Effectiveness of Information Booklet On Knowledge of Staff Nurses Regarding Selected Neonatal Emergencies and Their Management in M.K.C.G.M.C.H, Berhampur, Ganjam, Odisha

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Abstract- "With the birth of every child, man may calculate that God is still hopeful about the world he created. (Words worth). They bring happiness and create colorful flowers to the world. New borne life is depended on his ability to adapt to an extra uterine environment. They are unique and prone to develop health problems in every movement due to transition from dependent fetal to independent neonatal physiology. It is also a very big challenge for the health strategies and perinatal health care planners and it is essential to minimize these problems and to reduce the inexcusable causes of childhood morbidity, mortality and disability.

ABSTRACT

Nurses play a vital role in caring client especially newborn babies, because it is very difficult to understand words of a newborn. A staff nurse is one who have the capacity to understand the words of newborn. So keeping in mind A pre experimental approach one group pre-test and post-test design by using simple random sampling technique was used. Highest staff nurses were from Pediatric ward & Labor ward respectively. The overall mean knowledge score in pre-test was (14.76±3.65) which is 49.2% revealing average knowledge whereas in post-test it was (24.98 ± 2.39) which is 83.26% revealing very good knowledge and effectiveness was 34.06%. Post test highest mean percentage 95.5% was obtained for the area of "concept of Neonatal Emergencies and their management" and the lowest mean percentage(77.5%) was obtained for the area "Neonatal Seizure and its management"and effectiveness of booklet was from 24.5% to 50%.

Index Terms- IB-Information Booklet, NICU-Neonatal Intensive Care Unit, SNCU- Special Neonatal Care Unit
NEED FOR THE STUDY

I. INTRODUCTION

Nurses are the key person in child care team. It is expected that a nurse should have competencies and good judgment based on specialized up- to date knowledge, skill and positive attitude to manage emergency situations. So the nurses need special preparation in child health to contribute towards healthy child, the future productive and creative individual. Major newborn emergencies are preterm 35%; neonatal infections 33%; intra-partum related complications/birth asphyxia 20% and congenital malformations 9%. (**INAP, Liu et al, 2012).** Globally, about 7.9 million children are born annually **(Ministry of Health & Family Welfare, Govt. of India,2013).**

II. OBJECTIVES OF THE STUDY

- To find out the effectiveness of IB regarding neonatal emergencies and their management on knowledge of staff nurses.
- To find out the association between post test KS regarding selected neonatal emergencies and their management among staff nurses and their selected demographic variables.

III. HYPOTHESIS

All hypothesis will be tested at 0.05 level of significance
- **Ho1:** There will be no significant relationship between pre and post test KS of staff nurses regarding management of selected neonatal emergencies
- **Ho2**: There will be no significant association between the post test KS of staff nurses and their demographic variables on management of selected neonatal emergencies

IV. REVIEW OF LITERATURE

Sampa PR, Hossain ZQ and Sultana S. (2012) conducted a descriptive study concluded that awareness rising about facilitated delivery and safe delivery in hospitals and clinics so that death of the newborn babies could reduce by means of proper treatment.

G. Sahana and B. Anjaiah. (2014) conducted a prospective, observational study in the Neonatal Intensive Care unit, level II ; Government General hospital, Vijayanagar, Bangalore, India on incidence, etiological factors, and various biochemical abnormalities in neonatal seizures. Perinatal asphyxia 57.80% (63/109), infections 16 (14.67%) &

hypoglycemia 10(9.17%) and 51.37% (56/109) are the leading cause of neonatal seizures in this study. 2010)

El sayed SM. (2013) conducted a study on Knowledge of the nurses regarding care of high risk neonates at NICU of Tanta

Sl. No	Area of knowledge	Max. score	Pre-test			Post-test			Effectiveness In mean percentage
			Mean	Standard deviation	Mean percentage	Mean	Standard deviation	Mean percentage	
1	Concept	4	1.82	0.92	45.5	3.82	0.39	95.5	50
2	Birth Asphyxia	5	2.26	1.065	45.2	4.12	0.94	82.4	37.2
3	Respiratory Distress Syndrome	6	3.04	1.124	50.66	4.92	0.8	82	31.34
4	Neonatal Sepsis	7	3.3	1.71	47.14	5.48	0.97	78.28	31.14
5	Neonatal Seizure	4	1.78	1.075	44.5	3.1	0.76	77.5	33
6	Hypothermia	4	2.56	1.091	64	3.54	0.71	88.5	24.5
	Overall total	**30**	14.76	6.98	**49.2**	**24.98**	**4.57**	**83.26**	**34.06**

Knowledge score

University Hospital. The study findings showed that 70% or more nurses is considered as good knowledge in providing direct care to the neonates.

