



“A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE AND PRACTICES OF STAFF NURSES REGARDING ADMINISTRATION OF IV THERAPY IN SELECTED HOSPITAL OF GWALIOR, (M.P.)”

Author Details

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Abstract

Introduction- Intravenous fluid therapy is the fastest way to deliver fluids or medications directly into a vein. It is common aspect of therapy used for the dilution of medication and maintenance of body fluids, and widely used in hospital settings. Intravenous fluid administration practices are important and remain an essential part of patients' care during hospitalization. Globally, approximately 25 million people receive intravenous (IV) therapy by the use of an intravenous cannula. It is a routine but potentially harmful procedure in hospitals.

Methodology- The current study was a descriptive hospital based cross-sectional study among the nursing staff at the Gwalior. The total sample size were consists of 50 study participants were selected by the using of purposive sampling technique. The data collection by the self-structured to collect the data and analysis by the using of SPSS.

Results- The study revealed that the majority out of 50 study participants, highly majority 84% of staff nurses were have average knowledge, 12% of staff nurse were have excellent knowledge, and, least 4% were have inadequate knowledge regarding the Intravenous administration. Respectively in study results depicts that practice staff nurses is score 16(32%) in average range while 34(68%) nurses score in good range in administration of IV therapy.

Discussion and conclusion- that there is a positive correlation between knowledge and practice of staff nurses regarding administration of IV therapy. Scores are ($r = 0.165$, $p < 0.05$) hence null hypothesis (H_0) is rejected and research hypothesis (H_1) was accepted. There is positive correlation between knowledge and practice of staff nurses that is knowledge increases there is slightly increases in practices also. There is no significant association between age and knowledge gender, professional qualification, total clinical experience, availability of IV therapy equipment's, attended in service educational programme, and, frequency of administering IV therapy per day (>0.05)

Keywords- IV therapy, Staff Nurse, Drugs, Knowledge, Practices

INTRODUCTION

Intravenous fluid therapy is the fastest way to deliver fluids or medications directly into a vein [1]. It is common aspect of therapy used for the dilution of medication and maintenance of body fluids, and widely used in hospital settings [2,3]. Maintenance of body fluid balance is a fundamental nursing practice as most of the patients admitted to hospitals require the administration of intravenous fluid as part of their medical management [4,5].

Intravenous fluid administration practices are important and remain an essential part of patients' care during hospitalization. Globally, approximately 25 million people receive intravenous (IV) therapy by the use of an intravenous cannula. It is a routine but potentially harmful procedure in hospitals [6,7].

A study conducted on the completion of fluid balance charts on different wards of University Hospital in Australia indicated a gap in the complete documentation of the patients' fluid balance charts [8]. Another study was conducted in Pakistan on nurses' practice regarding IV fluid administration using observation checklist and the results showed that 35.10% do not meet the criteria to check the amount, type of fluid against doctor's orders and 36.06% do not meet criteria to accurately adjust the flow rate [9].

Intravenous (IV) therapy is complex, potentially dangerous and error prone, thus the need for strategies to reduce the risk and complications.[10] Infusion therapy through IV access is a therapeutic option used in the treatment of many hospitalized patients.[11] Infusion medications are associated with high risk of harm. Once injected, reversal is almost impossible unless an antidote exists.[12]

A workshop with 9 people with previous experience of receiving intravenous therapy, undertaken to inform the design of our wider program of work, highlighted some factors that influence the quality of patients' experiences when receiving intravenous therapy [13]. However, workshop participants were self-selected and their experiences of intravenous therapy historical, which may collectively have resulted in somewhat slanted views and biases. Other patient experience research has tended to focus largely on the venous access aspect of the infusion process [12].

Objectives of the study

1. To find out the knowledge of staff nurses regarding administration of IV therapy.
2. To assess the practices of staff nurses regarding administration of IV therapy.
3. To know the correlation between knowledge and practices of staff nurses regarding administration of IV therapy.
4. To know the association between knowledge of staff nurses regarding administration of IV therapy according to demographic variables.

Hypothesis

1. **H₀** There will be no significant relationship between knowledge and practices of staff nurses regarding administration of IV therapy.
2. **H₁** There will be significant relationship between knowledge and practices of staff nurses regarding administration of IV therapy.

METHODS AND METHODOLOGY

Research Approach and Design

The current research study was a non-experimental research, hospital based cross-sectional research design study was conducted among to determine the knowledge and practices among the nursing staff at the selected hospital, Gwalior, (M.P.)

Sample and Sampling technique

The researcher was select the staff nurse population who are working in the BIMR, hospital. The total sample size was consisting of 50 staff and were selected by the using Purposive sampling technique was used to draw the sample.

Criteria for selection of sample

Inclusion Criteria

1. Staff nurses who are working in the Selected Hospital Gwalior.
2. Staff nurses who are willing to participate in study.
3. Staff nurses who are available at the time of data collection.
4. Staff nurses who are ANM, GNM, B.Sc., PB. B.Sc.

