

The effect of Planned Teaching on Knowledge and Practice Regarding Burping Techniques of Newborn

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Abstract

In this study, the effectiveness of planned teaching on knowledge and practice on burping techniques of newborn was assessed by selecting 60 mothers by using convenience sampling technique. The pre-test was conducted using a structured questionnaire and observation checklist; planned teaching was conducted for each sample. Most of the mothers (n=37, 61.66%) had poor knowledge, (n=12, 20%) had very poor knowledge, whereas 10 (16.66%) had average knowledge, while 1 (1.66%) of mothers had good knowledge while in practice. It revealed that all 60 (100%) of mothers had poor practice. The post-test revealed that 37 (61.66%) of mothers had good knowledge, while 13 (21.66%) had average knowledge and 10 (16.66%) were in excellent knowledge category, whereas in practice it revealed that 34(60%) had excellent practice, 24 (40%) had good practice. There was high association between knowledge and practice score with age, religion, education, occupation, source of information and position of child and no association with awareness of burping. The correlation of the knowledge and practice score revealed moderate positive correlation in the pre-test with the value of 0.79 and 0.49 in the post-test which was statistically confirmed. This study demonstrated that planned teaching on burping techniques of newborn is effective in improving the knowledge and practice level of mothers of newborn.

Breastfeeding is nearly universal in India and continues for most children beyond infancy. It brings joy to the mother and the baby which cannot be expressed in words. The feeling the mother gets when she continues to nourish her baby at her breast and sees the baby grow and thrive on breast milk is awesome. Babies are young, their digestive tracks are not fully developed and feeding times can lead to many instances of discomfort. Burping is the technique to remove the excessive air, and an important aspect of neonatal care and of digestion, which often gets overlooked (Pillitteri, 1999).

Mothers of newborns experience tremendous breastfeeding problems while feeding their baby. They are not aware of the various aspects and their lack of knowledge not only creates incompetency among them but also puts their baby at various risks. The newborn health challenge faced by India is more formidable than that experienced by any other country in the world.

Neonatal period is a highly vulnerable time for an infant, who is completing many of the physiologic ad-

justments required for extra-uterine existence. Neonatal care is now our focus. A new born centralised scheme, if we could roll out one, would be a real game changer that could promote better child care practices including better hygiene.

Objectives

This study attempted to (i) assess the existing knowledge and practice regarding burping techniques of newborn among mothers; (ii) evaluate effectiveness of planned teaching on knowledge and practice regarding burping techniques of newborns; (iii) compare the knowledge and practice of burping techniques of newborn with selected demographic variables; and to (iv) correlate the knowledge and practice regarding burping techniques of newborn among the mothers after planned teaching

Review of Literature

Bundyopadhyay SK (2002) in his study on elevated breastfeeding practice in rural West Bengal on 1502 mothers of less than 2 years of children showed that 8 percent of mothers practiced demand breastfeeding, 6 percent of mothers burped the child properly after feeding and 8 percent of children were fed within an hour of birth, 62 percent within 1-6 hours, and 18 percent in 6 to 2 hours.

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In a cross-sectional study on breastfeeding practices among lactating mothers in Mysore city, Jeetender Singh (2009) found that a significant number (23.97%) of mothers were not aware about the significance of burping.

In a study on various aspects of breastfeeding Devendra Sareen (2008) found that only a minority (36.84%) initiated breast feed soon after birth, practiced exclusive breastfeeding (22.10%) had knowledge regarding burping (41.05%) and had been against practicing prelacteal feed (22.1%). He recommended development of training programmes and providing information on breastfeeding during antenatal visits to disseminate scientifically proven facts regarding advantages and essentiality of breastfeeding with particular emphasis upon exclusive breastfeeding for first six months of life.

Mohamed Asif Padiyath (2009) reported that the technique of burping was described by 48 percent of the mothers when asked what they would do when the child regurgitates after breastfeeding. The study indicated that awareness and attitude of postnatal mothers towards neonatal care has lots of lacunae especially in those who belong to the lower socioeconomic status.

