IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, December 2025
Impact Factor: 7.67

Assess the Knowledge Regarding Management of Medication among Staff Nurses at Selected Hospitals, Chennai

Magdalene Sunitha and Manju Sudhakar
Senior Clinical Nurse Lead Administrator, Apollo College of Nursing, Chennai, India[1]
Assistant Professor, Apollo College of Nursing, Chennai, India[2]
sunithajoerhe78@gmail.com

Abstract: ***Background:*** *Medicine refers to the science of healing, practice of the diagnosis, treatment and prevention of disease, and the promotion of health. Accurate assessment and interpretation of vital sign data is fundamental to patient safety. Nurses are responsible for the initial and ongoing assessment of undiagnosed or undifferentiated patients.The aim of Medicine is to cure, not to harm patients. Medication errors have always occurred, and so patient safety is not a new topic.* ***Methods & Materials:*** *A cross sectional descriptive correlational research design was adopted to assess the awareness of nurses on management of medication. An extensive review of literature and guidance from the experts formed the foundation to the development of the tools such as demographic variables proforma, MCQ questionnaire on medication management in google form. The present study was conducted in selected tertiary care center at Chennai, among 50 nurses selected by purposive sampling technique. After obtaining setting permission and research participants' consent, a brief introduction of the research was given. Then the data were collected using the predetermined tools through email using google forms. The collected data were organized and analyzed using descriptive and inferential statistics.* ***Results:*** *%). More than half of the staff nurses' had moderate level of knowledge regarding management of medication (27%) and 13% of them had inadequate knowledge in pre-test.* ***Conclusion:*** *The present study reveals the necessity for capacity building programme for knowledge update regarding importance of nurses regarding medication management.*

Keywords: Nurses, Capacity building, Knowledge, Medication

I. INTRODUCTION

Medication administration is a multistep process that encompasses prescribing, transcribing, dispensing and administering drugs and monitoring patient response. An error can happen at any step. Although many errors arise at the prescribing stage, some are intercepted by pharmacists, nurses or other staff. Develop and broadly disseminate NCC MERPs' recommendations and other work products related to reporting, understanding, and prevention of medication errors. Collaborate with other interested stakeholders to address special topics related to medication errors and patient safety initiatives.The mission of the National Coordinating Council for Medication Error Reporting and Prevention NCCMERP (July 2006) is to maximize the safe use of medications and to increase awareness of medication errors through open communication, increased reporting and promotion of medication error prevention strategies. An adverse event is defined as an event that results in unintended harm to the patient which can be minimized by constant attention and monitoring. The early recognition of clinical deterioration, followed by prompt and effective action, can minimize the occurrence of adverse events such as cardiac arrest, and a lower level of intervention is sufficient to stabilize a patient. Nurses have critical roles of the nurse educators' and staff nurses' to determine the present status and then improve the quality of care. Medication administration process is one of the critical aspects of professional nursing care. Competence of nurses' in the area plays a highly important role in the safety of patients. The nursing education

DOI: 10.48175/568

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 5, Issue 2, December 2025 Impact Factor: 7.67

programs have the responsibility to prepare efficient and competent graduates to manage the patients' medication effectively. However, some studies have shown that the staff nurses' are not competent in medication management.

STATEMENT OF THE PROBLEM

A Descriptive Correlational study to Assessthe Knowledge regarding Management of Medication among Staff Nurses at Selected Hospitals, Chennai

OBJECTIVES

1. To assess the level of knowledge on management of medication among staff nurses.
2. To determine the effectiveness of the capacity building program on management of medication upon the knowledge by comparing their pre-test and post-test knowledge scores among staff nurses.
3. To find out the association between the selected background variables of staff nurses and their level of knowledge on management of medication.

