



Nurses' knowledge regarding intravenous therapy in a teaching hospital, Matrya Ayvum Shishu Chakitsalya, Dabri, New Delhi.

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ABSTRACT

In the clinical context of any hospital, intravenous (IV) therapy is a regular procedure, and nurses are responsible for handling and managing the patient receiving IV therapy. However, because nurses lacked proper training and experience in IV therapy, a number of major medical problems occurred. As a result, this study was carried out to learn more about the IV therapy knowledge of the nurses working in a teaching hospital. A study design was chosen with 100 nurses to evaluate their IV therapy knowledge. A method of systematic random sampling was employed. A semi-structured, self-administered questionnaire was used to gather information about nurses' knowledge. Descriptive and inferential statistics were applied to the data analysis. On IV therapy, the knowledge level was deemed insufficient and unacceptable. Age, professional qualification, professional designation, professional experience, and in-service education were characteristics that were linked to IV treatment knowledge levels. It has been determined that the majority of nurses lacked adequate IV treatment understanding. Therefore, it is strongly advised for the need of an IV treatment protocol, in-service training, efficient supervision, and reinforcement to improve nurses' knowledge of IV therapy.

Keywords: IV Therapy, Procedure, In-service Education, Nurses.

INTRODUCTION

Intravenous treatment is a medical procedure in which a patient receives fluids, medicines, and nutrients right into a vein. For persons who cannot or do not want to eat food or water orally for other reasons, such as diminished mental capacity, the intravenous route of administration is frequently utilized to rehydrate them or to feed them with nutrients. In order to rectify electrolyte imbalances, it may also be used to provide drugs or other types of medical therapy, like blood products or electrolytes.

The intravenous course is the quickest method for conveying meds and liquid substitution all through the body as they are brought straightforwardly into the circulatory framework and consequently immediately disseminated. Consequently, the intravenous course of organization is likewise utilized for the utilization of a few sporting medications. Numerous treatments are managed as a "bolus" or once portion, yet they may likewise be regulated as a lengthy mixture or trickle. The demonstration of directing a treatment intravenously, or putting an intravenous line ("IV line") for some time in the future, is a method that ought to just be performed by a gifted proficient. The most fundamental intravenous access comprises of a needle puncturing the skin and entering a vein that is associated with a needle or to outer tubing. This is utilized to control the ideal treatment. In situations where a patient is probably going to get numerous such mediations in a brief period (with a resulting hazard of injury to the vein), ordinary practice is to embed a cannula which leaves one end in the vein, and ensuing treatments can be regulated effectively through tubing at the opposite end. Now and again, numerous meds or treatments are controlled through a similar IV line.

When a quick distribution is required, intravenous (IV) access is used to provide drugs and fluid replenishment that must be dispersed throughout the body. The prevention of first-pass metabolism in the liver is another application for IV delivery. Volume expanders, blood-based products, blood replacements, medicines, and nutrients can all be injected intravenously.

Medicines, often regular saline or dextrose solutions, may be included into the aforementioned fluids. The IV route is the quickest means to distribute fluids and pharmaceuticals throughout the body when compared to other administration methods, such as oral medications. Because of this, emergency situations or other circumstances when a quick start to action is desired frequently favour the IV method. IV antihypertensives may be used in cases of excessively high blood pressure (also known as a hypertensive emergency) in order to fast and safely lower the blood pressure and prevent organ damage. Amiodarone IV can be used to treat atrial fibrillation in an effort to get the heart rhythm back to normal. Chronic medical illnesses like cancer, for which chemotherapy treatments are typically provided intravenously, can also benefit from IV pharmaceuticals.

Health professionals, especially nurses, should try to prevent any consequences connected to IVT. The nurse must be competent in both understanding and practice of intravenous therapy to prevent these problems. Trained nurses possess sufficient ability to care for patients with peripheral intravenous and knowledge of how to prevent infection risk factors. To effectively care for patients with IVT and avoid complications associated to IVT, nurses' knowledge of IVT is a crucial component. There haven't been many researches done on this subject in a hospital setting. Therefore, the researcher was motivated to carry out this study to learn more about nursing staff members' understanding and usage of intravenous therapy.

METHOD:

This study was carried out in the month of December 2021 at Matrya Aayum Shishu Chakitsalya, Dabri, New Delhi with 100 nurses who met the inclusion criteria, including all registered nurses (N=100) employed at Matrya Aayum Shishu Chakitsalya with at least three months of professional experience for assessing knowledge, and only 30% of the sample size (n=53) nurses for assessing the practice of IVT after receiving approval from the Institutional Review Committee and informing the participants. The information was gathered using a self-administered, semi-structured questionnaire with 26 items for knowledge assessment of various units like NICU, PICU, Pediatric Ward etc.

The study design was cross-sectional. The approach of systematic random sampling was used. Descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics were used to examine the data (chi-square).

RESULTS

Respondents' Demographic Information

In this study (table 1), the mean respondent age was 51% of respondents were between the ages of 22 and 23, living in urban areas (60%), being Hindu (68%), and being Brahmin or Chhetri (64%) in ethnicity. Respondents also graduated from private institutions (55%), had bachelors of nursing degrees (78%), held the position of staff nurse (82%), and worked in general wards (80%) on average (84 percent).

Table 1 shows the socio demographic information of the respondents (n=100).

Variable	Frequency	% percentage
Age groups (in years)		
<23	49	49
≥23	51	51
Place of residence		
Urban	60	60
Rural	40	40
Religion		
Hindu	68	68
Non hindu	32	32
Ethnicity		
Brahmin/Chhetri	64	64
Dalit/janjati	36	36
Educational institute		
Government	45	45
Private	55	55
Professional qualification		
Bachelor of nursing	78	78

Proficiency certificate level	14	14
Professional designation		
Staff nurse	82	82
Senior staff nurse	18	18
Clinical area		
General *	80	80
Critical**	20	20
In service education on IV therapy		
Yes	84	84
No	16	16

CONCLUSION

It has been determined that nurses who worked at Matrya Aayum Shishu Chakitsalya had on IVT. Age, professional qualification, professional designation, professional experience, and in-service education are influencing factors for degree of knowledge, while professional experience and professional designation are influencing factors for level of practise. Nurses' levels of knowledge and practise are inadequate; hence it is advised that experienced nurses receive refresher training while less experienced nurses receive the required mentoring. Additionally, health care professionals must give safe and high-quality care to patients, therefore they must have adequate resources and training. The management of private hospitals should also place a strong emphasis on senior nurses and trained nurses receiving refresher training in order to comply with practise norms and deliver high-quality treatment.

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