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Medical Surgical Nursing

KNOWLEDGE AND ATTITUDE REGARDING PATIENT SAFETY AMONG NURSES WORKING IN SELECTED HOSPITALS, GUWAHATI, ASSAM: A DESCRIPTIVE STUDY

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ABSTRACT Patient safety is a fundamental element of health care and is defined as a freedom for a patient from unnecessary harm or potential harm associated with provision of health care. Patient safety represents one of the qualities of care dimensions alongside accessibility, acceptability, effectiveness, efficiency and people centeredness. Aim: The aim of the study was to assess the knowledge and attitude of nurses regarding patient safety at selected hospitals, Guwahati, Assam. **Method and material:** The research approach adopted for the study was quantitative research approach. A descriptive design was used in this study to accomplish the objectives. Study was undertaken on 170 nurses working in selected hospitals of Guwahati, Assam, using non-probability convenience sampling technique. Knowledge and attitude of nurses were assessed using structured knowledge questionnaire and 5-point Likert scale respectively. The conceptual framework used for this study was based on Modified Health Belief model (1950). **Results:** Majority 115 (68%) of respondents had moderately adequate knowledge, 30 (18%) had inadequate knowledge and 25 (14%) had adequate knowledge regarding patient safety and majority 99 (58%) of the respondents had moderately favorable attitude, 44 (26%) had favorable attitude and 27 (16%) had unfavorable attitude towards patient safety. The mean of knowledge and attitude were 19.12 and 29.96 respectively. The standard deviation of knowledge and attitude were 4.38 and 3.53 respectively. There was a very weak correlation between knowledge and attitude i.e., r=0.2. There was a statistically significant association of knowledge and attitude with age and total year of experience. **Conclusion:** This study showed that majority of nurses had moderately adequate knowledge and favorable attitude towards patient safety. Thus, vigorous training is recommended for nurses in order to upgrade their knowledge, inculcate a positive attitude regarding patient safety and incorporate it into their practice to promote safety.

KEYWORDS : Knowledge, Attitude, Patient safety, Nurses

INTRODUCTION

Patient Safety is a health care discipline that emerged with the evolving complexity in health care systems and the resulting rise of patient harm in health care facilities. It aims to prevent and reduce risks, errors and harm that occur to patients during provision of health care.

Patient safety was defined by the Institute of Medicine (IOM) as "the prevention of harm to patients". The Agency for Healthcare Research and Quality (AHRQ) Patient Safety Network Web site expands the definition of prevention of harm: "freedom from accidental or preventable injuries produced by medical care."

According to International Patient Safety Goal (IPSG), the goals are Identify patient correctly, improve effective communication, improve the safety of high-alert medications, ensure safe surgery, reduce the risk of health care-associated infections and reduce the risk of patient harm resulting from falls.

It is estimated that there are 421 million hospitalizations in the world annually, and approximately 42.7 million adverse events occur in patients during these hospitalizations. The latest data shows that patient harm is the 14th leading cause of morbidity and mortality across the world unsafe medication and practice.

Patient safety has always been important for nurses. Nurses are involved in the provision of healthcare in every area of the healthcare system. This presence of nurses and their sound knowledge base enables them to play a critical role in patient safety. Though their vigilance, nurse's act to keep patients safe, identify areas of risk and recognise the situation in need of improvement. The role of healthcare team is to continuously strive to keep patients safe and free from harm. Healthcare team always seek to use the technology and knowledge at our disposal to promote patient safety and help our patients feel safe and comfortable.

Problem Statement:

Knowledge and attitude regarding patient safety among nurses working in selected hospitals, Guwahati, Assam: A descriptive study.

OBJECTIVES:

1. To assess the knowledge regarding patient safety among nurses working in selected hospitals, Guwahati, Assam.
2. To assess the attitude regarding patient safety among nurses working in selected hospitals, Guwahati, Assam.
3. To find the correlation between the knowledge and attitude regarding patient safety among nurses working in selected hospitals, Guwahati, Assam.
4. To associate the knowledge regarding patient safety among nurses with selected demographic variables such as age, educational qualification, area of work, years of experience, any training attended regarding patient safety.
5. To associate the attitude regarding patient safety among nurses with selected demographic variables such as age, educational qualification, area of work, years of experience, any training attended regarding patient safety.

