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### Inpatients nursing care provided in a tertiary hospital of Nepal

Heera KC<sup>1\*</sup>, Sharmila Shrestha<sup>2</sup>, Ramananda Chaudhary<sup>3</sup>, Tara Shah<sup>4</sup>, Surya B. Parajuli<sup>5,6</sup>

<sup>1</sup>Department of Nursing, Purbanchal University-Birat Health College, Biratnagar, Nepal

<sup>2</sup>Department of Community Health Nursing, B. P. Koirala Institute of Health Sciences, Dharan, Nepal

<sup>3</sup>Department of Child Health Nursing, B. P. Koirala Institute of Health Sciences, Dharan, Nepal

<sup>4</sup>Department of Community Health Nursing, B. P. Koirala Institute of Health Sciences, Dharan, Nepal

<sup>5</sup>Department of Community Medicine, Kathmandu University-Birat Medical College & Teaching Hospital, Morang, Nepal

<sup>6</sup>Nepal Medical Volunteer Society, Biratnagar, Nepal

\*E-mail: [heerakc2011@gmail.com](mailto:heerakc2011@gmail.com)

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#### Abstract

**Introduction:** Nursing care is necessary for every client seeking any type of healthcare such as health promotion, diagnosis, treatment and recovery. Despite these facts, nurses are given less importance and their works are even unrecognized.

**Objective:** The objective of this study was to explore nursing care provided to inpatients of medical ward at B. P. Koirala Institute of Health Sciences, Dharan, Nepal.

**Methodology:** Hospital based cross-sectional study was carried out in medical ward of B. P. Koirala Institute of Health Sciences, Dharan from Feb 2017 to Oct 2018. Data were retrieved from inpatient admission record book of medical ward of previous 15 months from the initiation of this research work. Admission record book was reviewed and checked for completeness of the record. A total of 290 patients having complete records were enrolled. Collected data were entered in Microsoft excel and analysed by SPSS software.

**Results:** More than half patients (52.8%) were male and 44.8% belonged to Janajati ethnicity. The major age group was 15-25 years (17.9%) with mean and standard deviation of 49.4±20.6. About 28.6 % of the patients were admitted due to cardiovascular related problems and poisoning (13.1%). Most of the patients (67%) were admitted from emergency. Median duration of stay was 4 days. Every 8 out of 10 patients were recovered and discharged. General nursing care provided were maintenance of personal hygiene (91.03%), cannula site care (49.7%), providing psychological support (41%), ambulation (8.3%), back care (7.6%), catheter care(6.9%), passive exercise (2.4%), chest physiotherapy(3.7%), sponge bath(9.3%). Specific care provided were propped-up positioning (36.2%), 2 hourly position change (23.4%), random blood sugar monitoring (12.4%), SpO<sub>2</sub>monitoring (8.9%), watch for oxygen toxicity (9.3%), weight monitoring (3.1%) and pre CAG (coronary angiography) care(2.1%).

**Conclusion:** Maintenance of personal hygiene, cannula site care, psychological support, two hourly positioning and oral care were the common practices performed.

