Planned Teaching Programme on Knowledge Regarding Neonatal Reflexes Among Staff Nurses

Indu C Philip[1], Jasmine Joseph[2]

Abstract

Back ground of the study: Newborn reflexes are of immense important for proper development and healthy life of a baby. The goals of neurological examination are to assist in localization of the disturbances, establish a diagnosis and to some extent predict the long term outcome. From this information the researcher felt a need to give an education to the staff nurses working in pediatric hospitals regarding the importance and assessment of neonatal reflexes. *Aim:* The aim of this study was to evaluate the effectiveness of PTP on neonatal reflex among staff nurses in selected neonatal unit, Bangalore.

Objectives of the study:

❖ To assess the pre-test knowledge scores of staff nurses regarding neonatal reflexes.

❖ To evaluate the effectiveness of planned teaching programme on neonatal reflexes among staff nurses.

❖ To find out the association between pre-test knowledge scores of staff nurses with their selected socio-demographic variables.

Methods: The research approach adopted for the study was one group pre-test post-test research approach. The research design selected for the study was quasi experimental research design. Non probability convenient sampling technique was used for the study. 60 staff nurses were selected for this study. The tool used for the data collection was structured knowledge questionnaire, which has two sections. Section-A provides about socio-demographic data and Section-B deals with knowledge on neonatal reflexes. Collected data was analyzed by using descriptive and inferential statistics in terms of frequencies, percentage, mean, standard deviation, chi-square values and '*t*' test. *Results:* This study showed that higher percentage of staff nurses 36.67% (22) were between 20–25 years of age, 88.33% (53) were females, 60.0% (36) of them were Hindus, 43.33% (26) had 1–5 years of experience, 58.33% (35) of them were staff nurses, 36.67% (22) were completed GNM, majority 73.33% (44) of them were not undergone any training on neonatal reflexes and 63.33% (38) of staff nurses got information regarding neonatal reflexes from health personals. The result of this study showed that, In pre-test majority of the staff nurses 71.67% had inadequate level of knowledge regarding neonatal reflexes and 28.33% of them had moderate level of knowledge. In post-test, 78.33% of staff nurses had adequate level of knowledge and 21.67% of them had moderate level of knowledge and no one of them were having inadequate level of knowledge regarding neonatal reflexes. This showed that the planned teaching programme was effective in improving the knowledge of staff nurses on neonatal reflexes. The chi-squire value of the pre-test knowledge scores of staff nurses were significant at $p < 0.05$ level with their selected socio demographic variables. *Interpretation and Conclusion:* The findings of the study concluded that the PTP was found to be effective in improving the knowledge of staff nurses regarding neonatal reflexes.

Keywords: Planned Teaching Programme; Neonatal Reflexes.

Author Affiliation: [1]Lecturer, Child Health Nursing, Westfort College of Nursing, Thrissur, Kerala 680581, India. [2]Assistant Professor, Child Health Nursing, Koshys College of Nursing, Bengaluru, Karnataka 562149, India.

Corresponding Author: Indu C Philip, Lecturer, Child Health Nursing, Westfort College of Nursing, Thrissur, Kerala 680581, India.

E-mail: sreenathmenon2@gmail.com

Introduction

"Babies are such a nice way to start people".

Don Herald

Babies are born so weak and simple that they cannot hold up their heads or even roll over, but they start out life with a perfect set of reflexes designed to help them navigate early life outside the womb. All new borns are born with the collection of reflexes known as neonatal reflexes. These are the inborn behavioral pattern that develop during uterine life or involuntary movements that babies make when a part of their body is stimulated. In addition to the major physiological adjustments, they also undergoes psychological adaptations.

The rooting reflex has as much utility today as it had thousands of years ago. When a newborn's cheek is touched, he will turn toward the side that was stroked and try to suckle. He may also bob his head up and down, especially when hungry, seeking a nipple. This basic reflex is necessary for a newborn's survival because it helps them to easily find and latch on to a breast. Also important for a baby's survival and nourishment in the newborn phase, the suckling reflex enables newborns to nurse reflexively when something enters their mouths. This is the reason that even the youngest babies will suck pacifiers or bottles without "learning" to do so.

