

Effectiveness of Nesting on Posture and Motor Performance Among Newbornbabies.



Nursing

KEYWORDS : Nesting, Posture and Movement, Newborn Babies, motor performance, comfort.

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ABSTRACT

Birthing is a traumatic experience for both, the "mother" and the "baby". Apart from the discomfort and trauma associated with the process of delivery, the baby is suddenly thrust into a world of bright lights, loud sounds and cold environment. The baby cannot tolerate environmental insults and stresses, which may adversely affect their posture and motor development. "Nesting" is a comfort measure that simulates in-utero feeling of lack of space and makes the baby less jittery or prone to startle. Nesting facilitates transformation of sleep pattern from erratic disturbed spells, to deep peaceful nights and contented days, thus conserving energy (may be lost in crying) and minimizing weight loss.

OBJECTIVES:-

1. To assess the posture and movement of newborn babies.
2. To evaluate the effectiveness of nesting on posture and movement of newborn babies in experimental group.
3. To compare the effectiveness of nesting on posture and movement of newborn babies in experimental group and control group.
4. To associate the effectiveness of nesting on posture and movement of newborn babies with their selected demographic variables.

MATERIALS AND METHODS: A quasi-experimental-non equivalent control group design was adopted to assess the effectiveness of nesting on posture and movement of newborn babies in selected hospitals, at Nellore, Andhra Pradesh. The sample size was 60 new born babies and the purposive sampling was used for selection of subjects. Among them 30 newborn babies were assigned to experimental group and 30 newborn babies to control group. Questionnaire to obtain socio demographic data of baby and mother and modified observational checklist "Albert's Test of Infant Posture and Motor Assessment Scale" to assess the posture and movement of newborn babies. Following the pre-test, intervention was given to the newborn babies in the experimental group, i.e., "Nesting" is a comfort measure, that simulates in-utero feeling of lack of space and makes the baby less jittery or prone to startle. The infant can be positioned in prone or on the side with flexed extremities by providing a "nest" with a rolled blanket. The upper part of the baby's body is slightly raised, resembling a position as the baby is "cradled in the arm". Intervention with nesting was provided for 20 min for 2 times for 3 days for without intervention in control group. The Post test was done on 4th day modified observational checklist -Albert's Test of Infant Posture and Motor Assessment Scale" to assess the posture and motor performance of newborn babies.

Results:-The result shows that in pre-test experimental group 14 (46.7%) had satisfactory posture and motor performance, 10 (33.3%) had average posture and motor performance and 6 (20%) had good posture and motor performance whereas in control group 12(40%) had satisfactory posture and motor performance and 10(33.3%) had average posture and motor performance 8(26.7%) had good posture and motor performance. In Post test experimental group, 4(13.3%) had average posture and motor performance 10 (33.3%) had good posture and motor performance 16 (53.4%) had excellent posture and motor performance whereas in control group 10(33.3%) had satisfactory posture and motor performance and 12(40%) had average posture and motor performance 8(26.7%) had good posture and motor performance. **conclusion:-**The study concluded that nesting is an effectiveness intervention in maintaining good posture and motor performance among newborn babies.

INTRODUCTION

Birthing is a traumatic experience for both, the "mother" and the "baby". Apart from the discomfort and trauma associated with the process of delivery, the baby is suddenly thrust into a world of bright lights, loud sounds and cold environment. The baby cannot tolerate environmental insults and stresses, which may adversely affect their neuro-motor development.

The babies are being handled as "objects" without any concern either for their comfort or for their stimulation. The intensive care of the new born babies has become mechanical or "robotic" and "stereotyped". Instead of being flexible and individualized. It's a pity that technological advances have dehumanized the care of new born babies. It has been recently realized, that there is a need to have a synthesis of "art and science" of neonatal care in order to provide holistic care to newborn babies. Hi-tech care should be provided, but comfort of the baby should not be ignored. Babies should be reared in neonatal intensive care unit (N.I.C.U), which should simulate the ecology of the womb, to ensure maximum comfort to the baby. The babies should be handled with gentle touch, love and compassion and the nurse should feel "connected" and "tuned" to the babies under their care.

