

Effectiveness of Coconut Oil Massage on Selected Reflexes among Preterm, Low Birth Weight Babies

Nirupam Nisha Sahu

Nursing Tutor, College Of Nursing , AIIMS Raipur, M.Sc in Child Health Nursing

Abstract: *There is emerging evidence that low birth weight or growth retarded neonates are more prone to manifest diabetes mellitus, hypertension and coronary artery disease in later life. Low birth weight is a major determinant of perinatal illness, disability & death. It accounts for the vast majority & more than 50% of long term neurologic morbidity such as cerebral palsy (Zimmer Gembuck M. & Hefland, m. 1996)*

Aim - *“A study to assess the effectiveness of coconut oil massage among preterm, Low birth weight babies in terms of selected reflexes in selected areas of Bhilai, Chhattisgarh”*

Results:- *The mean Post test reflex score (5.05) was apparently higher than the Pre test reflex score (4.7). The mean difference is (0.55), S.D. (+0.59) and computed “t” value (4.61) at the level of 0.001 showed that highly significant difference between the pre test and post test reflex scores in experimental group.*

Findings of unpaired ‘t’ test reveals ‘t’ value for selected reflexes (0.014) at the level of 0.001 showed that there is no significant difference between the gain scores of selected reflexes.

Conclusion:- *The present study shows significant increase in selected reflex score of preterm, low birth weight babies after coconut oil massage in experimental group than control group . Thus it is concluded that the coconut oil massage was an effective intervention in improving the selected reflexes of preterm ,low birth weight babies.*

Key Words: *Coconut Oil Massage , Selected Reflexes.*

Date of Submission: 26-06-2019

Date of acceptance: 13-07-2019

I. Introduction

Preterm Babies are those who are born before the end of 37 weeks of gestation and whose rate of intrauterine growth was normal. They are small only because labour began the end of 37 weeks. They weighs between 10th-90th percentiles of the mean weight for age (**Parthasarathy A.2006**) .

WHO estimated that globally about 17 % of all live births are low birth weight babies. The incidence of low birth weight in India is 30-40% of all births .Out of this 8-10 % are preterm and 20-30% is small for date. Low birth weight & prematurity are major contributor to infant mortality rate in India. These babies have major physiological handicaps and therefore, are ill equipped for normal life . Expert and skilled care is required for these babies to have hope for normal life (**Singh, Meharban. 2004**).

Vidulatta (2003) conducted study on 100 mothers to assess the knowledge of mothers about risk factor of low birth weight babies. She founded that mothers had low knowledge regarding risk factors of low birth weight babies. These studies also motivated the researcher to conduct the study for mothers who have low birth weight babies.

Tiffany Field, Miguel Diego and Maria Hernandez-R etal (2009) conducted a study on Preterm infant massage therapy research: A review. Massage therapy has led to weight gain in preterm infants when moderate pressure massage was provided. The use of oils including coconut oil and safflower oil enhanced the average weight gain, and the transcutaneous absorption of oil also increased triglycerides. The weight gain was associated with shorter hospital stays and thereby, significant hospital cost savings. Hence infant massage therapy helps in improving the weight of preterm babies.

Statement of problem:

A study to assess the effectiveness of coconut oil massage among preterm ,Low birth weight babies in terms of selected reflexes in selected areas of Bhilai, Chhattisgarh.

Objectives:

1. To assess the pre-test score in terms of selected reflexes of preterm, low birth weight babies.
2. To implement coconut oil massage to the preterm Low birth weight babies of experimental group.
3. To assess the post-test score in terms of selected reflexes of preterm, low birth weight babies.
4. To assess the effectiveness of coconut oil massages in terms of selected reflexes in babies of experimental group.
5. To assess the effectiveness of coconut oil massages by comparing pre-test and post-test score in terms of selected reflexes among preterm , Low birth weight babies of both experimental and control group.

Hypotheses:

- **H1:** there will be significant difference between the pre and post mean score of selected reflexes among preterm, Low birth weight babies of experimental group.
- **H2:** there will be significant difference between mean score in terms of selected reflexes among preterm, Low birth weight babies of experimental group and control group.

Methodology

Quantitative approach with quasi experimental design with non randomized control group design was done for this study. The conceptual framework of the present study is based on Faye Glenn Abedellah’s theory. An observation checklist was developed by the investigator for data collection. 20 samples for experimental group and 20 samples for control group were selected by the convenience sampling. Data was collected from selected urban areas in Bhilai, Chhattisgarh.

Method of data collection:

The subjects were collected from the prefixed setting. The selected reflexes was assessed by the observation checklist. The coconut oil massage was given to the low birth babies for seven days and the frequency was two times a day i.e.; morning and evening. On the eighth day, again the low birth weight babies were assessed with the same tool to assess the gain in weight, selected reflexes and sleep pattern. One subject was assessed at a time.

II. Result and Discussion

1. Findings of paired t test reveals that ‘t’ value of pre and post test reflex score ($t_{19} = 4.61, p < 0.001$) this suggested that the coconut oil massage was highly effective in improving the selected reflexes of preterm, low birth weight babies of experimental group.