II. MATERIALS AND METHODS

An evaluative study design was conducted among 50 staff nurses selected by purposive sampling technique at selected hospitals, in Chennai using the pretested and predetermined tools such as background variables of staff nurses, structured knowledge questionnaire consisting of 35 multiple choice questionnaire on Management of Medication. The content validity and reliability of the tools were established through test retest (r=0.76) and test retest method (r=0.78). A Main study was conducted to establish feasibility and researchability of the study. After obtaining setting permission, participants consent, a brief introduction about the study was given to participants. The collected data were organized and analyzed using descriptive and inferential statistics.The nurse researcher has collected the data from selected Hospitals, after obtaining proper administrative permission from concerned authorities. The observation time schedule was from 10 am – 12 noon and 02.00 to 4 pm. The data collection period was from Feb 27th to Mar 8h 2022.A group of 50 staff nurses' was selected from selected Hospital by purposive sampling method with an pre-experimental one group pre-test post-test research design and obtained verbal consent for the study. During the class hours, the staff nurses' were gathered in the classroom and collected the baseline data by using background variable proforma. Their pre-test knowledge level was assessed by using structured questionnaire.The collected data was tabulated and analyzed using descriptive and inferential statistics.

III. RESULTS AND DISCUSSION

The data were analyzed according to the objectives and hypothesis of the study. that Majority of the staff nurses' were aged between 21-25 years (96%), all of them were females (100%), half of them have year of experience between 2 months to 6 months (60%), all of them have completed Bsc Nursing (100%), above half and most of them were posted in emergency room (24%) and intensive care unit(24%). More than half of the staff nurses' had moderate level of knowledge regarding management of medication (27%) and 13% of them had inadequate knowledge in pre-test.

Assessment results revealed most of them had acquired adequate level of knowledge (94%) in the post-test. The post-test knowledge scores was high compared to pre-test score, with regard to management of medication concepts(t= 5.118), look alike and sound alike drugs (t= 6.138), high alert medications (t= 5.287), medication errors (t= 5.893), medication administration process (t= 20.07), and near miss, adverse drug event/ reaction, sentinel event (t= 12.415), which was statistically significant at $p<0.001$ level. The mean and standard deviation of the overall post-test knowledge score regarding management of medication (M =33.41, SD= 2.60) was high compared to the pre-test knowledge score among staff nurses'(M = 24.18, SD = 6.54) with t value of 14.63 which was statistically significant at $p<0.000$ level. Hence the null hypotheses Ho1 stating that "There will be not be any significant difference in knowledge on management of medication between pre-test and post-test among staff nurses" is rejected. The results were collaborative with a descriptive study done by Alboliteehet al (2017) among nurses. The nurses were more likely than physicians to have good knowledge (94% vs. 53.6%) and to have a better practice level 82.1% vs. 52.4%).

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 5, Issue 2, December 2025 Impact Factor: 7.67

A significant difference emerged between physicians and nurses on nationality, language, and working site as revealed by the results. This was the first survey to assess nurses and physicians among primary health care level. The findings of the survey demonstrated that nurses had better knowledge and practice and a less negative attitude to the system. There was no significant association between background variables such as age, gender, years of experience, qualification and unit among staff nurses. Hence the null hypothesis Ho1 stating that "there will be no significant association between selected background variables and knowledge of management of medication among staff nurses.

Table1. Frequency and Percentage Distribution of Background Variables of Staff Nurses. (N=50)

Background Variable	f	%
Age		
21-25 Years	48	96
25-40 Years	2	4
≥40 Years	Nil	0
Gender		
Male	Nil	0
Female	50	100
Year of Experience		
2 Months to 6 Months	30	60
6 Months to 1 Year	10	20
More than 1 Year	10	20
Qualification		
General Nursing & Midwifery	Nil	0
Bsc Nursing	50	100
Post Bsc Nursing	Nil	0
Msc Nursing	NIL	0
Unit		
Emergency Room	12	24
Intensive care unit	12	24
Operating Room	7	14
Labour ward	5	10
Medical-Surgical ward	10	20
NICU	4	8

Table 1. depicts that majority of the staff nurses' were aged between 21-25 years (96%), all of them were females (100%), half of them have year of experience between 2months to 6 months (60%), all of them have completed Bsc Nursing (100%), above half and most of them were posted in emergency room (24%) and intensive care unit (24%).

