Quality of Immediate Postoperative Nursing Care for Patients in Public and Private Hospitals in Erbil City, Iraq- Comparative Study

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ABSTRACT

Background and objective: The 1 to 2 hours for the first 24 hours after surgical operation is a crucial time to perform patient care. The study aimed to assess and compare quality of immediate post operation nursing care for patients undergoing surgeries in the public and private hospitals in Erbil City.

Methods: A comparative study design was conducted on non-probability and purposive sample of 106 nurses (53 nurses of public hospitals and 53 nurses from private hospitals) in the surgical unit in all public and some private hospitals in Erbil city. The data was collected between February and July, 2019 by direct observation and using an observational questionnaire.

Results: The majority of the nurses were young adults who had graduated from a nursing institute who were of middle income and lived in an urban area. The duration of experience as a nurse was between 1 to 10 years. The majority of the nurses (98.1%) in the public hospitals they practiced poor nursing care practice, while most of the nurses (69.8) in the private hospitals practiced good nursing care practices. Very high significant difference found between immediate post operation nursing care in public and private hospitals (P <0.000).

Conclusion: The study concluded that; postoperative nursing care is very important to improve health services, but the quality of the nursing care in the public hospitals as a generally was very poor when compared with the private hospitals. We recommended improving their skills by implementation job description, opening training course and monitoring of the nurses as well as awareness and follow-up.

Keywords: Quality of Immediate Postoperative; Nursing Care; Patient; Public Hospitals; Private Hospitals.

INTRODUCTION

The postoperative time period is a critical phase that requires a highly standardized measure of care, starts where patients are admitted to the post anesthesia care unit (PACU) or a nursing unit and ends with the patient's postoperative assessment in the physician's office after 24 hours [1]. The immediate postoperative nursing care starts when the patient is finished following the surgery and includes a short time that remain after PACU for around 1 to 2 hours [2]. The World Health Organization (WHO) defined quality of care as a process that conveying effective delivering health care and medical services for people and networks, in light of need [3]. Nurses provide the majority of immediate care for all the patients [4]. Since the 1970s, there is proof that nursing outstanding task is related with the nature of patients; also nurse can be offered the best quality level in serious consideration especially in intensive care and subsequently critical care units [5].The main role of nurse

immediately after surgical operation are transferred patient from the operation room to the PACU, and doing critical care that includes maintaining an intact surgical incision, monitoring for potential vascular changes, keeping the patients temperature, positioning of the patient, drains do not closed, and the vital signs are also very important [6]. The fundamental job of nursing care is centered around or dependent on the patients' vital signs, torment evaluation, focal venous weight, implantation rates and hourly pee yield [7], and agony evaluation and dispensing medications [8]. A descriptive study about quality nursing care as perceived by patients in China were found that most of patients (83.69%) they had good perceptions about quality nursing care [9]. Another cross-sectional study was conducted at Kenyatta National Hospital showed that most members (40.5%) showed that they had a good perception of the nursing care and [10]. Also another study that conducted to explore patients' opinions of nursing care and to identify predictors of patients' experiences of nursing care on 225 adult patients in medical-surgical in Jordan, The encounters of nursing care all out score in this examination were relatively high 74% [11]. The immediate postoperative period is a critical phase of operation, because the patient requires closely monitoring and nurses can provide cares to patients to facilitate good operative outcomes and decrease the risks of post-operative complications. Poor nursing care after operation in the hospitals lead to high re-hospitalization rates, complications and in some situations due to the death. For those reasons, this study assesses the immediate post-operation nursing care in the public and private hospitals in Erbil City.

