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Effect Of Self-Instructional Manual (Sim) Regarding Clinical Guidelines On Phototherapy Among Staff Nurses Working In Pediatric Unit Of Selected Hospitals, Maharashtra

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Abstract: **Aim:** The study aims to find the Effect of Self-Instructional Manual (SIM) regarding clinical guidelines on phototherapy among staff nurses working in paediatric unit of selected Hospitals, **Problem statement:** Effect of Self- Instructional Manual (SIM) regarding clinical guidelines on phototherapy among staff nurses working in paediatric unit of selected Hospitals, Maharashtra**. Primary objective:** To find out the effect of SIM regarding clinical guidelines on phototherapy among staff nurses working in paediatric unit of selected Hospitals, Maharashtra. **Secondary objective: 1.** To assess the knowledge of staff nurses regarding clinical guidelines regarding phototherapy before intervention. 2. To find out the effect of SIM regarding clinical guidelines on phototherapy after intervention. 3. To find out the association between posts test knowledge score regarding clinical guidelines on phototherapy and selected demographic variables of staff nurses. **Method:** Pre experimental with one group pre-test post-test design use for the study. It was conducted over 110 parents by using convenient sampling technique. **Result:** the pre- intervention demographic variables of staff nurses were more or less similar revealing common characteristics. Further, it was observed that the percentages of knowledge (47.30%) on clinical guidelines on phototherapy among staff nurses were more or less similar before intervention. However, after an intervention, the percentage of knowledge on clinical guidelines on phototherapy was significantly increased from 47.30 % to 52.70 %. There was a significant difference ($p<0.0001$) between pretest and post-test knowledge scores on clinical guidelines on phototherapy. However, significant association ($p>0.05$) was found between knowledge on selected organ donation and age, gender, years of experience, qualification (higher education), designation. Findings of the study revealed that the self-instructional manual on clinical guidelines on phototherapy as a method was effective among staff nurses working in paediatric unit selected hospitals, Maharashtra. **Interpretation and conclusion:** From the findings of present study, it was concluded that the pre-intervention demographic variables of staff nurses were more or less similar revealing had similar characteristics. Percentage of knowledge and the mean scores of staff nurses were more or less similar before intervention. However, after an intervention, the percentage of knowledge and the mean scores of staff nurses with clinical guidelines on phototherapy were significantly increased. There was a significant difference between pretest and post-test knowledge scores. Thus, it was concluded that the SIM on clinical guidelines on phototherapy as a method of teaching was effective among staff nurse working in paediatric unit selected hospitals, Maharashtra.

Keywords: effectiveness, Self-Instructional manual, Staff Nurses, paediatric unit selected hospitals

INTRODUCTION

The term "clinical guidelines" (GL) refers to a method for defining and standardizing the "best" clinical procedures. It has been demonstrated that GL can enhance patient care quality, decrease differences in care quality, and reduce costs (see, for example, Overage et al. 1997). Costs. Yet, GL are typically not point-of-care facilities and frequently give population-oriented advice in their customary, paper-based form (Peleg et al. 2003).By providing a variety of functions, such as automatic connection to patient databases, help for decision-making, or interface with workflow management systems, these tools can work together to create Solutions that are actually easy to use and effective tools for care deliver4

BACKGROUND OF THE STUDY

The use of light, particularly UV light, to treat medical conditions is known as phototherapy. Since ancient times, it has been understood that exposure to natural sunlight can help treat some types of skin conditions. In phototherapy, the ultraviolet portion of the sun's radiation is used. Herbs and sunlight are combined as a treatment described in Indian medical literature from 1500 BC for non- pigmented skin areas. The first artificial light source for phototherapy was used in the 19th century. Educator Niels Ryberg The originator of phototherapy is Finsen. Using visible light to treat severe jaundice in newborns is known as phototherapy. 4 Around 60% of term newborns and 80% of premature babies will show clinical development.12

NEED OF THE STUDY

The role of a paediatric nurse in nursing care is challenging. There may be a gap in the integration of knowledge into practice because nurses have little time to update their practice and knowledge. The study's findings indicated a shaky positive link between knowledge and practice, and the subsequent descriptive study to gauge the paediatric nurses' knowledge-practice gap at a tertiary care hospital in supports this conclusion. The participants' perceptions of five major areas— medication (34%), skills (28.3%), knowledge (13.36%), handling of code blue and intubations (12.6%), and operating medical devices (11.58%)—were used to classify the gaps between knowledge and practice. According to the study's findings, nurses' psychomotor abilities and clinical knowledge have gaps.16

