A Descriptive Study to Assess the Knowledge Regarding Venipuncture among Staff Nurses in a Selected Hospital, Lucknow with a View to Develop an Information Booklet

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IJTSRD51708

Background of the study

A Hospital is an institution, which possess adequate accommodation and well qualified and experienced personnel to provide service of curative, restorative, preventive, and promotive character of the highest quality possible to all people regardless of race, colour, creed, or economic status. The old idea of the hospital was that it is a place for treatment of the sick now with emphasis on physical, mental, social wellbeing, reaching out to community and training of health workers, the health care services have undergone a steady metamorphosis and the role of the hospital has changed, with emphasis shifting from curative to preventive, inpatient care to outpatient and home care, acute to chronic illness, tertiary and secondary to primary health care.

Intravenous cannulation refers to the technique of venipuncture to insert an intra cath or needle, whole interlip lies in a vein for people who frequently require access to the blood stream. Intravenous catheter placement is an extremely common, painful procedure performed in all the ages an health care setting. Nurses are responsible for provision of safe, patient centered and effective care to the patient. To minimise the severity of complications, punctured site must be constantly monitored for early identification of sign. Peripheral intravenous cannulation is a common practice, frequently used and crucial in an emergency care. Patient need to understand these in order to make an informed decision about cannulation.

Thrombophlibitis and infection are common complication of pheripheral and their use should be discontinued because of occlusion or leakage. Insertion, monitoring and assessing peripheral venous catheter site is a common nursing activity. The guidelines recommend that peripheral intravenous catheter should be removed or replaced every (12-72) hours according to type of treatment, to avoid complication such as thrombophilibitis.

Need of the study

In today`s world of health care, nurses must possess up to date knowledge while practicing venipuncture for safe nursing practice as well as excellent quality of care. 70% of inpatient requiring a venipuncture during their stay however rates of venipuncture failure and unscheduled restarts are unacceptably high with rate ranging from 33% to 69%.

Purpose of the Study

The purpose of the study is to assess the knowledge regarding venipuncture among staff nurses.

Objectives of the Study

1. To assess the knowledge regarding venipuncture among staff nurses.
2. To determine the association between the knowledge score regarding venipuncture with demographic variables.
3. To develop an information booklet in order to enhance the knowledge regarding venipuncture among staff nurses

Assumptions

The study assumes that:
➢ Staff nurses have knowledge regarding venipuncture.
➢ Information booklet will enhance knowledge regarding venipuncture among staff nurses.

Variables

The research variable in present study includes:-
➢ Study variable- Level of knowledge regarding

venipuncture.

➢ Demographic variable- Age, gender, qualification, experience.

Delimitations

Staff nurses who are working at Sahara Hospital, Lucknow.

Research Approach-

Research approach indicates the basic procedure of conducting the research. Quantitative research approach was adopted as research approach in present study.

Research Design –

Researchers overall plan for obtaining answers to the research questions on for testing the research hypothesis is referred to as research design. The investigator selected non experimental descriptive design to assess the knowledge regarding venipuncture among staff nurses.

Variables-

The variables in present study includes-

Research Variable-

Research variable are defined as the qualities, properties, or characterstics that are observed or measured in a natural setting without manipulating and establish cause- and- effect relationship. Study variable- Level of knowledge regarding venipuncture.

Demographic Variable-

Demographic variables are the characteristics and attributes of the study subject. In this study it includes age, gender, qualification, experience.

Setting of the Study-

The setting is the location where study was conducted. This study was conducted at Sahara Hospital, Lucknow. It is 350 bedded tertiary care private hospital in Lucknow. The hospital strives to provide „quality healthcare with compassion efficiency". The hospitals medical specialities include general surgery, obstetrics and gynaecology, orthopaedics, neurology and nephrology, oncology. The hospital has equipments for cardiac monitoring, magnetic resonance imaging, and computed tomography. Patients admitted in the „critical care area" of the hospital can be monitored by the internet protocol cameras.

Population-

The entire set of individual or object having some common characteristic selected for a research study. The population of the study comprises of staff nurses in Sahara Hospital, Lucknow.

Sample-

Sample refers to a subset of population selected to participate in research study.Staff nurses of selected hospital were taken as sample in the study. Consent was taken from the staff nurses to conduct the study.

Sample Size-

In the present study, the sample size was 40 staff nurses in selected hospital,Lucknow.

