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A descriptive study to assess the knowledge regarding medication error among staff nurses working in civil hospital, Panchkula, Haryana

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Abstract
Introduction: Medication errors are among the most common health threatening mistakes that affect patient care. Medication errors are considered as a global problem. According to Harvard study in India (2016) by Dr. Girdhar Jha Gyani shows that 5.2 million medical errors are happening in India annually. Medication error can be happened in different steps of medication process, but considerable numbers of error occur during medication administration that registered nurse play a vital role in it because their responsibility for administering drug in the hospital. Therefore this study is to assess the knowledge regarding medication error among staff nurses.
Methods and Materials: This Current study using descriptive design was conducted to assess the knowledge regarding medication error among staff nurses in civil hospital Panchkula, Haryana, India. The non-experimental research design was adopted for the study with 100 staff nurses were selected by using non-probability convenient sampling technique. The data was collected using self-structured knowledge questionnaire was adopted for the study.
Results: Data analysis was done using descriptive and inferential statistics. Mean knowledge score of study participants was found to be 12.18±2.57. Knowledge score significant with age (0.005), year of experience (0.020), designation of staff (0.001).
Conclusion: Based on study findings, it is concluded that 6% staff nurses had very good knowledge, 67% staff nurses had good knowledge and 26% staff nurses had average knowledge and 1% staff nurses had poor knowledge regarding medication error.

Keywords: Knowledge, staff nurses, and medication error

Introduction
Medication errors as serious problemsin world and one of the most common medical errors that threaten patient safety and may lead to even death of them [1]. Medication mistakes can occur anywhere in the health care system [2]. The patient safety is a priority for every health care system which follows the ensuring and improving the quality of health care [3]. In 2001 report by the Institute of Medicine estimated that medication error causes approximately 44000-98000 annual deaths due to medical errors, 70000 deaths have been related to the medication error each year in USA hospitals. According to Harvard study in India (2016) by Dr. Girdhar Jha Gyani shows that 5.2 million medical errors are happening in India annually [4]. In a general the medication errors can be happened in different steps of medication process, but considerable number of errors occur during medication administration that registered nurse play a vital in it because their responsibility for administering drugs in the hospitals [4]. The occurrence of medication error among nurses is more than that among other health care professional[3].
Hence, this study was conducted with aim to assess the level of knowledge regarding medication error among staff nurses working in Civil Hospital.

Methods and Materials
This quantitative non-experimental, descriptive research study was conducted from 1st April to 30thJune 2018 in Civil Hospital Panchkula, Haryana, India. The ethical approval was taken from the hospital ethics committee prior to study. Total 100 staff nurses were selected using, non-probability convenient sampling technique.

The tool used for the data collection consisted of two parts: Section I was subjects data sheet containing 10 demographic variables i.e. age, gender, marital status, educational status, types of working shift, years of experience, designation of staff, employment status, types of working unit and number of allotted patients to staff nurses.

Section II included 20 items self-structured questionnaires related to medication errors. The majority of questions were knowledge based on the types, barriers, factors, refusal to reporting and complication of medication errors. To avoid the close ended true false questions. The content validity of tool was given to 9 experts from the field of medical surgical nursing, child health nursing, community health nursing and mental health nursing. The reliability coefficient was calculated to be 0.723.

Inform consent was taken from study participants and were asked to fill the questionnaire then after assessing the knowledge of staff nurses. The data revealed that 66% of staff nurses had good knowledge regarding medication error and 23% had average knowledge regarding medication error. Data was analyzed with SPSS version 16 using descriptive and inferential statistics.

Results

Demographic characteristic of the study revealed that more than half of the subjects (62%) were belonging to the age group of 26-35 years. Most of the subjects (98%) were female staff nurses. The majority of the subjects were married (85%), more than half of the subjects (63%) were qualified with general nursing midwife, Most of the subjects (99%) had shifting duty, majority of the subjects (81%) had work experience between 2-15 years. The most of the subjects were designated as temporary staff nurses (97%) and, more than half of the subjects (58%) were permanent staff nurses. Near to half of the subjects (44%) were working in medical ward. The majority of numbers of allotted patient to subjects were 35%. More than half of the subjects (66%) had good knowledge regarding medication error as depicted in Table no. 1. The mean ±SD for knowledge score regarding medication error among staff nurses was 12.18±2.57. Computed Chi-square value was used for the association of knowledge score among staff nurses with selected demographic variables showed that age (0.005), year of experience as registered nurse (0.020) and designation of staff nurses (0.001) were found statistically significant at $p < 0.05$ level of significance.

Table 1: Frequency and percentage distribution showing knowledge levelregarding medication errorof subjects, n=100

Level of Knowledge	Frequency	Percentage (%)
Very Good	7	7%
Good	66	66%
Average	26	26
Below Average	1	1

Table 2: Range, mean, mode, median and standard deviation of knowledge score of subjects, n=100

Variable	Range	Mean±SD	Mode	Median
Knowledge Score	12.00	12.18±2.57	12.00	12.00

Maximum Score =20 Minimum Score =00

Discussion

The present study aimed to assess the knowledge regarding medication error among staff nurses working in civil hospital, Panchkula, Haryana. The results of the current study showed that the most of staff nurses (66%) had good knowledge regarding medication error. The findings of the present study are discussed here with consistent and inconsistent support from previous studies. A similar study was conducted by Sailabala Mohanty, *et al* (2015) [5] conducted a descriptive study on knowledge of medication error among staff nurses in IMS & Sum hospital, Odisha. Total 100 staff nurses were taken for study. In this 67.6% has been found to be had good knowledge regarding medication error

Conclusion

It was therefore concluded that majority of staff nurses (66%) had good knowledge regarding medication error. The association of knowledge score among staff nurses with selected demographic variables showed that age (0.005), year of experience as registered nurse (0.020) and designation of staff nurses (0.001) were found statistically significant at (p≤0.05) level of significance. Data was collected by using self-structured knowledge questionnaire. Data was analysed with SPSS version 16 using descriptive and inferential statistics.

Recommendation

On the bases of findings of study follows recommendation that the study can be replicated on larger sample, conducted with different setting for making broad generalisation of finding, qualitative study can be done on life experience of staff nurses regarding medication error.

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