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"Effectiveness Of Oil Massage On Weight Gain Among Premature Babies In Selected Hospitals, Gujarat".

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ABSTRACT

Prematurity and low birth weight remains leading cause of death in newborns. Oil massage is having benefit to improve growth and development of child. Massage stimulates vagus nerve, which connects the brain with important parts of the body, which include the stomach. Stimulating this nerve can improve digestion and bowel movements, which can help babies gain weight. Quasi experimental research design was used for study. Premature babies weighed between 1500 to 2500 gm and admitted in NICU of selected hospitals of Gujarat were included. 50 premature babies were selected by Non-probability purposive sampling technique and then randomly allotted to experimental and control group (25 in each group). Coconut oil massage was given to samples of experimental group for 5 consecutive days. Data was collected by data sheet after assessing the weight of premature babies. The data was analyzed by using Descriptive and Inferential statistics such as Frequency, Percentage distribution, 't' test. Study concluded that there was statistically significant difference found between the weight gain among experimental and control group. Therefore, coconut oil massage was effective to gain weight of premature babies.

KEY WORDS: Oil massage, Weight, Premature babies

INTRODUCTION

Prematurity and Low birth weight are vulnerable cause of neonatal mortality. It is a stressful concern of parents towards their babies. Due to prematurity and low birth weight, parents can be separated from their newborn child as there is need to keep baby in NICU for extra care and treatment. Coconut oil massage has beneficial effects to gain weight among premature babies. It has potential effects on growth and development of babies. Coconut oil is also having natural antibacterial and antifungal effects. The sense of touch is one of the first to develop, and parent-infant touch provides many benefits including regulation of heartbeat and temperature for babies and protection against infections. It promotes bonding of babies with their parents and also early social development.

Infant massage could potentially benefit both physiological and psychological health. Massage is one of the oldest therapeutic techniques in the world which has been used as a routine part of infant care in many cultures. Teaching mothers to massage their infants may strengthen

attachment by helping the mother to become more sensitive to her infant's cues and positive mother-infant interaction patterns. One of the important effects of massage is promoting optimal infant growth and development.

MATERIALS AND METHODS:

The methods adopted for the present study included the Quantitative Research Approach with Quasi experimental research design was used. Independent variable of the study includes Oil massage and dependent variable of the study includes weight gain among premature babies. Study was conducted in NICU of selected hospitals of Gujarat in month of June to November 2023. The samples size comprised 50 premature babies with birth weight between 1500 gm to 2500 gm. Coconut oil massage was given for 5 consecutive days in the experimental group. Data was collected by infantometer and noted in observation sheet after assessing the weight of premature babies. Content validity of the developed tool was established before the data collection. For the data analysis, Descriptive and inferential statistics were used.

RESULTS AND DISCUSSION:

Analysis and interpretation of demographic data of the samples.

Table No. 1: Frequency and percentage wise distribution of samples based on demographic variables [N=50]

Sr. No.	Demographic variables	Experimental Group		Control Group	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1	Weight of baby (in gms)				
	1. 1500-2000 gram	22	88	21	84
	2. 2001-2500 gram	03	12	04	16
2	Gender				
	1. Male	11	44	9	36
	2. Female	14	56	16	64
3	Gestational age				
	1. 34 weeks	4	16	5	20
	2. 35 weeks	6	24	6	24
	3. 36 weeks	10	40	11	44
	4. 37 weeks	5	20	3	12
4	Age of Baby				
	1. 1-2 days	9	36	4	16
	2. 3-4 days	10	40	9	36
	3. 5-6 days	6	24	5	20
	4. 7 days	7	28	7	28
5	Birth order				
	1. 1st	9	36	10	40
	2. 2nd	16	64	13	52
	3. 3rd	0	0	2	8
6	Type of feeding				
	1. Artificial	10	40	9	36
	2. Breastfeeding	10	40	10	40
	3. Mixed	5	20	6	24

In the experimental group, out of 25 premature babies 22(88%) babies weight was between 1500 to 2000 grams, 3(12%) babies weight was between 2001 to 2500 grams. In gender, 14(56%) were female and 11(44%) were male. In gestational age, 4(16%) premature babies were born at 34 weeks, 6(24%) were born at 35 weeks, 10(40%) were born at 36 weeks, 5(20%) were born at 37 weeks. 9(36%) of premature babies were 1-2 days old, 10(40%) were 3-4 days old, 6(24%) were 5-6 days old and 7(28%) were 7 days old. In birth order, 9(36%) premature babies were 1st child, and 16(64%) babies were 2nd child. In type of feeding, 10(40%) premature babies were taking artificial feeding, 10(40%) were taking breastfeeding and 5(20%) were taking mixed feeding.

In the control group, out of 25 premature babies 21(84%) babies weight was between 1500 to 2000 grams, 4(16%) babies weight was between 2001 to 2500 grams. In gender, 9(36%) were female and 16(64%) were male. In gestational age, 5(20%) premature babies were born at 34 weeks, 6(24%) were born at 35 weeks, 11(44%) were born at 36 weeks, 3(12%) were born at 37 weeks. 4(16%) of premature babies were 1-2 days old, 9(36%) were 3-4 days old, 5(20%) were 5-6 days old and 7(28%) were 7 days old. In birth order, 10(40%) premature babies were 1st child, 13(52%) babies were 2nd child, and 2(8%) babies were 3rd child. In type of feeding, 9(36%) premature babies were taking artificial feeding, 10(40%) were taking breastfeeding and 6(24%) were taking mixed feeding.

Table No. 2: Analysis and interpretation of weight gain in experimental group. [N=50]

Days	Mean weight in Gram
1	1786
2	1809
3	1829
4	1843
5	1856

Above table shows mean weight of premature babies for 5 days which was 1786 grams on day 1, 1809 grams on day 2, 1829 grams on day 3, 1843 grams on day 4 and 1856 grams on day 5. Mean weight gain within 5 days was 69.8 grams in the experimental group.

Table No. 3: Analysis and interpretation of weight gain in control group [N=50]

Days	Mean weight gain in Gram
1	1791
2	1794
3	1797
4	1800
5	1810

Above table shows mean weight of premature babies in control group for 5 days which was 1791 grams on day 1, 1794 grams on day 2, 1797 grams on day 3, 1800 grams on day 4 and 1810 grams on day 5. Mean weight gain within 5 days was 19.56 grams in the control group.

Table No. 4: Mean and 't' test value of weight among samples of experimental and control group. [N=50]

	Mean	Calculated 't' value	Table 't' value	Df	Level of Significance
Experimental group	1824	14.16	2.00	48	0.05
Control group	1798				

Above table shows the comparison of weight between experimental and control group of premature babies. The mean weight of experimental group was 1824 grams and the mean weight of control group was 1798 grams. The calculated 't' test value was 14.16 and the tabulated 't' test value was 2.00 at 0.05 level of significance at 48 df. The above table reveals that the mean weight of experimental group was significantly higher than the mean weight of control group. The calculated 't' value (t=14.16) was greater than the tabulated 't' value (t=2.00). Therefore, the null hypothesis H0 was rejected and research hypothesis H1 was accepted, and it reveals that the oil massage was effective in terms of weight among the premature babies. Investigator concluded that there was significant increase in the mean weight of experimental group with administration of oil massage as compared to the mean weight of control group without administration of oil massage among premature babies.

CONCLUSION:

Study is concluded that premature babies weight between 1500 to 2500 grams gaining their weight with oil massage in experimental group is more than weight gaining among premature babies in control group. Thus, oil massage was found effective in gaining the weight among premature babies.

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