METHODOLOGY

A pre experimental approach one group pre-test and post-test design was used .50 staff nurses who are working in (S.N.C.U, Pediatric Ward, O & G O.T and Labor Ward) of M.K.C.G.

Medical College Hospital Berhampur, Ganjam, and Odisha were randomly selected. An IB was prepared on selected neonatal emergencies . The data was collected from dt 23.03.2015 to 06.04.2015

RESULT

(62%) SN had GNM qualification whereas only (38%) of them had B.Sc. nursing. highest 50% of SN had under gone training once on newborn , 36 % of staff nurses had not under gone any training, 10% of SN had under gone thrice or more training on newborn & lowest 4% were under gone twice.

Table 1. Area wise score

Area wise comparison of mean, SD, Mean percentage shows that, during post-test the highest mean score was 5.48± 0.97which was 95.5% of the maximum score was obtained for the area of concept of Neonatal emergencies and highest pre-test score (64%) in the area hypothermia. The lowest mean percentage is 78.28% of total score in post test was obtained for the area "neonatal sepsis" whereas the lowest mean percentage is 44.5 % of the total score was in the area "neonatal seizure" during pre-test.

Further overall pre-test mean score was (14.76±6.98) which is 49.2% of maximum score and average knowledge whereas it was 83.26% during post-test showing a difference of 34.06% of effectiveness and having a very good knowledge. It was also observed that difference between the pre and post-test area wise mean score values vary from 24.5% to 50%. Hence, it can be interpreted that IB was effective in both area wise and overall.(Table 1)

Line graph showing the comparison of pre and post-test KS reveals that, the lowest score of pre-test was 4-6 which was obtained by 2% of staff nurses whereas in post-test it is ranged from 19-21 and obtained by 4% of staff nurses. Similarly, highest score of pre-test was ranged from 13-15 which was obtained by 34% of staff nurses where as in post-test it is ranged from 22-24 and obtained by 42% of SN. The median plotted on the line graph shows that the pre-test mean and median scores were 14.76 and 14 respectively. Whereas during post-test mean and median scores were 24.98 and 25 respectively. It shows the effectiveness of IB. (Figure1)
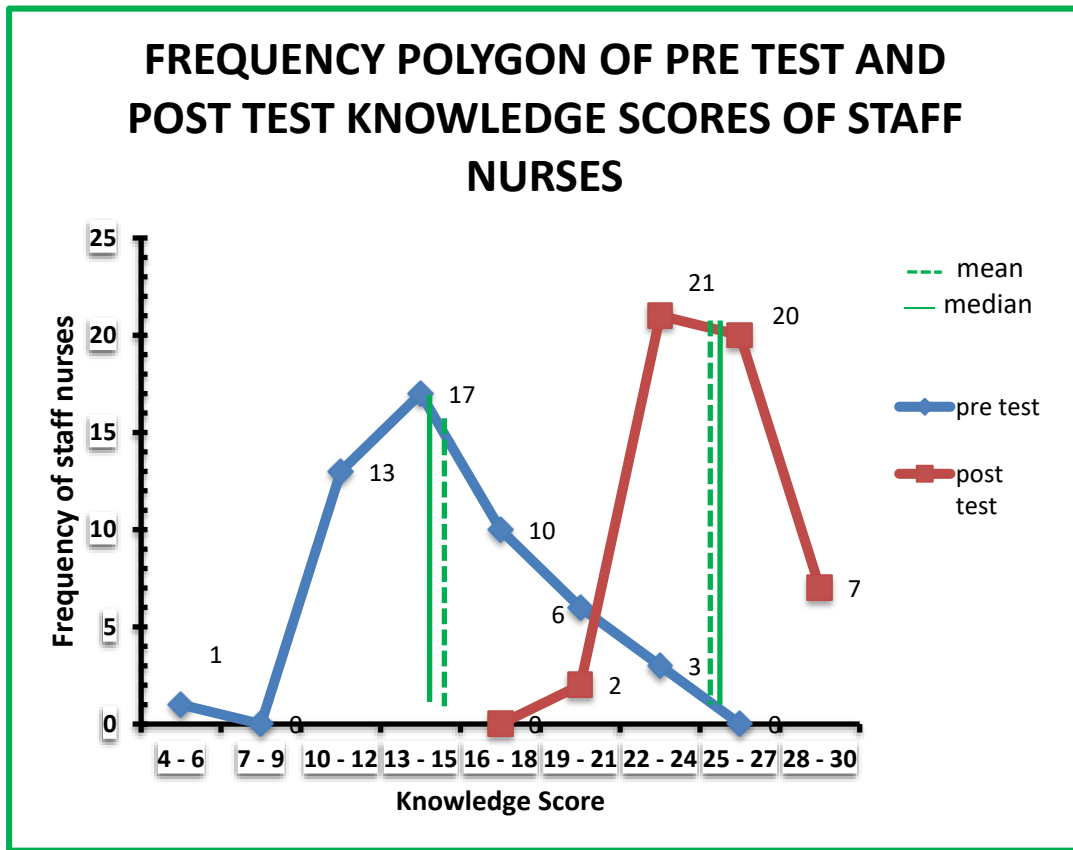
Figure – 1: Line Graph showing comparison of pre and post-test KS of staff nurses