**Keywords:** Academics and Institutes; Inpatients; Medical Ward; Nursing Care.

## 1. Introduction

Nursing is considered as an art and a science, wherein caring forms the theoretical framework of nursing. Nursing and caring are grounded in a relational understanding, unity, and connection between the professional nurse and the patient. Care in nursing involves the application of art and science through theoretical concepts, scientific research, conscious commitment and purposeful efforts to include caring behaviors during each nurse-patient interaction [1]. The caring process is a fundamental activity of nursing that help attain, maintain, or recover optimal health and quality of life. Nurses are differentiated from other health care providers by their approach to patient care and scope of practices. Nurses practice in many specialities with differing levels of prescription authority [2]. Caring includes cognitive, affective, psychomotor and administrative skills. These skills describes the value of nursing. Nursing is a nurturing profession and caring is the essential component of its holistic practice, especially with the critically ill patient [3]. With better care environment, nurses reported more positive job experiences and patients too had significantly lower risks of death and failure [4, 5]. Various study results indicate missed or omitted nursing care to be an independent predictor of hospital readmissions of patients [6]. For better patient outcome, electronic nursing care reminders are often being used in hospital settings to overcome the missed nursing care and aids in assessing the impact of technology on nursing practice [7]. Evidences show nursing care has led to positive patients' outcomes of morbidity and mortality across the age continuum. Despite these facts, limited attention has been given to measuring nurses' actions/behaviors in terms of care that is safe, effective, efficient, equitable, timely, and centered on patients and patients' families [4, 8]. Just as hospitals and clinicians caring for patients focus carefully on completing accurate diagnosis, appropriate and effective interventions, so do the nurses too in providing nursing care through appropriately planned nursing diagnosis. The proportion of nurses to patients, their qualifications and job description should therefore be carefully planned and managed to manage unnecessary patient death [9]. The roles of nurses have been expanded and resulted in greater job satisfaction and good patient outcome. A study conducted in Australia suggest that patients who had longer nurse consultations were more satisfied (OR=2.50, 95% CI: 1.43-4.35) and more enabled (OR=2.55, 95% CI: 1.45-4.50). Patients who had continuity of care with the same general practice nurse were more satisfied (OR=2.31, 95% CI: 1.33-4.00). Patients who attended practices where nurses worked with broad scopes of practice and high levels of autonomy were more satisfied (OR=1.76, 95% CI: 1.09-2.82) and more enabled (OR=2.56, 95% CI: 1.40-4.68) than patients who attended practices where nurses worked with narrow scopes of practice and low levels of autonomy. Patients who received nursing care for the management of chronic conditions (OR=2.64, 95% CI: 1.32-5.30) were more enabled than those receiving preventive health care [10]. Due to these facts of nursing care for patient satisfaction and nursing leadership, we need to know the pattern of nursing practices delivered at tertiary care hospital. In tertiary care center, many complicated referral patients are admitted which needs significant nursing care for their better prognosis. Evidence generated from this research will be helpful to formulate Standard operating procedures (SOPs) on nursing care at ward level and entire hospital level. With these facts, we aimed to explore the nursing care provided to inpatients of medical ward at B. P. Koirala Institute of Health Sciences, Dharan, Nepal.

## 2. Methodology

This was a hospital based cross-sectional study carried out in medical ward of B. P. Koirala Institute of Health Sciences, Dharan, Nepal from Feb 2017 to Oct 2018. Data were retrieved from inpatient admission record book of medical ward of previous 15 months from the initiation of this research work. Admission record book was reviewed thoroughly and checked for completeness of the record. A total of

290 patients having complete records were enrolled for the study. Collected data were entered in Microsoft Excel and analysed by SPSS software.

### 3. Results

#### Socio-demographic characteristics of inpatients

In table 1, among inpatients in medical ward, more than half were male (52.8%) and 44.8% belonged to Janajati ethnicity. The major age group among the admitted patient was 15-25 years (17.9%) followed by 45-55 years (16.2%) with mean and standard deviation of 49.4±20.6.

<b>Table 1: Sociodemographic characteristics of the inpatients(n=290).</b>		
<b>Sex</b>	<b>Frequency</b>	<b>Percentage</b>
Male	153	52.8
Female	137	47.2
<b>Ethnicity</b>		
Dalit	66	22.8
Janajati	130	44.8
Madhesi	25	8.6
Muslim	5	1.7
Brahmin/Chhetri	64	22.1
<b>Age</b>		
15-25	52	17.9
25-35	33	11.4
35-45	42	14.5
45-55	47	16.2
55-65	40	13.8
65-75	44	15.2
75-85	27	9.3
85-95	5	1.7
Mean ± SD	49.4±20.6	

As depicted by figure 1, majority of inpatients attending at B.P. Koirala Institute of Health Sciences were from Sunsari (35.2%), Jhapa (15.9%) and Morang (15.2%) district. In figure 2, 28.6 % of the patients were admitted due to cardiovascular related problems followed by poisoning (13.1%). Majority (66.5%) of patient were admitted in medical ward from emergency (66.5%) and OPD (14.8%) (table 2).

