. Patients' satisfaction about healthcare services increases in institutions that provide healthy workplace environment for nurses. This quantitative study aims to measure the impact of nurse practice environment on patients' satisfaction with the provided nursing care services. A cross-sectional design was conducted to survey 75 male and female nurses and 107 inpatients who were hospitalized at least one day and aged 17 years and older. Sample was selected from medical and surgical wards of two main teaching hospitals in AL-Najaf province, Iraq. The results show that 80% of the nurses work in poor practice environment. About 52% of the patients were partially satisfied with nursing care; whereas, about 47% of the patients were unsatisfied. A significant correlation was found between nurse practice environment and patients' satisfaction $p < .05$; regression analysis shows that patients' satisfaction can be predicted based on nurse-patient ratio. Conclusion: Enhancing the practice environment of nurses helps improving the quality of healthcare and achieving better level of patients' satisfaction with nursing care services.

Keywords: Nurses workplace; patient satisfaction; practice environment; nursing care;

* ADDRESS FOR CORRESPONDENCE: **Hayder AL-Hadrawi**, University of Babylon, College of Nursing, Aljamea Stret, Alhila City, Babylon, Iraq
E-mail address: haidermsn@gmail.com / Tel.: +964-782 226 47 09

1. Introduction

The increased demand for high quality healthcare services drives hospitals to improve their performance (Kutney-Lee et al., 2009). Patient satisfaction has become an integral part of the process of measuring the quality of the provided care. Patient satisfaction is found to be linked to several nursing factors, including but not limited to nurses' satisfaction with their practice environments. In other words, patients' satisfaction about healthcare services increases in institutions that provide healthy workplace environment for nurses (McHugh et al., 2011; Molyneux, 2011; Kutney-Lee et al., 2009). The level of nurses' job satisfaction significantly contributes to quality of care and patients' safety (Aiken et al., 2012). Career related stresses disable nurses' ability to perform effectively and proficiently; therefore, it may negatively influence patients' satisfaction about the provided nursing care (Aiken et al., 2012; McHugh et al., 2011). Few studies have targeted nurse practice environment and its effects on nurses' performance and satisfaction; however, no studies have specifically focused on patient satisfaction in relation to nurses practice environment.

Studies have found a significant correlation between nurses' satisfaction and their practice environment. Work environment plays an important role in enhancing or inhibiting nurses' ability to provide competent care and better serve clients. Therefore, unhealthy institutional environment threatens patients' safety and the safety of nurses and their job satisfaction (American Nursing Association, 2016). Turnover rate of nursing staff and patient satisfaction are highly linked to nurses' satisfaction with their work environment. Nurses job dissatisfaction negatively influence patients' health outcomes and increases the cost of healthcare services (Princeton, 2014). In addition, the complexity in the professional core values of nurses makes nurses vulnerable to moral distress, especially if they are obligated to perform certain nursing actions that are against their personal and professional morality, which also impacts nurses' satisfaction with their work environment (AL-Hadrawi, 2016). Aiken and Sermeus (2012) conducted a cross sectional survey to find the link among patient safety, nurses satisfaction, quality of hospital care, and workplace environment in 12 countries. Authors summarized that "in hospitals with good work environment and reduced ratios of patients to nurses, patients and nurses reported improvements in care quality, increased safety grades, and improved patient and nurse satisfaction" (p. 20).

2. Objective of the Study

The purpose of this study is to investigate whether there is a link between nurse workplace environment and patients' satisfaction in terms of the provided nursing care services in the Iraqi hospitals, as well as the relationships between patients' satisfaction and their demographic characteristics.

2. Research Methodology

2.1. Study sample and design

A cross-sectional study was conducted in the medical and surgical wards of two main teaching hospitals in Al-Najaf province, Iraq, through the period of five months (from March, 2016 to August, 2016). The study sample was selected using convenience sampling, and the subjects were divided to two groups. The first group consists of 107 in patients who were hospitalized at least one day and aged 17 years and older to measure patients' satisfaction about the provided nursing care services. The second group consists of 75 male and female nurses. The nurse population was selected to measure the quality of nurses practice environment.

