

A STUDY TO ASSESS EFFECTIVENESS OF PALM FISTING EXERCISE ON PHLEBITIS AMONG IV CANNULATED PATIENT IN SAVEETHA MEDICAL COLLEGE AND HOSPITAL

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Abstract

Background: Phlebitis is an inflammation of a vein at the surface of the skin that may be caused by infection, the presence of a foreign body or the fluids or medication being given and mainly due malpresentation of the cannula. Most of the studies shows that 20% to 70% of patients receiving peripheral intravenous therapy develop phlebitis. **Purpose:** This study aims to evaluate the effectiveness of palm fisting exercise on phlebitis among iv cannulated individuals **Method:** A pre-experimental one group pretest and posttest design, the investigator obtained permissions from the HOD of the saveetha medical college and hospital of the particular department. A purposive sampling technique was used to select 60 participants who met the inclusion criteria within the hospital area. After introducing and explaining the study's objectives to the participants and obtaining informed consent, demographic data were collected, coded, and analyzed using both descriptive and inferential statistics. **Results:** the result shows that in the pretest the maximum (56.7%) of them had severe phlebitis, 25 % of them had moderate phlebitis and 11% had mild phlebitis. In the posttest 60 % of them had mild phlebitis, 28.3 % had moderate phlebitis and 11.7 % of them had severe phlebitis. the maximum the pretest mean in 174.75 and standard deviation is 19.04. The posttest has the mean value 153.25 and standard deviation of 19.30. The "t" value is 6.1428 with p value less than 0.0001. This results show that the palm fisting exercise has significant effect on phlebitis among IV cannulated patients. **Conclusion:** The study findings suggest that palm fisting exercise is an effective in reducing phlebitis particularly in the experimental group, at a significance level of $p < 0.005$.

Keywords: Plam Fisting Exercise, Phlebitis, IV Cannulation.

INTRODUCTION

Today in hospital setting, intravenous (IV) therapy has become a major component of patient care. Intravascular lines are used for monitoring pressures, administering drugs and fluids. A common problem encountered during IV therapy is the phlebitis. It is often due to patient movement and disruption of vein at the site of insertion of the cannula and causes internal bleeding. The patients who are on cytotoxic drugs, hyper osmolar agents and vaso active drugs are more prone to phlebitis. The Infusion Nurses Society, National standards of practice (Australia) stated that a nurse who administers IV medication or fluid must know its adverse effects and appropriate interventions to be taken before starting the infusion. Hence nurses need to be aware of and consider certain interventions to reduce phlebitis when managing IV therapy in patients. Phlebitis is an blood clot in the vein that may be caused by infection, the presence of a foreign body or the fluids or medication being given and fluctuation in blood components. Symptoms are warmth, swelling, pain, and redness around the vein. The intravenous device must be removed and if necessary re-inserted into

another extremity. The treatment of phlebitis consists of self-care steps that include applying warm compress to the affected area, elevating the affected area etc. Phlebitis is classified according to the phlebitis assessment scale as Grade 0 no symptoms; Grade 1 erythema with or without local pain; Grade 2- erythema with pain and or local edema; Grade 3- in addition to the clinical signs of grade 2, the presence of a palpable fibrous cord along the vein; and Grade 4- in addition to grade 3, presents a long palpable venous cord, with purulent drainage. Hence, nurses need to be aware non pharmacological therapy, this study focuses on the effect of palm fisting exercise in occurrence of phlebitis among the iv cannulated clients

Need for the Study

Infusion phlebitis is in almost all cases. Studies have shown that 20% to 70% of patients receiving peripheral intravenous therapy develop phlebitis, According to statistics; about 80% of the patients with intravenous therapy develop varying degrees of infusion phlebitis in China. Indian Scenario in National hospital services, Phlebitis appears as an adverse event of persistent epidemiological importance. The high incidence found in recent studies, which indicate values ranging from 25.8% to 55.6%, both considered high.