PROBLEM STATEMENT

Effect of Self-Instructional Manual (SIM) regarding clinical guidelines on phototherapy among staff nurses working in paediatric unit of selected Hospitals, Maharashtra

OBJECTIVES:

Primary objective:

-To find out the effect of SIM regarding clinical guidelines on phototherapy among staff nurses working in paediatric unit of selected Hospitals, Maharashtra Secondary objectives:

-To assess the knowledge of staff nurses regarding clinical guidelines regarding phototherapy before intervention.

-To find out the effect of SIM regarding clinical guidelines on phototherapy after intervention.

-To find out the association between posts test knowledge score regarding clinical guidelines on

phototherapy and selected demographic variables of staff nurses.

Hypothesis

H1: There is a significant difference between pre-test and post-test knowledge scores on clinical guidelines on phototherapy among staff nurses.

H2: There is a significant difference between post-test knowledge scores of staff nurses regarding clinical guidelines on phototherapy.

H3: There is a significant association between post-test knowledge scores and demographic variables of staff nurses.

REVIEW OF LITERATURE

1. Incidence and prevalence of neonatal jaundice
2. Neonatal jaundice and its influencing factors
3. Phototherapy of neonatal jaundice
4. Clinical guidelines on phototherapy of neonatal jaundice
5. Knowledge of staff nurse regarding clinical guidelines on phototherapy
6. SIM as a method of teaching

RESEARCH APPROACH

A experimental research approach was used to assess the effect of SIM regarding clinical guidelines on phototherapy among staff nurse working in paediatric unit of selected hospitals, Maharashtra.

RESEARCH DESIGN

Pre experimental with one group pre-test post-test design was used to collect data before and after on clinical guidelines on phototherapy among staff nurses working in pediatric unit of selected hospitals, Maharashtra.

POPULATION

Target population: staff nurses whom study finding can be generalize were the target population in Maharashtra

Accessible population: Staff nurses those who are available for proposed study Were accessible population.

SAMPLING

Sample: staff nurses working in paediatric unit of selected hospitals were the samples for research study

Sampling technique: The investigator has randomly selected three hospitals as Hospital 1, Hospital 2, and Hospital 3. Out of three hospitals, Hospital 1 was selected for experimental group whereas Hospital 2 & Hospital 3 were selected for experimental group. However, purposive sampling technique was used to draw 110 staff nurses in experimental group & 110 the staff nurses in experimental group working in three selected hospitals at, Maharashtra

Data and Sources of Data

After obtaining a formal permission, the investigator has fixed the date and time for data collection. According to tentative schedule, the investigator has visited the hospitals and collected data from 49 08.01.2024 to 20.01.2024. Pre-test- The investigator has conducted pre-test among staff nurses belonged to experimental group using SAQ on phototherapy. After due permission from nursing superintendents and ward in- charges, the group of staff nurses were called to a conference hall batch wise and made comfortable seating arrangements. The investigator has handed over the SAQ to staff nurses with instructions and asked to handover the filled in SAQs after 45 minutes. Further they were requested to read the question one by one and put ( ) mark on right option mentioned below each question/statement. Doubts were clarified and collected back filled in SAQs after 45 minutes. Whole procedure of pre-test was carried out in the presence ofaninvestigator.

PLAN FOR DATA ANALYSIS

Collected data from staff nurses was planned to analyse by using descriptive and inferential statistics. The descriptive statistics includes; percentage, mean, mean percentage and standard deviation. The inferential statistics includes; t test and one-way ANOVA using 27 SPSS software. However, the tabulated data were planned to analyse under following heading

SECTION – I Distribution of staff nurse according to their demographic variables.