Figure 2 O-give curve showing comparison of cumulative percentage of KS of staff nurses

O-give curve showing the comparison of cumulative percentage of KS of staff nurses on selected neonatal emergencies and their management shows that, post test score lies to the right of the pre test score; over the entire range showing that post score were higher than the pre test scores. In the pre test 25th percentile score was 12 where as it was 22 in post test. The 50th percentile score for pre test was 13 where as it was 24 in post-test showing a difference of 10, 11 and 10. Similarly 75 percentile score was 16 where as it was 26 in post test. It shows that IB was effective overall (Fig. 2).
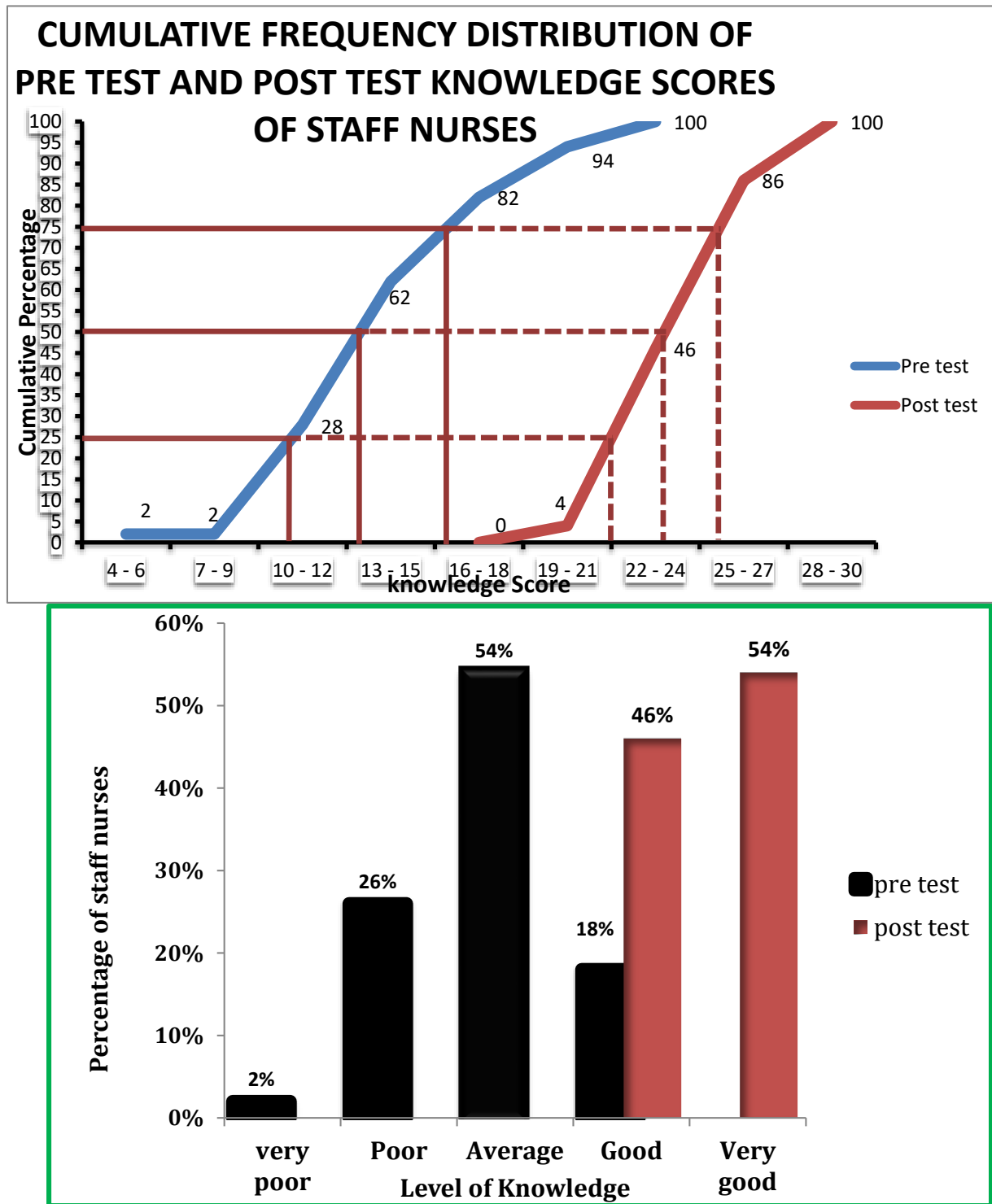

