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Medical Surgical Nursing

NURSING HANDOVER PRACTICES AMONG STAFF NURSES OF INTENSIVE CARE UNIT AT SELECTED HOSPITAL GUWAHATI ASSAM: AN EVALUATIVE STUDY

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ABSTRACT The nursing handover is a key moment for guaranteeing the continuity of care and the patient's safety. Poor communication information is the main possible factor and related risk factor for sentinel events.1 **Aims:** To assess the nursing handover practices among the staff nurses of ICU at selected hospital Guwahati, Assam. **Methodology:** Exploratory survey approach was adopted to assess the nursing handover practices among 60 staff nurses of ICU by using purposive sampling technique. **Results:** The study finding reveals satisfactory handover practices among staff nurses in ICU as majority of the findings showed 100%. The physical factors of the staff nurses also play an important role in the patient care. Regarding psychological factors, the present study also revealed that 91.97% of the staff nurses did not get rest at work place. Social factor also had an impact on the staff nurses. The finding related to the professional factor was satisfactory as majority of the aspects in it were fulfilled. **Conclusion:** Keeping in view with the findings it is recommended that regular educational programs and training to the staff nurses for developing the nursing handover.

KEYWORDS : Nursing handover, Practice, Staff nurses, Intensive care Unit.

INTRODUCTION

Nursing handover refers to the "transfer of professional responsibility and accountability for some or all aspects of care for a patient, to another person on a temporary or permanent basis'. The joint Commission on Accreditation of Health Care Organization (JCAHO) defines handover as "contemporaneous, interactive process of passing patient specific information from one caregiver to another for the purpose of ensuring the continuity and safety of patient care (JCAHO 2006).[2]

The content of nursing handovers are complex and multifaceted, as it includes communication among nurses, communication among attendants, patients' and other health care professionals and provides techniques and "tools" with the aim of providing quality patient care. Poor communication information is the main possible factor and related risk factor for sentinel events.[1]

Objectives

1) To find out the hand over practices among staff nurses of Intensive Care Unit at selected hospital of Guwahati Assam.
2) To explore the factor affecting handover among staff nurses of Intensive Care Unit at selected hospital of Guwahati Assam.

RESEARCH METHODOLOGY

Research approach: Quantitative research approach.

Research design: Exploratory research design.

Research variables: Nursing handover practices.

Setting of the study: Selected hospitals of Guwahati.

Population: Staff Nurses.

Target population: Staff nurses working in ICU.

Accessible population: Staff nurses working in ICU in selected hospital of Guwahati.

Sample: Staff nurse working in ICU in selected hospital of Guwahati.

Sample size: 60

Inclusion criteria:
Staff nurses who were present on the day of data collection.

Exclusion criteria: Staff nurses who were not willing to participate.

Tools:
1. Recording (audio recording)
2. Observation checklist.
3. Inventory checklist.

Techniques: Audio Recording, Observation and inventory check.

Content validity of the tools:
The prepared tools were validated by 10 Nursing Experts.

Reliability of the tool:
The reliability of observation checklist was assessed by using inter-rater method (r = 0.98) and inventory checklist by using test-retest method (r= 1). Hence the tool was found to be reliable.

Ethical considerations:
The ethical considerations of the study was obtained from the INS Trust Ethics Committee (GNRC Complex), Dispur, Guwahati and permission was obtained from concerned authorities of GNRC hospitals (Dispur).

Pilot study:
It was conducted in GNRC six mile among 10 staff nurses from 22/03/2021 to 27/03/2021.

Main study: It was done from 13 April 2021 to 18 may 2021.

Data collection process:
The investigator visited the selected hospital and 60 samples were selected by using purposive sampling technique in the ICU. A brief self-introduction and the purpose of the study were explained to the participants. A written informed consent was taken from each participants. From each shift one staff was selected for observation regarding nursing handover practices. By using the observation checklist while the staff nurse was giving handover to the next shift the information given was also recorded by a recorder.

RESULTS:

Table-1.1: Frequency and percentage distribution of demographic data. N=60

1.Age in years	Frequency(f)	Percentage (%)
a) 21 – 25 years	47	78.33%

b) 26 – 30 years	12	20%
c) 31 – 35 years	1	1.67%
2.Gender		
a) Male	10	16.67%
b) Female	50	83.33%
c) Transgender	0	0%
3.Educational status		
a) GNM	34	56.67%
b) B.Sc. Nursing	24	40%
c) Post Basic B.Sc. Nursing	2	3.33%
d) M.Sc. Nursing	0	0%
4.Total years of experience as a staff nurse		
a) <2 years	51	85%
b) 2 – 4 years	8	13.33%
c) >4 years	1	1.67%
5.Total years of experience in ICU		
a) <1 year	50	83.33%
b) 1 – 2 years	4	6.67%
c) 3 – 4 years	6	10%
d) >4 years	0	0