2.2. Study instrument

Two separated scales were adopted and modified to measure the variables of the recent study. The first questionnaire is the Nursing Work Index—Revised (NWI-R), which contains three domains (staffing adequacy, administrative support, and nurse-physician relations) with a total of 12 items. NWI-R was used to measure the characteristics of nurse work environment; the first four items

AL-Hadrawi, H., Al-Biaty, D., AL-Fayyadh, S., & Alzeyadi, S. (2017). The link between nurse workplace environment and patient satisfaction with nursing care services. *New Trends and Issues Proceedings on Humanities and Social Sciences*. [Online]. 4(2), pp 267-274. Available from: www.prosoc.eu

measured staffing adequacy, the second five items measured administrative support, and the last three items measured nurse-physician relationship. The scores of the total 12 items characterized nursing practice environment as good, fair, and poor practice environment. Large body of research has shown that the NWI-R is highly valid and reliable in measuring the intended variable (Gasparino, de Brito Guirardello & Aiken, 2011; Warshawsky & Havens, 2011; Vahey et al., 2004; Aiken & Patrician, 2000). The second scale is the La Monica–Oberst Patient Satisfaction (LOPSS), which contains two domains (nurse-patient relationship and patient satisfaction domains) with a total of 28 items. LOPSS was used to measure patients' satisfaction with the provided nursing care services. The scale has widely been used and researchers have shown that the scale has good stability and validity (Masiero et al., 2005) with a high internal consistency ($\alpha = .91$) and reliability coefficients .95 ($N = 533$) for the total instrument (La Monica et al, 1986). Negative state items (patient satisfaction domain) were reversed to measure the overall patient satisfaction. Items in both scales were rated on 3-points likert scale in which 1= disagree, 2 = somewhat disagree, and 3 = agree. The higher score demonstrates a positive outcome on both scales.

2.3. Ethical considerations

Study subjects were voluntarily participated in the present study. Informed consents were obtained from all the participants, and participants had the right to withdraw their participation, even after they signed the informed consent. The questionnaires were anonymous to maintain participants' confidentiality; a specific number was assigned for each questionnaire for statistical purposes.

3. Results of the Study

3.1. Descriptive statistics of participants' demographic data

The total sample of nurses population was ($n = 75$). More male nurses 64% participated in this study than females 36%. The majority of the nurses aged between 21 – 25 years old 56%, have a diploma in nursing 76%, and have less than four years of experience in medical or surgical ward 72%. The whole sample of inpatients was ($n = 107$); patients who were selected from medical and surgical wards were almost the same. More male patients 54.2% were involved in this study than females 45.8%. Most of the patients were between the age of 28 – 38 and 50 – 59 years old, 22.4% in each age group. There were 64.5% of the patients hospitalized between 4 and 6 days.

3.2. Descriptive statistics of nurse workplace environment and patients' satisfaction

The quality of the nurses' workplace environment was assessed using the Nursing Work Index—Revised (NWI-R) with three subscale items. As displayed in table 1, nurses rated their practice environment as good practice environment 4%, fair practice environment 16%, and poor practice environment 80%. Table 2 represents the overall patients' satisfaction with nursing care services. Most of the patients were partially satisfied ($n = 56$) 52.3% with the received nursing care services, ($n = 50$) patients 46.7% were unsatisfied, and only one patient 0.9% reported a fully satisfaction with the provided nursing care.

Table 1. Descriptive statistics of nurse workplace environment

Nurse Workplace Environment		Frequency	Percent
Staffing Adequacy	Good	7	9.3
	Fair	18	24
	Poor	50	66.7
Administrative Support	Fair	30	40
	Poor	45	60
	Good	6	8
Nurse-Physician Relationship	Fair	35	46.7
	Poor	34	45.3
Overall Quality of Nurse Workplace Environment	Good	3	4
	Fair	60	80
	Poor	12	16

Table 2. Descriptive statistics of nurse workplace environment

Patients Satisfaction	Frequency	Percent
Dissatisfied	50	46.7
Partially Satisfied	56	52.3
Satisfied	1	0.9

3.3. Summary of the correlational analyses of study variables

Table 3 reports the correlation between nurse workplace environment and patients' satisfaction, as well as patients satisfaction and their demographic data (age, gender, ward, and hospitalization stay). The results show that there was a significant relationship between nurse workplace environment and patients satisfaction $r = .308, p = .004$. A statistical correlation was also found between patients' satisfaction and their gender group $r = -.202, p = .037$; female patients reported less satisfactions scores ($M = 1.42, SD = 0.54$) with the provided nursing care compared to male patients ($M = 1.63, SD = 0.48$). The results indicated a significant statistical correlation between patients' satisfaction and ward of admission $r = -.461, p = .001$. Patients who were admitted in the surgical wards had less satisfaction score ($M = 1.30, SD = 0.46$) than patients in the medical wards ($M = 1.77, SD = 0.46$).