4.1.1 Percentage wise distribution of staff nurses according to their Age in Year.

Age	Frequency	Percent
21-25 years	45	40.9%
26-30 years	36	32.7%
31-35 years	14	12.7%
36- above year	15	13.6%
Total	110	100.0%

4.1.1 Percentage wise distribution of staff nurses according to their Gender /sex

Gender	Frequency	Percent
Male	18	16.4%
Female	92	83.6%
Total	110	100.0%

4.1.1 Percentage wise distribution of staff nurses according to their Qualification (higher education)

Qualification (higher education)	Frequency	Percent

Val id	ANM	3	2.7%
	GNM	72	65.5%
	B.SC (N)	33	30.0%
	P.BSC (N) & above qualification	2	1.8%
	Total	110	100.0%

4.1.1 Percentage wise distribution of staff nurses according to their Years of experience

Year of Experience		Frequency	Percent
Valid	1-5 years	43	39.1%
	6 to 10 years	56	50.9%
	11 to 15 years	11	10.0%
	Above 16 year	0	0%
	Total	110	100.0%

4.1.1 Percentage wise distribution of staff nurses according to their Designation

Designation		Frequency	Percent
Valid	Junior Nurse	55	50.0%
	Senior Nurse	45	40.9%
	Incharge	10	9.1%
	Total	110	100.0%

SECTION-II: Assessment of knowledge of staff nurses regarding clinical guidelines regarding phototherapy before intervention.

4.2.1 Percentage wise distribution of knowledge of staff nurses regarding clinical guidelines regarding phototherapy before intervention

Pre-test level of knowledge	Frequency	Percent
Very good	0	0%
good	7	6.4%
average	52	47.3%
poor	36	32.7%
very poor	15	13.6%
Total	110	100.0%

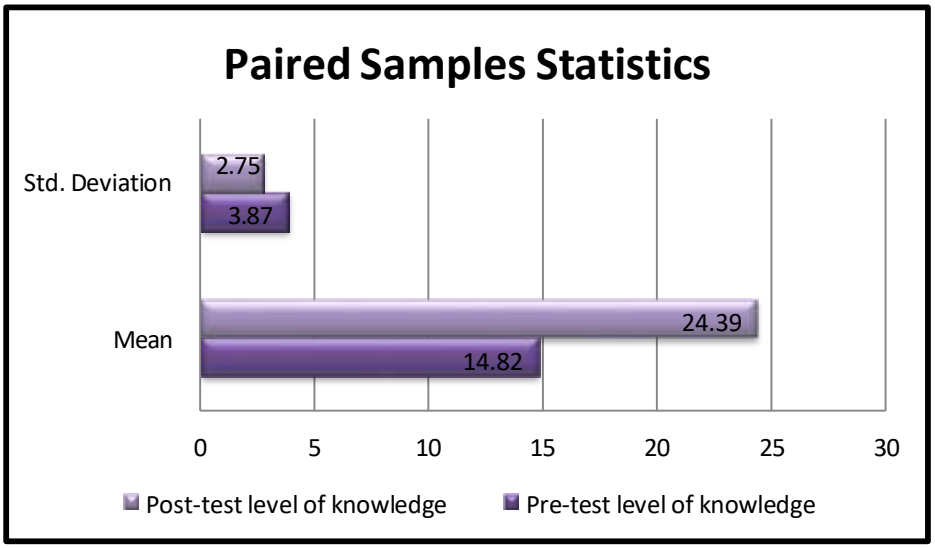
4.2.1 Overall Mean & Standard deviation of knowledge of staff nurses regarding clinical guidelines regarding phototherapy before intervention

Pre-test level of knowledge	Score Range	Frequency	Standard deviation
Very good	26-30	0	3.86
good	21-25	7	
average	16-20	52	
poor	11-15	36	
very poor	10& below	15	
Over all	110		
Minimum score	5		
Maximum score	23		
Mean knowledge score	14.80		

SECTION-III: Assessment of knowledge of staff nurses regarding clinical guidelines regarding phototherapy after intervention

4.3.1 Percentage wise distribution of knowledge of staff nurses regarding clinical guidelines regarding phototherapy after intervention

Post- test level of knowledge		Frequency	Percent
Valid	Very Good	42	38.2%
	good	58	52.7%
	average	10	9.1%
	poor	0	0%
	very poor	0	0%
	Over all	110	100.0