Table-2.1: Frequency and percentage distribution of the staff nurses according to information given to the patients' general information and regarding patient's identification, N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Information given about patients' general information	60	100%	0	0%
1.Patient identification				
a) Name	60	100%	0	0
b. Age	60	100%	0	0
c) Gender	60	100%	0	0
d) Bed no	5	8.33%	55	91.67%
e) UID	1	1.67%	59	98.33%`
2. Mention the chief complaint	60	100%	0	0
3. Mention the diagnosis	60	100%	0	0
4. Consultant doctor and department	60	100%	0	0

Table-2.2: Frequency and percentage distribution of the staff nurses according to presence of cross consultation for the patients. N= 60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1 Presence of cross consultation	45	75.%	15	25%
n=45				
a.Mention about the cross consultation	45	100%	0	0
b. Which doctor has advice	45	100%	0	0
c.Which department for cross consultation	45	100%	0	0
d.Reason	43	95.55%	2	4.44%

Table-2.3: Frequency and percentage distribution of the staff nurses according to presence of diet modification for the patients. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of diet modification	10	16.67%	50	83.33%
n=10				
a. Mentioned about the modification in diet	10	100%	0	0
b. Mentioned about the diet to follow	10	100%	0	0
c. Which doctor has advice	6	60%	4	40.0%
d. Reason	7	70%	3	30.0%

Table-2.4: Frequency and percentage distribution of the staff nurses according to information given regarding the assessment of the patients. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Assessment of the patient				
1. Temperature	60	100%	0	0%
2. Heart rate	60	100%	0	0%
3. Respiratory rate	60	100%	0	0%
4. Blood pressure	60	100%	0	0%
5. O2 saturation	60	100%	0	0%
6. Glasgow coma scale (GCS)	60	100%	0	0%
7. Pupil size	34	56.67%	26	43.33%
8. Pupil reaction	34	56.67%	26	43.33%
9.Blood sugar level	60	100%	0	0%

Table-2.5: Frequency and percentage distribution of the staff nurses according to presence of .mechanical ventilator with the patient. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of mechanical ventilator	20	33.33%	40	66.67%
n=20				
a. Mention the presence of mechanical ventilator	20	100%	0	0%
b. Modes	20	100%	0	0%
c. FIO2	20	100%	0	0%
d. PEEP	20	100%	0	0%
e. Respiratory rate	20	100%	0	0%
f. Date of changing the ventilator circuit	1	5%	19	95%

Table-2.6: Frequency and percentage distribution of the staff nurses according to the presence of ET tube with the patient. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of ET tube	12	20%	48	80%
n=12				
a. Mention the presence of ET tube	12	100%	0	0%
b. Day of insertion	9	75%	3	25%
c. Size of the ET tube	0	0%	12	100%
d. Length of the ET is inserted	0	0%	12	100%
e. When is to be changed	2	16.67%	10	83.33%
f. When is to be extubated	1	8.33%	11	91.66%
g. Oral care given	12	100%	0	0%
h. Any complications	0	0%	12	100%

Table-2.7: Frequency and percentage distribution of the staff nurses according to presence of tracheostomy tube with the patient. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of tracheostomy	16	26.67%	44	73.33%
n=16				

a. Mention the presence of tracheostomy	16	100%	0	0%
a. Observe the tracheotomy tube	16	100%	0	0%
b. Date of insertion	14	87.5%	2	12.5%
c. Frequency of suctioning	16	100%	0	0%
d. Suctioning done	16	100%	0	0%
e. Amount of secretion	16	100%	0	0%
f. Frequency of dressing	15	93.75%	1	6.25%
g. Any specific instruction	1	6.25%	15	93.75%

Table-2.8: Frequency and percentage distribution of the staff nurses according to presence of central venous catheter with the patient. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of central Venous catheter	16	26.67%	44	73.33%
n=16				
a. Mention the presence of central venous catheter	16	100%	0	0%
b. Mention about the redness /swelling at central venous catheter if it is present	1	6.25%	15	93.75%
c. Condition of the dressing	12	75%	4	25%
d. Date of dressing change	12	75%	4	25%
e. Date / Time of insertion	13	81.25%	3	18.75%
f. Mention the IV fluid administration.	16	100%	0	0%
f. a. How much ml per hours IV fluid will go	16	100%	0	0%
f. b IV fluid to be continue	15	93.75%	1	6.25%
f. c. IV fluid to be stopped	15	93.75%	1	6.25%

