

Effectiveness Of Demonstration On Knowledge And Practice Regarding Swaddle Bath Of New Born Among Mothers Admitted In Postnatal Care Ward Of Selected Hospitals Of The City: A Pre - Experimental Study.

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Abstract

Introduction: As part of the swaddle bath method, the neonate is lightly swaddled in a towel and placed in a water tub that has been filled up to the shoulder level. The baby and the blanket are then submerged, and the individual limbs are unwrapped, washed, rinsed, and rewrapped. Therefore, this study was conducted to assess the effect of demonstration among mothers admitted to the PNC wards' on knowledge and practice of swaddling neonates.

Methodology: In specific hospitals of the city, a pre-experimental one group pre- and post-test research design with a methodology of quantitative research was used among postnatal mothers admitted in PNC ward using non-probability purposive sampling technique consisting of 60 samples.

Results: Analysis showed that post-test mean knowledge score and practice score demonstrated appreciable increments. Also, positive correlation was found between knowledge and practice score of mothers regarding swaddle bath of new-born and the calculated „t“ value for knowledge and practice i.e. 48.52 and 29.84 respectively showed demonstration on knowledge and practice among mothers regarding Swaddle Bath of New Born was effective.

Conclusion: The study concludes association of knowledge and practice score with age, type of family, number of children and in addition practice score with education. Therefore, it may be inferred statistically that demonstrations of knowledge and practice among mothers about swaddling newborns was effective.

Keywords: swaddle bath, new-born, postnatal mothers, knowledge, practice, post-natal care ward.

INTRODUCTION

A crucial phase for transitioning to extra uterine life is the neonatal period as it involves the continuation of the profound structural and functional changes. It is unclear, nevertheless, whether any of these alterations are influenced more by birth than by gestational age [1]. During neonatal period many critical events occur that are rapid [2], as a result neonate faces many difficulties which involve issues with feeding, sleeping, and excessive crying, because of which parents are frequently concerned and contact pediatric medical services during this period [3]. Bathing is one of the technique and in that swaddle bath is used to improve sleeping and reduce excessive crying [4].

As part of the swaddle bath method, a baby is lightly swaddled in a towel and placed in a water bathtub that has been filled up to the shoulder level. The baby and the blanket are then submerged, and the individual limbs are unwrapped, washed, rinsed, and rewrapped [5]. It has been found to be the bathing technique that stresses the infant and the caregiver the least. Clinical evidence confirmed the findings that swaddle-bathed infants displayed reduced physical and neurological stress, improved energy storage and state regulation, and less sobbing and discomfort [6].

India has the highest neonatal mortality rate in the world at about 0.75 million per year. The risk of mortality is maximum per day which is 30 times higher during the neonatal phase, which lasts the first 28 days of life than it is in the post-neonatal period, which lasts from one month to 59 months [7].

Unknown causes of crying can be handled by mothers and other family members using some beneficial strategies, such as swaddle bathing, taking the baby for a walk while it's in the pram, or playing environmental or other soothing sounds to divert the baby's attention. Mothers with crying babies should be actively evaluated for postnatal depression, and if necessary, appropriate medical care should be provided [8].

Swaddle baths provide a scientifically supported method for fostering a stress-reduction environment while facilitating a developmentally supportive care environment for the newborn and family. These benefits include a decreased risk of infection, a decreased incidence of hypoglycemia, and no differences in the umbilical cord's ability to heal or the spread of harmful bacteria. Vernix caseosa protects the skin, resident flora strengthens the skin's first line of protection (the acid mantle), improves breastfeeding, improves temperature control, parents can enjoy bathing their baby, decreases weight loss, decreases jaundice, and decreases crying of the newborn. It allows them to feel like sweet cocoon as if they are still in the womb of their mother.

On the basis of previous studies, the researcher felt that there is need to demonstrate the swaddle bath on new born among mothers because mothers are the one who take care of babies and therefore, the study's main goal was to determine how well demonstrations affected women admitted to certain city hospitals' Postnatal Care (PNC) wards in terms of their knowledge and practice of swaddling newborns. While the secondary goals included assessing, comparing and correlating the before and after test knowledge and practice score among mothers in relation to swaddle bath of newborn, and identifying the relation between demographic components and knowledge and practice score.

METHODOLOGY

In specific hospital's of the city, a pre-experimental one-group before and after test research design using a quantitative approach was carried out. The Institutional Ethics Committee approved the study, and the relevant authority's permission was obtained for its execution. The mothers were self-introduced by the investigator, were asked for written consent after being informed of every aspect and purpose of the study, and all the data gathered from the sample was kept confidential. The "Perspective Theory" of Ersestine Wiedenbach served as the foundation for the conceptual framework of the study (Helping art of clinical nursing) that describes as a system of conceptualization to some purpose.

The independent variable involved in the study was demonstration whereas, the dependent and demographic variables involved were knowledge and practice regarding swaddle bath of new-born and age, religion, type of family, education, area of residence, and number of children's respectively. All postnatal mothers were included in the population, and those who were explicitly present during data compilation, were admitted to PNC wards of specific city hospitals, and met the inclusion criteria were mainly focused.