In addition, this event has the potential to cause organizational burden, such as increased costs related to prolongation of hospital stay as well as the consequences to users and their families because of the characteristic clinical complications, thus, in targeting the safety and quality of care. Nurses should seek to maintain phlebitis rates steadily fall, as well as establishing prevention measures for this event, actions which most certainly involve the work of nursing professionals. Subramanian, Indian journal of medical science (1989) mentioned that the incidence of Phlebitis was more (24%) when short tefloncannula was used as intravenous placement device. Under similar infusion conditions with stainless steel needle, scalp vein needle and long tefloncannula, the incidence was 16.6%, 13.3% and 16.6% respectively.

Phlebitis bears a direct relationship to the duration of infusion. The incidence was negligible at the end of 8 hours; whereas 14 patients developed phlebitis by the end of 24 hours (63.7%). The incidence of phlebitis in India is 18.3%. It was of mild grade in all the cases. In the year 2004, the annual hospital report of Kerala, stated that the incidence of Phlebitis was (78%) in ICU as compared to (30%) in general wards. The study highlighted the cause as lack of physicians, nurses and poor standard of care provided by health care personnel.

Statement of the Problem:

“A study to assess the effectiveness of palm fisting exercise on phlebitis among IV cannulated patients in saveetha medical college and hospital.”

Objectives

1. To assess the demographic status of the patients.
2. To assess the pretest and posttest of phlebitis among the IV cannulated patients.
3. To assess the effectiveness of palm fisting exercise among IV cannulated patients.
4. To associate the posttest level of phlebitis with selected demographic variable

METHODS AND METHODOLOGY

Study Design: At Saveetha Medical College and Hospital, a pre-experimental one group pretest and post-test research design was used to evaluate the impact of palm fisting exercise on phlebitis in IV cannulated patients.

Settings and Samples: The impact of palm fisting exercise on phlebitis among IV cannulated patients at Saveetha Medical College and Hospital was evaluated using a pre-experimental, one-group, pre-test-post-test design. The investigator introduced and clarified the goals of the study to the study participants after receiving approvals from the department and individuals, and then they signed an informed consent form. The manager, head of department, and founder of Saveetha Medical College and Hospital were informed of the study's purpose. Each and every participant received enough privacy. The researcher validated the participants' desire to participate in the study by obtaining their consent in accordance with the inclusion criteria during the first visit, during which she also gave her introduction and discussed the goal of the investigation. A pretest was administered after a structured questionnaire was used to gather the demographic data. For sixty minutes, the researcher led the training session. For additional data analysis, the gathered data were coded and imported into Excel. The test was conducted using a visual infusion phlebitis score scale, and the instrument includes demographic information. After the data were coded, they were analyzed using both descriptive and inferential statistics.

RESULTS

Section A: Distribution of Demographic Variables among the Patients:

The table despite that maximum of them (33.3%) were 51 and above in their age, (66.7%) were male, (75%) were married, maximum (66.7%) of them are hindu. In their educational status (66.7%) had high secondary education, 50% of them are self employed. 41.7% earn income from 20,000 to 40,000 per month. 33.3% belong to joint family. 58.3% of them live at rural area and 83.3% take non vegetarian diet.