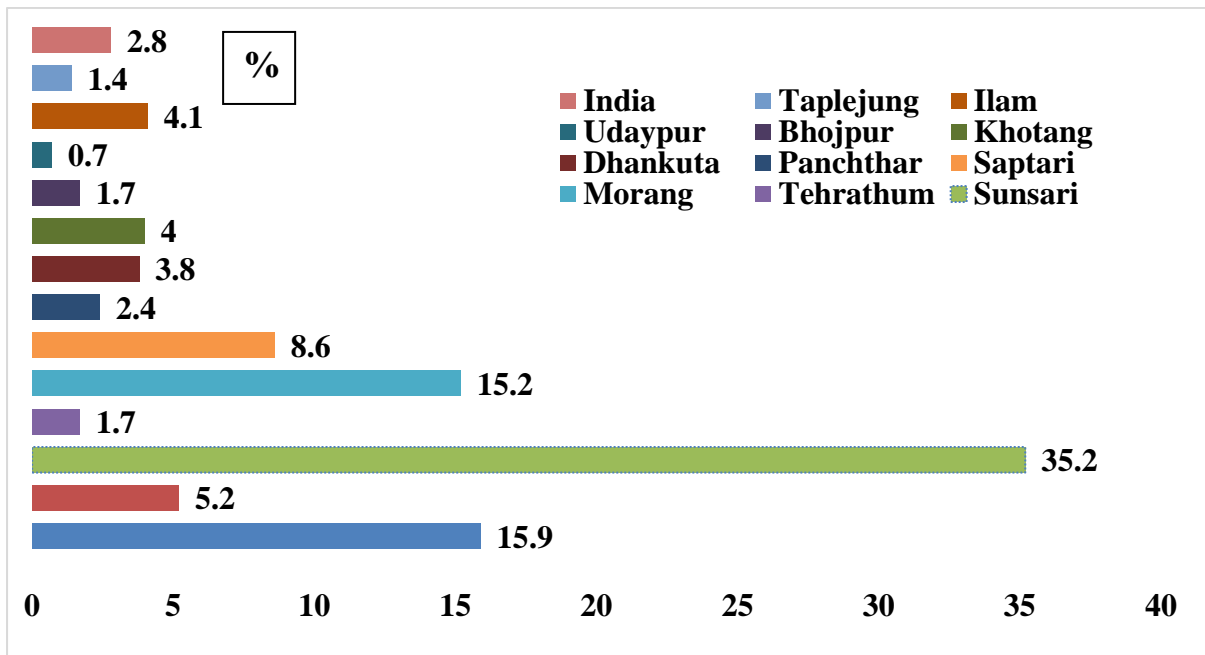


Fig. 1: Distribution of inpatients visiting from different districts of Nepal (n=290).