METHODS

This direct observation and comparative study was conducted in all public and some private hospitals in Erbil City/ Kurdistan Region from February to July, 2019 by using a direct observation of the nurses during immediate post operation. The data was collected from 106 nurses who were doing immediate postoperative care. Inclusion criteria included nurses who were worked in surgical ward during morning shifts who provided post-operative nursing care. This study excluded all the nurses who were worked in the kidney transplantation unit. This study was approved by the Scientific and Ethics Committee of the College of Nursing at Hawler Medical University. Institutional approval for conducting the study was also obtained from General Directorate of Health in Erbil to the public hospitals, and for private hospitals, permission was provided by college of nursing registration departments. The data was collected through direct observational method by using observational checklist for assessing the nurses during doing immediate postoperative care for the patients; each nurse was assessed by observation individually, the questionnaire of the study consists of two parts based on the research objectives which are; socioeconomic data sheet (age, sex, marital status, educational level, economic status, residential area, duration of experience in nursing, duration of experience as a nurse in surgical ward, training course related to postoperative nursing care and how many hours doing training course), take those information after observed the nurse from post operation procedure. The observational checklist for immediate postoperative nursing care which consisted of 36 observational procedure items with two options: achieved (doing the procedure) and not achieved (not doing the procedure),

which was divided in to three actions steps including: pre-procedure actions, intra-procedure actions, and post-procedure actions. Intra-procedure actions were divided into some subscales as followed; vital signs, neurological assessment, wound care, check intake and output and medication. This observational procedure scale was developed and organized by two references; first WHO Department of Essential Health Technologies; Clinical Procedures Unit (WHO/EHT/CPR) 2004 reformatted 2007, with the aim of creating strategic choices in the health systems [2, 12], second one developed by Lynn and LeBon in the 2011 that organized procedures Skill Checklists for Taylor's Clinical Nursing Skills (A NURSING PROCESS APPROACH) [13], those references are the same procedures that used in our hospitals (public and private hospitals) for caring patients post operation. The age group of the nurses was categorized as: 18 - 35 Years Old (Young Adult), 36 - 55 Years Old (Middle-Aged Adults) and 56 Years Old and above (Older Adult), but the range of the participants nurses of the study between 21- 55 years old. Regarding the observational check list, 36 items of questionnaire divided into three categories 'Poor practice', 'Fair practice' and 'Good practice.' To calculate overall practice, the score of poor practice ranged from 0-12, Fair practice ranged from 13-24 and good practice' ranged from 25- 6. The data was analyzed by using the Statistical Package for Social Sciences (SPSS, Version 23), by applying two statistical approaches: Descriptive data analysis (frequency and percentage) and for comparative between both types of hospitals used independent samples t- test, mean and standard deviation, mean difference, 95% Confidence Interval of the Difference. For comparing between both hospitals regarding the immediate post operation nursing care used A P-value of ≤ 0.05

was considered statistically significant.

RESULTS

Table 1 shows socioeconomic characteristics of 106 nurses in private and public hospitals; regarding age group, it was ranged between 21-55 years old, in public hospitals nearly half of the of participants were young adults (52.8%), while in private hospitals nearly all of participants were young adults (98.1%). In public hospitals, most participants (56.6%) were males, but in private most (62.3%) were females. In public hospitals, the majority of participants (90.6%) were married, but in the private ones, 50.9% were single. The majority of participants in both hospitals had graduated from Institute of nursing in the public 75.5% and in the private 71.7%. About income, majority of the nurses in both hospitals were in the level of middle income (public= 86.8%, private 81.1%). Most (90.6%) nurses in the both type of hospitals lived in an urban area. In public hospitals, less than half of participants (47.2%) had 1 -10 years of experience, while in private, the majority of participants (90.6%) had 1-10 years of experience. In public hospitals, less than half of them (47.2%) had 6-10 years of experience, while nurses in the private majority of them (88.7%) had 1-5 years of experience. Finally about training course related to postoperative nursing care which shows; in public hospitals, most (92.5%) hadn't completed any training course, but in private hospitals, half (56.6%) hadn't completed any training course, and only 47.8% nurses in private hospitals had completed a course of up to five hours. Table 2 explores the quality of immediate post-operation nursing care action in public and private hospitals. All nurses in public hospitals performed poorly practice while, in the private hospitals, above half of the nurses (52.8%) performed fairly.

