

## Impact of nurse turnover on patient care in a private healthcare facility in UAE

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### Abstract

**Aim:** The aim of this study was to determine the pattern and impact of nurse turnover in a private healthcare facility in United Arab Emirates (UAE) and also to recommend the management strategies that could be adopted to overcome the problem of nurse turnover.

**Back ground:** Global healthcare organizations are in a precarious situation due to the increasing attrition among healthcare professionals. Nurse turnover is an issue of international concern causing widening of supply - demand gaps in the healthcare industry. Despite the acknowledged importance of managing nurse turnover in hospitals, the pattern, causes and consequences of nurse turnover in UAE are poorly understood.

**Method and analysis:** This is an empirical, descriptive, quantitative survey based research conducted in a private healthcare facility in UAE.

**Results:** Hospital witnessed significant nurse shortage secondary to higher nurse turnover. More than two thirds (69.9%) nurses showed intention to leave the organization. Higher nurse turnover intentions were significantly associated with job satisfaction ( $p < 0.01$ ) and workload ( $p < 0.001$ ). Patient fall and medication errors were not significantly associated with nurse turnover however there was significant reduction in patient satisfaction score for nurse services in the hospital.

**Conclusion:** Higher work load, lack of conducive work environment, lack of managerial support mainly contributed to job dissatisfaction and are the key drivers for nurse turnover. Decline in patient satisfaction implied compromised quality of care. However larger trials are needed to effectively implement administrative strategies to overcome the nurse turnover problem.

**Keywords:** Nurse turnover; Job satisfaction; Nurse Burnout; Patient satisfaction

### 1. Introduction

High staff attrition in any industry can be a matter of concern and more so with customer centric firms. Global healthcare organizations are in a precarious situation due to the increasing attrition among healthcare professionals. This has resulted in shortage of healthcare work force worldwide.

Healthcare human resource challenges vary worldwide. This variation may be associated with the economic, political and social landscape of the country. Inequality in distribution of healthcare work force can be attributed to globalization. Migration of healthcare workforce within and even beyond the boundaries across the international labor

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market has been increasingly witnessed after globalization (Hannawi & Sami 2013). This trend of talent migration is more pronounced among doctors and nurses especially from developing countries to developed countries. Mobility of healthcare workers in general and nurses in particular has posed a serious challenge for healthcare managers.

High nurses turnover is a worldwide phenomenon with turnover rates ranging between 15-44%. Turnover is around 15% in Australia, 20% in Canada, 27% in the USA and could be as high as 44% in New Zealand (Duffield et al, 2014). High turnover of nurses can have a significant bearing on the healthcare outcome. It can be disruptive, expensive and endangers the quality of care in hospitals (Kovner et al 2014). Turnover not only reduces the efficiency and quality of care but also increases the operational cost and affect the organizational performance (Rajan D 2013).

Nurse turnover has gained significance in healthcare over the last two decades especially in the developed countries. Researchers feel that nurse turnover needs urgent and immediate attention and intervention by leadership and healthcare policy makers. (Hayes et al 2012 ; Bria et al 2013)

Managing nurse turnover in private hospitals of developing countries is gaining momentum as they continue to dominate healthcare space. Increased turnover leads to considerable impact on healthcare system performance (Dewanto & Wardhani 2018). Several studies has been done to identify the determinants of nurse turnover but those are more focused in western countries.

Rapid expansion of UAE healthcare sector to meet the growing needs of its population, international medical tourism boom has challenged the healthcare stewardship. The ability of UAE to provide the required nurse human capital for the expanding healthcare industry needs to be viewed with the prism of global challenge of shortage of nurses secondary to high nurse turnover.

### **1.1. Research Problem**

Despite the acknowledged importance of managing nurse turnover in hospitals, the pattern, causes and consequences of nurse turnover in UAE are poorly understood.

#### *Objectives of study*

- To determine the factors affecting the nurse turnover in a private healthcare facility in UAE.
- To analyze the impact of nurse turnover on patient care in a private healthcare facility in UAE.
- To recommend the management strategies that could be adopted to reduce the nurse turnover.