Field T and Diego M (2010) conducted a study on depressed mothers and infants. Depressed and non-depressed mothers and their 3-month-old infants were videotaped during breastfeeding and bottle feeding interactions. No differences were noted between the depressed and non-depressed mothers. Several breastfeeding versus bottle feeding group effects were observed. The breastfeeding mothers showed less burping and less intrusive behaviour during the nipple-in as well nipple-out periods.

Neil M Martin et al (2012) in their study on breastfeeding practices among mothers showed that mothers mostly learn more of breastfeeding from the health workers, especially the nurses. Mothers also let their babies burp after breastfeeding. Most of the select mothers made sure that the baby's chest was directly to theirs. Moderate relationship between attitude and practice, but knowledge showed a highly significant relationship with the practices among select mothers.

Methodology

A pre-experimental design, one group pre-test – post-test design was adopted for the study.

Variables: Independent variable was planned teaching on burping techniques of newborn while the dependent variable was knowledge and practice of moth-

Sample	Pre-test	Intervention	Post-test
	Day-1	Day-1	Day-4
Mothers of newborns	O ₁	X	O ₂

Keys: O₁: Pre-test, X: Planned teaching, O₂: Post-test

ers regarding burping techniques of newborn.

The sample had 60 mothers of newborn of selected hospitals of Nagpur city. Non probability convenient sampling was found to be more appropriate for this study feasible.

Inclusion criteria: Mothers willing to participate in this study; those who were available during data collection; and those who had newborn babies were included. **Exclusion criteria:** Mothers who were from health professional background and had attended a similar programme earlier were excluded. Content validity of tool was done by various experts in the field.

The tools: The tool was divided under three sections. Section A consisted of demographic profile of the mothers; Section B was a questionnaire on knowledge regarding burping techniques of newborn; each question carried 1 mark; total number of questions was 20 and total score was 20 marks. Section C was an observation checklist to evaluate the practice of the techniques of burping of newborn. Each step consisted of maximum 1 mark and minimum 0 mark. Total numbers of steps were 15 and total score was 15 marks.

Pilot study: The pilot study conducted from 26-30 September 2012 had a sample of 6 patients; it did not show any major flaw. Karl Pearson correlation coefficient formula was used for reliability of the questionnaire and (r) was 0.86. The inter rater technique was used for the observational checklist and (r) was 0.835.

In this study 'input' refers to the information obtained from the subjects about their demographic variables, conduction of the pre-test for the knowledge and practice and preparation of the planned teaching, 'throughput' refers to the planned teaching that is being given to the subjects and 'output' refers to assessment of the effectiveness of planned teaching by conducting the post-test for the knowledge and practice. The scores are further graded into the five categories of excellent, good, average, poor and very poor.

Data collection: Permission was obtained from the hospital authorities and before giving the questionnaire self-introduction, the purpose of the study was mentioned by the investigator and consent was obtained. The pre-test was conducted with the tool pre-

Table 1: Demographic variables of subjects

S No	Demographic variables	Frequency (n)	Percentage (%)
1	Age (years)		
	18-22	19	31.66
	23-27	32	53.33
	28-32	8	13.33
2	33-37	1	1.66
	Religion		
	Hindu	45	75
	Christian	2	3.33
	Muslim	2	3.33
3	Buddhists	10	16.66
	Others	1	1.66
	Educational qualification		
	Illiterate	0	0
	Primary education	15	25
4	Secondary education	28	46.66
	Graduation	11	18.33
	Post-graduation	6	10
5	Occupation		
	Home maker	48	80
	Service	7	11.66
	Business	0	0
6	Labourer	5	8.33
	Awareness on burping		
7	Yes	43	71.66
	No	17	28.33
8	Source of information (n=43)		
	Friends	3	5
	Newspaper	1	1.66
	Television	3	5
	Relatives	14	23.33
9	Health worker	22	36.66
	Position of child		
	First child	33	55
	Second child	22	36.66
10	Third child	4	6.66
	Fourth child	1	1.66

pared and the planned teaching was given on the same day. On day 4, the post-test was conducted with the same.