Newborn reflexes are of immense important for proper development and healthy life of a baby. As, neonatal period is the first 28 days of life, health care providers working in neonatal unit should provide different levels of care to babies who range in condition from healthy new born to premature babies who have serious birth defects, severe illness, or other life threatening problems. However, a neurological assessment should be performed in any new born suspected to have a neurological abnormality either based upon history [for instance. asphyxia] or a physical finding detected during the routine neonatal assessment. The goals of neurological examination are to assist in localization of the disturbances, establish a diagnosis and to some exent predict the long term outcome.

The new born behavioral assessment scale is the most comprehensive examination of newborn behavior available to researchers today. The NBAS, has 18 reflex items and 28 behavioral items designed to examine individual differences in newborn behavior. The scale assess the baby`s capabilities across different developmental areas.

Materials and Methods

Research approach tells the basic procedure for the conduct of research enquiry. In the present study one group pre-test post-test research approach was adopted for this study. It studies observable changes that takes place in order to establish a cause and effect relationship. The research design used for the present study is pre-experimental research design. The study was conducted in Indira gandhi hospital, Bangalore. The criterion for selecting the setting was feasibility for conducting the study, availability of the samples and familiarity of the investigator with the setting. Therefore the investigator felt that there would be rich opportunity to bring about awareness on neonatal reflexes to the staff nurses in these areas.

The sample size of the present study was 60 staff nurses working in Indira gandhi hospital, Bangalore. After an extensive ROL and discussion with experts, the structured knowledge questionnaire and lesson plan were prepared to assess the knowledge of staff nurses regarding neonatal reflexes. The structured questionnaire was divided in to two sections.

The Knowledge questionnaire was prepared after going through an intensive review of literature including research articles and personal discussions with the experts.

It consists of 30 questions used to assess the knowledge of staff nurses regarding neonatal reflexes.

A blue print was made to prepare the test items of the tool. Items related to cognitive domain only were selected. Content area was classified under different aspects such as knowledge on general aspects of neonatal reflex, types of neonatal reflex and effect of neonatal reflex in children.

The knowledge regarding neonatal reflexes was assessed in terms of knowledge scores, each correct answer is given a score of 1 and wrong answers gives score of "0". The maximum score was 30. For the purpose of the study the knowledge scores were categorized as follows;

To interpret the level of knowledge the score

Adequate: 24–30 (> 75%)

Moderate: 16–23 (51 – 75%)

Inadequate: 01–15 (≤ 50%)

Method of Data Collection

Phase I

The data collection was scheduled on month of February 2015. Prior permission was obtained from concerned authority of Indira gandhi hospital, Bangalore.

Phase II

During the data collection schedule, the staff nurses who met the inclusion criteria were selected by using non probability convenient sampling technique.

Phase III

Before administering the tool the purpose of the study was explained to the entire staff nurses with self-introduction and a written consent was obtained from them.

A separate place was selected for the data collection and privacy was maintained and the subjects were made comfortable.

The investigator took an average time of 20–30 minutes for each session. The investigator got co-operation from the staffnurses.

Phase IV

At the end of the pre-test session, the PTP were administered to the staff nurses and encouraged to get their doubts clarified.

Phase V

After 7th day of administering PTP, post-test was done by using the same tool on the same subjects.

Results

Pre-test knowledge scores of staff nurses regarding neonatal reflexes.

Table 1: Pre-test knowledge scores of staff nurses regarding neonatal reflexes.   n = 60

| Level of Knowledge	Score	No of Respondents (%)	
		No	%
Inadequate	< 50%	43	71.67
Moderate	50 – 75%	17	28.33
Adequate	> 75%	0	0.0
Total		60	100

Table 1 and figure 1 depicts that pre-test knowledge scores of staff nurses regarding neonatal reflexes. In this study majority of the staff nurses 71.67% had inadequate level of knowledge regarding neonatal reflexes and 28.33% of them had moderate level of knowledge.

Area wise mean pre-test knowledge scores of staff nurses regarding neonatal reflexes.