REVIEW OF LITERATURE

Section I: Review of literature related to prevalence of medication error, diagnostic error, healthcare associated infection, patient fall and pressure ulcers.

Russo PL, et al. (2019) conducted a cross-sectional point prevalence study on prevalence of healthcare associated infections among 2767 adult inpatient at nineteen acute care public hospitals, Australia. The study found that, there were 363 HAIs present in 273 patients and prevalence of patients with a HAI was 9.9%. The presence of multi-drug resistant organism was 10.3%. Hospital prevalence rates ranged from 5.7% to 17.0%. The most common HAIs were surgical site infection, pneumonia and urinary tract infection, comprising 64% of all HAIs identified.

Pitchai P, et al (2019) conducted a descriptive study on prevalence, risk factors, circumstances for falls and level of functional independence among 2049 geriatric population in Mumbai, India. It was found that the prevalence of falls was 24.98%. Majority of falls 65.43% occurred indoors, 44.92% of falls occurred in the morning, 60.55% had sustained injuries, 56.45% reported to had slips. 34.70% of participants reported FOF, 23.67% expressed reduced functional activities and 18.06% demonstrated affection in activities of daily living.

Raffle KE, et al (2020) conducted a retrospective cohort study on prevalence and characterisation of diagnostic error among 376 patients readmitted within 7 days of hospital discharge. The finding showed the prevalence of diagnostic error was 5.6%. Most common problem areas in the diagnostic process included failure to order needed test(s) (n=11, 52.4%), erroneous clinician interpretation of test(s) (n=10, 47.6%) and failure to consider the correct diagnosis (n=8, 38.1%).

Bothiraj M, et al (2020) conducted a prospective observational study on prevalence of medication errors in multispecialty hospital, India. The finding showed that a total of 217 MEs (n-105, 48.39%) were ruled out of 100 cases and found that 87 drug administration errors (40.09%) with higher categories A and B, but the distribution of category C (n-10) and D (n-10) was noted quite alarming.

Shiferaw WS, et al. (2020) conducted a systematic review and meta-analysis on prevalence of pressure ulcers among 1881 hospitalized adult patients in Ethiopia. It was found that the pooled prevalence of pressure ulcers was 11.7%. The subgroup analysis showed that the estimated magnitude of pressure ulcers was 15.89%.

Section II: Review of literature related to knowledge and attitude towards patient safety

Oyediran OO, Ofor HC, Ayandiran EO, Ojo IO (2021) conducted a descriptive cross-sectional study on knowledge and attitude towards patients' safety among 281 clinical students in Southwest University, Nigeria. The findings of the study revealed that 68.7% of the respondents had good knowledge, 19.6% had fair knowledge and 11.7% had poor knowledge. The result further showed that 64.1% had a negative attitude while 35.9% had a positive attitude towards patient safety.

Section III: Review of literature related to patient harm due to unsafe care

Jha AK, et al (2013) conducted an analytic modelling of observational study on global burden of unsafe medical care over 4,000 articles. The finding showed that there are 421 million hospitalisations in the world annually, and approximately 42.7 million adverse events. These adverse events result in 23 million disability-adjusted life years lost per year. This study provides early evidence that adverse events due to medical care represent a major source of morbidity and mortality globally.

RESEARCH METHODOLOGY:

Research approach: Quantitative research approach
Research design: Descriptive research design
Research Variables: Knowledge and attitude
Demographic variables: Age, gender, educational qualification, area of work, total years of experience, any training attended on patient safety.

Setting of the study: Guwahati Neurological Research Centre (GNRC), Dispur and Hayat Super Speciality Hospital, Lalganesh, Guwahati, Assam.

Population: Nurses
Target population: Nurses working in selected hospitals, Guwahati, Assam.
Accessible population: Nurses working in all the areas of selected hospitals, Guwahati, Assam.

