

# A STUDY TO EVALUATE THE EFFECTIVENESS OF OIL MASSAGE ON WEIGHT AND SLEEP PATTERN AMONG LOW BIRTH WEIGHT BABIES IN SELECTED HOSPITALS OF GUJRAT"

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## ABSTRACT

**Introduction and background of the study** Baby massage could potentially benefit for growth and development. Massage is old therapeutic method in the world which has used as a routine part of care in many cultures. The sense of touch is first senses to develop, parent-infant bonding and regulate heartbeat and temperature of babies and protect against infections. It also helps in parent-baby bonding and early social development. Teach the mothers how to do massage to the babies. it will develop strengthen and attachment. Massage is promote infant growth and development.<sup>1</sup>**Methodology** The Quasi experimental research design was used for the study. 60 babies were participated whose weight was between 1500 to 2500 gm in selected pediatric hospitals of Gujarat were selected by non-probability convenient sampling technique and then randomly allocated to experimental and control group (30 each). Data was collected by using data sheet to assess the weight and sleep pattern. The data was analyzed by using Descriptive and Inferential statistics such as Frequency, Percentage distribution, Mann Whitney test and Chi square test. **Results** There was statistically significant difference found between the weight gain and sleep pattern among experimental and control group calculated by Mann Whitney test 6 at the p- value <0.001 level of significance. **Conclusion** Study result concluded that coconut oil massage was effectiveness to improve the weight gain and sleep pattern in experimental group.

**Keywords:** Low birth weight baby, massage therapy. Sleep pattern, coconut oil massage

## INTRODUCTION

**Introduction and background of the study** Baby massage could potentially benefit for growth and development. Massage is old therapeutic method in the world which has used as a routine part of care in many cultures. The sense of touch is first senses to develop, parent-infant bonding and regulate heartbeat and temperature of babies and protect against infections. It also helps in parent-baby bonding and early social development. Teach the mothers how to do massage to the babies. it will develop strengthen and attachment. Massage is promote infant growth and development.

Studies shows baby who receive positive touch they may develop emotionally and socially strong.<sup>1</sup>

Every year, an estimated 15 million babies are born preterm (before 37 completed weeks of gestation), and this number is rising. Preterm birth complications are the leading cause of death among children under 5 years of age, responsible for nearly 1 million deaths in 2015. Three-quarters of them could be saved with current, cost-effective interventions. Across 184 countries, the rate of preterm birth ranges from 5% to 18% of babies born.<sup>2</sup>

According to NITI Aayog rural area neonatal mortality rate in 2013 31 in 1000 live birth and in urban area 15 in 1000 live birth in India.

According to NITI Aayog in rural area neonatal mortality rate in 2013 31 in 1000 live birth and in urban area 16 in 1000 live birth in Gujarat.

According to NITI Aayog infant mortality rate in 2016 is 34 in 1000 live birth in India and 30 in Gujarat.

Coconut oil is having natural antibacterial and antifungal effect on body also giving moisturizer on skin.

## 2 STATEMENT OF THE PROBLEM:

A STUDY TO EVALUATE THE EFFECTIVENESS OF OIL MASSAGE ON WEIGHT AND SLEEP PATTERN AMONG LOW BIRTH WEIGHT BABIES IN SELECTED HOSPITALS OF GUJRAT"

### 3 OBJECTIVES

1. To assess the weight and sleep pattern with oil massage in experimental group.
2. To assess the weight and sleep pattern without oil massage in control group.
3. To compare the effectiveness of oil massage on weight in experimental group and control group.
4. To compare the effectiveness of oil massage on sleep pattern in experimental group and control group.
5. To find out association between effectiveness of oil massage with their selected demographic variables in experimental group.

### 4 HYPOTHESES:

**H<sub>0</sub>:** There is no statistically significant difference between the weight gains in both groups at the level of 0.05 significance.