Sampling Technique-

Sampling refers to the process of selecting sample from the targeted population to represent the entire population. Selection of subjects for present study was done by using convenience sampling technique and the subjects who fulfilled the inclusion criteria and were available were selected for the study.

Sampling Criteria-

The criteria used for the selection of the study subjects include:Inclusion Criteria-

➢ Staff nurses who are working at Sahara Hospital, Lucknow.
➢ Staff nurses who can understand Hindi| English.
➢ Staff nurses who are willing to participate in the study.

Exclusion Criteria-
➢ Staff nurses who are not available at the time of the study.

Tools of Data Collection-

Data collection tool are the procedure on instrument used by the researcher to observe or measure the key variable in research problem.

The tools of data collection are divided into 2 sections:-

Section A- Demographic variable consist of age, gender, qualification and experience.

Section B- Structured knowledge questionnaire to assess the knowledge regarding venipuncture among staff nurses

Data Collection Process-

Data for the main study was collected from the selected subjects from 19.5.2019 to 26.5.2019. After ethical clearance, written consent was obtained from study participants and the aim of the study was explained to study participants..

Then with the help of tool 1 (demographic variable) the data was collected from the study participants. With the help of tool 2 (structured knowledge questionnaire) the data was collected to assess the knowledge regarding venipuncture from the study participants and time given to respond was 30 – 35 minutes.

After collecting data from study participants the investigator provided booklet to study participants in

order to enhance their knowledge regarding venipuncture**.**

Plan for Data Analysis
Data analysis was done according to objectives and assumption of the study by using descriptive and inferential statistics. A master sheet was prepared based on responses given by the study participants. Following tests were done for analyzing the data:
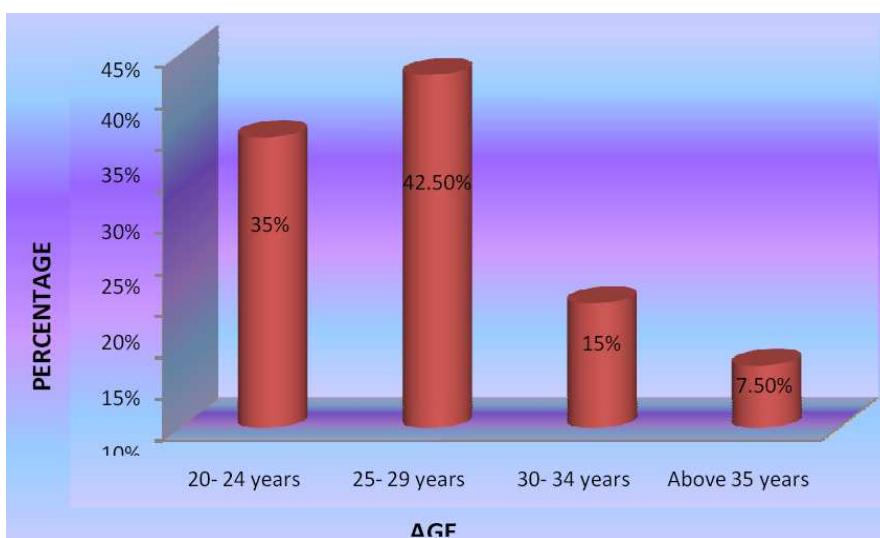➤ Frequency, percentage
➤ Median
➤ Chi square

Data Analysis:
The data were collected, coded, tabulated, analyzed and interpreted by using descriptive and inferential statistics and are presented under following headings:
Section A- Demographic data of study participants.
Section B- Knowledge score of study participants.
Section C- Association between level of knowledge regarding venipuncture amongstaff nurses with their selected demographic variable.