All nurses in public hospitals performed taking of vital signs poorly (100%), but in the private hospitals, the majority of the nurses (69.8%) good performed the practice well. Regarding neurological assessment, the majority of the participants in public hospitals (84.9%) performed poorly, while the nurses in the private hospitals performed well (77%). Regarding wound care; in public hospitals, the majority of participants (73.6%) performed poorly, and in private hospitals, the majority of participants (98.1%) performed well.

Regarding checking intake and output of the patients 56.6% of nurses in the public hospitals performed poorly, and all of the nurses in the private hospitals (100%) performed well. Regarding dismemberment of medication in both types of hospitals, nurses performed well. Finally the last actions which include post procedure actions; all of the nurses in the public hospitals (100%) performed poorly, but in private hospitals the majority of participants (66%) performed well.

Table 1: Socioeconomic Characteristics of the Nurses

Socioeconomic characteristics		Type of Hospital			
		Public n=53		Private n=53	
		F	(%)	F	(%)
Age group (years)	21-35 (Young Adult)	28	(52.8)	52	(98.1)
	36-55 (Middle-Aged Adults)	25	(47.2)	1	(1.9)
Gender	Male	30	(56.6)	20	(37.7)
	Female	23	(43.4)	33	(62.3)
Marital status	Single	5	(9.4)	27	(50.9)
	Married	48	(90.6)	26	(49.1)
Educational levels	Preparatory of Nursing school graduated	11	(20.8)	0	(0)
	Institute of Nursing graduated	40	(75.5)	38	(71.7)
	College of Nursing graduated	2	(3.8)	15	(28.3)
Economic status	Low income	4	(7.5)	10	(18.9)
	Middle income	46	(86.8)	43	(81.1)
	High income	3	(5.7)	0	(0)
Residential area	Urban	48	(90.6)	48	(90.6)
	Sub urban	5	(9.4)	5	(9.4)
Duration of experience in nursing (years)	1-10	25	(47.2)	48	(90.6)
	11-20	19	(35.8)	4	(7.5)
	21-30	9	(17)	1	(1.9)
Duration of experience in surgical word (years)	1-5	8	(15.1)	47	(88.7)
	6-10	25	(47.2)	6	(11.3)
	11-15	15	(28.3)	0	(0)
	16-20	5	(9.4)	0	(0)
Did you do any training course related to post operation nursing care	Yes	4	(7.5)	23	(43.4)
	No	49	(92.5)	30	(56.6)
	1-5	0	(0)	11	(47.8)
(If yes) How many hours did you do training (*No.=4, 23)	6-10	3	(75)	6	(26.1)
	11-15	1	(25)	3	(13)
	16-20	0	(0)	3	(13)
Total		**53**	**(100)**	**53**	**(100)**

Table 2: Quality of immediate post operation nursing care in public and private hospital

Main domain of item		Type of Hospital			
		Public		Private	
		F	(%)	F	(%)
Pre procedure actions	Poor Practice	53	(100)	13	(24.5)
	Fair Practice	0	(0)	28	(52.8)
	Good Practice	0	(0)	12	(22.6)
Intra procedure actions					
A- Vital signs	Poor Practice	53	(100)	0	(0)
	Fair Practice	0	(0)	16	(30.2)
	Good Practice	0	(0)	37	(69.8)
B- Neurological assessment	Poor Practice	45	(84.9)	2	(3.8)
	Fair Practice	6	(11.3)	10	(18.9)
	Good Practice	2	(3.8)	41	(77.4)
C- Wound care	Poor Practice	39	(73.6)	1	(1.9)
	Fair Practice	9	(17)	0	(0)
	Good Practice	5	(9.4)	52	(98.1)
D- Check intake and output	Poor Practice	30	(56.6)	0	(0)
	Fair Practice	12	(22.6)	0	(0)
	Good Practice	11	(20.8)	53	(100)
E- Medication	Poor Practice	0	(0)	0	(0)
	Fair Practice	4	(7.5)	0	(0)
	Good Practice	49	(92.5)	53	(100)
Post procedure actions	Poor Practice	53	(100)	3	(5.7)
	Fair Practice	0	(0)	15	(28.3)
	Good Practice	0	(0)	35	(66)