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## **2. Review of Literature - Theoretical studies**

### **2.1. Theoretical explanation of employee turnover**

Four theoretical approaches are reported in the literature trying to explain the phenomenon of staff turnover (Nel et al 2008). Medical professionals' turnover is generally determined by two types of dissatisfaction. Organizational dissatisfaction due to work culture, job stress, level of team work. Professional dissatisfaction related to perceived quality of patient care and the professional pleasure they derive out of that activity. Nurses' turnover is considered to be higher compared to doctors. Nurses tend to take professional breaks for bearing children or to follow relocating spouses as part of their kinship responsibility.

### **2.2. Causal Theoretical frame work -**

The causal model of turnover of nurses proposed by Price & Mueller (1981) suggests key determinants of nurse turnover. This model is adopted in our research.

### **2.3. Review of Literature - Empirical studies**

#### *2.3.1. Nurse turnover definition and rate*

Turnover in simple terms can be defined as any job move which is generally perceived as a permanent and final act. (Kovner et al 2014). The rate of nurse turnover ranges from 15-44% (Duffield et al, 2014).

### 2.3.2. Classification of Nurse Turnover

Employee turnover is broadly classified into different categories as voluntary/involuntary, functional/dysfunctional, avoidable/unavoidable, internal/external and skilled/unskilled (D. Rajan 2013)

## 2.4. Determinants of Nurse Turnover

In modern times the key determinants are found to be heavy workload, disparities in pay and benefits, ambiguous work and work environment, unsuitable staffing practices inadequate career growth opportunities supervisory/leadership issues, work family conflict (Dasgupta P, 2014)

### 2.4.1. Nurse characteristics (Age, marital status, gender and work experience)

With regards to nurses' age and turnover an inverse relationship between the two has been demonstrated (Mosadeghrad (2013). New nurse graduates, young nurses who are single, women and who has less job tenure are reported to have higher turnover intentions (Osuji et al 2014 and Dewanto and Wardhani 2018). Contrary to these studies Yang et al (2017) witnessed increased turnover among higher age group nurses (30-39 years). Dasgupta (2015) identified core self-evaluation of nurses as an antecedent of nurses' turnover intention. Above reviews indicate age, educational status, marital status, work experience are the key nurse characteristics contributing to nurse turnover intentions.

### 2.4.2. Work environmental (Job satisfaction/Work load /Work pressure/Stress) Factors

#### Job satisfaction

Mahoney (2018) in US observed that the job dissatisfaction was specially associated with lack of organizational administrative support and the policies as key factors effecting the turnover intention.

#### Work load / Work stress

Halter et al (2017) observed job dissatisfaction and stress at work were key factors contributing to turnover. Dewanto and Wardhani (2018) quoted personal reasons, external attraction, poor work environment, uncomfortable working conditions low benefits were the key determinants for turnover. Cote (2016) observed unmet expectations, Erratic work schedule, inability to practice their skills to the optimum level, lack of supervision and support, self-fulfillment in other sphere of life, lack of professional development and responding to unforeseen event were reasons for their turnover decision.

Siti et al (2019) examined the job stress related consequences and observed a significant positive influence of role ambiguity on job stress. Similarly job stress had significant positive impact on nurses' turnover intentions.

#### Leadership factors

Nursing leadership plays a crucial role in mentoring and empowering young nurses. Furtado, Batista & Silva (2011) indicated that sharing leadership styles promoted nurse retention. Similarly Hayward et al (2016) reported gaps in leadership support contributed significantly for nurses' turnover decision.

#### Organizational Factors

Cho, Lee and Kim (2015) observed that the small privately managed hospitals with less nurses per hundred beds showed higher nurse turnover rates compared to larger hospitals. Nantsupawat et al (2016) in another study in five university hospitals in Thailand observed that the university hospital nurses showed lower turnover rates.