Sample: Nurses working in selected hospitals, who fulfil the inclusion criteria
Sample size: 170
Sampling technique: Non probability convenience sampling technique

Sample criteria:
Inclusion criteria:
Nurses who were present during the period of data collection
Exclusion criteria:
Nurses who were not willing to participate in the study.

Tools:
1. Demographic data
2. Structured knowledge questionnaire to assess knowledge
3. 5-points likert scale to assess attitude

Technique: Self report

SCORING KEY:

Section II: Structured knowledge questionnaire

Each question has only one correct answer. For every correct response a score of '1' (one) mark was given and for every incorrect response a score of '0' (zero) was given. Hence, the maximum score for knowledge was '34' and the minimum score was '0'.

Category of knowledge level

Inadequate knowledge <50% (score ≤ 15)
Moderately Adequate knowledge 50-75% (score 16 – 23)
Adequate knowledge >75% (score ≥ 24)

Section III: Attitude Scale

The total number of statement was 8. For each response a score was given as follows:

Positive statement: Strongly agree – 5 marks, Agree – 4 marks, Uncertain – 3 marks, Disagree – 2 marks, strongly disagree – 1 mark.

Negative statement: Strongly agree – 1 mark, Agree – 2 marks, Uncertain – 3 marks, Disagree – 4 marks, strongly disagree – 5 marks.

Category of attitude scale

Unfavourable attitude <50% (score ≤26)
Moderately favourable attitude 50-75% (score 27 – 32)
Favourable attitude >75% (score ≥33)

Content Validity Of The Tools:

The prepared tool was validated by: 5 nursing experts in the field of Medical Surgical Nursing, 2 nursing experts in the field of Community Health Nursing, 1 nursing expert in the field of Nursing Administration and 2 Physicians in the field of Medicine.

Reliability Of Tool:

The reliability of the structured knowledge questionnaire tool was estimated by split half method using Karl Pearson's formula and it was found to be 0.75. The reliability of 5-point Likert scale for attitude tool was done by test-retest and it was found to be 0.88.

Pilot Study:

The study was conducted from 22nd to 27th March, 2021 in GNRC Hospital Sixmile, Guwahati, Assam. 10 samples were selected using non-probability convenience sampling technique and the study was found to be feasible.

MAIN STUDY: The main study was done from 12th April to 18th May 2021.

RESULTS: n=170

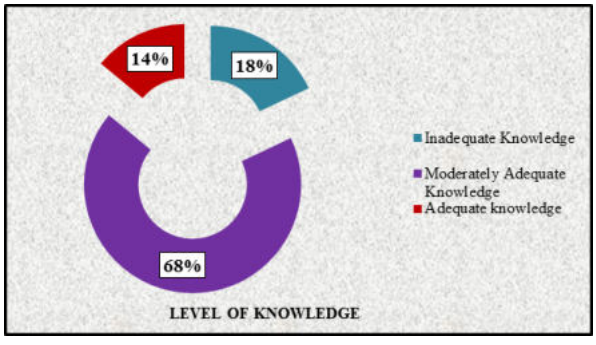

FIGURE I: Percentage distribution of the nurses according to their level of knowledge on patient safety n=170

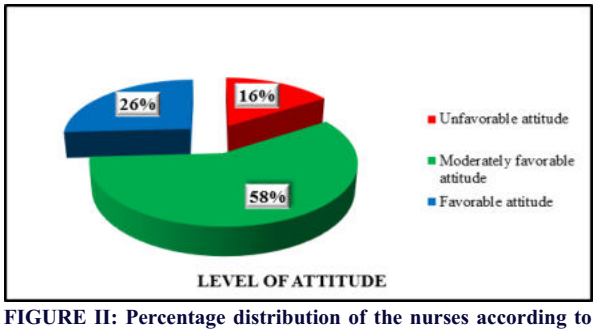

FIGURE II: Percentage distribution of the nurses according to their level of attitude on patient safety

DISCUSSION

The findings showed that in Demographic data out of 170 nurses, majority of the nurses that is 79 (46%) were in the age group of 21-25 years, 63 (37%) belongs to 26-30 years, 15 (9%) belongs to 31-35 years and 13 (8%) belongs to ≥35 years. 163 (96%) were female and 7

