



A study to evaluate nurses' attitudes and knowledge regarding long-term IV cannula issues at a specific multispecialty hospital in Gudur, Andhra Pradesh

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Abstract

There is a nursing task in every hospital that involves intravenous therapy. It has developed into a significant part of patient care. On the other hand, the insertion of an intravenous cannula might result in unfavorable repercussions, the most common of which is phlebitis. A peripheral intravenous catheterization, also known as a PIC, is the most common invasive operation that is performed on patients who are hospitalized. In addition to having a fundamental understanding of pharmaceutical therapy and a familiarity with the anatomy and physiology of the vascular system, it is necessary to possess physical dexterity and technical competence. On the other hand, local problems might manifest themselves in the form of bruising, infiltration, leakage, obstruction of the catheter, and phlebitis, regardless of the condition that caused local difficulties. Phlebitis is an inflammation of the vein that can be accompanied by a variety of symptoms, including discomfort, erythematic, swelling, hardening, and/or a thread that can be felt. Inadequate technique when inserting the catheter, the clinical situation of the patient, the characteristics of the vein, drug compatibility, tonus and pH of the medicine or solution, ineffective filtration, catheter diameter, size, length, and material of manufacture; prolonged use are all factors that can influence the development of phlebitis.

Keywords: Knowledge, attitude, IV cannula and complication

Introduction

Due to the fact that the circulation is responsible for transporting medications and fluid replacement throughout the body, the intravenous route is the most efficient method of medication delivery. Through the use of intravenous therapy, fluid replacement, the correction of electrolyte imbalances, the administration of drugs, and blood transfusions are all possible applications. In addition to facilitating the collection of blood samples, venous access enables the delivery of fluids, medicines, Parenteral nourishment, chemotherapy, and blood products. As a consequence of the cannulation technique, complications may occur in the veins. These complications include phlebitis and superficial thrombophlebitis, both of which require therapeutic assessment. The likelihood of developing phlebitis escalates by a factor of 4.4. Additionally, it has been discovered that peripheral intravenous (IV) phlebitis is closely related to the drug or infusion that the patient received through peripheral access, as well as to the length of time that the patient remained in the hospital.

Objectives

1. To assess the mean knowledge and attitude score on complications of IV cannula among nurses working in Selected tertiary hospital, Gudur
2. To assess the co relationship between knowledge score and attitude score on complication of IV cannula among nurses working in Selected tertiary hospital, Gudur
3. To associate the knowledge score with their socio demographic variables.
4. To associate the attitude score with their socio demographic variables.

Hypothesis

- **H1:** There will be a significant relationship between knowledge and attitude scores.
- **H2:** There will be a significant association between knowledge of the nurses with their socio demographic variables.
- **H3:** There will be a significant association between attitudes of the nurses with their socio demographic variables.

Methodology

The quantitative research approach was selected for this study. The research design was descriptive design. The Setting of the Study Was Mydhili hospital, Gudur. The demographic variables were age, religion, education, in-service education attended, monthly income, source of knowledge on complication of IV cannula and experience. The populations of the study were objects that meet certain inclusion criteria in the study. The sample size was 50 nurses who fulfilled the inclusion criteria for the study. The non-probability convenient sampling technique used for this study.

Description of the tool

A socio demographic schedule, knowledge and attitude scale was constructed by the investigator which contains items in the following aspects.

Section – I: Socio- demographic data consist of age, religion, education, in-service education attended, monthly income, source of knowledge on complication of IV cannula and experience.

Section–II: knowledge questionnaire consists of 30 items which includes IV sites and anatomy, IV cannulation, complications, management. Each item has four options with write answer one mark and wrong answer 1 mark. Minimum Score=0 Maximum Score=30

Table 1: Knowledge level on complication of long-term use of IV cannula

Levels	Percentage	Scores
Good	>75	>23
Average	50 to 75	15 to 23
Poor	<50	<15

Attitude includes 12 items. Each item has three options which are strongly agree, agree, slightly agree, disagree, strongly disagree. Minimum Score = 0 Maximum Score=48

Table 2: Attitude Level on complication of long-term use of IV cannula

Levels	Percentage	Scores
Good	>75	>45
Average	50 to 75	30 to 45
Poor	<50	<30

A blueprint of the tool was prepared by the researcher which includes content areas, number of questions, serial number of questions, and weightage in percentage for each content area.

Results

The data that was obtained was tabulated according to a number of different parameters, and the comprehensive analysis was carried out using both descriptive and inferential statistics. Twenty nurses, or forty percent, had an average level of knowledge, eighteen nurses, or thirty-six percent, had a bad level of knowledge, and twelve nurses, or twenty-four percent, had a good level of understanding regarding the complications that can arise from the long-term use of intravenous catheters. There were a total of 23

nurses, or 46%, who had average knowledge, 17 nurses, or 34%, who had bad knowledge, and 10 nurses, or 20%, who had a positive attitude regarding the complications that can arise from using an IV cannula for an extended period of time.

While the mean value of attitude was 16.12 with a standard deviation of 7.224, the mean value of total knowledge was 15.88 with a standard deviation of 8.395 according to the data. Using the formula for the Product Moment Correlation Coefficient developed by Karl Pearson, the value of the correlation between knowledge and attitude was found to be "r" = -1. Statistical analysis reveals that there is an inverse relationship between the nurses' expertise and their attitude towards the difficulties of intravenous cannula. H1 was therefore rejected. As a result of the fact that the computed chi-squares values are greater than the tabular value, the chi-square indicates that there is a significant correlation between socio demographic variables such as religion, education, source of information and experience, and the knowledge scores at the 0.05 level of significance. It can be concluded that the H2 hypothesis is correct. Since the calculated chi-squares values are greater than the tabulated value, the chi-square indicates that there is a significant correlation between socio demographic variables such as education, in-service education, source of knowledge and experience and the attitude scores at the 0.05 level of significance. This is because the tabulated value matches the calculated chi-squares values. It can be concluded that the H3 hypothesis is correct.

Recommendations

The following recommendations are made for more research in light of the findings that were reported:

1. It is recommended that the study be repeated using a large sample from a number of different hospitals.
2. It is possible to modify the attitude rating scale so that it takes into account the personality of the nurses as well as the manifestations connected to the knowledge of sickness, intervention pattern, and nurse-patient relation. These variables influence the coping that the subjects experience.
3. Given that the attitude of nurses is influenced by a variety of circumstances, as well as the degree to which they experience the same and undergo change, a follow-up study would be more appropriate in order to elicit the change in knowledge and attitude in greater detail.
4. It is possible to conduct an evaluation research in order to determine the efficacy of counseling as a means of fostering improved knowledge and attitude among nurses.
5. The results of longitudinal research in the region provide a better grasp of the problems in all of their facets.

Research should be carried out on both rural and urban areas.

Conflict of Interest: Not available.

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