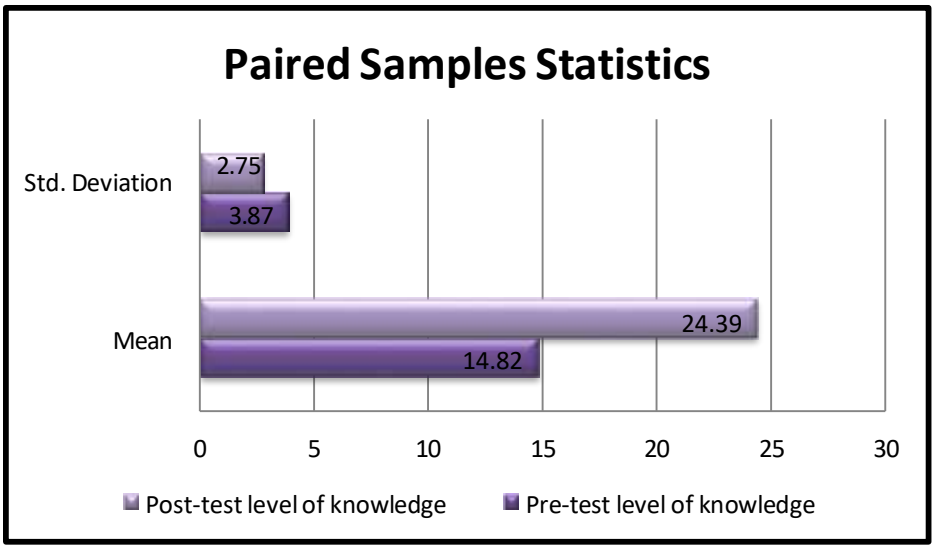
4.3.1 Overall Mean & Standard deviation of knowledge of staff nurses regarding clinical guidelines regarding phototherapy after intervention

Post-test level of knowledge	Score Range	Frequency	Standard deviation
Very good	26-30	42	2.75
good	21-25	58	
average	16-20	10	
poor	11-15	0	
very poor	10& below	0	
Over all	110		
Minimum score	17		
Maximum score	30		
Mean knowledge score	24.39		

SECTION IV: Significant difference in the post test knowledge of staff nurses regarding clinical guidelines regarding phototherapy after intervention

4.4.1 Overall Mean & Standard deviation of between pre-test and post-test knowledge of staff nurses regarding clinical guidelines regarding phototherapy after intervention

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pre-test level of knowledge	14.82	110	3.870	.369
Post-test level of knowledge	24.39	110	2.750	.262



SECTION V: Association between post-test knowledge score and demographic variables of staff nurses regarding clinical guidelines regarding phototherapy after intervention

4.5.1. Association between post-test knowledge score and age in years

ANOVA					
Post-test level of knowledge					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	88.543	3	29.514	4.253	0.007 P<0.05
Within Groups	735.648	106	6.940		

4.5.1. Association between post-test knowledge score and Gender/sex

ANOVA					
Post-test level of knowledge					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	44.778	1	44.778	6.205	0.014 p>0.05

4.5.3 Association between post-test knowledge score and Qualification (higher education)

ANOVA					
Post-test level of knowledge					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.858	3	6.286	0.827	0.482 p>0.05
Within Groups	805.333	106	7.597		

4.5.3 Association between post-test knowledge score and Years of experience

ANOVA					
Post-test level of knowledge					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	58.521	2	29.260	4.089	0.019 p>0.05
Within Groups	765.670	107	7.156		

4.5.3 Association between post-test knowledge score and Designation

ANOVA					
Post-test level of knowledge					
A	Sum of Squares	df	Mean Square	F	Sig.
Between Gnroups	17.255	2	8.627	1.144	0.322
Within Groups	806.936	107	7.541		

CONCLUSION: From the findings of present study, it was concluded that the pre- intervention demographic variables of staff nurses were more or less similar revealing had similar characteristics. Percentage of knowledge and the mean scores of staff nurses were more or less similar before intervention. However, after an intervention, the percentage of knowledge and the mean scores of staff nurses with clinical guidelines on phototherapy were significantly increased. There was a significant difference between pretest and posttest knowledge scores. Thus, it was concluded that the SIM on clinical guidelines on phototherapy as a method of teaching was effective among staff nurse working in pediatric unit selected hospitals, Maharashtra.

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