Table 2: Area wise mean pre-test knowledge scores of staff nurses regarding neonatal reflexes   n = 50

Aspects wise knowledge	Max Statement	Max Score	Range	Mean	SD
General aspects of neonatal reflex	5	5	1–3	2.16	1.74
Different types of neonatal reflexes	16	16	4–11	7.31	2.11
Effects of reflexes in neonate	9	9	2–5	3.86	1.67
Overall	30	30	8–19	13.33	2.71

Table 2 describes area wise mean pre-test knowledge scores of staff nurses regarding neonatal reflexes. In the area of knowledge on general information of neonatal reflexes the staff nurses had mean scores of 2.16 with SD 1.74. Staff nurses had mean scores of 7.31 with SD 2.11 in the area of different types of neonatal reflexes. With regard to the effects of reflexes in neonate had mean scores of
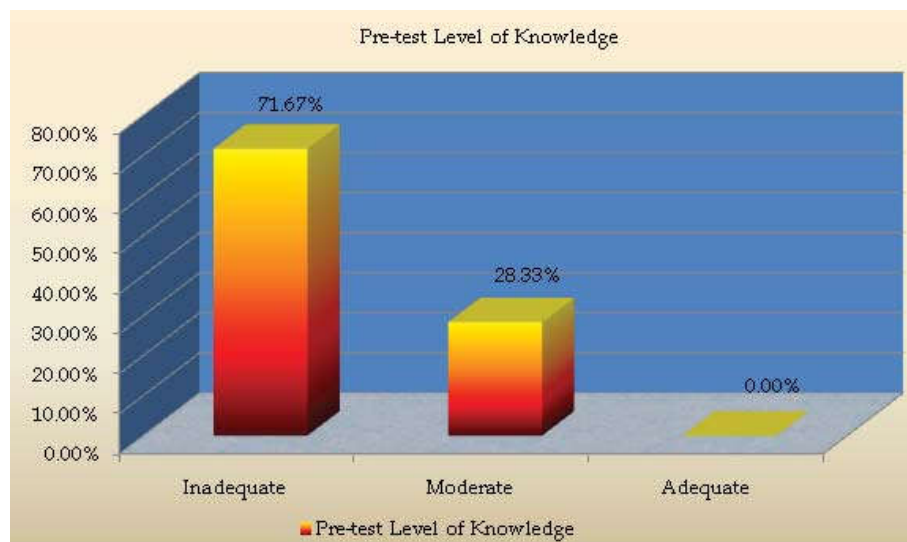
Fig. 1: Pre-test knowledge scores of staff nurses regarding neonatal reflexes

3.86 with SD 1.67. The overall mean and SD were 13.33 and 2.71 respectively.

Post-test knowledge scores of staff nurses regarding neonatal reflexes.

Table 3: Post-test knowledge scores of staff nurses regarding neonatal reflexes   n = 60

Level of Knowledge	Score	No of Respondents (%)	
		No	%
Inadequate	< 50%	0	0.0
Moderate	50–75%	13	21.67
Adequate	> 75%	47	78.33
Total		60	100

Table 3 illustrates post-test knowledge scores of staff nurses regarding neonatal reflexes. During post-test, 78.33% of staff nurses had adequate level of knowledge and 21.67% of them had moderate level of knowledge and no one of them were having inadequate level of knowledge regarding neonatal reflexes.

Area wise mean post-test knowledge scores of staff nurses regarding neonatal reflexes.

Table 4: Area wise mean post-test knowledge scores of staff nurses regarding neonatal reflexes   n = 50

| Aspects wise knowledge	Max Statement	Max Score	Range	Mean	SD
General aspects of neonatal reflex	5	5	3–5	4.19	0.57
Different types of neonatal reflexes	16	16	9–15	12.84	1.93
Effects of reflexes in neonate	9	9	6–9	7.93	1.07
Overall	30	30	18–29	24.96	1.97

Table 4 reveals area wise mean pre-test knowledge scores of staff nurses regarding neonatal reflexes. In the area of knowledge on general information of neonatal reflexes the staff nurses had mean scores of 4.19 with SD 0.57. Staff nurses had mean scores of 12.84 with SD 1.93 in the area of different types of neonatal reflexes. With regard to the effects of reflexes in neonate had mean scores of 7.93 with SD 1.07. The overall mean and SD were 24.96 and 1.97 respectively.

Comparison of pre-test and post-test knowledge scores staff nurses regarding neonatal reflexes.

