

A study to assess the attitude of operation theatre nurses towards nursing competencies required in the post anaesthesia recovery room in selected hospitals of Shillong, Meghalaya

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Abstract

The immediate postoperative period (first 24 hours) is a vulnerable period when surgical patients, even a relatively healthy patient undergo many significant changes. In order to prevent complications in this critical period it was recommended that the patient remain in a specific unit under observation and constant care of the nursing team until there is recovery of consciousness, return of reflexes and stabilization of vital signs. Thus, the recovery unit should be staffed by nurses who have necessary competencies and able to solve problems commonly encountered post operatively.

The primary objective of the present study was to assess the attitude of the Operation Theatre nurses towards nursing competencies required in the post anaesthesia recovery room.

The present cross-sectional study was conducted among the Operation Theatre nurses of selected hospitals of Shillong, Meghalaya using the total enumeration sampling technique from 25th April-21st May 2022. A total of 109 nurses participated in the study. Data

collection was done using 5-point Likert scale. The data collected from the participants was entered in excel sheet and was analyzed using Statistical Package for Social Sciences (SPSS).

The result of the study showed that out of the 109 Operation Theatre nurses who participated in the study, 64(58.7%) had favorable attitude and 45 (41.3%) had unfavorable attitude towards nursing competencies required in the recovery room.

There was an association between attitude score of the participants with their age, total working experience, and working experience Operation Theatre of the participants at 0.05 level of significance.

As most of the nurses possess a positive attitude towards nursing competencies required in the recovery room, it can be concluded that nurses consider nursing care and skills in the recovery room to be important.

However, further research in this area is recommended.

Keywords: Attitude, Operation Theatre nurses, Post anaesthesia recovery room, Meghalaya.

Introduction

Nurses are globally recognised by the care they provide to their patients. They are often described as serving on the frontlines of healthcare ⁽¹⁾. The immediate postoperative period (first 24 hours) is a vulnerable period when surgical patients, even relatively healthy patients could undergo many significant changes ⁽²⁾.

During this period, the patient is managed by the multi-professional team comprising the anesthesiologist, the nurse, the nursing technician, and the nursing assistants ⁽³⁾.

Advancement in anaesthesia and surgery have contributed significantly to the fall in morbidity and mortality but life-threatening complications (25%) and death (0.5% to 5%) still occur during the recovery phase of postoperative care ⁽⁴⁾.

In order to prevent complications during this critical period it has been recommended that the patient remain in a specific unit under the observation and constant care of the nursing team until there is recovery of consciousness, return of reflexes and stabilization of vital signs ⁽¹⁾.

The nurses posted in the recovery room are usually the same staff employed in the Operation Theatre. For this reason, the staffing of the recovery room may lack qualified and skilled nurses since they are also involved in assisting the surgeon during the intra-operative period. In such instances, the care of postoperative patients falls into the hands of nursing students, nursing interns or fresh graduates who possess little to no knowledge of nursing care to be provided to such patients.

They might even fail to identify life threatening complications which might arise in these patients during the recovery period. The researcher assumes that such an event might occur due to nurses' misperception and lack

of concern towards the importance of nursing competencies in the recovery room.

Although many studies have been conducted to assess the knowledge of nurses regarding the management of postoperative complications in India and around the world, no relevant literature related to the attitude, beliefs or views of nurses with regards to the importance of nursing competencies in the recovery room could be identified. Hence, this study was undertaken with the following objectives:

Primary objective

1. To assess the attitude of Operation Theatre nurses towards nursing competencies required in the post anaesthesia recovery room in selected hospitals of Shillong, Meghalaya.

Secondary objectives

1. To determine the association between the selected demographic variables and attitude of the Operation Theatre nurses.

Materials and methods

A Quantitative research approach with descriptive cross-sectional design was used for the study which was conducted in four hospitals of Shillong, Meghalaya from 25th April-21st May 2022.

The population of the present study comprised of registered nurses working in Operation Theatre of the selected hospitals. The Total census enumeration technique was used to employ the 109 nurses who participated in the study. Data were collected using a 5-point Likert scale which was developed to assess the attitude of Operation Theatre nurses towards nursing competencies required in the post anaesthesia recovery room.

The tool used for the study consisted of two sections: Section I consisted of items related to Socio-Demographic characteristics and Section II consisted of

an attitude scale regarding nursing competencies required in the post anaesthesia recovery room consisting of a total of 22 statements out of which 11 were positive statements and the other 11 statements were negative.