All efforts should be made to provide babies with as comfortable positioning as possible, although it's impossible to achieve in-utero comfort levels and cushioning. Rough handling may lead to hypoxemia and sudden elevation of blood pressure with

risk of development of intra-ventricular haemorrhage, as per evidences

Non-pharmacological pain relief techniques include "environmental measures" such as lowering the lighting & noise levels, playing soft music & following minimal handling protocol. Comfort measures include "nesting", swaddling offering a pacifier, positioning strategies & promoting rest:

"Nesting" is a comfort measure that simulates in-utero feeling of lack of space and makes the baby less jittery or prone to startle. The infant can be positioned prone or on the side with flexed extremities by providing a "nest" with a rolled blanket. The upper part of the baby's body is slightly raised, resembling a position as he is "cradled in the arm".

Nesting facilitates transformation of sleep pattern from erratic disturbed spells, to deep peaceful nights and contented days, thus conserving energy (may be lost in crying) and minimizing weight loss. Again the flexed posture reduces the surface area exposed to the environment, minimizing heat loss which prevents huge weight loss

STATEMENT OF THE PROBLEM:

A study to assess effectiveness of nesting on posture and motor performance among newbornbabies in selected hospitals, Nellore, A.P.

OBJECTIVES OF THE STUDY:-

1. To assess the posture and movement of newborn babies.
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RESULTS

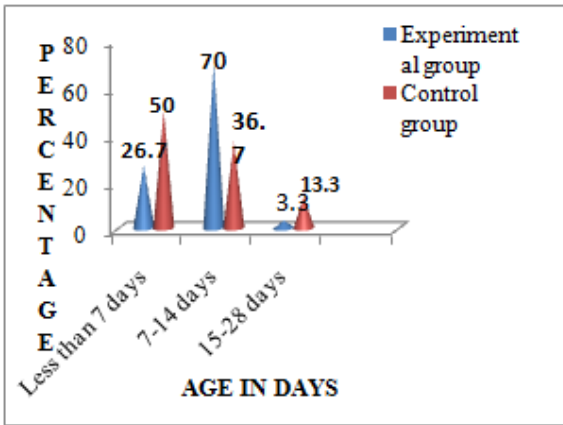


Fig-1 Distribution of newborn babies based on AGE

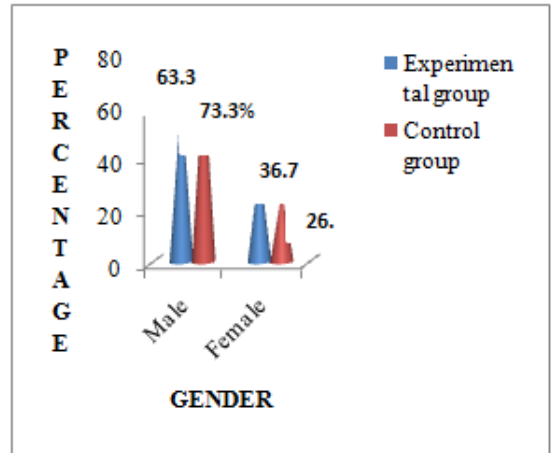


Fig: 2:- Distribution of newborn babies based on GENDER

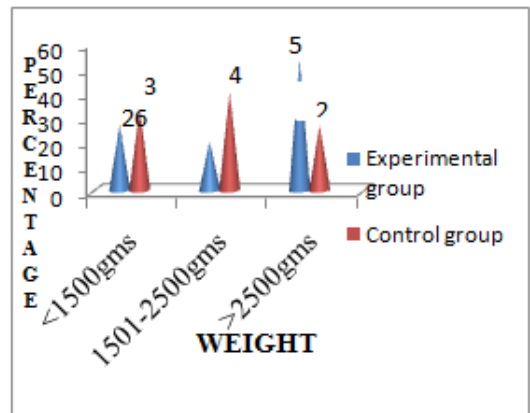


Fig: 3:- Distribution of newborn babies based on WEIGHT

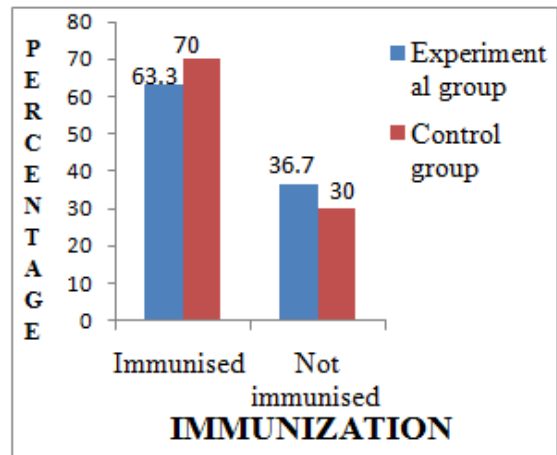


Fig-4: Distribution of newborn babies based on IMMUNIZATION

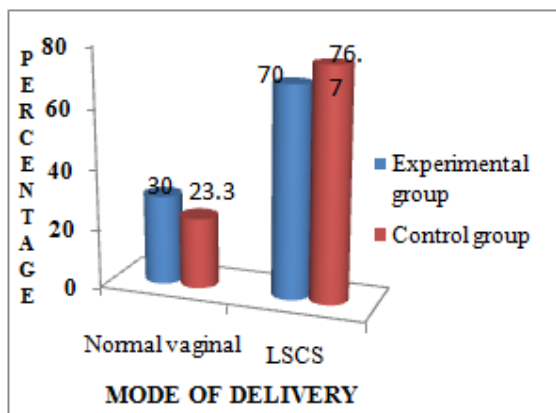


Fig: 5:- Distribution of newborn babies based on MODE OF DELIVERY

SNo	POSTURE & MOTOR PERFORMANCE	EXPERIMENTAL GROUP		CONTROL GROUP	
		F	%	F	%
1	Satisfactory(0-7)	14	46.7	12	40
2	Average(8-15)	10	33.3	10	33.3
3	Good (16-23)	6	20	8	26.7
Total		30	100	30	100

Table-1: Frequency and percentage distribution Of Posture and Movement Scores of New Born Babies in Pre-Test

Table-2: Frequency and percentage distribution Of Posture and Movement Scores of New Born

SNo	POSTURE AND MOTOR PERFORMANCE	EXPERIMENTAL GROUP		CONTROL GROUP	
		f	%	f	%
1	Satisfactory(0-7)	-	-	10	33.3
2	Average(8-15)	4	13.3	12	40
3	Good (16-23)	10	33.3	8	26.7
4	Excellent (> 23)	16	53.4	-	-
Total		30	100	30	100

S.No	Group	Post test		Independent 't' test
		Mean	SD	