Exclusion Criteria

1. Staff nurses who are not available at the time of study.
2. Staff nurses who holding M .Sc. nursing degree.

Description of the tool

The tool comprised of three sections Section A- Consists of demographic characteristics of nurses seeking information such as age, gender, professional qualification, total clinical experience, availability of necessary equipment's for IV therapy, any in service educational programme attended, frequency of IV therapy per day. Section- B: Consists of 30 items pertaining to knowledge regarding administration of IV therapy. It has consisted of six part such as Part-one consists of 3 items related to general introduction of IV therapy, Part-two consists of 5 items related IV site and IV device, Part-three consists of 6 items related to IV fluid and calculation, Part-four consists of 5 items related to insertion of IV device, Part-five consists of 4 items related nursing care in IV therapy, Part-six consists of 7 items related to complications of IV

therapy and prevention complications. There were 30 items. Each item has four options with one most appropriate answer. The maximum score for correct response to each item was “one” and incorrect was “zero”. Thus for 30 items these were 30 correct responses with 30 maximum obtainable scores. Section-C: Consists of 24 items pertaining to practice of IV therapy. There were 24 items. Each item has two options such as yes, no. Statements carry scores as follows: Yes – 2 and No –1 mark.

RESULTS

Table-1 shows out of 50 study participants that the majority of the nurses 28(56%) belongs to the age group of 31 to 40 years. 20(40%) of nurses belong to the age group of 21 to 30 years, majority of the nurses 39(78%) are female and 11(22%) nurses are male, out of 50 study participants majority that 22(44%) nurses are BSc, 20(40%) nurses are GNM educational qualification, out of 50 study participants that the majority of nurses 25(50%) nurses have 6-12 years clinical experience, 16(32%) nurses have 1-5 years clinical experience, out of 50 study participants that the majority of the nurses 48(96%) says that all necessary equipment's for administration of IV therapy are available in the ward, , out of 50 study participants that the majority of nurses 28(56%) attended in service educational programme related IV therapy and 22(44%) nurses not attended any in service educational programme related IV therapy, out of 50 study participants that the majority of the nurses 19(38%) are administering >20 times per day, 16(32%) nurses administering 9-20 times per day.

Table-1 show the sociodemographic variables

(n=50)

Socio-demographic variables		Frequency	Percentage
1. Age			
A	21-30	20	40
B	31-40	28	56
C	41-50	1	2
D	51-60	1	2
2. Gender			
A	Male	11	22
B	Female	39	78
3. Educational qualification			
A	ANM	2	4
B	GNM	20	40
C	BSc	22	44
	PB BSc	6	12
4. Clinical Experiences			
A	1-5 YEARS	16	32
B	6-10YEARS	25	50
C	11-20 YEARS	8	16

	>20 YEARS	1	2
5. Equipment's present in ward			
A	Yes	48	96
B	No	2	4
6. Do you attend any in-service education and CNE/ staff development program			
A.	Yes	28	56
B.	No	22	44
7. Frequency of Intravenous administration			
A.	1-4 times	3	6
B.	5-8 times	12	24
C.	9-20 times	16	32
D.	>20 times	19	38
E.	1-4 times	3	6

Figure-1 Showing the distribution of study participants knowledge regarding the IV administration

(n=50)

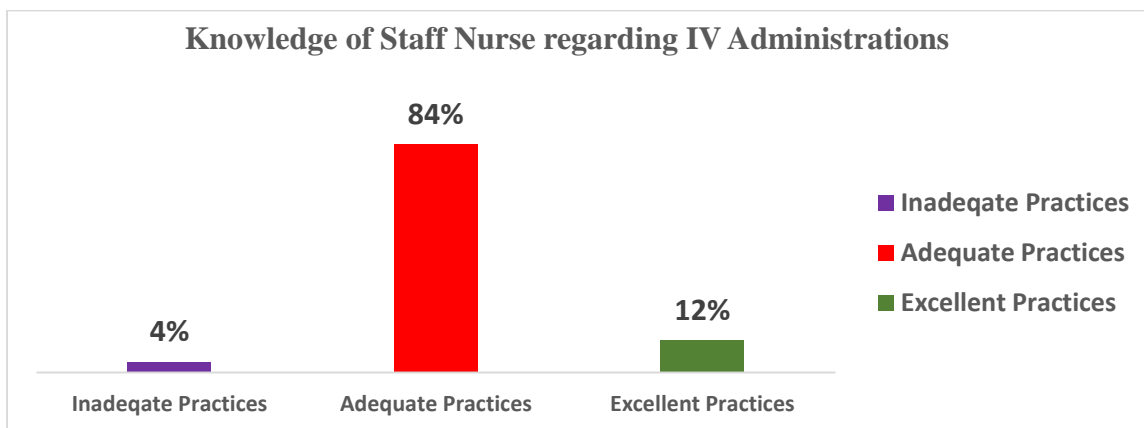


Fig-1 show that the majority out of 50 study participants, highly majority 84% of staff nurses were have average knowledge, 12% of staff nurse were have excellent knowledge, and, least 4% were have inadequate knowledge regarding the Intravenous administration.