Pattern of diseases

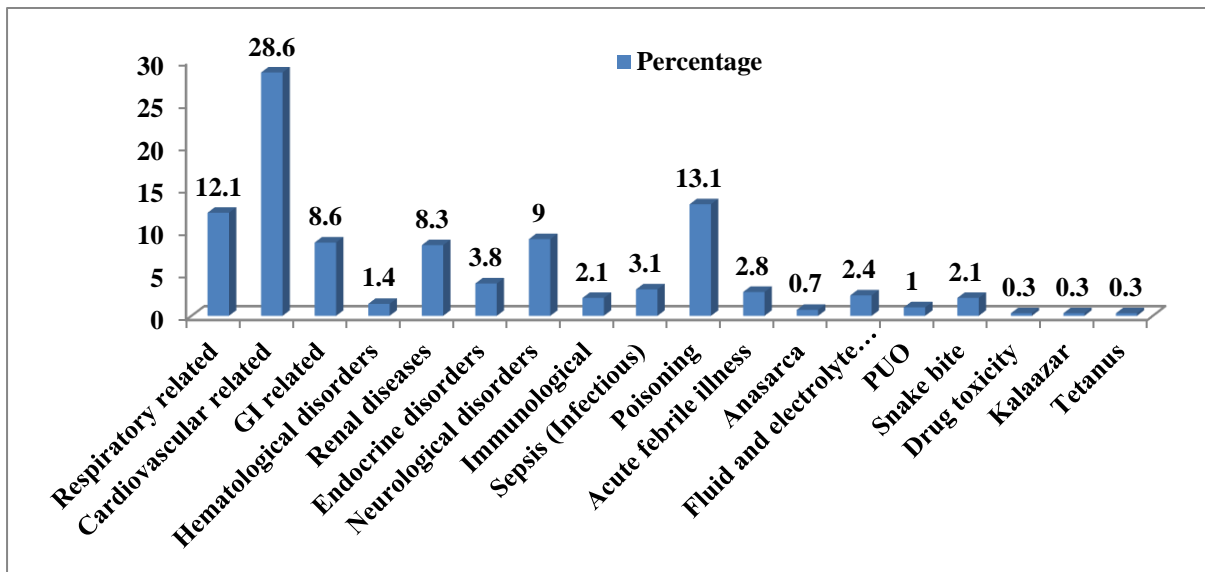


Fig. 2: Pattern of diseases reported among inpatients (n=290).

Mode of admission

Mode of admission	Frequency	Percentage
Outpatient department (OPD)	43	14.8
Emergency	193	66.5
Transfer from other wards	24	8.3
Transfer from ICU/CCU	30	10.4

**Nursing care provided**

<b>Table 3: Nursing care provided to inpatients (n=290).</b>		
<b>Nursing care</b>	<b>Frequency</b>	<b>Percentage</b>
<b>General care</b>		
I/V cannula site care	144	49.7
Back care	22	7.6
Intake output	290	100.0
Personal hygiene	264	91.03
Sponge bath	27	9.3
Health education on particular disease	42	14.5
Psychological support	119	41.0
Passive exercise	7	2.4
Ambulation	25	8.6
Chest physiotherapy	11	3.7
<b>Specific care</b>		
Positioning-propped up	105	36.2
Watch for oxygen toxicity	27	9.3
2 hourly position change	68	23.4
Watch for UGI bleeding	10	3.4
Dressing for thrombophlebitis	1	0.3
Catheter care	20	6.9
Observe for bradycardia	1	0.3
Endotracheal tube care	1	0.3
Cardiac monitoring	5	1.7
Weight monitoring	9	3.1
Leg elevation	2	0.7
Abdominal girth charting	3	1.0
Cold sponging	2	0.6
SPO <sub>2</sub> monitoring	36	12.41
N/G tube feeding	4	1.2
ECG	4	1.2
Diabetic foot care	1	0.3
Preoperative care for CAG	6	2.1
RBS monitoring	41	14.13
Wound Care	2	0.6

Nursing care provided to inpatients were divided to general care and specific care which is shown in table 3. Majority (91.03%) of inpatients received the care related to maintenance of personal hygiene (hair care, nail care, oral care and grooming). Intravenous cannula (I/V) site care was provided to 49.7% of the inpatients based on their need. Maintenance of intake output pattern was received by all patients. Forty one percent of the patients were provided reassurance while almost 15 % inpatient received health education on particular disease.

Concerning specific nursing care 36.2 % patients were provided to maintain their position to ease their breathing, 23.2% were changed position 2 hourly and SPO<sub>2</sub> monitoring was done among 12.41%.

**Outcome of patients**

<b>Table 4:</b> Outcome of inpatients (n=290).		
<b>Outcomes</b>	<b>Frequency</b>	<b>Percentage</b>
Recovered and discharge	223	76.9
Expired	10	3.4
Leave against medical advice (LAMA)	14	4.8
Discharge on patient request (DOPR)	19	6.6
Refer to another hospital	3	1
Transfer to another ward	14	4.8
Transfer to ICU/CCU	7	2.4
<b>Duration of hospital stay</b>	Range: 1-35 days	Median: 4 days

**4. Discussion**

A hospital based cross-sectional study was conducted in medical ward of B. P. Koirala Institute of Health Sciences. Admission record book was reviewed thoroughly and checked for completeness of the record of which 290 patients having complete records were enrolled for the study. In present study, majority (91.03%) of inpatients received the care related to maintenance of personal hygiene (hair care, nail care, oral care and grooming). Oral care is one of the important nursing care among inpatients of medical ward. In a systematic review, it was found that oral hygiene have an impact on incidence and outcomes of respiratory diseases like pneumonia and chronic obstructive pulmonary disease in people living in the community and in long-term health care facilities. Such incidence can be reduced by oral hygiene measures [11]. Similarly another study conducted in Canada supports the importance of oral care that explains a positive body image and the perception of adequate oral health are linked to increased social contacts, as well as improved health and well-being irrespective of age [12]. A study reported that oral health have an impact on daily performances where they identified difficulty of eating and enjoying food (42.3%), and speaking and pronouncing clearly (10.3%) due to inadequate oral care [13]. Thus nursing personnel should provide oral care as it is one of the important nursing care to improve overall patient outcome at hospitals.