Mothers who were admitted in the PNC ward, are able to read and understand English, Marathi, and Hindi language, are present and are interested to participate in the study at the time of data compilation were included whereas, mothers who were immediately post operated and sick, and were from medical background were excluded from the study. Using a non-probability purposive sampling technique, 60 postnatal mothers who were admitted to PNC wards of particular city hospitals were included.

The tools involved were demographic variables, self-administered knowledge questionnaire, and the researcher created checklist whose content validity was sent to 20 specialists including obstetrics and gynaecological nursing, physician and statisticians to determine the impact of participants' practices related to swaddle bath of a newborn. The questionnaire's correlation coefficient R was 0.89, which was higher than the reliability threshold of 0.8 and therefore was found to be reliable.

Pre-test knowledge was examined by giving the self-administered questionnaire; practice was examined by a checklist, and a demonstration of how to swaddle a newborn was given the same day. On 7th day, after-test data was gathered, in which the knowledge was evaluated through a questionnaire and its practice by a checklist.

RESULTS

Mothers are distributed according to demographic factors in percentages in Table 1. Furthermore, when evaluation of the before and after-test knowledge levels of swaddle bath of new born among mothers admitted in postnatal care ward of selected hospitals was performed the results showed that the levels of pre-test knowledge were categorized into poor with score range between 0-4 (0-20%) consisting of 11 (18.33%) participants, average between 5-8 (21-40%) consisting 49 (81.67 %) participants, and good between 9-12 (41-60%), very good 13-16 (61-80%), and excellent 17-20 (81-100%) consisting of 0 participants for which the mean knowledge score and its percentage score was found to be 5.51 ± 1.15 and 27.58 ± 5.78 respectively. Whereas, the post-test knowledge levels demonstrated 21 (35%) participants in very good category and 39 (65%) participants in excellent category with mean knowledge score and its percentage score of 16.86 ± 1.47 and 84.33 ± 7.39 respectively.

Similarly, when evaluation of the before and after test practice regarding swaddle bath of new born among mothers admitted in postnatal care ward of selected hospitals was performed the results showed that the levels of pre-test practice score were categorized into poor with score range between 0-4 consisting of 54 (90%) participants, average between 5-8 consisting 6 (10%) participants, and good between 9-12 consisting of 0 participants for which the mean practice score and its percentage score was found to be 2.78 ± 1.19 and 23.19 ± 9.95 respectively. Whereas, the post-test practice levels demonstrated 8 (13.33%) participants in average category and 52 (86.67%) participants in good category with mean practice score and its percentage score of 10.36 ± 1.35 and 86.38 ± 11.27 respectively.

Additionally, when correlation between post-test knowledge and practice scores that is 16.86 ± 1.47 and 10.36 ± 1.35 respectively regarding swaddle bath of new born among mothers admitted in PNC ward was analysed the r-value and p-value were found to be 0.339 and 0.008 respectively which demonstrates statistically significant results. Tables 2 and 3 show the impact of the demonstration on mothers admitted to PNC wards of specific hospitals in the city with regard to knowledge and practice of swaddling bath of newborns.

In a similar manner mother's after-test knowledge and practice score in relation to swaddle bath in association with demographic variables is described in Table 4 and Table 5 respectively.

DISCUSSION

The major goal of this study was to evaluate mothers admitted to PNC wards of specific city hospitals on their level of knowledge and practices regarding swaddle bath of newborns. In this study the results of the before and after-test knowledge levels of swaddle bath of new born among mothers admitted in postnatal care ward of selected hospitals showed that the levels of pre-test knowledge were categorized into poor consisting of 18.33% participants, average consisting of 81.67% participants, for which the mean knowledge score and its percentage score was found to be 5.51 ± 1.15 and 27.58 ± 5.78 respectively. Whereas, the post-test knowledge levels demonstrated 35% participants in very good category and 65% participants in excellent category with mean knowledge score and its percentage score of 16.86 ± 1.47 and 84.33 ± 7.39 respectively. This describes that after-test knowledge score of mothers was more.

Similarly, the results of the before and after-test practice score regarding swaddle bath of new born among mothers admitted in postnatal care ward of selected hospitals showed that the levels of pre-test practice score were categorized into poor consisting of 90% participants, and average consisting of 10% participants for which the mean practice score and its percentage score was found to be 2.78 ± 1.19 and 23.19 ± 9.95 respectively. Whereas, the post-test practice levels demonstrated 13.33% participants in average category and 86.67% participants in good category with mean practice score and its percentage score of 10.36 ± 1.35 and 86.38 ± 11.27 respectively which. This describes that after-test practice score of mothers was higher.