Table 3. Summary of the correlational analyses

Dependent Variable		Nurse Workplace Environment	Ward of Admission	Gender	Age	Hospitalization
Patient Satisfaction	Pearson Correlation	0.308*	-.461**	-.202*	0.153	-.123-
	Sig. (2-tailed)	0.004	0.001	0.037	0.116	0.208
	N	75	107	107	107	107

Note: ** = Correlation is significant at the 0.01 level (2-tailed); * = Correlation is significant at the 0.05 level (2-tailed).

3.4. Summary of multiple regression analysis of patients' satisfaction

A multiple regression analysis was run to test if nurse work environment sub domains (staffing adequacy, administrative support, and nurse-physician relations) predict patients level of satisfaction with nursing care services. As displayed in table 4, staffing adequacy sub domain was the only variable that added statistical significant to the prediction of patient satisfaction with nursing care Beta = .424, $t(107) = 2.766, p < .05$.

Table 4. Summary of multiple regression analysis to predict inpatient satisfaction

Nurse Workplace Environment Domains	<i>B</i>	<i>SE</i>	<i>Beta</i>	<i>t</i>	<i>Sig</i>
(Constant)	1.026	.171		5.998	.000
Staffing Adequacy	.244	.088	.424	2.766	.007
Administrative Support	.064	.114	.102	.558	.579
Nurse-Physician Relationship	.067	.151	.099	.444	.658

Notes: B = unstandardized regression coefficient; SE = standard error; Beta = standardized coefficient

4. Discussion

The basic query that the current research endeavored to answer was: whether there is a relationship between nurses' job satisfaction and patients' satisfaction relative to the provided nursing care services, as well as exploring the relationships between nurses' job satisfaction and other nursing profession-related factors in the Iraqi hospitals. To answer the questions both descriptive and inferential statistical methods were employed to analyze the collected data revealing significant findings. Starting with nurses' practice environment variable, table 1 showed that the grand majority 80% of the surveyed nurses rated their practice environment as poor. This reflects serious defects in both the structures and practice dynamic in the work environment. This conclusion can be best explained by the fact that the used tool covered staffing adequacy, administrative support, and the nurse-physician relationship. Connecting this with the logical findings of the multiple regression analysis of patients' stratification, in which staffing adequacy sub domain predicted patient satisfaction with nursing services completed the picture. Such findings are not surprising considering the fact that over the past 20 years, Iraq had crushed under the heavy burdens of three ruinous armed conflicts, authoritative regime, humiliating economic sanction, and most recently the unprecedented, ongoing terrorism attacks (Garfield & McCarthy, 2005). All the aforementioned disastrous chapters of Iraq's life have incapacitated all facet of the society development. Health care sector was severely and irreversibly damaged due to the aforementioned unfortunate circumstances (Alsamarai, Alobaidi, Sarhan, Ismail & Alhamdani, 2013).

Moreover, the healthcare system in Iraq has experienced a critical nursing staff shortage, which negatively impact the quality and the quantity of nursing services to an extreme level that some medical facilities and hospitals in certain regions of the Iraqi republic have terminated their services because of direct attacks and shortages of staff. Nursing staffing shortage is a tremendous problem around the globe (Tiaki, 2015); in Iraq, however, it is even more complex and multi-dimensional. To explain, the Iraqi Nursing Syndicate (INS) (2014), estimated that in 2013, there was 60000 nurses serving 35000.000 individuals. This means that nurse-population ratio in Iraq was 1.6: 1000, reflecting a huge gap between the minimum ideal international ratio and Iraqi nursing workforce reality. Furthermore, the challenging nature of nursing profession has had hindered females from joining nursing, which created a critical imbalance as shown in INS's statistics as male: female nurse ratio is 75:25 (Iraqi Nursing Syndicate, 2014). This ratio was reflected by the descriptive statistics of sample demographics, which was more male nurses 64% participated in this study than females 36%.

Additionally, according to the Pew Research Center (2011), Iraqi population will hit 48,350,000 by the end of the third decade of this century, which will add an enormous load upon the already burdened health care system in Iraq, unless both urgent and effective interventions are enacted in all health care system fields, particularly nursing, considering the critical shortage of nurses in Iraq. Another variable that may explain patients' dissatisfaction is the high patient turnover in the Iraqi health care system, which creates a crowded and chaotic nursing work environment that places high intensity nursing workload associated with admissions, discharges, and transfers into a shortened time