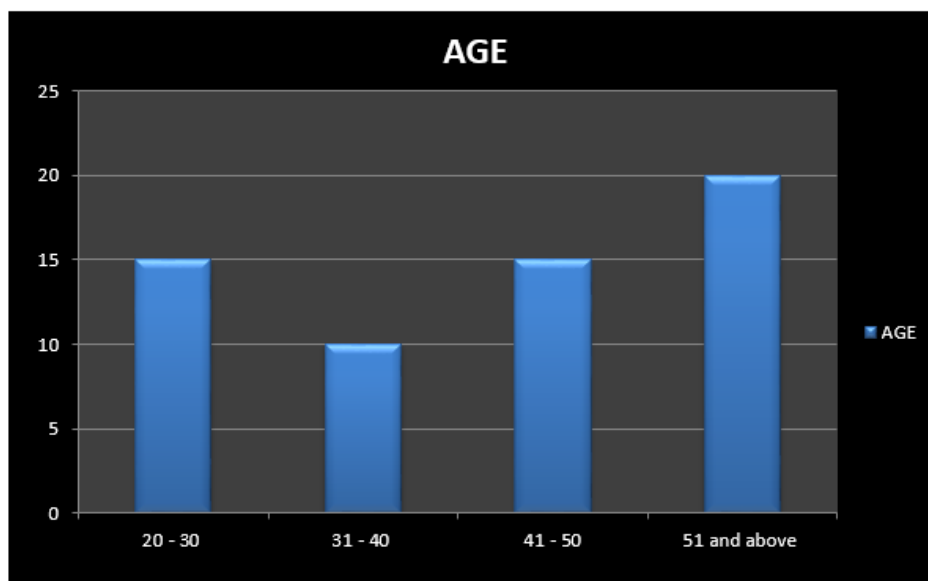


Figure 1: Percentage Distribution of Age of the Individuals

Section B: Assessment of Pre Test and Post Test Level of Phlebitis among The IV Cannulated Patients

Table 1: Frequency and Percentage Distribution of Pretest and Posttest Values of Phlebitis among Cannulated Patients

Knowledge	Mild		Moderate		Severe	
	f	%	F	%	f	%
PRETEST	11	18.3	15	25	34	56.7
POSTTEST	36	60	17	28.3	7	11.7

The table shows that in the pre test the maximum (56.7%) of them had severe phlebitis, 25 % of them had moderate phlebitis and 11% had mild phlebitis. In the post test 60 % of them had mild phlebitis, 28.3 % had moderate phlebitis and 11.7 % of them had severe phlebitis.

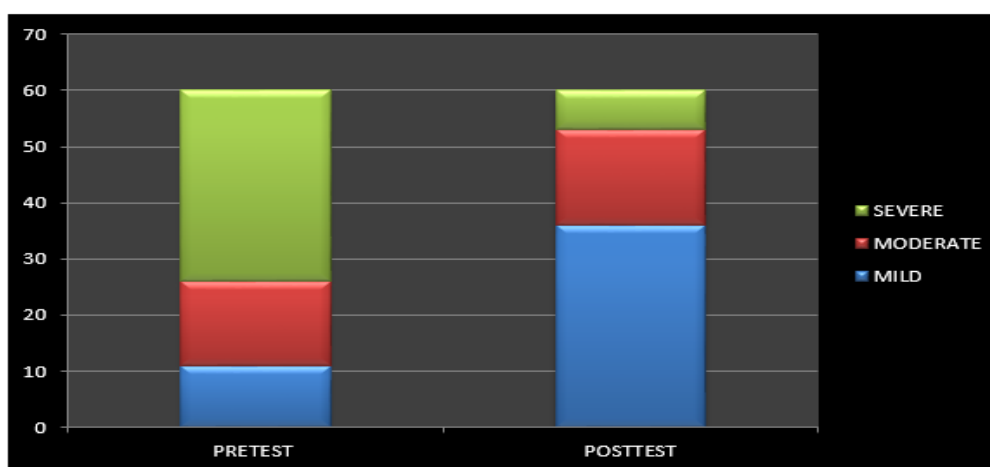


Figure 2: Percentage Distribution of Pretest and Posttest Values of Phlebitis among Cannulated Patients

Section C: Effectiveness Of Palm Fisting Exercise Among The IV Cannulated Patients

Table 2: Mean and Standard Deviation and Paired “t” Test

Variables	Test	Mean	S.D	Paired “t” test
Clinical variables	Pre test	174.75	19.04	t=6.1428 p=0.0001 S***
	Post test	153.25	19.30	

The tables state the maximum the pretest mean in 174.75 and standard deviation is 19.04. the post test has the mean value 153.25 and standard deviation of 19.30. The “t” value is 6.1428 with p value less than 0.0001. This results show that the palm fisting exercise has significant effect on phlebitis among IV cannulated patients.

CONCLUSION

The role of the nurses in promoting health and preventing diseases among the patient is of great significance. Phlebitis is a prevalent issue among individuals, and it frequently leads to disruptions in their daily activities. In terms of statistical analysis, this research has demonstrated a reduction in phlebitis following the palm fisting exercise among individuals when compared to their pre-test conditions.

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