## 2.5. Impact of Nurse Turnover

### 2.5.1. Patient care and outcome

Patient fall, medication error, length of hospital stay and patient satisfaction are the care outcomes parameters to measure quality of care. Stalpers et al (2015) reported lesser patient falls during favorable staffing hours in nursing units. MacPhee et al (2017) observed that there was an association of adverse patient outcome (patient fall, medication error and infections) with higher nurse work load. Hockenberry and Becker (2016) opined that increasing the number of registered nurses per bed resulted in higher overall patient satisfaction score.

### 2.5.2. Cost on Healthcare

Major impact of increased turnover is visible with increasing operational cost burdening the healthcare expenditure (Duffield et al 2014). Indirect cost includes compensation for medico-legal issues arising out of poor quality of care.

### 2.5.3. Organizational performance

Rajan D (2013), Dewato and Wardhani (2018) and Eric G (2018) reported service disruptions, loss of productivity, loss of reputation and brand image as the consequences of turnover.

Our study is based on the future research recommendations of an Indonesian study conducted by Dewanto and Wardhani in 2018. This study analyzed the causes and consequences of nurse turnover in private hospitals in Indonesia based on the hospital managers perspective. Our study intends to understand the nurses' perspective on determinants and consequences of nurse turnover in an attempt to demystify the nurse turnover problem as nurses are the primary stakeholders in their turnover decision.

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## 3. Research Methodology

### 3.1. Study design

This study adopted a deductive approach. It is an explanatory causal research. This quantitative study involved survey method to collect primary data from the study participants.

### 3.2. Study Population

Study population included licensed nurses and nurse managers working in private hospital in UAE. Study sample was probabilistic type. Nurses and nurse managers of accident and emergency, Labour and delivery, NICU, ICU, Operation theatre, Medical and surgical wards were chosen on voluntary basis

### 3.3. Methodology

Institutional approval for the study was sought from the concerned authorities prior to the conduct of the proposed research. Two Questionnaires were designed for the survey. Questionnaire 1 was designed for nurses working in the above clinical care units whereas Questionnaire 2 was designed for Nurse Managers of these care units/ hospital. The Questionnaires comprised of structured close-ended and open-ended questions pertinent to nurse turnover ranging from demographics, nurses and nurse manager's views on nurse turnover, turnover intentions, reasons for turnover intentions. The patient outcome measures like patient fall, medication error and patient satisfaction scores for nursing services were included to assess the impact of nurse turnover on patient care. The designed questionnaires were pilot tested and then sent to all nurses and nurse managers of the selected patient care areas.

### 3.4. Sample size

Total of seventy nurses responded (response rate of sixty eight percent) and twenty three nurse managers responded (response rate of ninety two percent) for survey.

### 3.5. Statistical methodology

Collected data were analyzed using SPSS 26 version. Descriptive statistics such as median, minimum, maximum, range of scores were calculated. To determine the association, Chi-Squares test is used. Testing the median of two groups, Wilcoxon rank sum test is used and for more than two groups Kruskal Wallis test is used.

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## 4. Results

The demographic profile of nurses and nurse managers participated in the study is reflected in Table 1 A and Table 1B respectively. Among study participant 92.9% of nurses and 95.7% nurse managers are of the view that the nurse turnover in the hospital has increased for the past one year. Majority of the nurse managers (87%) agreed that the nurse to patient ratio is not optimal in nursing units and 95.7% respondents endorsed the view that they face nurse shortage in their respective units/department. Similarly all nurses except one opined that nurse turnover results in nurse shortage and disturbs staffing practices in the unit. Increased turnover increases workload on existing nurses, reduced quality of nursing care and increases the chances of professional errors (95.7%).