**1H<sub>0</sub>:** There is no statistically significant difference between sleep pattern in experimental group and control group at the level of 0.05 significance

### 5 MATERIAL AND METHODS

A quantitative approach was used for the study. The quasi experimental research design was used to conduct the research study objectives of the study is to assess the weight and sleep pattern with oil massage in experimental group. To assess the weight and sleep pattern without oil massage in control group. To compare the effectiveness of oil massage on weight in experimental group and control group. To compare the effectiveness of oil massage on sleep pattern in experimental group and control group. To find out association between effectiveness of oil massage with their selected demographic variables in experimental group. The target population were children whose weight between 1500gm to 2500gm is from selected paediatric hospitals of Gujarat including Ahmadabad and Vadodara. Using non probability convenient sampling technique 60 infants were selected and randomly allocated in experimental and control group (30 each). A data sheet is used for collect the data.

### 6. ETHICAL CLEARANCE:

Ethical clearance was taken from institute Ethical Committee.

### PLAN FOR DATA ANALYSIS

Data analysis was done using descriptive statistics and inferential statistics.

### DESCRIPTIVE STATISTICS

Frequency and percentage distribution: - To assess the frequency and percentage distribution of socio demographic variables of preterm babies.

### MEAN & STANDARD DEVIATION

To compare the pre-test and post test scores of weight and selected physiological parameters of preterm babies in experimental and control group.

### INFERENTIAL STATISTICS

**Chi-square test:** - To associate the effectiveness of oil massage on sleep pattern of Low birth weight babies with their socio demographic variables.

**Man Whitney test** - To compare the pretest and post test scores of weight and sleep pattern among low birth weight babies in experimental and control group.

### RESULT

As per result majority of sample falls into gestational age of 36 weeks in both group like 60% in control and 46.7% in experimental group.

Majority of sample belongs to 1.5 to 2.0kg (83.3%) in experimental and in control group (63.3%).

Majority of samples are females (66.7%) in experimental group and in control group (53.3%).

Majority of sample were second birth order (53.3%) in experimental group and (50%) control group.

In experimental group and control group APGAR score of majority samples was between 4-6 (80%) and (76.7%).

In experimental group mode of feeding majority of breastfeeding (50%) in experimental group samples are artificial feeding (43.3%)

Majority of samples are between 14-28 days age of life (63.3%) in control group and (46.7%) in experimental group.

Overall result shows that weight gain is 110 gm increase within 7 days and average weight gain is 15 gm per day. The SD of weight gain also shows effect of weight gain, sleep duration after oil massage is

increase. The difference of sleep duration first day to 7 day is more than 30min shows effectiveness of oil massage and in sleep interruption into sleep pattern of the experimental group the value shows that interruption of sleep reduce day by day

Overall result shows that in control group minimum improvement in weight of the baby without oil massage, sleep duration decrease day by day and interruption is increase day by day

Man Whitney test shows that mean value of weight in experimental group is .11 and in control group .18 and standard deviation is .14 in experimental group and .15 in control group. Man Whitney test value is 47 there is significance relation with weight gain between experimental group and control group because p value is <0.001 because it is decrease than 0.05 level of significant.

Man Whitney test shows that mean value of experimental group in sleep duration is 28.73 and 35.5 in control group. SD is 55.89 in experimental group and 48.14 in control group. Man Whitney test value is 167 there is significance relation with sleep duration between experimental group and control group p value is <0.001 because it is decrease than 0.05 level of significant. mean value of sleep interruption is .27 in experimental and control group. 1.87 SD In Experimental group 1.87 and 2.46 in control group. Man Whitney test shows that there is no significance relation with sleep interruption between experimental group and control group p value is 0.393.

The calculated  $\chi^2$  values shows that the variables like gestational age, weight of baby, gender, birth order, APGAR score, mode of feeding, age of child. Does not have any significant association as calculated value is less than table value hence no significant noted but the calculated chi square value of mode of feeding is greater than table value hence it is significance relation between mode of feeding with the demographic variables

## CONCLUSION

Study result concluded that coconut oil massage was effectiveness to improve the weight gain and sleep pattern in experimental group.

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