Table 2. Frequency and Percentage Distribution of Pre-test and Post-test Level of Knowledge of Staff Nurses on Management of Medications.(N=50)

Level of Knowledge	Pretest		Posttest	
	f	%	f	%
Inadequate knowledge(<20)	13	26	Nil	0
Moderately Adequate Knowledge(21-30)	27	54	3	6
Adequate Knowledge(31-35)	20	40	47	94

Table 2 depicts that nearly half of the staff nurses' had moderate level of knowledge regarding management of medication (27%) and 13% of them had inadequate knowledge in pre-test. Assessment results revealed most of them had acquired adequate level of knowledge (94%) in the post-test.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 5, Issue 2, December 2025 Impact Factor: 7.67

Figure 1. Frequency and Percentage Distribution of Pre-test and Post-test Level of Knowledge of Staff Nurses on Management of Medications.(N=50)

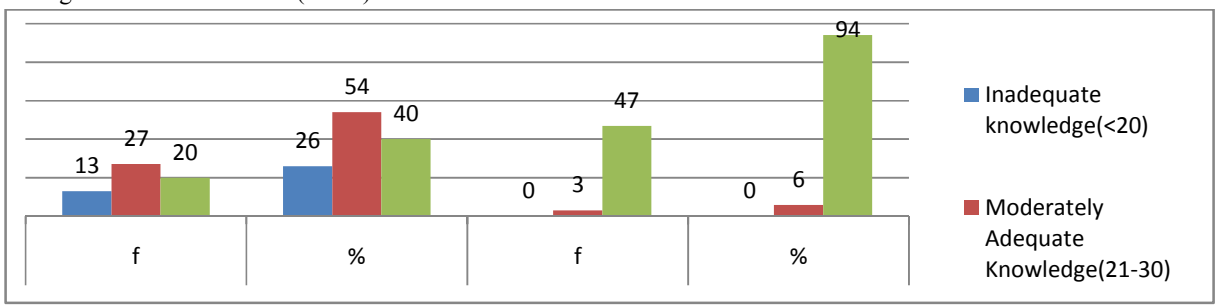

Table 3.Comparison of Pre-test and Post-test Knowledge Scores Regarding Management of Medication. (N=50)

Components	Pre-test		Post-test		t value	p value
	Mean	SD	Mean	SD		
Management of Medication concepts	3.28	1.13	3.81	1.02	5.118	0.00
Look Alike Sound Alike Drugs	3.23	1.13	3.66	0.69	6.138	0.00
High Alert Medications	4.43	1.76	5.16	1.36	5.287	0.00
Medication errors	3.65	1.15	4.38	1.22	5.893	0.00
Medication Administration Process	5.71	2.35	9.42	1.82	20.07	0.00
Near miss, Adverse drug Event/ Reaction, Sentinel Event	5.09	1.96	6.88	1.42	12.415	0.00
Total	24.18	6.54	33.41	2.61	14.63	0.00

Table 3 shows that the post-test knowledge scores were high compared to pre-test score, with regard to management of medication concepts (t= 5.118), look alike and sound alike drugs (t= 6.138), high alert medications (t= 5.287), medication errors (t= 5.893), medication administration process (t= 20.07), and near miss, adverse drug event/ reaction, sentinel event (t= 12.415), which was statistically significant at $p<0.001$ level.Themean and standard deviation of the overall post-test knowledge score regarding management of medication (M=18.10, SD= 2.60) was high compared to the pretest knowledge score among staff nurses' (M = 24.18, SD = 6.54) with t value of 14.63 which was statistically significant at $p<0.000$ level. Hence the null hypothesesHo stating that "There will be not be any significant difference between pre-test and post-test knowledge on management of medication among staff nurses 'was rejected at $p<0.05$ level.