**Table 1 A** Profile of Nurse Respondents

S.No	Variable	Category	Frequency	Percentage
1	Age Group	21-30 years	9	12.9
		31-40 years	52	74.3
		41-50 years	9	12.9
2	Gender	Female	64	91.4
		Male	6	8.6
3	Marital status	Married	70	100.0
		Unmarried	-	-
4	Educational Qualification	Diploma in Nursing	35	50.0
		BSc Nursing	34	48.6
		MSc Nursing	1	1.4
5	Work experience	Less than 2 years	10	14.3
		2 -5 years	9	12.9
		5-10 years	37	52.9
		More than 10 years	14	20.0
6	Work unit	Emergency(ER)	11	15.7
		Intensive care(ICU)	4	5.7
		Labour and Delivery(LDR)	10	14.3
		Neonatal intensive care(NICU)	6	8.6
		Operation theatre(OT)	20	28.6
		Ward	19	27.1
6	Dependents	Yes	59	84.3
		No	11	15.7

**Table 1 B** Profile of Nurse Manager Respondents

S.No	Variable	Category	Frequency	Percentage
1	Age Group	21-30 years	5	21.7
		31-40 years	13	56.5
		41-50 years	21.7	21.7
2	Gender	Female	18	78.3
		Male	5	21.7
3	Marital status	Married	23	100.0
		Unmarried	-	-
4	Educational Qualification	Diploma in Nursing	15	65.2
		BSc Nursing	5	21.7
		MSc Nursing	3	13.0

5	Work experience	2 -5 years	6	26.1
		5-10 years	10	43.5
		Less than 2 years	1	4.3
		More than 10 years	6	26.1

**Table 2** Nurses intention to leave hospital

Variable	Category	Frequency	Percentage
Nurse intention to leave the hospital	Yes	48	69.6
	No	21	30.4
	Total	69	100.0

More than two thirds of nurse participants (69.6%) currently working in the hospital showed intention to leave the hospital (Table 2). Remaining nurses are either unsure of their decision at the time of survey or had the intention to continue working.

Nurses were asked about the possible reasons for their intention to leave with 5 item questions which focused on job satisfaction and 4 item questions on work load/work stress. (Table 3)

**Table 3** Determinants of Nurse Turnover

Reasons for Turnover intention			Likert scale						
			Strongly disagree	Dis agree	Neutral	Agree	Strongly agree	Total	
Job satisfaction	High individual work load	Frequency	-	1	6	16	46	69	
		Percentage	-	1.4	8.7	23.2	66.7	100	
	Lack of support from supervisor	Frequency	6	10	12	19	22	69	
		Percentage	8.7	14.5	17.4	27.5	31.9	100	
	Leaders lack of concern	Frequency	5	2	12	18	32	69	
		Percentage	7.2	2.9	17.4	26.1	46.4	100	
	Low compensation	Frequency	3	5	7	13	41	69	
		Percentage	4.3	7.2	10.1	18.8	59.4	100	
	Lack of hospital's commitment to quality care	Frequency	8	8	14	15	24	69	
		Percentage	11.6	11.6	20.3	21.7	34.8	100	
	Work load / Work stress	Higher work load due to nurse shortage	Frequency	-	4	1	4	60	69
			Percentage	-	5.8	1.4	5.8	87	100
Frequent change of work unit		Frequency	14	12	6	14	23	69	
		Percentage	20.3	17.4	8.7	20.3	33.3	100	
Time pressure and deadline		Frequency	3	3	8	18	37	69	
		Percentage	4.3	4.3	11.6	26.1	53.6	100	
Unrealistic expectations by seniors		Frequency	2	8	10	24	25	69	
		Percentage	2.9	11.6	14.5	34.8	36.2	100	

**4.1. Job satisfaction**

Job dissatisfaction of 89.9% was reported of which higher individual workload, lack of supervisory support (59.4%) and leadership support(72.5%) and lower perks and benefits (78.2%) as contributory factors.