1	Experimental gp	18.8	5.77	C=3.5 T= 2.75 S**
2	Control gp	13.5	6.19	

Table: 3: Effectiveness of nesting on posture and performance of newborn babies.

S* significant at $p < 0.01$,
df_{(n-1) = 29}

DISCUSSION

FINDINGS OF THE STUDY:-

Description of demographic variables of preterm babies:-

Among 60 newborns with regard to age 21(70%) were between 7-14 days whereas in control group 21(36.7%) were between 7-14 days.Regarding to gender in experimental group 19(63.3%) were male babies whereas in control group majority of 22(73.3%) were male babies. Regarding to weight, in experimental group 16(53.3%) were >2500gms whereas in the control-group,12(40%) were between 1500-2500gms.Regarding to immunization in experimental group 19(63.4%) were immunized for age whereas in control group 21(70%) were immunized for age.

regarding to mode of delivery, in experimental and control group majority of 24(80%) had normal vaginal delivery respectively.

Findings related to assessment of posture and movement of newborn babies:-

The result reveals that in pre test experimental group 14 (46.7%) had satisfactory posture and motor performance, 10 (33.3%) had average posture and motor performance and 6 (20%) had good posture and motor performance whereas in control group 12(40%) had satisfactory posture and motor performance and 10(33.3%) had average posture and motor performance 8(26.7%) had good posture and motor performance

The result reveals that in post test experimental group, 4(13.3%) had average posture and motor performance 10 (33.3%) had good posture and motor performance 16 (53.4%) had excellent posture and motor performance whereas in control group 10(33.3%) had satisfactory posture and motor performance and 12(40%) had average posture and motor performance 8(26.7%) had good posture and motor performance.

Effectiveness of nesting on posture and movement of newborn babies in both experimental and control group

Comparison of mean and standard deviation of pre-test and post test scores among newborn babies in experimental group. The pre-test mean score was 10.73 with SD 5.09.The post test mean score was 18.8 with SD 5.77 .The calculated value of paired' test was 2.75 and table value was 6.276 at 0.01 level of significance. The calculated value is greater than the table value, so the null hypothesis is rejected and research hypothesis is accepted.

In control group comparison of mean and standard deviation of pre-test and post test scores among newborn babies. The pre-test mean score was 10.16 with SD 4.3.The post test mean score was 13.5 with SD 6.19 .The calculated value of paired' test was 2.53 and table value was 2.75 at 0.01 level of significance The calculated value is less than the table value, so the null hypothesis is accepted and research hypothesis is rejected.

