



PHYSIOLOGICAL AND BEHAVIORAL PARAMETERS AMONG PRETERM BABIES – SHORT REVIEWS

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Abstract: Literature reviews are a written summary of evidence on a research problem and also consist of all the reviews from different research literatures related to the present study. After reviewing about preterm babies. The investigator found that the prevalence, risk factors, mortality, and current practices of development care and use of non- pharmacological measures in the NICU.

Introduction :

Research literature reviews is a written summary of evidence on a research problem and also consist of all the reviews from different research literatures related to the present study finalized by a researcher and gives review of current knowledge, to identify the relevant theories, methods and gaps in the current research established on a particular topic of research.

Reviews were analyzed and summarized as the following subtopics to the current study.

1. Reviews related to incidence, prevalence, risk factors and mortality of preterm births.
2. Reviews related to nesting on Physiological Parameters of Preterm Babies.
3. Reviews related to Nesting on Posture and Movement of Preterm Babies.
4. Reviews related to Positioning, Movement and Developmentally Supportive Care of Premature Babies.
5. Reviews Related of Nesting on Pain, Stress and Comfort of Preterm Babies

Literature reviews were analyzed and summarized as the following subtopics to the current study.

1. Reviews related to incidence, prevalence, risk factors and mortality of preterm births

A total of 365 preterm neonates were assessed for the Prevalence, Risk Factors, and Hospital Outcome of Preterm Births in a Regional Hospital. Results revealed that the incidence of preterm birth was 18.5% and preterm premature rupture of membranes 1.133 – 6.611, and multiple pregnancy 2.413 – 9.428 were separately predicted of prematurity and 10.7% died in the hospital and main causes of death were 65% apnea, 12.5% neonatal infection, and 12.5% respiratory distress (**Chiabi, et al., 2022**).

2. Reviews related to nesting on Physiological Parameters of Preterm Babies

Quasi-experimental pre-test post-test study was assessed the effect of nesting on selected physiological parameters among preterm babies admitted to the NICU of Pariyaram Medical College Hospital, Kannur. Sample size included 30 in the experimental and 30 in the control group of preterm babies was chosen by lottery method by inclusion criteria and the tool was determined by socio-demographic data and physiological parameters assessed for 10-15 mins. Nesting was given using sterilized turkey towel of 140 cm long and 75 cm wide throughout the day and night for five days excluded during feeding, clinical examination and routine care for the five consecutive days in the experimental group and routine care was given to the control group. The study results showed that the significant difference in axillary temperature, heart rate, respiratory rate, SPO₂, capillary refill time and activity including behavioral status, global posture, global tone, sucking reflex and stress sign of preterm babies in the experimental and control group after five days of nesting ($p < 0.05$) (**Das, Pillai and Joyichan, 2020**).

3. Reviews related to Nesting on Posture and Movement of Preterm Babies

A quasi experimental one group pre and posttest study was assessed the “Effectiveness of Nesting Technique on Posture and Physiological Parameters”. The study consisted of 40 preterm and all low birth weight babies. Results found that the most of the mothers had 55% were in the age group between 25 years and 30 years, the age of the baby had 27.5% were 4 days old and 92.5 %of the babies were weight between 1.5 kg and 2.0 kg. Nesting, was statistically significant of $p < 0.001$ level. The author concluded that nesting technique among preterm and low birth weight babies helps stabilized the vital parameters and posture maintenance (**Sumathy, 2020**).

4. Reviews related to Positioning, Movement and Developmentally Supportive Care of Premature Babies.

An experimental study was done with pre-test and post-test control group on “ Effect of positioning on physiological parameters on low birth weight preterm babies in neonatal intensive care in the NICU of NRR hospital, Bangalore. Total 40 preterm infants selected simple random sampling and group was split by blocked randomization. Subjects were selected 20 for the experimental and 20 for the control group.. Nest was provided in a wrapped towel. Post test was assessed. The same procedure was carried out for five days, and the readings were recorded. The study results explained that statistically significant of nesting at 60th minute, temperature ($t=5.03966, p<0.05$), respiratory rate($t= -2.13, p<0.05$) and heart rate ($t=-2.59766, p<0.05$) but not a significant on the oxygen saturation level ($t=1.2, p=0.238$). The author concluded that nesting is very effective in rising and stabilizing the mean temperature, mean, heart rate, and mean respiratory rate of preterm infant of preterm babies (**Jebe , Kumar and sosale, 2019**).

5. Reviews Related of Nesting on Pain, Stress and Comfort of Preterm Babies

An experimental study was determined the “Effect of Nesting on Discomfort Level among Low-Birth-Weight Babies at a Selected Tertiary Care Hospital”, Bhubaneswar, Odisha. A total 60 samples of low birth weight babies were adopted and classified as 30 in the experimental group and as 30 in the control group were selected by consecutive sampling technique. Tool was collected by demographic variables, Discomfort and physiological parameters were evaluated by the standardized tools – NPASS pain scale and nesting was administered in experimental group for 6 hours per day and after post-assessment was done for both the groups on the same day. Results showed that the post average score in the experimental was higher in the control group (**Sunita, Das and Sahoo,2020**)

Summary

This chapter has a review of literature related to the problem stated. The literature was derived from primary and secondary sources and helped the researcher to understand clearly the effect of the problem under study and also empowered and strengthened the researcher to design the study, develop the tool, and plan the data collection procedure and to analyze the data.