The attitude of the participants was scored as follows: Positive statements: 5 marks for strongly agree, 4 marks for agree, 3 marks for uncertain, 2 marks for disagree, 1 mark for strongly disagree. Negative statements: 5 marks for strongly disagree, 4 marks for disagree, 3 marks for uncertain, 2 marks for agree, 1 mark for strongly agree.

The content validity was established based on the expert opinion given by validators.

The tool was tested using Cronbach’s alpha test of reliability. The result of the test was found to be at 0.83 which indicates a good level of reliability of the tool. A pilot study was conducted prior to the final study and it was found that the study was feasible and could be carried out in the main setting as proposed.

Results

Analysis of the data was done based on the objectives of the study using descriptive (frequency and percentage) and inferential statistics (chi-square test).

Table 1: Frequency and Percentage distribution of the participants according to the socio - demo graphic characteristics. N=109.

Socio-demographic characteristics	Frequency (f)	Percentage (%)
Age (in years)		
20-30	33	30.3
31-40	43	39.4
41 and above	33	30.3
GENDER		
Female	95	87.2
Male	14	12.8
Educational		

qualification	74	67.9
GNM	20	18.3
B. Sc Nursing	15	13.8
P. B. Sc Nursing		
Working experience (in years)		
≤5	32	29.3
>5-10	30	27.5
>10-15	15	13.8
>15	32	29.3
Working experience in o.t (in years)		
≤1	20	18.3
>1-5	31	28.4
>5-10	28	25.7
>10-15	15	13.8
>15	15	13.8

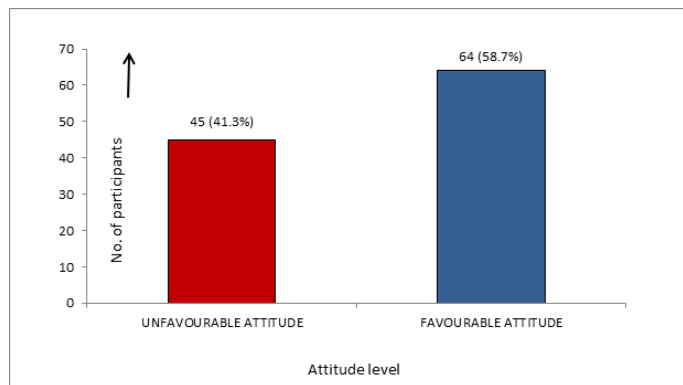
Table 2: Mean and standard deviation of attitude scores obtained by participants towards nursing competencies required in post anaesthesia recovery room N=109

Attitude score	Range of obtained scores	Mean	Standard deviation
Favorable attitude	93-110	92.44	7.5
Unfavorable attitude	0-92		

Table 2 shows the range of scores obtained by the participants out of the maximum possible score of 110. The Mean ± SD is 92.4±7.5 Attitude level was determined by comparing one’s attitude against the mean attitude score.

Attitude score of 93 and above is determined as a favorable attitude. Attitude score of less than 93 is considered as an unfavorable attitude.

Figure 1: A bar diagram showing the level of attitude of the participants towards nursing competencies required in the post anaesthesia recovery room. N=109



Majority of the participants 64(58.7%) had favorable attitude and 45 (41.3%) had unfavorable attitude towards nursing competencies required in the recovery room. (Figure 1)

Table 3: Distribution of mean scores on participants' attitude towards monitoring during the recovery period. N=109

Item	Mean ± SD
As a nurse taking care of patients in the recovery room I believe that all patients must pass through the recovery room irrespective of the type of anaesthesia or surgery.	4.3 ± 0.8
The nurse posted in the recovery room should not monitor the patient's ECG continuously as it is inessential.	3.7 ± 1.1
Nursing competency is required in the recovery room because the nurse has to focus on detecting any surgical complication along with his/her other responsibilities.	4.3 ± 0.9
Nursing competency is not required in the recovery room as every patient recovers from anaesthesia in a same	4.6 ± 0.5

process.	
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Table 4: Distribution of mean scores on participants' attitude towards assessment and management of post anaesthesia complications in the recovery room N=109

Item	mean ± SD
Basic Life Support is one important skill required in the recovery room.	4.3 ± 0.9
In order for a recovery room nurse to be able to take proper care of post anaesthesia patients knowledge of the Glasgow Coma Scale is not important.	4.2 ± 0.8
Recovery room nurses should be competent enough in order to be able to identify patients at risk of post-operative respiratory distress.	4.4 ± 0.8
Giving rescue breaths is one important skill recovery room nurses should have.	4.3 ± 0.8
It is not necessary for recovery room nurses to have knowledge about airway management.	4.5 ± 0.9
Skills in nursing management for nausea is unnecessary for nurses in the post-anaesthesia recovery room.	4.3 ± 0.6

