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 adjustments 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
Bundypadhay 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.
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 mothers 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-
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 knowledge, 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 per-
cent primi mothers and 66.66 percent multiparous
mothers knew that burping after breastfeeding pre-
vents vomiting in newborns. As for the right position
for burping she found only 26.66 percent primi moth-
ers 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 per-
cent of mothers were aware of various complications
if burping was not done. As for the techniques of burp-
ing 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 moth-
ers 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 in-
creased 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 primi
parous mother.

Salomi Thomas (2005) compared the knowledge
and practices of post-natal mothers regarding neo-
natal care from selected urban and rural settings of
Bangalore where she found that there was positive
correlation between knowledge and practice regard-
ning 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 corre-
lation 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 strat-
agy 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 sug-
gested 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 in-
formation during their clinical posting and dur-
ing 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 unto-
ward effects should be a part of curriculum in
paediatric subject.

Nursing administration
1. Nursing administration should implement out-
reach teaching, and make the society aware
about the prevailing health and behavioural prob-
lems due to improper practice of burping.
2. Nursing administrators can identify the learn-
ing needs and problems and organise in-service
education for the nurses and programme for moth-
ers in the clinical setting and primary health care
centres.
3. Nurse administrators can develop policies, pre-
pare instructional media and organise continu-
ing 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 ar-

dreas.

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

References
1. www.rguhs.ac.in/cdc/onlinecdc/uploads/05_N151_16431.doc
8. http://14.139.159.4:8080/jspui/handle/123456789/3051

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