Results

The demographic profile of study participants is shown in Table 1. Out of 60 mothers in pre-test, 37 (61.66%) had poor knowledge, 12 (20%) had very poor knowledge, whereas 10 (16.66%) had average knowl-

Fig 1: Distribution of effectiveness of planned teaching on knowledge in terms of mean score

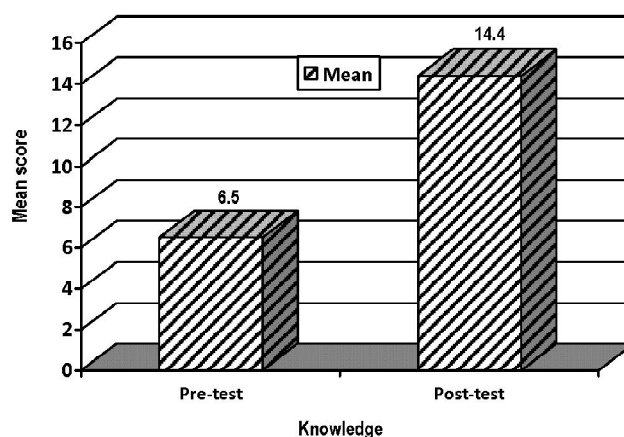
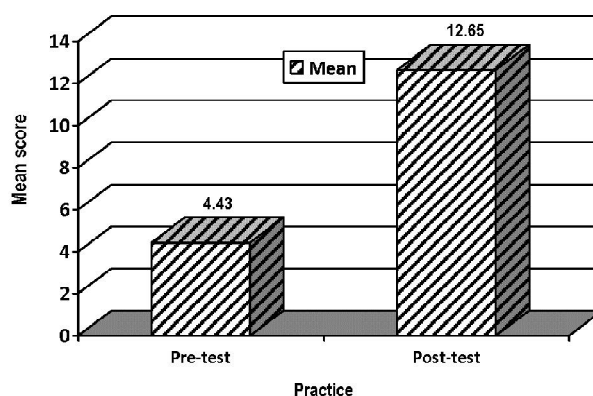


Fig 2: Distribution of effectiveness of planned teaching on practice in terms of mean score



edge, while only 1 mother (1.66%) had good knowledge while in practice it was revealed that all 60 (100%) of mothers had poor practice. After the planned teaching in post-test it revealed that 37 (61.66%) of mothers had good knowledge, 13 (21.66%) had average knowledge, 10 (16.66%) were in excellent knowledge; in practice it was revealed that 34 (60%) had excellent practice, 24 (40%) of mothers had good practice. It was also revealed that there is high association between knowledge and practice score with age, religion, education, occupation, source of information and position of child and no association with awareness of burping. The correlation of the knowledge and practice score revealed moderate positive correlation in the pre-test with the value of 0.79 and 0.49 in the post-test.

Discussion

Asha Varghese (2006) conducted a comparative study on knowledge and practice of primi parous and multiparous mothers regarding post-natal care in Mangalore where she found that only 43.33 percent primi mothers and 66.66 percent multi parous moth-

ers knew about that burping whereas only 40 percent primi mothers and 66.66 percent multiparous mothers knew that burping after breastfeeding prevents vomiting in newborns. As for the right position for burping she found only 26.66 percent primi mothers and 73.33 percent multiparous mothers knew about it. The multiparous mothers had comparatively higher knowledge than the primiparous mothers.

Area wise analysis on this study showed that 39.2 percent knew about burping whereas only 12.5 percent of mothers were aware of various complications if burping was not done. As for the techniques of burping it was found that only 35 percent mothers knew the right techniques. All (100%) had poor practice of burping techniques. Thus the findings of this study were supported by the above studies and explained the need for a planned teaching.