Table 5: Distribution of mean scores on participants' attitude towards applied knowledge of pharmacology in post operative care. N=109

Item	Mean ± SD
Nursing competency such as knowledge about signs of side effects of general anaesthesia is not necessary in recovery room.	4.2 ± 0.7
Recovery room nurses should be able to ascertain that the patient has fully recovered from the effects of anaesthesia.	4.5 ± 0.7

Table 6: Distribution of mean scores on participants' attitude towards post-surgical care in the recovery room.

N=109

Item	Mean ± SD
Nursing competency such as proper documentation of relevant patient information is not necessary in the recovery room nurse.	4.3 ± 0.8
The recovery room nurse should be a nurse who has received training in post operative care.	3.9 ± 1.1
Nursing competency is not required in the recovery room as there is no drawback in sending post-operative patients to the ward right after anaesthesia.	4.3 ± 0.7
As a nurse taking care of post-anaesthesia patients I believe that post-operative patients must be accompanied by a nurse while being shifted from the Operation Theatre.	4 ± 0.9
Nursing competency is required in the recovery room so that the nurses are able to provide specific care to individual patient.	4.3 ± 0.6
It is of no harm for nurses in the recovery room to carry out verbal transfer of the patient's status from the	3.8 ± 1

Table 8: Association between the attitude of the participants towards nursing competencies required in the post anaesthesia recovery room and selected demographic characteristics. N=109.

Socio-Demographic characteristics	Attitude towards nursing competencies required in the post anaesthesia recovery room		Calculated Chi-square value	df	Table value	p-value
	Favorable attitude	Unfavorable attitude				
Age (in years)						
20- 30	11 (10.1%)	22 (20.2%)				

recovery room to the ward through phone.

Table 7: Distribution of mean scores on participants' attitude towards clinical leadership skills in post anaesthesia recovery room. N=109

Item	Mean ± SD
When nurses are posted in the recovery room they make clinical decisions based on their critical thinking.	3.2 ± 1.1
Nursing students can handle the post-anaesthesia recovery room on their own as the role of a better skilled nurse is minimal in that area.	4.3 ± 0.9
There is no necessity in having more than one nurse in the post anaesthesia recovery room.	3.8 ± 1.1
Peri anaesthesia nursing is an area that needs improvement.	4 ± 0.7

Table 3 (3.1 to 3.5) shows the distribution of mean scores of participants' attitude towards nursing competencies required in the post anaesthesia recovery room. The participants received the lowest score (3.2 ± 1.1) on the item 'When nurses are posted in the recovery room they make clinical decisions based on their critical thinking' whereas they received the highest score (4.6 ± 0.5) on the item 'Nursing competency is not required in the recovery room as every patient recovers from anaesthesia in a same process'.

31- 40	29 (26.6%)	14 (12.8%)	12.79	2	5.99	0.002*
41 and above	24 (22%)	9 (8.3%)				
Gender						
Female	59 (54.1%)	36 (33%)	3.50	1	3.84	0.06
Male	5 (4.6%)	9 (8.3%)				
Educational qualification						
GNM						
B. Sc Nursing	42 (38.5%)	32 (29.4%)	0.522	2	5.99	0.77
P. B. Sc Nursing	12 (11%)	8 (7.3%)				
	10 (9.2%)	5 (4.6%)				
Working experience (in years)						
≤5	12 (11%)	20 (18.3%)	11.35	3	7.81	0.01*
>5-10	19 (17.4%)	11 (10.1%)				
>10-15	8 (7.3%)	7 (6.42%)				
>15	25 (22.9%)	7 (6.42%)				
Working experience in O.T (in years)						
≤1	8 (7.33%)	12 (11%)	16.41	4	9.49	0.003*
>1-5	13 (11.9%)	18 (16.5%)				
>5-10	24 (22.01%)	4 (3.7%)				
>10-15	8 (7.33%)	7 (6.4%)				
>15	11 (10.1%)	4 (3.7%)				

Discussion

The present study indicated that 58.7% of nurses had a favorable attitude towards nursing competencies required in the post anaesthesia recovery room. Almost 45 out of 109 participants (41.3%) had an unfavorable attitude. In the study conducted in Brazil by Madeira MZ, Costa CP et. al, in 2013, ⁽¹⁾ nurses perceived nursing care in the recovery room as important and which influence the recovery and surgical safety of the patient.