Table-2.9: Frequency and percentage distribution of the staff nurses according to presence of Foleys catheter with the patient. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of foley catheter	60	100%	0	0
a. Mention the presence of Foley catheter	60	100%	0	0%
b. Catheter care to be given	60	100%	0	0%
c. Presence of sediments/cloudiness in Urobag	N/A	N/A	N/A	N/A
d. When to empty the Urosac	0	0%	60	100%
e. 24 hours urine output to be monitored	60	100%	0	0%
f. Any specific instruction to be given	4	6.67%	56	93.33%

Table-2.10: Frequency and percentage distribution of the staff nurses according to presence of blood investigation and information given about the patient. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of Blood investigation	60	100	0	0
a. Mention the blood investigation to be done	60	100 %	0	0%
b. Report collected	60	100	0	0%
c. Report to be collected	60	100	0	0%
d. Mention report to be collected if presence	60	100 %	0	0%
d. Any investigation to be send outside of the hospital	N/A	N/A	N/A	N/A

Table-2.11: Frequency and percentage distribution of the staff nurses according to presence of radiology investigation with the patients. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Radiology investigation	60	100%	0	0%
1.Mention the radiology investigation to be done	60	100%	0	0%
2.Report collected	59	98.33%	1	1.67%
3 Report to be collected	54	90%	6	10%
4.Mention report to be collected if presence	54	100%	0	0%
5.Investigation to be send outside of the hospital	N/A	N/A	N/A	N/A

Table-2.12: Frequency and percentage distribution of the staff nurses according to the presence of urine test for the patients. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of urine test	59	98.33	1	1.67
n=59				
1.Mention the test to be done	59	100%	0	0%
2.Report collected	57	96.61%	2	3.38%
3.Report to be collected	8	13.59%	51	86.44%
4.Mention report to be collected if presence	8	100%	0	0%

Table-2.13 (a): Frequency and percentage distribution of the staff nurses according to presence of medication to be stopped for the patients. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of medication to be stopped	39	65%	21	35%
1.Mention about the name of the medication to be stopped.	39	100%	0	0%

Table- 2.13(b): Frequency and percentage distribution of the staff nurses according to presence of medication to be preserved in refrigerator for the patients. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of medication to be preserved in the refrigerator for the patients.	6	10%	54	90%

a. Mentioned the name of medication to be preserved in refrigerator	6	100%	0	0%

Table- 2.14: Frequency and percentage distribution of the staff nurses according to presence of blood transfusion for the patients. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of blood transfusion	10	16.67%	50	83.33%
n=10				
a) Mentioned about the different ways:	10	100%	0	0%
b) When to be transfused	7	70%	3	30%
c) When to be completed	9	90%	1	10%
d) How much blood unit to be transfused	7	70%	3	30%
e) How much blood unit is getting	9	90%	1	10%
f) Where the blood is stored	6	60%	4	40%

Table- 2.15: Frequency and percentage distribution of the staff nurses according to physical examination for the patients. N=60

ITEM	YES		No	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Physical examination done for the patients'.	60	100%	0	0%
1.Mentioned any abnormality in the physical assessment	60	100%	0	0
2. Back care to be given.	60	100%	0	0
3. Back care given	60	100%	0	0
4. Frequency of positioning	60	100%	0	0
5. Presence of any bedsore	11	18.33%	49	81.67%

Table- 2.16: Frequency and percentage distribution of the staff nurses according to presence of bedsore for the patients. N=60

ITEM	YES		NO	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Presence of bedsore	11	18.33%	49	81.67%
n=11				
1.Mentioned the site of bedsore	11	100%	0	0%
2.From where the bedsore is present (outside/ inside)	11	100%	0	0%
4.Location, Size, Degree	11	100%	0	0%
5.Frequency of dressing	11	100%	0	0%

Table- 3.1: Frequency and percentage distribution of the staff nurses according to physical factor N=60

Physical factors	Frequency (f)	Percentage (%)
1. Physical Health		
a. Very good	43	71.67%
b. Good	16	26.67%
c. Poor	1	1.67%
2.Nurse patient ratio		
a.1:2	7	11.67%
b.1:3	45	75%
c.1:4	7	11.67%
d.1:1	1	1.67
3.Frequency of duty roster		
a. Night duty after 4 days	4	6.67%
b. Night duty after 5 days	37	61.67%
c. Night duty after 6 days	14	23.33%
d. Night duty after 7days	5	8.33%
4.Availability of equipment facilities		
Yes	54	90%
No	6	10%

Table- 3.2: Frequency and percentage distribution of the staff nurses according to psychological factor N=60

