NURSING PRACTICE

Effectiveness OD Self Instructional Module on the Knowledge of Obstetric Drugs among Nurses Working in Maternity Unit

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Abstract

Objectives: To assess the knowledge of nurses regarding obstetric drugs.

Methods: The research approach for the study was an evaluative approach with one group pre-test/post-test design. The study comprised of 30 nurses working in maternity unit of KLES Dr Prabhakar Kore Hospital and Medical Research Center, Belgaum. The tool used for gathering relevant data was a structured questionnaire on knowledge regarding obstetric drugs.

Results: Analysis of data was done on the basis of objectives and hypothesis. It was found that the overall pre-test mean knowledge scores was 21.63, whereas post-test mean knowledge scores was 38.26. The range between highest score and the lowest sore in the pre-test was 26 which was to decrease to 15, after administration of self instructional module in the post-test.

Conclusion: Based on the analysis of the findings of the study, the following inference was drawn. There was increase in the knowledge scores in all the areas included in the study after administration of self instructional module. Thus it was inferred that self instructional module was effective in increasing the knowledge of nurses.

Keywords: Nurses, knowledge, obstetric drugs

INTRODUCTION

The midwife is recognized as a responsible and accountable professional who works in partnership with pregnant woman to give the necessary support, care and advice during pregnancy, labor and the postpartum period. This care includes prevention of complications, promotion of normal birth, the detection of complications in mother and baby.[1]

Midwives who care for pregnant and laboring women are faced with an increasingly frequent use of pharmaceutical agents that facilitate initiation of labor (uterotropics), augment labor (uterotonics) or potentially retard and delay labor (tocolytics). Knowledge about uterine physiology helps the midwife to understand the action of these agents. Knowledge of the differences and similarities among oxytocics, ergots, prostaglandins and the various other drugs used as tocolytics is essential for safe and effective care of woman and fetus that may be exposed to these agents.[2]

Epidemiology of medication error and their complications:

- In United State adverse drug reactions are the 4th most common cause of death accounting for more than 100,000 deaths per year.
- In India the extrapolated figures would be 400,000 deaths due to adverse drug reactions and 720,000 adverse events per annum.

Common causes of errors in medicine administration include-inattention, haste, medicine labeling error, communication failure, fatigue.[3]

As medication administration is one of the responsibility of nurses the investigators found that it is necessary to evaluate the knowledge regarding obstetric drugs among nurses working in maternity unit of KLES Dr. Prabhakar Kore Hospital and MRC, Belgaum.

The investigator observed that there is a need to improve the knowledge of nurses regarding obstetric drugs.

METHODS

The data were collected from 18th to 26th September 2008 after obtaining permission from hospital authorities. Pre-test was conducted using a structured knowledge questionnaire for 30 minutes. To assess the knowledge regarding obstetric drugs. Self instructional module on obstetric drugs was administered after pre-test. Post-test was conducted after 7 days.

RESULTS

The findings of the study showed that majority of nurses 15(50%) belonged to the age group of 24-28 years. Maximum number of nurses 30(100%) had GNM qualification. Majority of nurses 17(56.66%) had 1-3 years of clinical experience. Maximum number of nurses 19(63.33%) had experience in Maternity unit below 1 year. Nurses were not having exposure to in-service education program (Table 1). Prior to the administration of self instructional module, the nurses had maximum knowledge (57%) in the area of administration of medication and minimum knowledge (41.92%) in the area of obstetric drugs. However on administration of self instructional module, the scores showed considerably greater gain (83.33%) in the area of administration medication and (78.77%) in the area of knowledge regarding obstetric drugs (Table 2). The overall pre-test mean knowledge score was (21.63) and median was (22), whereas post-test mean knowledge score was (38.26) and median was (39). In the pre-test majority of nurses 26(86.66%) had average knowledge, 2(6.66%) had good knowledge, 1 (3.33%) had poor knowledge, whereas in post-test majority of nurses 26 (86.66%) had good knowledge and 4 (13.33%) had average knowledge (Table 3). The calculated paired't' value (t = 26.46) was greater than tabulated value (t = 2.045), indicating that the gain in knowledge score is statistically significant at $p < 0.05$ levels. Therefore self instructional module was effective to improve the knowledge of nurses regarding obstetrics drugs. The variables age, total years of clinical experience, experience in maternity unit showed an association with pretest knowledge at 0.05 level of significance. No association was found between the variables, i.e., professional qualification and in-service education attended; at 0.05 level of significance.