Table:-1: Mean, Mean difference, Standard Deviation (S.D.) and “t” value of pre and Post test reflex scores

Reflex scores	Mean Score	Mean difference	S.D.	df	‘t’ value
Pre test	4.7	0.55	+0.59	19	4.61*** HS
Post test	5.05				

p<0.001***

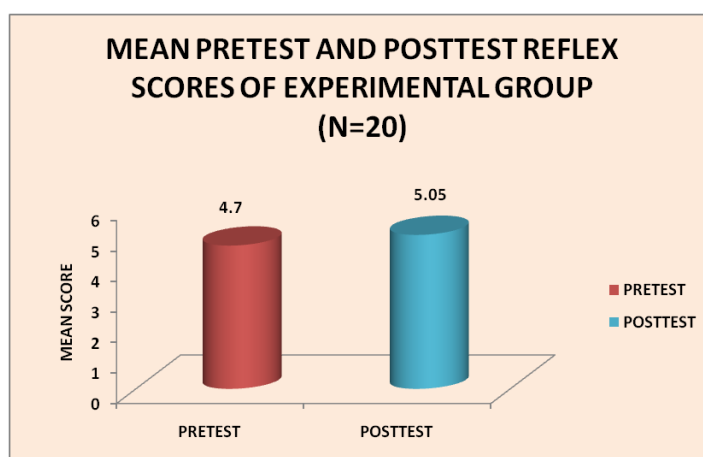


Figure - Cylindrical diagram showing mean pretest and posttest reflex score of experimental group.

2. Findings of unpaired “t” test reveals the ‘t’ value for selected reflexes ($t = 0.014$) is not significant at $p < 0.001$ level, which shows that there is no significant difference between experimental and control group in terms of selected reflex score among preterm, low birth weight babies of experimental group.

5.1. RECOMMENDATIONS-

From the findings of the present study, the following recommendations have been suggested:

1. A similar study can be conducted on a much larger sample for broader generalization.
2. The study may be replicated in different settings.
3. A study on the effectiveness of coconut oil massage on the neurological behavior of low birth weight babies may be done.
4. A comparative study can be done on coconut oil massage with any other method.

5.2. IMPLICATIONS

The findings of the study have implications for nursing practice, nursing education, nursing administration and nursing research.

Implication for Nursing Practice-

- Nurse should use the coconut oil massage intervention either in hospital or community setting to promote the health status of low birth weight babies.
- Education and demonstration must be provided to each mother of low birth weight babies and they should be encouraged to practice coconut oil massage.
- Coconut oil massage not only beneficial for low birth weight babies but for normal babies also.

Implication for Nursing Education-

- Nursing educator has the responsibility to increase knowledge of nurses on coconut oil massage by arranging in-service education in hospital.
- Today, more emphasis is given on evidence based teaching and learning. Results of study gives us evidence to change and teach students, nurses, parents the better method of massage with coconut oil to low birth weight babies as it has been found that coconut oil massage is more effective in increasing the weight of low birth weight babies.

Implication for Nursing Administration-

Nurse administrators should concentrate on workshops and in-service education, as this will update the knowledge & practice of nurses, who plays a vital role in caring and managing hospitalized low birth weight babies. Nurse administrators should initiate coconut oil massage in her postnatal wards as well as neonatal nurseries.

Nursing Research-

There is a need for extended and intensive nursing research in the areas of care of low birth weight babies, as they were more prone to get infection, delay in growth and development and mortality is also high. As giving massage is a common practice in India, extensive and on large sample study is needed in this area. More research should be conducted on benefits of coconut oil massage.

Conclusion:- The study result concluded that,

- ✓ Coconut oil massage was an effective intervention in improving the selected reflex score of preterm, low birth weight babies.
- ✓ There was a significant increase in selected reflex score of preterm, low birth weight babies after coconut oil massage in experimental group than control group.

References

Books:-

- [1]. Basavanthappa, B.T (2003). “Nursing Research”. (1st Ed). New Delhi: Jaypee Brother Publication.
- [2]. Dutta P. Pediatric nursing. 1st Edition. Jaypee Publication. Pp-215-223.
- [3]. Ghai O.P (2005). Ghai essential pediatrics’. (ed. 6th). Published by Dr. Ghai Delhi; (2005) pp155-159.
- [4]. Kothari, C.R. (2006). Research Methodology. (2nd ED.) New Delhi: New Age International (P Ltd) Publishers.
- [5]. Polit, D.F. and Hungler, B.P. (1999). Nursing Research Principles and Methods. (6th Ed) Philadelphia: Lippincott Publication.
- [6]. Parthasarathy A. (2006). IAP Text book of pediatric nursing. (ed. 3rd). Jaypee New Delhi. Pp58-62.
- [7]. Singh Meharban. (2004) Care of the newborn. (ed. 5th). Sagar publication.

Internet:-

- ✓ Field T. ,Infant Behavioural Development. 2006 Dec;29(4):574-8 .
- ✓ Massaro A.N., Journal of Perinatal.2009 May;29(5):352-7 .
- ✓ Sridhar K, Indian Journal of Pediatric. 2002 Jun;69(6):485-8 .
- ✓ Wheeden A, Journal of Developmental and Behavioural Pediatric. 1993 Oct; 14(5):318-22.
- ✓ Field T., Infant Behavioural Development. 2006 Dec;29(4):574-8
- ✓ Guo SS (1997), Early Human Development. 1997 Feb 20;47(3):305-25

Nirupam Nisha Sahu" Effectiveness of Coconut Oil Massage on Selected Reflexes among Preterm, Low Birth Weight Babies " .IOSR Journal of Nursing and Health Science (IOSR-JNHS), vol. 8, no.01 , 2019, pp. 01-05.