After the planned teaching, 12 (21.66%) of mothers had average knowledge, 37 (61.66%) had good knowledge while only 1 (16.66%) was in excellent knowledge, all 24 (40%) of mothers had good practice and 34 (60%) had excellent practice, the mean of the knowledge score obtained by the subjects was increased to 14.4 compared to pre-test score of 6.3 (Fig 1) while the mean of practice score obtained by the subjects was increased to 12.65 compared to pre-test of 4.43 (Fig 2). The calculated value was greater than the tabulated value at 5 percent level of significance proving that the planned teaching was effective. The finding of significant association with the age and position of the child was supported by that of Mrs Asha Varughese (2006) who concluded that multiparous mothers had higher knowledge compared to primiparous mother.

Salomi Thomas (2005) compared the knowledge and practices of post-natal mothers regarding neonatal care from selected urban and rural settings of Bangalore where she found that there was positive correlation between knowledge and practice regarding breastfeeding and neonatal care.

Although a positive significant correlation was found by Salomi Thomas but in the present study there was slight variation in the correlation value which decreased in the post-test and the knowledge and practice score had a moderately positive correlation in the both pre-test and post-test with the value of 0.79 in pre-test while 0.49 in post-test.

Conclusion

The burping techniques for newborn taught to the mothers with the help of the planned teaching strategy did not have 100 percent knowledge and practice regarding burping techniques of new born. However,

after the introduction of planned teaching there was increase in knowledge and practice thus proving that planned teaching was effective. The findings suggested that as knowledge levels increase, practice also increases. Thus the knowledge of mothers plays a critical role in their practice.

Implications

Nursing practice

1. Nurses have a prime role for patient education in hospital and community. She should conduct training programmes and plan health education to promote the well-being of child.
2. Student nurses and community nurses can use planned teaching as ready reference material information during their clinical posting and during their home visits to give health education to the mothers.

Nursing education

1. The nursing curriculum is concerned with the preparation of the future nurses. The present study would help the nurses to understand the level of knowledge of mothers.
2. The awareness on the critical situation like the aspiration, colic and the prevention of its untoward effects should be a part of curriculum in paediatric subject.

Nursing administration

1. Nursing administration should implement outreach teaching, and make the society aware about the prevailing health and behavioural problems due to improper practice of burping.
2. Nursing administrators can identify the learning needs and problems and organise in-service education for the nurses and programme for mothers in the clinical setting and primary health care centres.
3. Nurse administrators can develop policies, prepare instructional media and organise continuing nursing education programmes.

Nursing research

In India, there is scarcity of literature and research on burping techniques of newborn. This underscores the need for greater nursing research in these areas.

Recommendations

- A similar study can be replicated on a larger population for a generalisation of findings.
- A comparative study can be carried out to find out the knowledge and practice of mothers re-

garding burping techniques of newborn in urban and rural areas.

- Study can be conducted for the fathers separately as they are also part of the child care as per the present trend.
- A video-assisted study or study using a SIM (self-instructional module) or a pamphlet or booklet can be carried out to assess the knowledge and practice levels of mothers regarding burping techniques of newborn.

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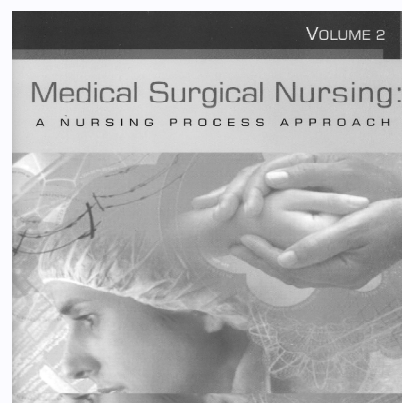
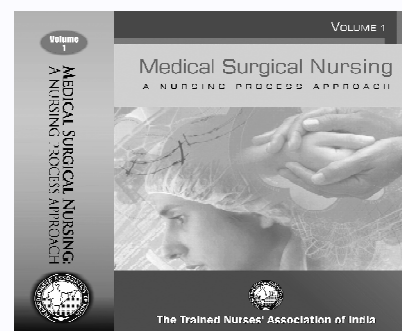
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