Table 1: Frequency and percentage distribution of staff nurses according to sociodemographic data

n=30

S No	Sociodemographic data	Frequency (f)	Percentage (%)
1.	Age		
	a. 20-24 years	11	36.6
	b. 24-28 years	15	50.00
	c. Above 28 years	4	13.3
2.	Professional qualification		
	a. Diploma nursing	30	100.00
	b. Graduate nursing	0	0
3.	Total years of clinical experience		
	a. Below 1 year	7	23.33
	b. 1-3 years	17	56.66
	c. Above 3 years	6	20.00
4.	Experience in maternity unit		
	a. Below 1 year	19	63.33
	b. 1-3 years	11	36.6
	c. Above 3 years	0	0
5.	In service education attended		
	a. Yes	0	0
	b. No	30	100

DISCUSSION

In the present study a sample of 30 nurses working in maternity unit were taken for the study. Findings showed that majority of nurses 15(50%) belonged to the age group of 24-28 years. These findings are contradictory to the findings of the study conducted by Deepaty G[4] where minimum 7 (15.6%) nurses belonged to the age group of 24-28 years. All the participants 30 (100%) were diploma holders. This finding corresponds with findings of the study of Salunkhe J[5] who had 35(100%) diploma nurses as her sample for the study. Majority of nurses 17 (56.66%) had 1-3 years of clinical experience. These findings are similar to the findings of the study of Salunkhe J[5] who had majority of nurses 19 (54.3%) with less than 3 years of total clinical experience. Majority of nurses 19(63.33%) had below one year of experience in maternity unit. These findings are similar to the findings of the study conducted by Deepaty G[4] where 17 (37.89%) of nurses had less than one year of experience

Table 2: Pre-test and post-test percentage scores of staff nurses on knowledge of obstetric drugs

S. N.	Areas of knowledge score	Total pre-test test score	Total post (%)	Pre-test mean (%)	Post-test mean score (%)	Actual gain score (%)	Modified gain
1	Administration of medication	171	250	57	83.33	26.33	0.61
2	Obstetric drugs	478	898	41.92	78.77	36.85	0.45

Table 3: Distribution of level of knowledge scores on obstetric drugs among staff nurses during pre-test and post-test

n = 30

S No	Knowledge score	Pre-test		Post-test	
		f	%	f	%
1	Good (32-48)	2	6.66	26	86.66
2	Average (12-32)	26	86.66	4	13.33
3	Poor (<12)	1	3.33	0	0

in maternity unit. The results of the study show all the nurses 30 (100%) had no exposure to in-service education program. These findings are similar to the findings of the study of Deepaty G[4] where maximum 38(84.4%) of nurses had no exposure to in-service education program. The investigator assessed the knowledge of nurses regarding obstetric drugs. The study revealed that in pre-test 2(6.66%) had good knowledge, 26 (86.66%) had average knowledge and 1(3.33%) had poor knowledge. The findings of the study are corresponding to the findings of the study conducted by Ndosi and Newell. The study showed that out of total sample of 42 nurses 24 (57.2%) had inadequate knowledge of pharmacology. There was no association between the variables professional qualification and inservice education attended, whereas the variables age, total years of clinical experience, experience in maternity unit showed an association between existing knowledge. The results contradict with the findings of the study conducted by Fahimi F, Ariapanati P and Faizi M, where there was no significant correlation between the rate of medication errors and nurses' age, sex, qualification, working experience.[6]

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