Table 5: Comparison of pre-test and post-test knowledge scores of staff nurses regarding neonatal reflexes   n = 60

Level of knowledge	Score	Pre-test		Post-test	
		No	%	No	%
Inadequate	< 50%	43	71.67	0	0.0
Moderate	50–75%	17	28.33	13	21.67
Adequate	>75%	0	0.0	47	78.33
Total		60	100	60	100

Table 5, figure 2 reveals the comparison of pre-test and post-test knowledge scores staff nurses regarding neonatal reflexes. In pre-test majority of the staff nurses 71.67% had inadequate level of knowledge regarding neonatal reflexes, 28.33% of them had moderate level of knowledge whereas in post-test staff nurses has showed improvement in their knowledge due to the planned teaching programme. In post-test 78.33% of staff nurses had adequate level of knowledge, 21.67% of them had moderate level of knowledge regarding neonatal reflexes.
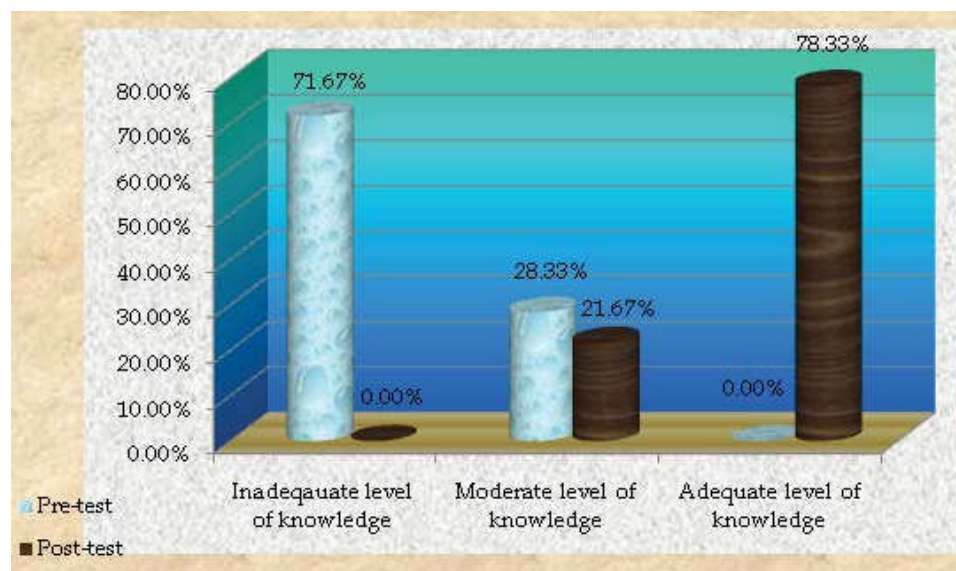
Fig. 2: Comparison of pre-test and post-test knowledge scores of staff nurses regarding neonatal reflexes

Effectiveness of planned teaching programme on knowledge regarding neonatal reflexes among staff nurses.

Table 6: Effectiveness of planned teaching programme on knowledge regarding neonatal reflexes among staff nurses

n = 60

Aspects wise knowledge	Pre-test		Post-test		Paired 't' test
	Mean	SD	Mean	SD	
General aspects of neonatal reflex	2.16	1.74	4.19	0.57	8.27**
Different types of neonatal reflexes	7.31	2.11	12.84	1.93	11.81**
Effects of reflexes in neonate	3.86	1.67	7.93	1.07	9.93**
Overall	13.33	2.71	24.96	1.97	14.58**

**Significant at $p < 0.01$ level, df 59, table-value 2.67

Table 6 describes the effectiveness of planned teaching programme on knowledge regarding neonatal reflexes among staff nurses. It is inferred that the overall paired 't' test value was 14.58 it is significant in table value 2.67 at 0.01 level. So it is proved that the STP was effective in improving knowledge of staff nurses regarding neonatal reflexes. Hence H_1 is accepted.

References

1. www.Healthofchildren.com |N-O| Neonatal reflexes.html.

2. Children's Health Encyclopedia (2006). Neonatal Reflex. Retrieved September 19; 2007.

3. Shine.yahoo.com/reflexes-does-newborn-baby-181000337.html.

4. en-wikipedia.org/primitive-reflexes.

5. www.uptodate.com/contents/neurological-exam-of-the-newborn.

6. www.brazelton-institute.com/train.html/.

7. Allen MC, Capute AJ. The evolution of primitive reflexes in extremely premature infants.Pediatric research. 1986;120;1284-9.

8. Grattan. P Mary, Vos de Eric, Levy Jerre. Asymmetric Action in the Human Newborn: Sex Differences in Patterns of Organization. Child development. Chicago. 1992 April;63(2):273-89.

9. Fleming SP, Newra TR. Neurological examination in the healthy term newborn. Arq Neuropsiquiatr. 2003;61(2-A):165-69.