Comparing the effectiveness of nesting on posture and movement of newborn babies in both experimental and control group In experimental group, the post test score mean was 18.8 with SD of 5.77, where as in control group the post test score mean was 13.5 with SD of 6.19. The calculated independent 't' test value was 3.5 which exceeds the table value of 2.75 ($p < 0.01$). Hence, null hypothesis is rejected research hypothesis (H1) is accepted. The study shown that there is effectiveness of nesting on posture and movement among newborns.

The Findings of this study are consistent with study conducted by Joseph Neethu C, K Ambika; Williams Sheela (2009)

to assess the effectiveness of Nesting on Posture and Movements among newborn babies in Selected Hospitals at Mysore. A quasi-experimental control group pretest- posttest design was used and non probability convenience sampling technique was adopted to select 60 term babies, both in experimental and control group. Data were collected using structured observation checklist for posture and movement. An intervention, nesting was provided for the experimental group. The result of the study revealed that the significance of difference between the mean pretest and post test posture score which was statistically tested using paired 't' test and was found to be highly significant at 0.05 level of significance.(t(29) = 5.42 in post test 1, 46.14 in post test 2 and 56.82 in post test 3; ($p < 0.05$) and the significance of difference between the mean post test posture score between experimental and control group which was statistically tested using independent 't' test was found to be highly significant at 0.05 level of significance t(58) = 7.41, 7.89 and 8.49; ($p < 0.05$). The result shows that the posture and movement

score had no significant association with their selected personal variables. Therefore, the study concluded that the nesting was an effective method to maintain the normal posture and movement of term babies.

Association of effectiveness of nesting on posture and movement of newborn babies with their selected demographic variables:-

There was a significant association between the effectiveness of nesting on posture and movement among newborn babies with their selected socio demographic variables in experimental group like age, religion and immunisation status.

RECOMMENDATIONS FOR FUTURE STUDY:-

1. Similar studies can be conducted to find the posture and motor performance among newborn babies.
2. An experimental study can be undertaken with one group pre test and post test for effective comparison.
3. A similar study can be conducted with selected nursing interventions for maintaining good posture and motor performance among newborn babies.
4. A similar study can be conducted as comparative study in and out of nesting in posture and motor performance among newborn babies.

CONCLUSION:-

“Nesting” is a comfort measure that simulates in-utero feeling of lack of space and makes the baby less jittery or prone to startle. Nesting facilitates transformation of sleep pattern from erratic disturbed spells, to deep peaceful nights and contented days, thus conserving energy (may be lost in crying) and minimizing weight loss. Again the flexed posture reduces the surface area exposed to the environment, minimizing heat loss which prevents huge weight loss. Numerous studies and also present research scholar suggest that nesting is safe and beneficial practice in promoting the comfort of newborn babies.

REFERENCE

1. Arora J, Kumar A, Ramji S. Effect of nesting on growth and Health Population Nutrition 2002; 20: 184-188. | 2. Ahmed S, Sobhan F, Islam A, Barkat-e-Khuda. Neonatal morbidity and care-seeking behaviour in rural Bangladesh. Journal of Pediatrics 2001; 47: 98-105. | 3. Scafdi FA, Field TM, Schanberg SM, Bauer CR, Vega-Lahr N, Garcia R, et al. Effects of nesting on the clinical course and sleep/wake behavior of preterm neonates. journal of Infant Behavioral Development 1986; 9: 91-105. | 4. Kelmanson IA, Adulas EI. Sleep behaviour in infants born with low birth weight. Complement Ther Clin Pract 2006; 12: 200-205. | 5. Hernandez-Reif M, Field T, Diego M, Beutler J. Evidence-based medicine. journal of Pediatrics 2009; 108: 1053. | | | 6. neurobehaviour in very low birth weight preterm neonates. Indian journal of Pediatrics, 2005, volume: 4: No: 1092-1100. | 6. Leonard J, neonates' neurobehavioral problems, Archives of pediatrics nursing, 2009, 22(6), 75-83. | 7. Vickers A, Ohlsson A, Lacy J, Horsley A. Nesting for promoting posture and motor performance of preterm and/or low birth weight infants. Cochrane Database System Rev 2004; 2: CD000390. Journal of Health action, New York, 2009, 16(8), No: 25-33. | 7. 8. Mullany LC, Darmstadt GL, Khatri SK, Tielsch JM. comparison of nesting in and out of nesting among newborns in Nepal: implications for trials of improved practice. Journal of Trop Pediatrics, 2005; New delhi, 51(8), 82-86. | 8. 9. Darmstadt GL, Saha SK. neurobehavioral development of neonates in Bangladesh. Journal of