



KNOWLEDGE AND SKILL REGARDING INTRAMUSCULAR INJECTION TECHNIQUE AMONG NURSING STUDENTS

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ABSTRACT

Aims: The aim of present study was to assess the knowledge and skill of student nurses about administrating intramuscular injections.

Materials and Methods: Purposive non random purposive sampling was used to select the sample. The data collected during the month of July and August 2017 . among students of various nursing schools of Ranchi, using socio demographic data sheet, knowledge questions and skill checklist.

Results: A total of 342 students participated the study with mostly (184) were in 20-22 years age group and most of the nursing students were female n=334 (98%). On final scoring of tests, 34 were poor, 205 (59.94%) were average, 97 (28.36%) were good and 6 were excellent on the basis of their knowledge score. Similarly skill score scoring was good for 59.35% (n= 203) and 15.49% (n=53) were excellent.

Conclusions: This study finds that nursing student have adequate knowledge and skill regarding intramuscular injection.

KEYWORDS : Nursing; Intra muscular; injection; skill.

INTRODUCTION

Injections are one of the most effective and frequently used mode of medication delivery procedure in clinical practice, it is one of the most common health care procedures worldwide. All health care professionals should have knowledge and skill to perform intramuscular (IM) injection to infiltrate a number of drugs [1]. Since the use of this procedure is associated with complications, discomfort and painful experience of many patients, it is essential that every health care institutions has best clinical practice guidelines for intramuscular administration of the drug. The nursing education programs have the responsibility to prepare efficient and competent graduates to manage the patients' medication effectively [2], and it is reasonable to expect the nurses to implement the new recommendations in clinical practice. Good injection technique can make the difference between less pain and injury. The administration of intramuscular injection is a common nursing intervention in clinical practice. Since there is a vast gap between the knowledge and practice among the nursing students regarding intramuscular injection technique, so we felt the need for assessment of nursing student.

Therefore, the aim of this study was to analyse the general aspects of intramuscular injection procedure and its compliance with current recommendations, and more specifically, to determine whether nurses use this recommendation in practice. A descriptive survey was planned to assess the knowledge and skill regarding intramuscular injection technique among nursing students studying in various nursing institutions in Ranchi, Jharkhand.

Methodology:

To assess the knowledge and the skill of nursing student regarding intramuscular injection in administering drugs. The research approach adopted was descriptive in nature. The study was conducted at various institutes of Ranchi, who have granted permission for conducting this study, and the sample consisted of all consenting students in these various nursing institution of Ranchi. Purposive non random sampling was used to select the sample. The data collected during the month of July and August 2017.

The study was conducted in:

- College of Nursing, RIMS, Ranchi
- School of Nursing, RIMS, Ranchi
- Hill View School of Nursing, Bariatu, Ranchi
- Florence College of Nursing, Irba, Ranchi

TOOLS:

Socio demographic data sheet: It contains data regarding age, sex, course of the study, previous knowledge, workshop attended etc.

Knowledge questions: This section contains 20 questions to assess the knowledge label of the students regarding intramuscular injection administration technique.

Checklist: This section contains 19 steps to analyze the skill of the nursing students towards intramuscular injection administration technique

Statistical Analysis: Description of demographic characteristics of the students using percentage analysis was done. Student's knowledge regarding intramuscular injection administration technique analyzed through the mean and standard deviation. Student's skill regarding intramuscular injection administration technique analyzed through the mean and standard deviation.

RESULT

There was a total of 342 students participated the study, the frequency and distribution of demographic variables of staff nurses revealed that Among the 342 students, 42 of them were in the age group of 17-19 years, 184 were in 20-22 years, 80 were in 23-25 years, 24 were in 26-28 years, 4 were in 29-31 years, 7 were in 32-34 years and 1 was in 35-37 age group. In this study most of the nursing students were female n=334 (98%) and there was only 8 (2%) male nursing student.