A similar study have examined the effects of providing primiparous pregnant women with neonatal bathing education utilizing the swaddle and water tub bathing on the experience, pleasure, and anxiety of the mother during bath of the baby when performing for the first time. This study used a mixed-methods approach to its investigation. The groups were swaddled bathing and tub bathing having 31 subjects in each, following which mothers of the newborns in each group prepared their first baths in accordance with instructions. The mothers' experiences were gathered using the open-ended questions. After comparing the newborns' stress parameters in swaddle and tub bathing groups, it was found that more bathing time in swaddle leads to less mean duration of crying in the newborn [9].

In terms of bathing and crying time, statistically relevant differences were detected between the groups. When compared to the swaddled bathing group, the tub bathing group showed more facial/forehead grimacing and restlessness. Maternal satisfaction was compared between the swaddled bathing (4.94 ± 0.250) and tub bathing groups (3.68 ± 0.871) and statistically relevant results were obtained. Additionally, the mothers in the swaddled bathing group were less concerned with the risk of drowning and injuring of the newborn [9].

The study's limitations include the fact that it was limited to measuring the understanding and practice skills of mothers in specific hospitals of the city, the sample size was small to generalize the study's findings, the investigator herself created the tool for data collection, and that the study was conducted only on mothers of specific hospitals. Nevertheless, the study's outcomes have importance for nursing profession, academics, management, and research. The recommendations that can be made from this study include reproducing a similar study on a larger population to allow for the generalization of findings, conducting a comparative study to gauge mothers' and family members' knowledge of swaddle bath for newborns, a descriptive study to gauge mothers' awareness of swaddle bath for newborns, and a similar research to gauge the efficacy of video-assisted teaching and swaddle bath of newborn.

CONCLUSION

This study compares before and after-test knowledge scores of mothers regarding Swaddle Bath of New Born. Therefore, it may be inferred statistically that demonstrations of knowledge and practice among mothers about swaddling new borns was beneficial. The knowledge and practice scores showed a strong positive correlation demonstrating that as mothers' knowledge scores improve, so do their practices. Additionally, there is association of knowledge and practice score with age, type of family, number of children and in addition practice score with education.

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Tables

Demographic components	Frequency (f)	Percentage (%)
Age		
18-23 years	23	38.3
24-28 years	37	61.7
29-33 years	0	0
34-38 years	0	0
Religion		
Hindu	31	51.7
Muslim	12	20.0
Christian	4	6.7
Buddhist	10	16.7
Others	3	5.0
Family type		
Nuclear	15	25.0
Joint	44	73.3
Extended	1	1.7
Area of residence		
Urban	50	83.3
Rural	10	16.7
Educational level of mother		
Primary	1	1.7
Secondary	5	8.3
Higher Secondary	27	45.0
Graduation	26	43.3
Post-Graduation	1	1.7
Other	0	0
Number of children		
One	19	31.7
Two	41	68.3
More than two	0	0

Table 1: Mothers' Distribution In Relation To Demographic Characteristics.

Overall	Mean	SD	Mean Difference	t-value	DF	Table value	p-value	Significance level
Pre Test	5.51	1.15	11.35±1.81	48.52	59	2.00	0.0001	S, p<0.05
Post Test	16.86	1.47						

Table 2: Describing Significance Of Difference Between Knowledge Score In Pre And Post-Test Of Mothers. **SD = Standard Deviation, DF = Degree Of Freedom**

Overall	Mean	SD	Mean Difference	t-value	DF	Table value	p-value	Significance level
Pre Test	2.78	1.19	7.58±1.96	29.84	59	2.00	0.0001	S, p<0.05
Post Test	10.36	1.35						

Table 3: Describing Significance Of Difference Between Practice Score In Pre And Post-Test Of Mothers. **SD = Standard Deviation, DF = Degree of Freedom**

Demographic variables	Calculated value			DF	Table value	Level of Significance P<0.05	Significance
	t-value	F- value	p- value				
Age	3.76	-	0.0001	58	2.00	< 0.05	S
Religion	-	1.00	0.41	4,55	2,52	> 0.06	NS
Type of family	-	5.43	0.007	2,57	3,15	< 0.05	S
Area of residence	1.33	-	0.18	58	2.00	> 0.06	NS
Education	-	1.83	0.13	4,55	2,52	> 0.06	NS
Number of children	3.11	-	0.0001	58	2.00	< 0.05	S

Table 4: Post-Test Knowledge Score Association With Particular Demographic Factors. **S = Significant, NS = Not significant, DF = Degree of Freedom**

Demographic variables	Calculated value			DF	Table value	Level of Significance P<0.05	Significance
	t-value	F- value	p- value				
Age	6.08	-	0.0001	58	2.00	< 0.05	S
Religion	-	2.16	0.085	4,55	2,52	> 0.06	NS
Type of family	-	3.15	0.0001	2,57	3,15	< 0.05	S
Area of residence	1.46	-	0.14	58	2.00	> 0.06	NS
Education	-	3.14	0.021	4,55	2,52	< 0.05	S
Number of children	4.80	-	0.0001	58	2.00	< 0.05	S

Table 5: Post-Test Practice Score Association With Particular Demographic Factors. **S = Significant, NS = Not significant, DF = Degree of Freedom**