Section-A Demographic Data of Study Participants

Table 1.1 Frequency, Percentage of Demographic data of studyparticipants

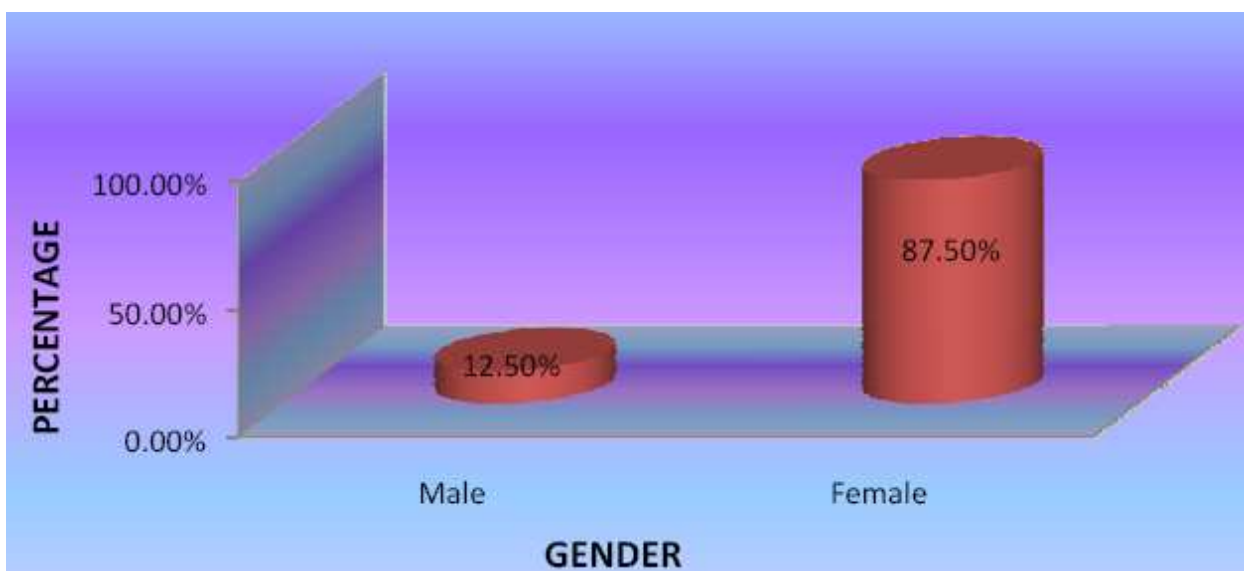| S.no	Age	Frequency	%
1	20- 24 years	14	35%
2	25- 29 years	17	**42.50%**
3	30- 34 years	6	15%

Figure- 1.1

Table 1.1 Showed that majority 17(42.5%) of the staff nurses were between theage group of 25- 29 years.

Table 1.2 Frequency, Percentage of Demographic data of study participants

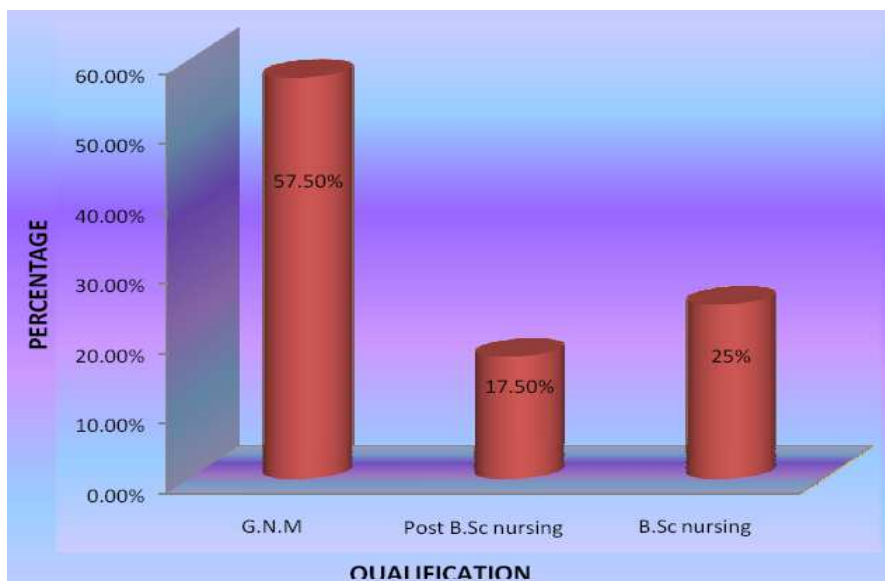| S.no	Gender	Frequency	%
1	Male	5	12.50%
2	Female	35	**87.50%**

Figure- 1.2

Table 1.2 Showed that the majority 35(87.5%) of the staff nurses were female.

