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Research article

Medical research

Nurses' knowledge on practice of safe medication administration in Halibet Hospital from February 14, 2013 to May 30, 2013, Asmara

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ABSTRACT

Medication administration is a crucial part in nursing. Having a study concerning the contributing factors that lead to medication error is important as this study creates awareness about the medication error and its consequences will affect patient's safety. Descriptive study design was used as research design. Study conducted in HALIBET hospital, Asmara, Eritrea. Simple random sampling was used to collect the samples; the total sample size was 82 associate nurses from Halibet hospital. The data was collected by using self administered questionnaire. The results showed that out of 82 associate nurse majority (59.7%) were having adequate knowledge on practice, 39.1% were having moderate knowledge on practice and 1.2% were having inadequate knowledge on practice. Regarding the causes of medication error 25.6% nurses stated personal issue, 24.4% were stated workload, 19.5% stated knowledge, 14.6% stated complicated order, 11.0% stated unfamiliarity with medication, 4.9% were stated lack of staff as main cause of medication error.

Background

Medication administration is a crucial part in nursing. Having a study concerning the contributing factors that lead to medication error is important as this study creates awareness about the medication error and its consequences will affect patient's safety. There are many type of medical error that leads to injury and may jeopardize patient's safety. According to Hughes and Ortiz (2005), the most common type of medical error, that happen universally is medication error. Medication errors were estimated to account for more than 7,000 deaths annually [4].

General Objective

To assess the level of knowledge on practice of safe medication administration and to identify the contributing factors to medication error among the nurses.

Specific Objective

1. To assess the level of knowledge on practice of safe medication administration.
2. To identify contributing factor for medication error.
3. To assess the demographic variable.
4. To assess whether the nurses know to administer medication at the right time.

Research hypothesis

There will be a significant difference in administering medication by the nurses in Halibet Hospital.

Simple random sampling was used to collect the samples; the total sample size was 82 associate nurses from Halibet hospital. The pilot study was conducted at Orotta national referral hospital. The data was collected over a period of 4 weeks by using self administered questionnaire. The data was organized in frequency distribution table, analyzed in terms of percentage and presented in different tables and graphs based on the type of data.

METHODOLOGY

Descriptive study design was used. It was conducted in HALIBET hospital, Asmara, Eritrea.

RESULTS

SECTION - A: Frequency and percentage distribution of demographic variables

Age distribution

Table 1

Age	Frequency	Percentage (%)
20-35 year	70	85.3%
36-50 year	8	9.8%
51-65 year	4	4.9%

Table 1 Shows out of 82 majority of (85.3%) them were between the age group 20 to 35 years. 9.8% of the associate nurse were between 36 and

50 and 4.9% of the associate nurse were between the age group of 51 to 65.

Gender distribution

Table 2

Gender	Frequency	Percentage
Male	24	29.3%
Female	58	70.7%

n=82

Table 2 shows that majority of the associate nurses (70.7%) were female and 29.3% were male

Distribution of work experience

Table.3

Work experience	Frequency	Percent (%)
1-3 year	47	57.3%
4-6 year	19	23.2%
>6 years	16	19.5%

n=82

Table 3 Shows out of 82 associate nurse ,majority (57.3%) were 1-3 year of work experience, 23.2% were 4-6 year of work

experience and 19.5% were having >6 years of work experience.

Distribution according to lecture attained

Table.4

Lecture attained	Frequency	Percent (%)
seminar	7	7.3%
workshop	35	42.7%
no	40	50%

n=82

Table 4 shows out of all associate nurse majorities (50%) were not attended any lecture regarding medication administration, 42.7% were attending workshop on it and 7.3% were attending seminar on medication administration.

SECTION B- Distribution of frequency and percentage of level of knowledge on practice of safe medication administration

Level of knowledge on practice Table5

Level of knowledge on practice	Frequency	Percentage (%)
Adequate	49	59.7%
Moderate	32	39.1%
Inadequate	1	1.2%

n=82

Table 5 shows out of 82 associate nurse majority (59.7%) were having adequate knowledge on practice, (39.1%) were having moderate

knowledge on practice and (1.2%) were having inadequate knowledge on practice.

SECTION C- distribution of frequency and percentage of causes of medication error

Causes of medication error: Table.6

Cause of medication error	Frequency	Percent (%)
personal issue	21	25.6%
Workload	20	24.4%
Knowledge	16	19.5%
complicated order	12	14.6%
unfamiliarity with medication	9	11.0%
lack of staff	4	4.9%

n=82

Table 6 show out of all associate nurse **25.6%** stated personal issue, **24.4%** were stated workload, **19.5%** stated knowledge, **14.6%** stated complicated order, **11.0%** stated unfamiliarity with

medication, **4.9%** were stated lack of staff as main cause of medication error.

SECTION D- Distribution of frequency and percentage of right time administration **Right time administration**

Table 7

n=87

Right time administration	Frequency	Percent
Always	68	82.9%
Usually	8	9.8%
Sometimes	2	2.4%
Never	4	4.9%

Table 7 shows majority of the associate nurses (82.9%) always ensure that the medication is administered at the right time, 9.8% usually, 2.4% sometimes and 4.9% never ensure that the medication is administered at the right time.

CONCLUSION

✓ From the research, participants were having adequate knowledge on practice in administering medication. So majority of the associate nurses in Halibet hospital have adequate knowledge on practicing medication administration safely thereby improving patient safety.

- ✓ The findings of this study conclude that all the factors listed have their own percentage leading to medication error. Personal issues are the most contributing factor leading to medication error and follow by workload, knowledge, complicated order, unfamiliarity of medication and lack of staffs. Although the majority of respondents considered nurses' personal issues (personal neglect) as the incident leading to medication errors.

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