In this study, one third of patients received specific nursing care that is two hourly position change. This is an important specific nursing care for bed ridden patients to prevent pressure sores which was evident by a research conducted at Sweden where nursing staff used to reposition the patients who were high risk than those assessed as low risk. This led to the conclusion that repositioning and positions used in the prevention of pressure ulcers is important [14]. A research study found that, patients were repositioned frequently during the day and evening and least at night time [15]. Pressure ulcers can predispose to a variety of complications that include bacteremia, osteomyelitis, squamous cell carcinoma, and sinus tracts. The three components of pressure ulcer prevention that must be considered in any patient include management of incontinence, nutritional support, and pressure relief. Various electronic devices and materials have been practiced to prevent pressure ulcer [16]. However in low income countries where such devices can't be affordable and approachable carefully

planned nursing care can contribute to prevent the pressure sores. In this study, intravenous cannula site care was provided to 49.7% of the inpatients based on their need. Similar finding was revealed in a hospital based study conducted at Johor, Malaysia where 83.7% followed the correct practice of care and maintenance of IV cannula. The researcher also suggested that nurses should know about this vital procedure in order to prevent risk and complication to the patient. Therefore, IV cannula site care is one of the important nursing care and it should be followed correctly [17]. In this study maintenance of intake output was received by all patients. A research suggested that advanced heart failure, renal diseases are often associated with a variety of hemodynamic, fluid, and electrolyte derangements. This involves vigilant assessment of hydration, fluid treatment plan personalized for the specific patient, repeated and frequent reassessment of fluid and electrolyte balance, and appropriate changes in the treatment plan in response to the rapidly changing clinical situation of the patient that cannot be maintained by clinicians alone. Hence Nursing care is utmost to such patients [18]. It helps the inpatients for better clinical outcome. In the present study 36.2 % patients were kept in propped up position to ease their breathing and SPO2 monitoring was done among 12.41%. Likewise study conducted in Australia found elevation of the head of the bed (1-45°) was the most frequently adopted position [15]. Present study also identified catheter care (6.9%), chest physiotherapy (3.7%), ambulation (8.6%), nasogastric tube feeding (1.2%), preoperative care (2.1%) and diabetic foot care (0.3%) as important nursing care provided to the patient. Forty one percent of the patients were provided psychological support while almost 15 % inpatient received health education on particular disease. In a study the mean total 'Satisfaction with Nursing Care Scale' score was  $62.08 \pm 20.94$ , and the mean total 'Experience of Nursing Care Scale' was  $71.97 \pm 11.97$ . The highest satisfaction items were reported as 'the skillfulness of nurses' and 'the nurses' respect for the patients' privacy' concluding that patients require more individualized care from nurses regarding education, communication and comfort [19]. This suggests that nursing care is fundamental for patient satisfaction and positive image with hospital environment, rapid recovery and wellbeing. Additionally, this study found that almost 8 out of 10 patients were recovered and discharged. The World Alliance for Patient Safety reported that 10% of hospital patients in developed countries suffer an adverse event each year [20]. This is a good sign of care. Patient outcome depends upon care provided by various disciplines that is medical doctors, nursing professionals, paramedics, supporting staffs and even administration. It is evident that, nursing care is vital for better prognosis. In support to this, a research found that routine use of care maps was used to minimize unnecessary patient death [9].

## **5. Conclusion**

Maintenance of personal hygiene, intravenous cannula site care, psychological support and two hourly positioning were common practice performed.

## **Recommendations**

Individual level disease specific nursing care research needs to be done in a large setting. Nursing care practices should be studied by using various nursing care tools and guidelines to identify the applicability and effectiveness.

## **Limitation of the Study**

This research could not identify individual level nursing care based on disease pattern. The impact on patient outcome due to nursing care could not be established.

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## Conflict of Interest

We declare no conflict of interest.

## Financial Disclosure

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