

A Study to Assess Knowledge and Practice of Staff Nurses Regarding Care of Peripheral Intravenous Line (During Cannulization) Among Neonates at Selected Hospital in Jaipur with a View to Develop an Information Booklet

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Abstract

Introduction : Placement of peripheral lines is the most commonly performed invasive procedure in acute health care settings with as many as 80% of hospital inpatients requiring intravenous access at some stage during their admission , and worldwide more than 1 billion lines are used annually.

Methodology : Non- experimental descriptive research design was used as it will support the future meticulous research. Convenient sampling technique was used to select 100 Nursing officers in SPINPH , Hospital ,Jaipur. Information booklet was provided after data collection.

Results : It reveals that for relationship between knowledge and practice of staff nurse, the calculated value of Karl Pearson's correlation and coefficient is 0.096601 and tabulated value is 0.195 for degree of freedom 98 at 0.05 level of significance.

Conclusions : Correlation between knowledge and practice score shows correlation is not significant.

Keywords : Knowledge; practice; staff nurses; peripheral intravenous line; neonates; information booklet.

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Introduction

Practical Nursing skills are complex tasks involving technical aspect, theoretical and practical knowledge, caring intentions adjusted to both patient and environment, and ethical and

moral considerations although practical skill Although practical skill learning is a core component in nursing education, many newly graduated nurses lack proficiency in practical skills. Peripheral vein cannulation (PVC) is one

of the most frequently performed invasive skills by nurses working in hospitals, with up to 70-80 percent of hospitalized patients requiring medication delivered through vein cannula. PVC is considered the skill most difficult to master, especially the technical part of the cannula insertion: how to insert the cannula into the vein. Mastering the technical part of PVC is important for completing other elements of the skill and undertaking it in a satisfactory manner.

It is a nurse's responsibility to ensure the safe monitoring and management of child intravenous line. Nurse will be checking the intravenous line at least once every hour, including throughout the night. Parents and caregivers can help with intravenous line monitoring by ensuring their child does not pull the line, watching for pain or numbness, keeping the IV site dry, keeping the IV site visible and alerting the nurse when concerns or problem arise. Be aware of the signs of an IV line not working properly and the symptoms your child may experience. Intravenous cannulization can be an important part of child care. Learn about the importance of intravenous line care and keeping the child safe.

Objectives of the Study

01. To assess the knowledge of staff nurses regarding care of peripheral intravenous line among neonates
02. To assess the practice of staff nurses regarding care of peripheral intravenous line among neonates.
03. To assess the relationship between knowledge and practice of staff nurses regarding care of peripheral intravenous line among neonates.
04. To find out association between knowledge of staff nurses regarding care of peripheral intravenous line among neonates and their selected socio demographic variable.
05. To find out association between practices of staff nurses regarding care of peripheral intravenous line among neonates and their selected socio demographic variable.

Hypotheses

Research Hypotheses

H1 - There will be a significant relationship between knowledge and practice of staff nurses regarding care of peripheral intravenous line among neonates at a selected hospital in Jaipur Rajasthan at 0.05 level of significance.

H2 - There will be a significant association between knowledge of staff nurses regarding care of peripheral intravenous line among neonates and their selected socio

demographic variable at a selected hospital in Jaipur Rajasthan at 0.05 level of significance.

H3 - There will be a significant association between practice of staff nurses regarding care of peripheral intravenous line among neonates and their selected socio demographic variable at a selected hospital in Jaipur Rajasthan at 0.05 level of significance.

Methodology

Research Design : Non-experimental descriptive research design was used.

Sampling technique : Convenient sampling technique was used.

Population : The population of the present study comprises of the staff nurses.

Sample : Staff nurses working in SPINPH, Hospital, Jaipur

Sample Size : 100 staff nurses

Setting of the study: SPINPH, Hospital, Jaipur

Development of tools : The tool developed for data collection contained socio-demographic data (5 variables) and structured knowledge questionnaire (30 items) to assess the knowledge. A formal permission was taken from the concerned authorities before collecting the data. After collection of data, master data sheet was formed to take thing forward for result and analysis.

Results

Knowledge score of staff nurses regarding care of peripheral intravenous line among neonates shows that 9 (9%) staff nurses had Poor knowledge, 39 (39%) staff nurses had average knowledge and 52 (52%) staff nurses had good knowledge. Mean score was found to be 20.21 with standard deviation of 5.94 regarding the care of peripheral intravenous line among neonates. Practice score of staff nurses regarding care of peripheral intravenous line among neonates shows that 17 (17%) staff nurses had Poor practice, 64 (64%) staff nurses of peripheral practice had was Average found to practice be and 15.60 19 with (19%) standard staff nurses deviation had of good 4.94 Practice, regarding mean the score care intravenous line among neonates. Regarding correlation between knowledge score and practice score shows relationship Correlation between knowledge and practice "is 0.09601. 9001 It shows Not significant Association with the knowledge and practice score and selected demographic Variables was computed by using parametric chi square test. Analysis showed that there is no significant association between knowledge of staff nurse and

demographic variables such as Age in years, gender, and Year of working experience in pediatric units is not significant at 0.05 level of significance. Hence the Ho2 is rejected. There is significant association between knowledge of staff nurse and demographic variables such as Professional qualification, and any previous training about cannulization 0.05 level of significance. Hence the H2 is accepted Chi-

square test for practice test suggested that here is no significant association between practice of staff nurse and demographic variables such as Age in years, gender, Professional education, year of working experience in pediatrics units, any previous training about cannulization is not significant at 0.05 level of significance. Hence the H03 is rejected.