As per response to questionnaire 320 students reported that they are already having previous knowledge and 22 students denied previous knowledge of intramuscular injections. However only 45 students had attended any specific workshop of any intramuscular injections knowledge and technique, while 297 students did not had any such opportunity. On final scoring of tests among 342 student, 34 were poor, 205 were average, 97 were good and 6 were excellent on the basis of their knowledge score. Similarly result of skill score revealed that among 342 student, 7 were poor, 79 were average, 203 were good and 53 were excellent on the basis of their skill score. (Table – 1).

DISCUSSION:

The study was conducted in various nursing teaching schools to

assess the knowledge regarding IM injection technique. It is a basic procedure to be known by all nursing students, as all of them were practically involved in the administration of the injection. Our study revealed that nursing students had good knowledge and good technique regarding IM injection. These findings would help to improve quality of nursing care, it helps nursing personnel to improve their knowledge and skill regarding administration intramuscular injection technique.

The striking feature of this study is major difference in knowledge performance and skill performance, that is 97 versus 203 students scoring as good respectively for knowledge and skill. That implicates that practical skill is more important to learn rather than theoretical knowledge. This suggests that these findings could be utilized to prepare structured teaching programme should use practical skill learning for nursing students regarding intramuscular injection. Proper knowledge of intramuscular injection technique can prevent the complication of it.

These results are consistent with Srividya et al [3] who found that knowledge of IM injection was good among most of the nursing students and medical interns. On contrary respondents' poor knowledge and skill reported by few other studies [4,5].

Clinical learning is the part of nursing education, students exposure to clinical learning environment is one of the most important factors affecting the teaching learning process in clinical setting. Identifying challenges of nursing students in the clinical learning environment could improve training and enhance the quality of its planning and promotion of the students.

Safe administration of medicine is one of the most important responsibilities of nurses. New medicines are introduced daily and so it is her responsibility to be updated. The nurse's role in drug administration has become increasingly complex and diversified. The level of knowledge and skill now demanded of nurse is much broader. Literature review shows so far no nursing students have been done in India to the best of the investigator's knowledge to evaluate the knowledge and practice of staff nurses about the intramuscular injection technique, otherwise complications result due to errors in techniques [6]. Therefore, the investigator felt the need to develop and evaluate the knowledge and skill of nursing students in intramuscular injection procedure, with additional purpose to provide opportunity to learn, providing feedback to know the quality of their learning and to improve the quality of the skill.

Nurses working at various levels should be able to teach the student nurses in effective and efficient way. This study emphasizes the need for developing good teaching and demonstration skill in student nurses regarding various nursing procedure [7]. Since intramuscular injection is most common procedure done in hospital setting so, in-service education should be provided to the nursing personnel at various level to reduce the complication or risk associated with the procedure.

The curriculum of nursing schools/colleges should be emphasizing the skill development of the students with the use of various simulation method and advanced learning techniques.

CONCLUSION

The finding of the present study indicate that student have adequate knowledge and skill regarding intramuscular injection. Continued teaching and demonstration should be given to upgrade their knowledge and skill regarding intramuscular injection.

Table 1. Sample socio demographic clinical Characteristics and findings (total n= 342):

		n	%
Gender	Female	334	97.66 %
	Male	8	2.33 %

Age	17-19 YEARS	42	12.28 %
	20-22 YEARS	184	53.80 %
	23-25 YEARS	80	23.39 %
	26-28 YEARS	24	7.01 %
	29-31 YEARS	4	1.16 %
	32-34 YEARS	7	2.04 %
Previous knowledge of IM injections	35-37 YEARS	1	0.29 %
	Yes	320	93.57 %
Attended workshop on IM injections	No	22	6.43 %
	Attended	45	13.16 %
knowledge score	Not attended	297	86.84 %
	Poor	34	9.94 %
	Average	205	59.94 %
	Good	97	28.36 %
skill score	Excellent	6	1.75 %
	Poor	7	2.04 %
	Average	79	23.09 %
	Good	203	59.35 %
	Excellent	53	15.49 %

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