

Effectiveness of Coconut Oil Massage on Gain in Weight among Low Birth Weight Babies

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Abstract

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 [3]. 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). *Aim:* "A study to assess the effectiveness of coconut oil massage in Low birth weight babies in terms of gain in weight in selected areas of Bhilai, Chhattisgarh". *Results:* The mean Post test weight score (3317) was apparently higher than the Pre test weight score (3087). The mean difference (230), S.D. (± 77.15) and computed "t" value (13.30) at the level of 0.001 showed that highly significant difference between the pre test and post test weight scores of experimental group. Findings of unpaired t test reveals that 't' value for mean gain score of experimental and control group for weight ($t = 1.05$) at the level of 0.001 shows that there is no significant difference between experimental and control group in terms of gain in weight. *Conclusion:* The present study shows significant increase in weight of 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 weight of low birth weight babies.

Keywords: Coconut Oil Massage; Weight.

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 weigh 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 [3]. 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).

Oakley (1996) conducted a 7 years follow up study to find out the frequency of low birth weight baby in small mothers and low weight mothers she found that maximum women have a history of at least one low birth weight baby (Oakley, A. Hickey.1996). There is emerging evidence that low birth weight or growth retarded neonates are more prone to manifested diabetes mellitus hypertension and coronary artery disease in later life. Low birth weight is a major determinant or 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).

Tiffany Field, Miguel Diego and Maria Hernandez-Reif (2009) conducted 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 in Low birth weight babies in terms of gain in weight in selected areas of Bhilai, Chhattisgarh.

Objectives

1. To assess the pre-test score in terms of weight 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 weight of preterm, low birth weight babies.
4. To assess the effectiveness of coconut oil massages in terms of weight 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 weight in 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 gain in weight among Low birth weight babies of experimental group.
- H2: there will be significant difference between mean gain score in terms of weight among Low birth weight babies of experimental group and control group.

Methodology

Quantitative approach with quasi experimental design with non randomized control group design was for this study. The conceptual framework of the present study is based on Faye Glenn Abedallah’s theory. An observation checklist was developed and weighing machine was used by the investigator for data collection. 20 samples for experimental group and 20 samples for control group were selected by 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 weight was assessed by the weighing machine and rating scale. 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. One subject was assessed at a time.

Result and Discussion

1. Findings of the paired t test reveals that ‘t’ value of pre test and post test weight score of experimental group is ($t_{19} = 13.30, p < 0.001$) which shows that there is highly significant difference between pre test and post test weight score of experimental group in terms of gain in weight (Table 1).
2. Findings of unpaired ‘t’ test reveals the ‘t’ value for mean gain score of experimental and control group for weight ($t = 1.05$) at $p < 0.001$ which shows

Table 1: Mean, Mean difference, Standard Deviation (S.D.) and ‘t’ value of pre and Post test weight scores

Weight scores	Mean Score	Mean difference	S.D.	DF	‘t’ value
Pre test	3087	230	±77.15	19	13.30***
Post test	3317				HS

that there is no significant difference between experimental and control group in terms of gain in weight.

Conclusion

The study result concluded that,

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