**4.2. Workload/Work stress**

**Table 4** Association of Nurse Turnover intention with job satisfaction and work load

Intention to Leave		Job dissatisfaction	Work load
No	Median	11.0000	10.0000
	Minimum	1.00	2.00
	Maximum	16.00	15.00
	Range	15.00	13.00
	N	21	21
Yes	Median	15.0000	14.0000
	Minimum	5.00	5.00
	Maximum	16.00	16.00
	Range	11.00	11.00
	N	48	48
Total	Median	13.0000	12.0000
	Minimum	1.00	2.00
	Maximum	16.00	16.00
	Range	15.00	14.00
	N	69	69
	P value	<0.01	<0.001

Impact of nurse turnover on nurse outcome and patient care outcome were analyzed. (Table 5).

**Table 5** Impact of Nurse turnover

Impact of Nurse turnover			Nurses		Nurse Managers		
			Agree	Disagree	Agree	Disagree	
Impact on nurse job outcome	Results in nurse shortage & disturbs staffing	Frequency	68	1	23	-	
		Percentage	98.6	1.4	100	-	
	Increases workload /burnout on existing nurses	Frequency	68	1	22	1	
		Percentage	98.6	1.4	95.7	4.3	
	Increased professional errors & reduced nursing quality care	Frequency	66	3	23	-	
		Percentage	95.7	4.3	100	-	
	Newly joined nurses take longer time to adopt/Disrupts service	Frequency	60	9	8	15	
		Percentage	87.1	12.9	34.8	65.2	
		Increase in patient safety related incidents	Frequency	6	63	7	16

Impact on patient care outcome		Percentage	8.6	91.4	30.4	69.6
	Noncompliance to Patient safety goals/ standards	Frequency	22	47	6	17
		Percentage	32.9	67.1	26.1	73.9
	Increase in patient complaints	Frequency	63	5	23	-
		Percentage	92.9	7.1	100	-
	Patient satisfaction score decreased	Frequency	55	14	22	1
Percentage		80	20	95.7	4.3	

Nursing shortage is the key contributors for higher workload as observed by 92.8% nurses. 79.7% felt they had to work under time pressure, unrealistic work expectations from their seniors (71%) and burnout(95.7%). Correlation of nurse profile characteristics (age, gender, education, working unit, dependent children) against their intention to leave were analyzed with Chi-square test and Fisher extraction test with no statistically significant association. But job dissatisfaction and work load were significantly ( $p$  value  $<0.01$  and  $<0.001$  respectively) associated with their intention to leave the organization (Table 4).

Both nurses and nurse managers broadly had similar views on the negative impact of higher nurse turnover and adverse patient care outcomes.

## 5. Discussion

Our study witnessed higher nurse turnover in the hospital in the past one year. This observation is similar to the global trend as documented in various other studies. Our study revealed that higher turnover led to nurse shortage. Nurse to patient ratio were not optimal. Frequent change of working units resulted in impaired team work and added work stress. Study revealed that more than two thirds of the nurses had an intention to leave their current job.

### 5.1. Determinants of Nurse Turnover

Nurse profile variables had no association with nurses' intentions to leave the job and also endorsed by similar study by Dasgupta (2015). Contrary to these Dewanto & Wardhani (2018) observed that young age ( $<30$  years), nurses who are single and with lower job tenure showed higher turnover intention. Similarly Osuji et al (2014) observed higher age, higher educational qualifications and longer work experience showed a negative correlation with turnover intention. Yang et al (2017) witnessed higher nurse turnover among higher age group (30-39 years) nurses.

The primary drivers and key determinants for higher nurse turnover intentions observed in the our study were job dissatisfaction, work load and work stress /burnout. Halter M (2017); MacPhee, Dahinten & Have (2017), Yang et al (2017), Dewanto & Wardhani (2018) and Siti et al (2019) reported similar findings.

Interesting observation of our study was that almost two thirds of the nurse managers had diploma as educational qualification compared to half of the nurse participants. This disparity makes it evident that some nurses with higher educational qualification (bachelor and master degree) had to work under less qualified supervisors. This might be a contributing factor for nurses' dissatisfaction as generally no nurse prefers to work under less qualified and less competent supervisor or nurse manager. This factor gets augmented with more and more highly qualified nurses entering nurse work force in future.