AL-Hadrawi, H., Al-Biaty, D., AL-Fayyadh, S., & Alzeyadi, S. (2017). The link between nurse workplace environment and patient satisfaction with nursing care services. *New Trends and Issues Proceedings on Humanities and Social Sciences*. [Online]. 4(2), pp 267-274. Available from: www.prosoc.eu

period, all possibly influencing patient satisfaction with provided nursing services (Aliberti, 2015). Therefore, Djukic, Kovner, Brewer, Fatehi and Cline (2013) called for strategically allocating resources toward work environment factors that have the potential to improve quality of care. Previous studies reached to the same logical conclusion that the current study proved, which is that nurse workplace environment, clients' satisfaction, and nursing care services quality are interrelated (Li, Bruyneel, Sermeus, Van den Heede, Matawie, Aiken & Lesaffre, 2013; Kirwan, Matthews & Scott, 2013; Koy, Yunibhand, Angsuroch & Fisher, 2015; Stimpfel & Aiken, 2013). Other studies dissected the aforementioned interconnectedness by explaining why both groups: the nurses and the clients were reporting negative messages about their situations. To explain, nurses in hospitals with lower nursing staff were higher in reporting nursing care quality as fair or poor (Patrician, Shang & Lake, 2010; Van Bogaert, Meulemans, Clarke, Vermeyen & Van de Heyning, 2009). Of equal importance, the current study analysis of patients' stratification showed that staffing adequacy sub domain predicted patient satisfaction with nursing services, which reflects that both nurses and their clients' disappointment can be resolved in case of controlling the staffing adequacy variable.

5. Conclusion and Recommendations

Institutional environment in which nurses perform their duties has the potential to negatively impact nurses satisfaction and patients health outcomes. Nurses shortage, nurses satisfaction, and patients satisfaction are interrelated; staff nurse inadequacy places high intensity nursing workload, which significantly influence patient satisfaction. Therefore, enhancing the practice environment of nurses helps improving the quality of healthcare and achieving better level of patients' satisfaction with nursing care services. The recommendation is to reduce the level of job stress by maintaining a reasonable nurse-patient ration in the healthcare institutions.

AL-Hadrawi, H., Al-Biaty, D., AL-Fayyadh, S., & Alzeyadi, S. (2017). The link between nurse workplace environment and patient satisfaction with nursing care services. *New Trends and Issues Proceedings on Humanities and Social Sciences*. [Online]. 4(2), pp 267-274. Available from: www.prosoc.eu