TABLE- 1.3 Frequency, Percentage of Demographic data of studyParticipants

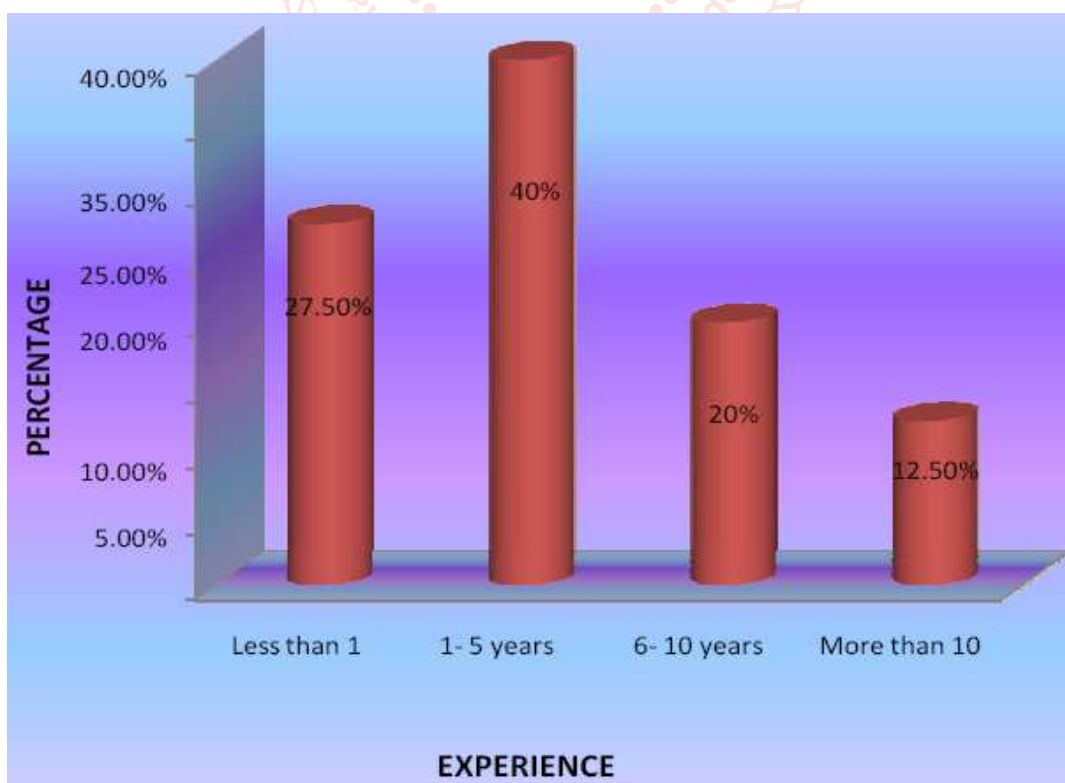| S.no	Qualification	Frequency	%
1	G.N.M	23	**57.50%**
2	Post B.Sc nursing	7	17.50%
3	B.Sc nursing	10	25%

Figure- 1.3

Table 1.3 Showed that More than half of the participants (57.50) were G.N.M orDiploma in nursing.

