Bedside Clinical Teaching of Nursing Officers- A Boon in Patient Management

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KEYWORDS

Bed side teaching, Nursing officers, Doctor, Patient, Clinical skills. Management

ABSTRACT

Introduction: Traditionally nursing officers, especially in developing country like India, are taken as channel to distribute medicines and preparing vital charts like input and output chart, temperature and pulse rate chart etc. The Nursing officers who work in transplant centres, especially in Intensive care unit are groomed in a way, so that they are able to interpret even small complaints or changes in vital parameters of patients, thus bringing it immediately into the knowledge of treating team, leading to better management of patient.

Aims and Objectives: To do bedside teaching of nursing officers on clinical rounds for one year and determine improvement in their approach towards patient management.

Materials & Methods: It was prospective study conducted at Department of Medical Gastroenterology, Post Graduate Institute of Medical Sciences (PGIMS), Rohtak, over a period of one year from 1st January, 2024 to 31st December, 2024. During this period thirteen nursing officers were given bed side teaching during clinical rounds on daily basis. They were explained about the concerned patient disease aetiology, pathogenesis, clinical presentation, diagnostic investigations and treatment, thus completing full cycle of management. A pre-test and post -test after one year of bed side teaching was done, regarding assessment of improvement in their approach towards the patient care.

Results: A pretest containing one hundred questions related to various aspects of patient management including diseases, diagnostic investigations, drugs and prognosis was taken and after one year of continuous bed side teaching post-test of same one hundred questions were taken and improvement was assessed. In all the thirteen nursing officers, there was significant improvement in the post-test score. The pre-test score varied between 50-65, post- test score ranged between 69-85. In all the thirteen nursing officers, there was significant improvement in the post-test which varied from 15-25 with mean improvement of 19.76.

Conclusion: In a developing country like India where there is shortage of trained doctors, thus it is not feasible to achieve the required doctor-patient ratio. Hence, it becomes more important to train the available health care workers which include Nursing officers which lead to better patient management and improved outcome.

Introduction- Clinical teaching in nursing is the process of guiding and supporting nursing students in clinical settings which helps in developing skills like communication, critical thinking, professional values, learning about nursing and the delivery of care to patients,

families, and communities and exploring ethical issues. It assumes that clinical teachers will bring to their task a background knowledge of educational principles, experience in a clinical nursing field, knowledge of substantive nursing content, a love of teaching and a desire to share with their students the joys, tears, challenge and wonder of learning in the clinical management of patients. Clinical education of undergraduate nurses remains an integral part of the nursing curriculum and forms the foundation for bridging the theory-practice gap **[1]**. Therefore, the nursing curriculum needs to be aligned to the clinical setting to ensure that graduates are equipped to face the challenges of complex and dynamic healthcare delivery system **[2]**. There is still need of clinical training of nursing officers even after completion of their undergraduate courses, when they are posted in indoor wards for assisting in management of patients. Traditionally Nursing officers, especially in developing country like India, are taken as channel to distribute medicines and preparing vital charts like input and output chart, temperature and pulse rate chart etc. The Nursing officers who work in transplant centres, especially in Intensive care unit are groomed in a way, so that they are able to interpret even small complaints or changes in vital parameters of patients, thus bringing it immediately into the knowledge of treating team, leading to better management of patient. The author had chance to work in liver transplant centre during three years super-speciality training in Gastroenterology and was exposed to Liver ICU management of many critical patients including liver transplant ones. Here, author personally visualized the performance of trained nursing officers in active management and applied same concept of training after coming back to his parent institute.

Aims and Objectives- To do bedside teaching of nursing officers on clinical rounds for one year and determine improvement in the approach of Nursing officers towards patient management.

Material and Methods- It was prospective study conducted at Department of Medical Gastroenterology, Post Graduate Institute of Medical Sciences (PGIMS), Rohtak, over a period of one year from 1st January, 2024 to 31st December, 2024. During this period thirteen nursing officers were given bed side teaching during clinical rounds on daily basis. They were explained about the concerned patient disease aetiology, pathogenesis, clinical presentation, diagnostic investigations and treatment, thus completing full cycle of management. A pre-test and post -test of one hundred questions, after one year of bed side teaching was done, regarding assessment of improvement in their approach towards the patient care.

Steps of Training: -

A) **Teaching regarding baseline disease of patient-** Normally nursing officers have no idea about the primary diagnosis of patient and they are tuned that their role is primarily limited to just distribution of medicines and preparation of vital charts. On clinical rounds, they were taught bed side, along with residents about details of disease of patient, covering all aspect from aetiology, pathogenesis, clinical presentation, differential diagnosis, diagnostic investigation and treatment part including prevention strategies. The nursing officers followed the clinical recovery of patients on daily basis, till the discharge from the hospital.

B) **Interpretation of diagnostic investigations-** The role of Nursing officers along with residents is to regularly update diagnostic investigations in the indoor file but they had no idea of what the reports meant in analysis of disease. Thus, they were regularly given knowledge about every biochemical and radiological investigations. They were able to appreciate changes in the tests and interpret whether they were on improvement or deteriorating side.