IV. CONCLUSION

Capacity building program are proposed as a means of providing high quality of care in a timely and cost effective manner. The findings of the study indicated that it will improve the knowledge p of staff nurses' regarding capacity building program on management of medication as well as in terms of gaining knowledge , in order to prevent the complications and to prevent medication errors.

REFERENCES

[1]. Afolalu, O. O. (2018). Self-Reported Perceptions of Factors Influencing Error Reporting in One Nigerian Hospital: A Descriptive Cross-Sectional Study (Doctoral Dissertation, University of Cape Town).

[2]. Alboliteeh, M., &Almughim, I. M. (2017). The Knowledge, Attitude and Practiceof Physicians and Nurses toward Adverse Event Reporting System in Primary Health Care setting. Journal of Patient Safety &Quality Improvement, 5(1), 475-481.

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 2, December 2025
Impact Factor: 7.67

[3]. Adams, V. (2016). An Introduction To Modern English Word-Formation. Routledge. Lorenz, K. A., Lynn, J., Dy, S. M., Shugarman, L. R., Wilkinson, A., Mularski, R. A., ... &iRhodes, S. L. (2018). Evidence for Improving Palliative Care at The End of Life: A Systematic Review.

[4]. Bos, J. M., Van Den Bemt, P., De Smet, P., &Kramers, C. (2017). The Effect of Prescriber Education On Medication-Related Patient Harm in The Hospital: A Systematic Review. British Journal of Clinical Pharmacology, 83(5), 953-961.

[5]. Bos, J. M., Van Den Bemt, P. M., Kievit, W., Pot, J. L., Nagtegaal, J. E., Wieringa, A., Van Der Westerlaken, M. M., Van Der Wilt, G. J., De Smet, P. A., … Kramers, C. (2016). A Multifaceted Intervention to Reduce Drug-Related Complications in Surgical Patients. British Journal of Clinical Pharmacology, 83(3), 664-677.

[6]. Booth, R., Sinclair, B., Mcmurray, J., Strudwick, G., Watson, G., Ladak, H.,...&Brennan, L. (2018). Evaluating A Serious Gaming Electronic Medication Administration Record System Among Nursing Students: Protocol for A Pragmatic Randomized Controlled Trial. JMIR Research Protocols, 7(5).

[7]. Centers for Disease Control andPrevention (CDC). (2014). Antibiotic Resistance Threats in theUnited States, 2013. Atlanta: CDC; 2013.

[8]. Collaboration of The Pharmacist In Palliative Care: Analysis Of Patients Admitted And Therapeutic Equivalents Suggested. European Journal of Hospital Pharmacy: Science andPractice,21(Suppl 1), A50-A51.

[9]. Ehsani, S. R., Cheraghi, M. A., Nejati, A., Salari, A., Esmaeilpoor, A. H., &Nejad, E. M. (2013). Medication Errors of Nurses inthe Emergency Department. Journal of Medical Ethics and History of Medicine, 6.

[10]. Green, B., Tsiroyannis, C., &Brennan, P. A. (2016). Human Factors–Recognizing and Minimizing Errors in our Day To Day Practice. Oral Diseases, Canadian Journal of Surgery22(1), 19-22.

[11]. Mozaffarian, D., Benjamin, E. J., Go, A. S., Arnett, D. K., Blaha, M. J., Cushman, M., ... &Howard, V. J. (2015). Heart Disease and Stroke Statistics—2016 Update: A Report fromThe American Heart Association. Circulation, CIR-0000000000000350.

[12]. Mostafaei, D., Marnani, A. B., Esfahani, H. M., Estebsari, F., Shahzaidi, S., Jamshidi, E., &Aghamiri, S. S. (2014). Medication Errors of Nurses and Factors in Refusal to Report Medication Errors among Nurses in A Teaching Medical CenterOfIran In 2012. Iranian Red Crescent Medical Journal,16(10).