The present study also indicated that 54 (49.5%) strongly agree that all patients must pass through the recovery room irrespective of the type of anaesthesia or surgery, 46 (42.2%) disagree with the statement which states

continuous E.C.G monitoring is not important in the recovery room. This finding is in contrast to the study conducted by Niyungeko D, Gasaba E, Ndayisaba A, et.al (2021) ⁽⁵⁾ in Africa where 87.8% did not respect the patients' monitoring interventions.

According to the study conducted by Madeira MZ, Costa CP et. al, (2013), ⁽¹⁾ in Brazil, nurses perceived the post anaesthesia recovery period as critical. Similarly, in this present study, the majority of the nurses had a positive attitude towards this matter as most of them agreed that recovery room nurses should be competent enough to handle any complication that might arise during that period and they should be able to manage airway

obstruction, identify respiratory distress, and detect any surgical complication.

The participants in the present study also believed that the recovery room should be staffed with an adequate number of nurses who have received training in post operative care. Similarly, Staroverov D, Ismailova R. (2009) ⁽²⁾ suggested that the recovery room should employ sufficiently trained staff in order to facilitate continuous one-to-one care of every patient in the recovery room. There were also evidences which suggested that nurse staffing affects the quality of care in hospitals especially in the recovery room where care is provided to critical patients. (Niyungeko D, Gasaba E, Ndayisaba A, et.al, 2021) ⁽⁵⁾

The majority of the participants (44% strongly agreed and 51.4% agreed) showed a positive attitude regarding the role of the nurse in the recovery room in detecting any surgical complication. Similarly, from the analysis of the study conducted by Madeira MZ, Costa CP et. al, (2013) ⁽¹⁾, it was found that the participants emphasize the importance of knowledge among nurses regarding the possible complications in the postoperative period.

Majority of the participants in the present study believed that peri-operative nursing is an area which needs improvement. This finding is similar to that of the study conducted in Africa by Niyungeko D, Gasaba E, Ndayisaba A, et.al, 2021 ⁽⁵⁾ where they revealed that nurses did not have adequate knowledge regarding nursing practice in the recovery room. They confirmed that the problem was due to a lack of in-service training, in-service guidelines and the spirit of research. The findings of Huyssteen T & Botha A (2004) ⁽⁶⁾ also revealed the knowledge of respondents about postoperative airway emergencies in adults was far below standard. They also stressed the need for in-service training to improve the quality of care provided to the

patient and to prevent any kind of risks that could occur due to a lack of knowledge.

Findings from India also revealed the same as seen through the study conducted by Tinaikar A, Anuradha G. (2019) ⁽⁷⁾ in Karnataka where they found out that 64% of nurses had adequate knowledge of post operative pain management. Empowering nurses through continuous development programs on post operative pain management was also recommended in their study to keep them updated with changing trends pertaining to the area.

In the present study, 60.6% of the nurses agreed and 36.7% strongly agreed that nursing competency is required in the recovery room so that the nurses are able to provide specific care to individual patient. This finding is similar to the study conducted in Brazil ⁽¹⁾ where the participants agreed that the implementation of nursing care according to the needs of the client influence in the recovery process of the individual undergoing the surgery in a significant way.

In the present study, 49.5 % of the participants agreed while 32.1% of the participants strongly agreed that post-operative patients must be accompanied by a nurse while being shifted from the Operation Theatre. This finding is similar to the study conducted by Madeira MZ, Costa CP et. al, (2013) ⁽¹⁾, where the participants stated that the patient can present with several peculiarities while being transferred from the Operation Theatre. It is quite a delicate period and requires qualified assistance of excellence on the part of the medical and nursing team.

Conclusion

The Post-aesthesia recovery period is critical and the unit is highly susceptible to adverse events. The study revealed that 58.7% of OT nurses had a favorable attitude and 41.3% had an unfavorable attitude towards nursing competencies required in the recovery room. As most of

the nurses possess a positive attitude towards nursing competencies required in the recovery room, it can be concluded that nurses consider nursing care and skills in the recovery room to be important. Further research can be done to assess the knowledge of the recovery room nurses on the management of Post-aesthesia complications. Further research can be done on assessing the competency level of the nurses posted in the recovery room. Research to evaluate the awareness of recovery room nurses on the presence of guidelines on Post-aesthesia nursing care could also be carried out. A comparative study could be conducted to compare the attitude of nurses working in recovery rooms of private hospitals and government hospitals.

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