Table 3 illustrates the overall immediate post operation nursing care practice in public and private hospitals. Nearly all nurses in the public hospitals provided poor nursing care practice for patients immediately after operation. In private hospitals most of the nurses (69.8%) performed well. Table 4 compares quality of care between both public and private hospitals regarding immediate post operation nursing care practice; the mean and standard deviation of public hospitals were 3.792 ± 2.213, while the mean and standard deviation of private hospitals were 26.23 ± 3.528. The mean difference between public and private hospitals was (-22.434). The confidence interval of the difference practice of the nurses lower was -18.147 and the upper was -12.519. The difference in quality between the two types of hospitals varied significantly (P <0.001).

Table 3: Level of immediate post operation nursing care

Level of nursing care	Type of Hospital			
	Public		Private	
	F	(%)	F	(%)
Poor Practice	52	(98.1)	0	(0)
Fair Practice	1	(1.9)	16	(30.2)
Good Practice	0	(0)	37	(69.8)
Total	**53**	**(100)**	**53**	**(100)**

Table 4: Comparative between public and private hospitals regarding immediate post operation nursing care practice

Total Practices of the nurses	Public *M ± SD	Private M ± SD	Mean Difference	95% Confidence Interval of the Difference		P value
				Lower	Upper	< 0.001 **VHS
	3.792± 2.213	26.23± 3.528	-22.434	-23.568	-21.299	

*M±SD= Mean and Standard Deviation.

**VHS= Very Highly Significant.

DISCUSSION

This study observed and compares immediate post operation nursing in public and private hospitals in Erbil City. The monitoring and caring of the patient is the one of the main duties of the nurse [14]. When nurses neglect to provide care, there are opportunities for post-operation complications, including postoperative morbidity and mortality [15]. The main fact that was founded in the table two; was about the quality of immediate post operation nursing care in both hospitals as a domain; as a generally the nurses in the public hospitals in general domain they were done poor practice except in the medication domain, but nurses in the private hospitals in general domain they were done good practice except in the pre procedure actions domain they were done fair practice, the reasons behind that, could be because of the policy of hospitals; in the private hospitals distributes the job description between the health staff, so the nurses in the private they were done mostly of immediate post operation care, while in the public hospitals most of the immediate post operation care done by the physicians because of in the public hospitals they was no any distributes of the job description between the health staff. The result was unsupported by cross-sectional study that conducted in Nairobi, Kenya about Examining Surgical Patients' Expectations of Nursing Care which was finding that there was good care present for postoperative patients [16]. The result of the study regarding intra-procedure actions in public hospitals performed taking of vital signs poorly, but in the private hospitals, performed the practice well, the result was supported by cross sectional study that conducted by Serra et al. 2015, about nursing care in the immediate postoperative period, it was observed that nursing care is not fully offered

in the different physiological systems [17]. Regarding neurological assessment majority of nurses in public hospital achieved poor practice while in private hospitals the majority of nurses achieved fair practice; the result was supported by the study of postoperative pain assessment in hospitalized patients National survey and secondary data analysis which suggests that the implementation of measuring pain in hospitals is still insufficient [18]. Regarding wound care parts majority of the nurses in public hospital was done poor practice, while in private hospitals the majority of nurses they do good practice, this result was supported by that study of Maurya and Mendhe in the Maharashtra, India; which was showed in their study the nurses in the private hospitals performed good practice for wound after operation [19]. About medication, majority of nurses in both public and private hospitals was performed good practice, the result was similar of the cross sectional study in Tigray, Ethiopia; the quality of nursing care generally in the high level during medicine administration in public and private hospitals [20]. Regarding last part, post procedure actions, majority of nurses in private they were performed good practice while in public hospitals they were do poor practice, this result, partially supported by the descriptive study of Merkouris et al, in Cyprus, which founded overall patients they were satisfied with the post operation nursing care in their hospitals [21].As a generally, all of the nurses in the public hospitals they were done poor nursing care for patients immediately after operation, while mostly nurses in the private hospitals they were done good nursing care practice, the main standpoint of researcher behind these results was some point; majority of the nurses in the private hospitals younger than the nurses in the public hospitals, so the younger person are