TABLE 1.4 Frequency, Percentage of Demographic data of study participants

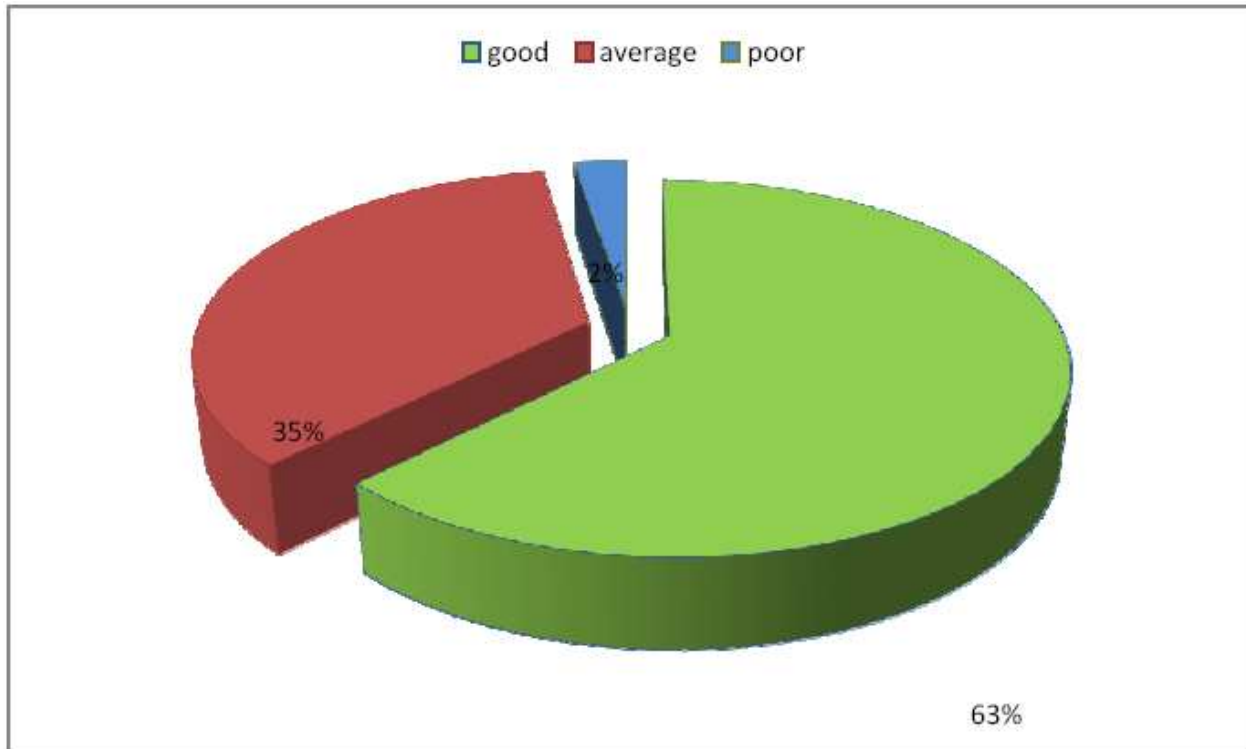| S.no	Experience	Frequency	%
1	Less than 1 year	11	27.50%
2	1- 5 years	16	**40%**
3	6- 10 years	8	20%
4	More than 10 years	5	12.50%

Figure- 1.4

Table 1.4 Showed that Most of the participants (40%) were having 1- 5 years ofwork experience.

Section- B Knowledge Scores of Study participants

Table- 2 Frequency, Percentage of Knowledge Score of studyparticipants

S.no	Knowledge Score	Frequency	%
1	Good	25	**62.50%**
2	Average	14	35%
3	Poor	1	2.50%

Figure- 2.1

The above figure reveals that majority 25(62.5%) of study participants had good knowledge regarding venipuncture

Section- C

Table- 3Association of Knowledge Score with Demographicvariables

Objective:- To find the association between Knowledge score andDemographic Variables

S.no	Characterstics	Above median ≥ 17	Below median ≤ 17	$\chi 2$
1	**Age** 20- 29 years 30- Above 35 years	 18 5	 13 4	0.015
2	**Gender** Male Female	 2 21	 3 14	0.73
3	**Qualification** G.N.M Post B.Sc Nursing B.Sc Nursing	 13 5 5	 11 2 4	**62.5***
4	**Experience** Less than 5 years More than 6 years	 13 11	 14 2	**4.86***

df $_1$ At the level of 0.05 significance
df $_2$ At the level of 0.05 significance
(*) Indicates level of significance

Table no 3. Showed that there is significant association between knowledge score with the demographic variables except age and gender.

IMPLICATIONS OF THE STUDY-

The finding of the study had varied implications in different areas of nursing practice, nursing administration, nursing education, nursing research.

Nursing practice-

Venipuncture procedure performed by health professionals in a wide variety of clinical areas as a clinical and diagnostic aid in first management. The onus is also on individual to ensure their knowledge and skills are maintained, both from a theoretical and practical perspective. The finding of the present study clearly highlights the knowledge regarding venipuncture.

Nursing administration-

The study emphasized on the need to enhance the knowledge regarding venipuncture among staff nurses who are performing procedure or else who givecare in the hospital area. The nurse administrator must plan and organize programme regarding venipuncture for nursing personnel and other team members to updatetheir knowledge.

Nursing education-

Nursing education plays a vital role in the care of patients. The knowledge should beupgraded regarding venipuncture through nursing education to prevent the incidences of complication.

Nursing Research-

The present study conducted by investigator can be a source of review of literature for others, who are intending to conduct study to assess the knowledge regarding venipuncture. The study has helped to open avenue to new area for nursing research.Based on this study result and recommendation, further study can be conducted.

LIMITATION-

Generalisability of the study findings may be limited due to selection of single hospital and small sample size.

RECOMMENDATION-

1. The study can be conducted forming a self-instructional module.

2. The study can be done as a experimental study with pre and posttest.

3. The study can also be conducted as structured teaching programme.

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