C) **Knowledge about prescribed medicines**- The attitude of nursing officers of limited role of just giving injections and oral medicines on time was changed by regularly bed side training about details of each and every drug being prescribed to patient which

included proper dosage, effects, side effects, interaction, indication of oral or intravenous route, approach of escalation of intravenous antibiotics.

D) **Performing ascetic tap under supervision**- Our department is a tertiary care centre and gets lot of referrals of chronic liver disease patients, majority of them are decompensated and have ascites which requires repeated tapping. Hence, our nursing officers were trained under supervision for performing ascitic tap which was done successfully by them,

E) **Fibroscan training**- Our department being a model treatment centre under National viral hepatitis control program (NVHCP), is a high flow centre for hepatitis B & C patients for whom Fibroscan is mandatory. All the diagnostic investigations and treatment are provided free of cost under NVHCP. It being a non-invasive procedure was easily and effectively learnt by Nursing officers. It helped in providing fibroscan services without any waiting period **[3]**.

F) **Management of hepatitis B and C patients**- Our department being a model treatment centre under National viral hepatitis control program (NVHCP), is a high flow centre for hepatitis B & C patients and on daily basis get seventy old and new patients for consultation. We daily run hepatitis B & C clinic where nursing officers were trained in assessment and management of hepatitis B and C patients. Over one year period, the nursing officers were independently able to treat hepatitis B and C patients **[4,5]**.

Observations- The thirteen nursing officers before starting of this bed side teaching were clearly explained about the aim, process and benefit of the same. The prior consent was taken and all of them underwent an one hundred questions pre-test and same was repeated after one year of clinical bed side teaching and assessment of improvement in the scores was done.

Total Nursing Officers (13)	**Pre-test Score**	**Post-test Score**	**Improvement in Score**
50 yrs Female	60	75	15
45 yrs Female	65	85	20
36 yrs Female	58	80	22
39 yrs Female	61	86	25
42 yrs Female	55	80	25
38 yrs Female	57	75	18
46 yrs Female	54	70	16
51 yrs Female	50	69	19
33 yrs Female	59	83	24
44 yrs Female	53	72	19
48 yrs Female	60	77	17
47 yrs Female	62	80	18
41 yrs Female	57	76	19

TABLE 1- Showing Pre-test, Post-test and improvement in scores of Nursing officers

Statistical Analysis- All the data was entered in Microsoft Excel and was analysed using SPSS 15.0 version.

Discussion- In developed country, there is concept of getting non-invasive tests by paramedical staff and after seeing contribution of trained nursing officers in liver transplant centre, the idea of training nursing officers in management of outdoor and indoor patients. It does not require additional efforts because bed side teaching is traditionally done for residents on clinical rounds where nursing officers are also present. The nursing officers are thought to reply for any queries regarding medicines, vital parameter charting and personal hygiene of patient but they are present throughout the round, listening silently clinical discussion between senior and junior doctors. Thus, it was thought to actively involve nursing officers in clinical bed side teaching which does not require any additional manpower or financial implications. The only caution

was not to over expect from nursing officers and to gradually increase their clinical acumen, so that they accept this transition happily and in true letter and spirits. The basic teaching which is provided during undergraduate training (B.sc Nursing) to nursing officers is not completely adequate in clinical management issues of patient and is more theory based. Only selected nursing officers move ahead to pursue M.sc Nursing in one speciality where they get good exposure of that field. Thus, clinical training and exposure of majority of B.sc Nursing is required for better management of patients. The need of the hour is to make nursing officers strong arm of health care professionals where their role has to be redefined from just distributing drugs to being actively involved in management of patients, after learning clinical aspects of the diseases. Moreover, the interacting period and time spent by nursing officer with patient is always more than the doctors and its normal behaviour of patient and their relatives to ask repeatedly about progress of disease from doctors and nursing officers. Hence, the answers of all the team members including nursing officer have to correct and same, so as to avoid any unwarranted confusion and allay apprehensions in mind of patient and their family members **[5]**.

Results- A pretest containing one hundred questions related to various aspects of patient management including diseases, diagnostic investigations, drugs and prognosis was taken and after one year of continuous bed side teaching post-test of same one hundred questions were taken and improvement was assessed. The pre-test score varied between 50-65, post- test score ranged between 69-85. In all the thirteen nursing officers, there was significant improvement in the post-test which varied from 15-25 with mean improvement of 19.76.

Conclusion- In a developing country like India where there is shortage of trained doctors, thus it is not feasible to achieve the required doctor-patient ratio. Hence, it becomes more important to train the available health care workers which include nursing officers which lead to better patient management and improved outcome. Moreover, this training does not require any additional manpower or finances and can easily be done along with existing bed side clinical training of resident doctors.

Limitation of Study- In our study, the number of nursing officer was small, hence same study should be done on large scale for determining accurate interpretation of results.

Conflict of Interest -The authors declare that there was no conflict of interest and no funding was taken from any source to conduct this research.

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