Ineffective nursing leadership can significantly drive the nurse turnover as most of job leavers attribute their decision to un-accommodative behavior of their supervisors.

Our study identified the gaps in leadership/managerial support to nurses causing stress and burnouts. Hayward et al (2016) documented similar observations. Additionally author reported occupational stress depending on the unit to which they are assigned to. Nurses in higher patient acuity showed higher stress and reported higher turnover intentions however our study did not find any such correlation.



## 5.2. Impact of Nurse Turnover on patient care/patient outcome

Present study clearly showed two important aspects which can impact the patient care and outcome. One is the direct impact of nurse turnover on patient outcome (patient safety and patient satisfaction). Second is the indirect patient care impact due to poor nurse job outcome resulting out of higher turnover.

### 5.2.1. Quality of nursing care

Our study observed that higher nurse turnover had an impact on overall nurse outcome. Increased work load and pressure reduces group cohesion, increases professional errors with reduction in quality nursing care.

### 5.2.2. Patient safety

Our study did not witness any significant increase in nurse reported patient safety related incidents like patient fall and medication error. But study did observe nurses inability to timely respond to patient calls which can compromise patient safety however various studies in literature by MacPhee, Dahinten & Have (2017), Van Bogaert et al (2014) have reported higher patient fall rates and higher medication errors.

### 5.2.3. Patient satisfaction

Patient experience and satisfaction are the most important key performance indicators for the healthcare industry and are reflective of patient care outcome. It gains more relevance in this contemporary competitive business environment. Our study observed significant reduction in patient satisfaction score for nursing care services in the hospital. Similar observations were made by Van Bogaert et al (2014) and Stimpfel, Sloane & Aiken (2012). Our study focused on measures to overcome the problem of nurse turnover. Nurse Managers strongly suggested to correct nurse shortage and increase the job satisfaction

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## 6. Conclusion

Nurse turnover continues to be a burning healthcare problem in spite of well-known ill effects of the same. Our study made an attempt to give an insight into the regional perspective of a global health care issue. This study revealed increasing workload, job stress, burnout, lack of leadership support all leading to job dissatisfaction as key factors in turnover decision. Lack of conducive work environment, competent leadership, weaning desire to create organizational commitment are the driving forces for higher nurse turnover intentions. Current Instability of nursing workforce implies adverse impacts on patient care and should be viewed as an eye opener towards deteriorating quality of care in private setup. Patient satisfaction which is the true reflection of overall patient care is showing a declining trend in our study. This is concerning and adds no value to our customers. Corrective and preventive steps by healthcare administrators and policy makers are urgently needed to minimize the damage and save the brand image and organizational reputation.

### *Limitations of the study*

The sample size in the study was small and also not representative of all private hospitals in United Arab Emirates. This hospital being a teaching hospital affiliated to a medical university may had some confounding factors affecting nurse work environment. It is crucial to further examine the process and outcomes associated with nurse turnover through larger trials to effectively articulate better remedial measures to be undertaken by healthcare administrators.

### *Recommendations*

Healthcare administrators should develop a multi-pronged approach to deal with issues related to nurse turnover. The strategy should involve short term actions coupled with long term measures. Long term strategic steps should include

Administrative actions should include creating organizational culture, commitment and conducive work environment aimed to enhance staff satisfaction. (Refreshment facilities, creche facilities, medical insurance cover etc)

### *Human resource intervention*

Manpower planning and recruitment system should be robust with talent acquisition focusing on offering competitive benefits and compensation. Nurse engagement with rewards/recognition. training/growth opportunities, facilitate retention.

### *Nurse leaders intervention*

Nurse managers should be chosen based on higher educational qualification, experience and competency with a better understanding of human relations to play mentoring role.

These combined and continued efforts are expected to bear fruits in long run and help healthcare leaders to address the global issue of nurse turnover.

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### **Compliance with ethical standards**

#### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

#### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

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### Authors short biography



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