more active than the older one. This result was agreed with the previous Cross sectional study that conducted by Serra et al. 2015; majority of the nurses that was participated in their study young and very active during post operation [17]. Also the result was supported by descriptive study that conducted in selected private and public hospitals at Ludhiana, Punjab; it was founded the majority of the patient satisfaction with nursing care score was significantly higher in private hospitals as compared to public hospitals [22]. Another reason could be the different point in the marital status, majority of the nurses in the public hospital was married, but nearly half of percentage of the nurses in the private was single, so the married person in our society was more devoir in general sector of the life than the un married persons, so the devoir persons are less than active than the other. The result was supported by the descriptive study that conducted by the Devi and Saju among staff nurses and the nursing students in Narayana Medical College Hospital, Nellore, they were explore socioeconomic character such as educational status, age, sex and year of experiences was significantly associated for increasing level of knowledge as well as source of information, association with it in the other hand [23]. So the researcher commented on that was additional factored may be affected; was about training course related to postoperative nursing care which was founded in the table one; most of the nurses in the private hospital was participated training course, while very low percentage of the nurses in the public hospitals doing training course. This result was supported by the descriptive study that conducted by Qadir and Younis in the Erbil City; There was a significant relationship was founded between the levels of quality of nursing care with age, gender, levels of education, nurse's experience and

participation of nurse in training [24]. While the result of the study disagree with the cross-sectional survey study that conducted by Rahman et al on 652 nurses in Kedah, Malaysia, that working in the medical and surgical wards in 12 private hospitals, reported in their study; Nurses with higher education were not significantly associated with both quality of care and patient safety [25]. Another main reason could be about the style of working in the hospitals, generally the nurses in public hospital was formal employed (permanent) they do not get the sack if they neglected or don't doing work well, but the nurses in the private hospital was temporary employed if they do well work they became continuing on work contrarily may become get the sack. Also another important thing behind this reason the nurses in the private hospital are continuously invigilated on them if they don't work well also get the sack or punished, per contra that, the nurses in the public hospital very rarely invigilated. The other cause could be due to certification of the nurses. Some of the nurses in the private hospitals had graduated from nursing colleges, while the majority public hospital nurses graduated from nursing institute, this result was supported by the Doctoral dissertation study of Wulff 2019; majority of public nurses was less actives because of graduated majority nurses from institute [26]. Regarding mean difference that illustrated in this table, there were founded that the practice of the nurses from private hospitals larger than the practice of the nurses from public hospital, so the result was explored as a minus, because of practice minus private the results became minus. Also very high significant relationship was founded between public and private hospitals, because the practice of post operation nursing care from private was more than from the public. Silva et al,

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reported in their study; nursing care should be developed in immediate post-operative period with quality and competence by nurses and all team [27]. The result was supported by a comparative study in Cyprus that about assessment of patients' satisfaction with care provided in public and private hospitals, which show, those patients hospitalized in private hospitals seem to be more satisfied than those who were admitted to the public hospital [28].

CONCLUSION

While the quality of postoperative nursing care is important, the quality of immediate post operation nursing care in the public hospitals in Erbil city is insufficient. To improve quality in the public hospitals, high quality guidelines regarding post operation nursing care should be implemented. Finally monitoring the nurses during any procedure, especially post operation practice are very important, as well as should be implemented policy program for awareness and punishment.

CONFLICTS OF INTEREST

The author declares no any conflicts of interest.

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