Figure – 3 : Bar Diagram showing the comparison of KS of staff nurses

Percentage wise distribution of KS of staff nurses according to their level of knowledge shows that, during pre test the highest percentage (54%) of staff nurses had average Knowledge regarding selected neonatal emergencies and their management and a very least number 1 (2%) had very poor knowledge regarding it. Whereas during post test highest percentage (54%) of them having a very

good knowledge and lowest only 46% of them had good knowledge during post test. Hence it can be interpreted that, the IB was effective in improving knowledge regarding neonatal emergencies and their management. (Figure.3)

Sl No.	Area	Calculated 't' value	Remarks
1	Concept of Neonatal Emergencies	14.15	Highly significant
2	Birth Asphyxia	9.3	Highly Significant
3	Respiratory Distress Syndrome	9.63	Highly significant
4	Neonatal Sepsis	7.84	Highly significant
5	Neonatal Seizure	7.09	Highly significant
6	Hypothermia	5.32	Highly significant

t=2.66 (table value)   df=49 ;   p<0.01

Table.2 **Paired 't' value of pre and post-test KS of SN in neonatal emergencies and their management**

Paired 't' test was calculated to assess the significant difference between pre and post-test knowledge score shows that significant difference was found in all areas like- Concept of Neonatal Emergencies, Birth Asphyxia, Respiratory Distress Syndrome, Neonatal Sepsis, Neonatal Seizure, & Hypothermia. (Table.2)

Sl. No.	Demographic variables	x^2 value	df	Table value	Level of significance
1	Age	0.96	1	3.84	Not significant
2	Educational Qualification	1.03	1	3.84	Not significant
3	Under gone any special training on newborn	2.63	1	3.84	Not significant
4	Years of experience	1.08	1	3.84	Not significant
5	Place of Posting	0.65	1	3.84	Not significant

Table.3 Chi square (x^2) test to find out association between of post-test KS of staff nurses and their demographic variables. (N=50)

Chi square (x^2) was calculated to assess the significant association between selected demographic variable of staff nurses with their pre-test KS regarding selected neonatal emergencies and their management reveals that, no significant association was found between pre-test KS and demographic variables. Hence, the null hypothesis was accepted. (Table 3)

V. SUMMARY AND DISCUSSION

In the changing trends and concept towards care of neonates, the nurse has to face various challenges on emergency care . In view of the above reasons researcher experienced that heavy workload minimum refresh up to date knowledge , staff nurses are incapable to provide emergency care to neonates and cannot able to manage emergency situation. Though there are various programmes launched by Government and non Government organization; (UNICEF, NSSK etc.) still the objective (i.e, the NMR target is to bring it down to below 30 by 2017," added Dr Mohapatra, who is the State Academic Coordinator of IAP.) is not achieved. Investigator chooses information booklet as it is a resource material which is portable and facilitates individualized learning and can be used for future reference. Employing IB regarding neonatal emergencies and its management can facilitate the knowledge of SN and help them to develop decision making and working skills when dealing with neonatal emergencies.

Implications
- ➢ The findings of the study can help in the in-service education programme to improve the quality of care and neonatal emergencies and its management.
- ➢ This information booklet can encourage the nurse researcher to conduct more study on different nursing personnel as students nurse
- ➢ Information booklet also can be useful to improve the knowledge of nursing students and staff nurses through self study.

Recommendations
- ❖ Similar studies can be conducted in a large sample for drawing better conclusion and generation of findings.
- ❖ Continuous supportive supervision is required for health care provider to implement
- ❖ A comparative study can be conducted on professional education of staff nurses on management of neonatal emergencies and their management..

VI.   CONCLUSION.

From the findings it can be concluded that, highest percentage (42%) of staff nurses were belongs to < 25 years. Highest percentage (62%) of SN had GNM qualification. 50% of staff nurses had under gone training once on newborn. Highest percentage 46% of SN had less than two years of experience. (28%) of the SN were posting and working in pediatric & Labor ward . Prior to implementation of IB the SN had average knowledge (49.2%) on selected neonatal emergencies and their management. whereas after implementation of IB the staff nurses had very good knowledge of 83.26% and difference in mean percentage was 34.06% and it shows the effectiveness of IB

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