(4%) were male. 92 (54%) were GNM nurses, 65 (38%) B.Sc. nurses, 13 (8%) were Post B.Sc. nurses. However, none of the participants was M.Sc. nursing. 85 (50%) were from ICU, 43 (25%) were from cabin, 14 (7%) were from CTVS, 12 (7%) were others, eight (5%) were from operation theatre and eight (5%) were working in accident and emergency. 76 (45 %) has a working experience for 1-5 years, 62 (36 %) for < 1 year, 18 (11%) worked for 5-10 years and only 14 (8%) for > 10 years. 93 (55%) had not attended any training whereas 77 (45%) had attended training on patient safety. 75 (94%) had attended In-service education and only two (3%) had attended workshop/webinar on patient safety.

The study revealed that, majority 115 (68%) of the nurses had moderately adequate knowledge, 30 (18%) had inadequate knowledge and 25 (14%) had adequate knowledge regarding patient safety. The mean score of knowledge was 19.12 with standard deviation of 4.38. The present study was supported by the study of James J, et al. (2017) who conducted a Non experimental descriptive study on knowledge regarding patient safety among nursing staff in Tertiary Care Hospital, Lucknow. Simple random sampling technique was employed which revealed that only 14 % of the respondents had excellent knowledge, 70 % of respondents had fairly good knowledge and 16% had poor knowledge regarding patient safety.

The analysis revealed that majority i.e., 99 (58%) of the respondents had moderately favorable attitude, 44 (26%) had favorable attitude and 27 (16%) had unfavorable attitude towards patient safety with mean 29.96 and SD 3.53. The present study was a contrast study conducted by Biresaw H, Asfaw N and Zewdur N (2020) who conducted a cross – sectional study on attitude of nurses towards patient safety and its associated factor among 386 nurses working in University of Gondar Specialized hospital, Ethiopia. Simple random sampling technique was employed which revealed that the mean attitude score of the respondents was found to be 61.3% and more than 56.1% (95% CI: 51.7–60) of the respondents had a favourable attitude while the remaining had an unfavourable attitude towards patient safety.

The correlation between knowledge and attitude of nurses regarding patient safety in which the overall mean of knowledge was 19.12 with SD 4.38 and the overall mean score of attitude was 29.96 with SD 3.53. The Karl's Pearson correlation coefficient was found to be r=0.2. Thus we can conclude that there was very weak correlation between knowledge and attitude of nurses regarding patient safety. The present study was supported by the study of Asem N, Sabry HA, Elfar E (2019) conducted an exploratory study on knowledge, influence and attitude regarding patient safety among 187 postgraduate physicians of different specialities working in the faculty of medicine, Cairo University. They found that there was a weak positive significant correlation between knowledge and influence scores and between influence and attitude scores ($r = 0.25$, $p = 0.002$; $r = 0.27$, $p < 0.001$ respectively.

The association was statistically tested using chi square. In the present study, there was significant association between knowledge with selected demographic variables like age and years of experience. There was no significant association between attitude and selected demographic variables like age, education qualification, area of work, total years of experience and training attended on patient safety. The present study was contrast to the study of Pramanik S, Ravikumar TS, Segaran F, Stephen E (2020) who conducted a descriptive research design on knowledge and attitude regarding patient safety among 600 nursing personnel in a tertiary care centre in South India. The study found that there was a significant association between the professional qualification and the knowledge and attitude of nursing personnel regarding patient safety ($p < .05$).

CONCLUSION

The knowledge and attitude regarding patient safety among nurses were assessed using structured knowledge questionnaire and 5 point Likert scale respectively. The study revealed that there was very weak correlation between knowledge and attitude. The study reveals that majority of the nurses had moderately adequate knowledge and moderately favourable attitude towards patient safety. There was a significance association between level of knowledge of nurses with age and total years of experience. Hence, In-service education and vigorous training is needed in order to upgrade the nurse's knowledge regarding patient safety.

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