References

- Aiken, L. & Sermeus, W. (2012). Patient safety, satisfaction, and quality of hospital care: Cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *British Medical Journal*, 344, 17-27.
- Aiken, L. H. & Patrician, P. A. (2000). Measuring organizational traits of hospitals: The Revised Nursing Work Index. *Nursing Research*, 49(3), 146-153.
- AL-Hadrawi, H. (2016). Is it moral to kill an innocent person? The moral dilemma of abortion. *International Journal of Scientific & Engineering Research*, 7(8), 792-795.
- Alsamarai, A., Alobaidi, A., Sarhan, H., Ismail, F. & Alhamdani, Y. (2013). Assessment of the educational environment at Tikrit University College of Medicine (TUCOM). *Middle East Journal of Internal Medicine*, 6(5), 32-43.
- American Nursing Association. (2016). *Work environment*. Retrieved from <http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Work-Environment> on 1 June 2016.
- Cousins, S. (2014). Iraq: Staff and medicine shortages are major challenges. *Lancet*, 384(9947), 943-944.
- Djukic, M., Kovner, C. T., Brewer, C. S., Fatehi, F. K. & Cline, D. D. (2013). Work environment factors other than staffing associated with nurses' ratings of patient care quality. *Health Care Management Review*, 38(2), 105-114.
- Ervin, N. E. (2006). Does patient satisfaction contribute to nursing care quality?. *Journal of Nursing Administration*, 36(3), 126-130.
- Garfield, R. & McCarthy, C. F. (2005). Nursing and nursing education in Iraq: Challenges and opportunities. *International Nursing Review*, 52(3), 180-185.
- Gasparino, R. C., de Brito Guirardello, E. & Aiken, L. H. (2011). Validation of the Brazilian version of the Nursing Work Index-Revised (B-NWI-R). *Journal of Clinical Nursing*, 20(23-24), 3494-3501.
- Institute of Medicine. (2003). *Keeping patients safe: Transforming the work environment of nurses*. Washington (DC): National Academies Press.
- Iraqi Nursing Syndicate. (2014). *Nursing in Iraq record*. US: Official record of INS.
- Kirwan, M., Matthews, A. & Scott, P. A. (2013). The impact of the work environment of nurses on patient safety outcomes: A multi-level modelling approach. *International Journal of Nursing Studies*, 50(2), 253-263.
- Koy, V., Yunibhand, J., Angsuroch, Y. & Fisher, M. L. (2015). Relationship between nursing care quality, nurse staffing, nurse job satisfaction, nurse practice environment, and burnout: Literature review. *International Journal of Research in Medical Sciences*, 3(8), 1825-1831.
- Kutney-Lee, A., McHugh, M. D., Sloane, D. M., Cimiotti, J. P., Flynn, L., Neff, D. F. & Aiken, L. H. (2009). Nursing: A key to patient satisfaction. *Health Affairs*, 28(4), 669-677.
- La Monica, E. L., Oberst, M. T., Madea, A. R. & Wolf, R. M. (1986). Development of a patient satisfaction scale. *Research In Nursing & Health*, 9(1), 43-50.
- Li, B., Bruyneel, L., Sermeus, W., Van den Heede, K., Matawie, K., Aiken, L. & Lesaffre, E. (2013). Group-level impact of work environment dimensions on burnout experiences among nurses: A multivariate multilevel probit model. *International Journal of Nursing Studies*, 50(2), 281-291.
- Mahmoud, A. & Reisel, W. (2014). Relating patient satisfaction to nurses' job satisfaction, job security, and obedience OCBs. *International Journal of Pharmaceutical and Healthcare Marketing*, 8(1), 47-61.
- Masiero, M. P., Salmaso, D., Frison, T., Guzzinati, S., Andriago, M. & Marin, I. (2005). Validity and reliability of a questionnaire to assess patients' satisfaction for home care. *Assistenza Infermieristica Ricerca: AIR*, 25(4), 220-226.
- McHugh, M. D., Kutney-Lee, A., Cimiotti, J. P., Sloane, D. M. & Aiken, L. H. (2011). Nurses' widespread job dissatisfaction, burnout, and frustration with health benefits signal problems for patient care. *Health Affairs*, 30(2), 202-210.
- Molyneux, J. (2011). Nurses' job satisfaction linked to patient satisfaction. *AJN The American Journal of Nursing*, 111(5), 16.
- Patrician, P. A., Shang, J. & Lake, E. T. (2010). Organizational determinants of work outcomes and quality care ratings among Army Medical Department registered nurses. *Research in Nursing & Health*, 33(2), 99-110.
- Pew Research Center. (2011). The future global Muslim population projections for 2010-2030. Retrieved from <http://www.pewforum.org/files/2011/01/FutureGlobalMuslimPopulation-WebPDF-Feb10.pdf> on 2 June 2015.

- AL-Hadrawi, H., Al-Biaty, D., AL-Fayyadh, S., & Alzeyadi, S. (2017). The link between nurse workplace environment and patient satisfaction with nursing care services. *New Trends and Issues Proceedings on Humanities and Social Sciences*. [Online]. 4(2), pp 267-274. Available from: www.prosoc.eu
- Princeton, N. J. (2014). *Physical work environment in hospitals affects nurses' job satisfaction, with implications for patient outcomes, health care costs*. Retrieved from <http://www.rwjf.org/en/library/articles-and-news/2014/07/physical-work-environment-in-hospitals-affects-nurses-job-satisf.html> on 5 May 2016.
- Stimpfel, A. W. & Aiken, L. H. (2013). Hospital staff nurses' shift length associated with safety and quality of care. *Journal of Nursing Care Quality*, 28(2), 122-129.
- Tiaki, K. (2015). Nursing shortage 'critical' by 2017. *Nursing New Zealand*, 20(11), 7.
- Tzeng, H. M. & Ketefian, S. (2002). The relationship between nurses' job satisfaction and inpatient satisfaction: An exploratory study in a Taiwan teaching hospital. *Journal of Nursing Care Quality*, 16(2), 39-49.
- Vahey, D. C., Aiken, L. H., Sloane, D. M., Clarke, S. P. & Vargas, D. (2004). Nurse burnout and patient satisfaction. *Medical Care*, 42(2), 1157-1166.
- Van Bogaert, P., Meulemans, H., Clarke, S., Vermeyen, K. & Van de Heyning, P. (2009). Hospital nurse practice environment, burnout, job outcomes and quality of care: Test of a structural equation model. *Journal of Advanced Nursing*, 65(10), 2175-2185.
- Wang, Y., Dong, W., Mauk, K., Li, P., Wan, J., Yang, G. & Hao, M. (2015). Nurses' practice environment and their job satisfaction: A study on nurses caring for older adults in shanghai. *PloS One*, 10(9), 1-12.
- Warshawsky, N. E. & Havens, D. S. (2011). Global use of the practice environment scale of the nursing work index. *Nursing Research*, 60(1), 17- 31.