Figure-2 Showing the distribution of study participants practices regarding the IV administration

(n=50)

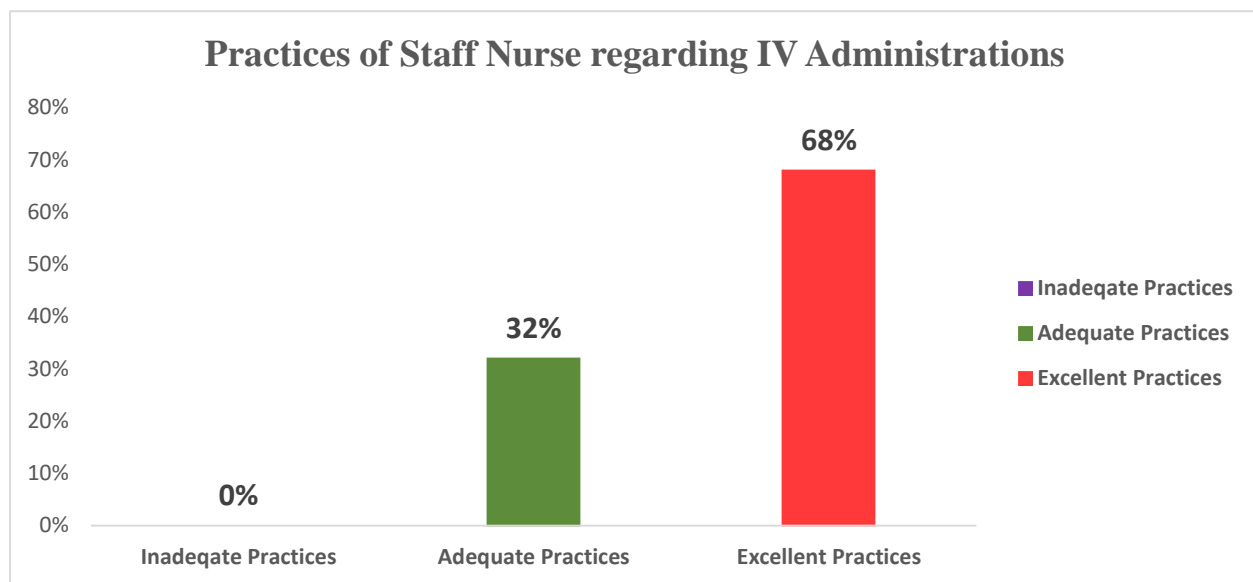


Fig. 2 shows that practice staff nurses is score 32% in average range while 68% nurses score in good range in administration of IV therapy.

Table- 2 Coefficient of correlation between knowledge & practices of staff nurses regarding administration of IV therapy.

n=50

Items	Knowledge level	Practice level	Coefficient of Correlation (r)
Mean	14.56	39.84	0.16500
SD	3.60	1.48	

Tab. 2 shows that there is a positive correlation between knowledge and practice of staff nurses regarding administration of IV therapy. Scores are ($r = 0.165$, $p < 0.05$) hence null hypothesis (H_0) is rejected and research hypothesis (H_1) was accepted. There is positive correlation between knowledge and practice of staff nurses that is knowledge increases there is slightly increases in practices also.

DISCUSSION

Among out of 50 study participants that the majority of the nurses 28(56%) belongs to the age group of 31 to 40 years. 20(40%) of nurses belong to the age group of 21 to 30 years, majority of the nurses 39(78%) are female and 11(22%) nurses are male, out of 50 study participants majority that 22(44%) nurses are BSc, 20(40%) nurses are GNM educational qualification, out of 50 study participants that the majority of nurses 25(50%) nurses have 6-12 years clinical experience, 16(32%) nurses have 1-5 years clinical experience, out of 50 study participants that the majority of the nurses 48(96%) says that all necessary equipment's for administration of IV therapy are available in the ward, , out of 50 study participants that the majority of nurses 28(56%) attended in service educational programme related IV therapy and 22(44%) nurses not attended any in service educational programme related IV therapy, out of 50 study participants that the majority of the nurses 19(38%) are administering >20 times per day, 16(32%) nurses administering 9-20 times per day. There is no significant association between age and knowledge gender, professional

qualification, total clinical experience, availability of IV therapy equipment's, attended in service educational programme, and, frequency of administering IV therapy per day (>0.05)

CONCLUSION

Nurses use clinical reasoning to balance patient safety and preferences with competing workplace demands when undertaking administration set replacement. Nurses rely on previous experience, hospital and medication manufacturer policies, and peer experts to guide their practice. Errors and discrepancies are relatively common in everyday infusion administrations but most have low potential for patient harm. Better understanding of performance variability to strategically manage risk may be a more helpful tactic than striving to eliminate all deviations.

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