Psychological factors	Frequency (f)	Percentage (%)
1. Poor job description		
a. Yes	6	10%
b. No	54	90%
2.Family stress due to presence of young children		
a. Yes	4	6.67
b. No	56	93.33
3.Family stress due to presence of old parents		
a. Yes	15	25%
b. No	45	75%
4.Support from senior in-charge		
a. Yes	60	100%
b. No	0	0%

Table- 3.3: Frequency and percentage distribution of the staff nurses according to professional factor N=60

Professional Factors	Frequency (f)	Percentage (%)
1. Orientation at the time of joining regarding nursing handover		
a. Yes	60	100%
a. No	0	0%
2.Training at time of joining regarding handover		
a. Yes	60	100%
b. No	0	0%
3.In-service training at time of joining regarding handover		
a. Yes	60	100%
c. No	0	0%
4.Mentoring by the senior staff nurse		
a. Yes	60	100%
d. No	0	0%
5.Mentoring by the in- charge		
a. Yes	60	100%
b. No	0	0%

DISCUSSION:

In this study, the investigator assessed the handover practices and factors affecting handover among staff nurses of ICU.

a. Regarding the patients identification:

Out of 60 staff nurses, all the staff nurses had mentioned the patients name, age, gender and only five (8.33%) of staff nurses mentioned the patients' bed no and only one (1.67%) of staff nurse had mentioned the patients' UID no.

This finding was supported by a qualitative study carried out by Sarvestani RS et al (2013) where it was found that 130 (100%) of staff nurses had mentioned the patients' name and 25 (19.2%) of staff nurses had mentioned the patients' age .[3]

b. Regarding the general information given for the patient's chief complaint, diagnosis and consultant doctor and department:

Out of 60 staff nurses, all the staff nurses that is (100%) had mentioned the patients' chief complaint, diagnosis and Consultant doctor and department.

c. Regarding the presence and information related to diet modification:

Out of 10 staff nurses whose patients had diet modification, only six (60.0%) of staff nurses had mentioned which doctor had advised the patients diet modification

d. Information given regarding the assessment of the patients:

Out of 60 staff nurses all (100%) the staff nurses had mentioned about

the patients' temperature, heart rate, respiratory rate, blood pressure.

This finding was in contrast with the qualitative study carried out by Sarvestani RS et al (2013) where it was found that out of 130 staff nurses 54 (41.5%) had mentioned about the patients' diagnosis and 25 (19.2%) of staff nurses had mentioned patients' consultant doctor and department. and 37 (28.4%) staff nurses had mentioned the diet for the patients. it was found that 22(16.9%) of staff nurses had mentioned about patients' blood pressure and only 33(25.3%) of staff nurse had mentioned about patients'temperature. [3]

e. Regarding the monitoring of intake and output of the patients':
Out of 60 staff nurses all of them had mentioned about intake and output during her shift and in last 24hrs, any deviation of in intake and output status.

This finding was supported by a study carried out by Agizew TB, et al (2021) where they found that 24.6% of staff nurses documented the patients' intake and output of fluids.[5]

f. Regarding the medication :
Out of 60 staff nurses all the staff nurse's (100%) patients were having medication and 39(65.0%) of staff nurses patient's had advice on medication to be stopped and 21(35.0%) of staff nurses patient's did not have the advice of medication to be stopped.

This finding was supported by a qualitative study carried out by Sarvestani RS et al(2013) where it was found that 75(55.3%) of staff nurses had mention about the medication of the patients'.[3]

g. Regarding Physical examination done for the patients':
Out of 60 staff nurses all the staff nurses had done physical examination, mentioned any abnormality, patient's back care to be given, frequency of position change and 36 (60.0%) staff nurses mentioned about presence of any ulcer and remaining 24 (40.0%) did not mentioned.

Similar study was carry out by Malekzadeh J et al . (2013). Where they have found that 25(43.8%) off staff nurse's had inspect the potential pressure ulcer areas 17(13%) of staff nurse's had done routine position change before the intervention and 39(69%) of staff nurse's had not done routine position.[6]

CONCLUSION

The study finding reveals that there were satisfactory handover practices among staff nurses in ICU as majority of the findings showed 100%. However the study also showed that 26.67% of staff nurses had not mentioned about the presence of IV cannula and 18.23% of the staff nurses had not mentioned about the details of the medication. Hence there is a need for in-service education in this area.

The physical factors of the staff nurses also play an important role in the patient care. It was found that 28.33% of the staff nurse had expressed that they did not have good physical health and 75% of them got assignment of 3 patients and 11.67% got 4 patient assignment in the shift. The investigator observed that due to covid pandemic many staff resigned.

The finding related to the professional factor was satisfactory as majority of the aspects in it were fulfilled.

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