EFFECTIVENESS OF THE ORAL MOTOR INTERVENTION ON FEEDING PERFORMANCE AMONG PRETERM BABIES AT SELECTED HOSPITAL, COIMBATORE.

Prof. Thenmozhi.P	Msc (N), (Paed.Nsg), MSc (PSY), MA (Socio), Department Of Paediatric Nursing, Texcity College of Nursing, Coimbatore, Tamilnadu.
Ms.Nivetha .N*	Msc Nursing student Texcity College of Nursing, Coimbatore, Tamilnadu. *Corresponding Author

ABSTRACT

AIMS: The aim of the study was to assess the level of feeding performance among and determine the effectiveness of oral motor intervention on feeding performance among preterm babies.

METHODS: One group pre-test and post-test pre-experimental design was used and 30 samples were selected using non-probability convenient sampling technique. The modified early feeding assessment scale was used to evaluate the feeding performance. Descriptive and inferential statistical analysis were used to analyze the data.

RESULTS: The pretest mean was 22.6 and the post-test mean was 38.8. the mean difference was 16.2. The standard deviation of the pretest was 3.8 and the post -test was 2.8. The calculated paired 't' value 19.12 was highly significant than the table value (2.6) at 0.05 level.

CONCLUSION: It was inferred that oral motor intervention was effective in improving feeding performance among preterm babies.

INTRODUCTION

World Health organization defined Preterm birth as birth of a baby at less than 37 weeks of gestation. Preterm babies are not fully prepared to live in the world outside their mother's womb. Premature babies especially those born earliest often have complicated medical problems. Depending on how early a baby is born, he or she may be late preterm (between 34 &36 weeks of pregnancy), moderately preterm (between 32 & 34 weeks of pregnancy), very preterm (less than 32 weeks of pregnancy), extremely preterm (born at or before 25 weeks of pregnancy). The preterm features include, small size, with a disproportionately large head, sharper looking, less rounded features than a full-term baby's features, fine hair (lanugo) covering all over the body, low body temperature especially immediately after birth in the delivery room, due to a lack of stored body fat, labored breathing or respiratory distress, lack of reflexes for sucking and swallowing, leading to feeding difficulties. They may need to stay in hospital longer than babies born later. The last century has witnessed a considerable rise in the survival of young preterm infants with feeding difficulties are due to the advances in their care and sucking is regarded as the best way to feed newborns. Oral feeding difficulties are almost common in preterm babies due to problems in their cardiorespiratory and central nervous systems as well as incomplete development of their oral structures. Each year approximately 15 million babies worldwide are born before 37 weeks of gestation. In 2017, complications due to preterm birth lead to the death of approximately one million babies from all countries in the world and infants who survived at risk substantial long-term disability. To put that into perspective, one million deaths in a year means that 2700 babies die every day. As a result the research was designed to effectiveness of oral motor intervention was need for preterm babies.

METHODS & MATERIALS:

Design and sample:

Pre experimental one group pretest and post-test design was selected, in order to achieve the objectives of the study. Based on the set of criteria 30 preterm babies' were selected as samples for the study. consent obtained from the mothers before participating in the study.

Setting The study was conducted at a Multi Speciality Hospital, Coimbatore. The bed strength of the hospital was 710 with various facilities for child care like out -patient department NICU,PICU, Pediatric wards, etc. The NICU consists of 12 beds.

Procedure The study was conducted at a Multi Speciality Hospital, Coimbatore. The prior permission obtained from the hospital authority and concent obtained from mothers. The study carried out for a period of four weeks. The total sample was 30, every week 7-8 samples were selected based on the criteria. The pretest was done using modified early feeding assessment scale. After pretest the oral motor intervention was given for each samples for a duration of 15-20 minutes each session and totally 3 session was given per day and continued for 5 days. After intervention on 6th day the post test was

conducted for effectiveness of oral motor intervention on preterm babies by using the modified early feeding assessment scale.

Instruments The data collection tool consists of three part namely section A and section B Section C

SECTION A

It consists of two part. Part I- mother variable, Part-II child variables

Part -I

It comprised of demographic variables of the mother such as mother age, education, income, place of delivery, mode of delivery, birth order, religion, place of residence, occupation, type of family, had regular antenatal checkup, any illness during antenatal period, previous history of preterm delivery.

Part-II

It comprised of child demographic variables such as gestational week at birth, birth weight of the baby, sex, preterm with minor complication, preterm weight is appropriate to the gestational age (AGA).

SECTION B

It consists of the assessment of feeding performance of the preterm babies rating scale. It consist of 11 number of question, total score 44. Categorizing the score

FEEDING PERFORMANCE	RANGE OF SCORE
Inadequate feeding performance	11-20
Moderate feeding performance	21-32
Adequate feeding performance	33-44

SECTION C

The module on Oral motor stimulation which consists of two section 1. Oral motor stimulation and 2. Non-Nutritive Sucking

DATA AND STATISTICAL ANALYSIS:

To create the frequency distribution table and quantify measurement of central tendency (mean, standard deviation), as well as demographic data , descriptive statics were used. T-test were used for feeding performance. A probability value (p value) of less than 0.05 at 95% confidence interval was considered as statistically significant.

RESULTS

1. Frequency and percentage distribution of samples with their selected demographic variables.

- **Part-I :** among 30 samples with regards to age 2 (6.66%) were in the age group of < 20 years, 21 (70%) were in the age group of 20-30 years, 7 (23.33%) were in the age group of above 30 years. Among the samples with regards to mode of delivery 22 (73.33%) underwent caesarean section and 8 (26.66%) had vaginal delivery. Regarding whether the mother had any complication / co-morbidity during pregnancy 2 (6.66%) had complication, 28

(93.33%) had no complication during pregnancy.Regarding whether the mother had regular antenatal check-up 29 (96.66%) mothers had regular check-up and 1 (3.33%) mother not regular antenatal check-up. With regards to gestational age 2 (6.66%) had delivery with the gestational age of 30-32 weeks, 15 (50%) had delivery with the gestational age of 33-35 weeks, 13 (43.33%) had delivery with the gestational age of 36-37 weeks.

Table :1 Distribution of samples according to their feeding performance in pretest and post-test

n=30

FEEDING PERFORMANCE	Pretest		Post-test	
	(f)	(%)	(f)	(%)
Inadequate (11-20)	7	23.33	0	0
Moderate (21-32)	23	76.66	1	3.33
Adequate (33-44)	0	0	29	96.66

Table 2 Mean, Mean difference, Standard deviation and 't' value of pretest and post- test (feeding performance among samples)

n=30

S. NO	VARIABLES	Mean	Mean difference	Standard deviation	Paired 't' test
1.	Pretest	22.6	16.2	3.8	19.12*
2.	Post-test	38.8		2.8	

*Significant at P<0.05level

MAJOR FINDINGS & CONCLUSION :

NICU nurses provided specialized care for preterm babies and they are playing a vital role in preterm babies feeding. Oral motor intervention programme to increase functional response of the oral motor structure.The study shows that, during the pretest 7 (23.33%) had inadequate feeding performance, 23 (76.66%) had moderate feeding performance. The feeding performance was improved after the intervention and the post-test 1(3.33%) had moderate feeding performance, 29 (96.66%) had adequate feeding performance.The study revealed that, the pretest mean was 22.6 and the post-test mean was 38.8, the mean difference was 16.2, the standard deviation of the pretest was 3.8 and the post – test was 2.8. The calculated paired 't' value 19.12 was highly significant than the table value (2.6) at 0.05 level. Hence the hypothesis was accepted. It was inferred that oral motor intervention was effective in improving the feeding performance among preterm babies.

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