Table 1: Description of socio demographic variables

S.No.	Variables	Characteristics	Frequency	Percentage
1.	Age in years	21-25	18	18
		26-30	19	19
		31-35	36	36
		36 above	27	27
2.	Gender	Male	56	56
		Female	44	44
3.	Professional Qualifications	GNM	39	39
		B SC	30	30
		P BSC	17	17
		M SC	14	14
4.	Total experience in hospital	Less than 1 year	14	14
		1-5 years	23	23
		6-10 years	37	37
		Above 11 years	26	26
5.	Undergone in service training	Yes	71	71
		No	29	29

Table 2: Frequency and Percentage distribution of knowledge score staff nurses regarding care of peripheral intravenous line among neonates.

Knowledge score	Grade	Frequency	Percentage	Mean	Mean%	SD	Median
0-10	Poor	9	9	20.21	67.36	5.94	21
11-20	Average	39	39				
21-30	Good	52	52				

Table 3: Frequency and Percentage distribution of practice of staff nurses regarding care of peripheral intravenous line among neonates.

Category	Frequency	Percentage	Mean	Mean%	SD	Median
Poor (0-10)	17	17	15.60	62.40	4.94	15
Average (11-20)	64	64				
Good (21-25)	19	19				

Discussion

The level of knowledge of staff nurses in terms of pre-decided categories i.e. (52) 52 % majority of staff nurse were found to have good level of knowledge whereas only (9) 9 % had poor level of knowledge regarding care of peripheral intravenous line only (39) 39 % were found to possess the average level of knowledge.

The obtained mean, median, mode, mean percentage and SD as 20.21, 21, 26, 67.36% and 5.94 respectively. The obtained SD and considering the fact that mean, median and mode are close to each other, staff nurses are homogenous in term of their knowledge regarding care of peripheral intravenous line. Since the obtained mean of 20.21, stands in the pre-decided category of good level of knowledge (score 21 to 30) therefore investigator can say that the staff nurse has good knowledge regarding care of peripheral intravenous line. The practice of staff nurse in terms of pre-decided categories i.e. (64) 64 % majority of staff nurse were found to have average practice whereas only (19) 19 % had good practice regarding care of peripheral intravenous line only (17) 17% were found to possess the poor level of practice. The obtained mean, median, mode, mean percentage and SD as 15.60, 15, 14, 62, 40% and 4.94 respectively. The obtained SD and considering the fact that mean, median and mode are close to each other, the staff nurse is homogenous in terms of their practice of staff nurse regarding care of peripheral intravenous line among neonates. Since the obtained mean of 15.60 stands in the pre-decided category of (score 10.-20) average practice therefore investigator can say that the Staff nurse have average practice regarding care of peripheral intravenous line among neonates.

Conclusions

Knowledge score of staff nurses regarding care of peripheral intravenous line among neonates shows that 9 (9%) staff nurses had Poor knowledge, 39 (39%) staff nurses had average knowledge and 52 (52%) staff nurses had good knowledge, Mean score was found to be 20.21 with standard deviation of 5.94 regarding the care of peripheral intravenous line among neonates, Practice score of staff nurses regarding care of peripheral intravenous line among neonates shows that 17 (17%) staff nurses had Poor practice, 64 (64%) staff nurses had Average practice and 19 (19%) staff nurses had good Practice, mean score of practice was found to be 15.60 with standard deviation of 4.94 regarding the care of peripheral intravenous line among neonates. Regarding correlation between knowledge score

and practice score shows. Correlation between knowledge and practice is 0.09601. It shows Not significant relationship. Association with the knowledge and practice score and selected demographic Variables was computed by using parametric chi square test. Analysis showed that there is no significant association between knowledge of staff nurse and demographic variables such as Age in years, gender, and Year of working experience in pediatric units is not significant at 0.05 level of significance. Hence the Ho2 is rejected. There is significant association between knowledge of staff nurse and demographic variables such as Professional qualification, and any previous training about cannulization 0.05 level of significance. Hence the H2 is accepted Chi-square test for practice test suggested that there is no significant association between practice of staff nurse and demographic variables such as Age in years, gender, Professional education, year of working experience in pediatrics units, any previous training about cannulization is not significant at 0.05 level of significance. Hence the Ho3 is rejected

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