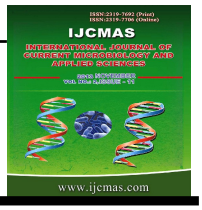
International Journal of Current Microbiology and Applied Sciences
ISSN: 2319-7706 **Volume 2 Number 11 (2013) pp. 393-403**
http://www.ijcmas.com



Original Research Article

A study of knowledge, attitude and practices (kap) of lactating mothers on breast feeding, weaning immunization and dietary practices at Jabalpur cantonment, India

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A B S T R A C T

A study of 105 Lactating Mothers were interviewed than pretested Performa thus collected were analyzed. The study revealed that 44.7% infants were mostly on breastfeed. In 75.23% lactating mothers, breast milk was initially given as the first feed, weaning among 69 children started mostly between 4 to 6 months. "Immunizations Awareness" amongst mothers was found to be complete except one. Out of all 103 booked Ante-natal cases, Injection Tetanus Toxoid was administered during third trimester. 96 Lactating mothers were not observing a fast on religious grounds at all, while most took meal with their husband and children rather than alone. Generally, meals were prepared separately and Folifar tablets were being given to all during the antenatal and lactating periods. 83.30% of the Lactating mothers were found to be in the age group of 20-.30 years. 91.4% children were born in the hospitals with 79.83% mothers were educated up to high school. To assess the child health-related knowledge, attitudes and practices (KAP) of mothers of children less than 23 months of age in Jabalpur, India. Semi-structured surveys were conducted on 105 women with children less than 23 months of age. Interviews took place at the Paediatric Outdoor and lasted 30 minutes. Questions about knowledge of various health issues focused on etiology, signs and symptoms of illness, and treatment of common childhood illnesses. Practice questions were directed at treatment of the child and health-seeking behaviors of mothers when their child is ill as well as prophylactic measures taken by the mother for the child. Survey findings indicated that maternal KAP of common childhood illnesses is somewhat deficient. Antenatal care for mothers as well as vaccination and nutritional status of children have become just barely satisfactory. Maternal child health-related KAP is somewhat insufficient and urgent intervention is required to implement local educational programs for women of child-bearing age. Education must include topics such as immunizations, sanitation, and treatment of diarrhea, acute respiratory infections and worms. Most importantly, infant and child nutrition programs should be given due impetus.

K e y w o r d s

KAP study**;** Lactating Mothers; Breast Feeding; Weaning; Immuni-zations; Dietary practice.

Introduction

Positive parental attitudes towards infant feeding are an important component in child nutritional health. The Special Supplemental Women, Infants, and

Children (WIC) Program have lower breastfeeding rates and attitudes that do not contribute towards healthy infant feeding in spite of breastfeeding and nutrition education programs targeting WIC participants (Janet M. Wojcicki et al., 2010).

One of the gravest problems India is confronting with is malnutrition among under-5 children. As in other developing nations, malnourishment is a burden on considerable percentage of population, the most vulnerable being the youngest group of the society. About two-third of the under-five children of our country is malnourished. Among them, 5-8% is severely malnourished while rest falls in the group of mild or moderate malnutrition. So it can be said that malnutrition is one of the most widespread conditions affecting child health. The malnutrition affects a foetus in the intra-uterine life due to lack of sufficient antenatal care on part of the mother. The condition deteriorates further when after birth the infant is deprived of exclusive breast feeding or initiation of weaning is delayed. Weaning should be started after the age of 6 months and should contain energy rich semi-solid food. Malnutrition makes a child susceptible to infections and delays recovery, thus increasing mortality and morbidity. Every time an innocent child suffers the curse of malnutrition; the responsibility goes to the mother, the family and to the community due to their faulty or no knowledge regarding the harmful effects of pre-lacteal feeding, benefits of exclusive breast feeding and initiation of proper weaning at the correct time (Saurav Chatterjee, 2008).

The present Study has been carried out to detect knowledge, attitude and practices (KAP) prevalent among the lactating mothers attending a tertiary level hospital, Jabalpur An attempt is made to unveil certain important aspects of the KAP prevalent among lactating mothers with respect to their infants on Breast feeding, Weaning, Immunization and dietary practices followed by them.

The percent of US infants who begin breastfeeding is high at 77%. While there is concern that infants are not breastfed for as long as recommended, now, continued progress has been made over the last ten years. Of infants born in 2010, 49% were breastfeeding at 6 months, up from 35% in 2000. The breastfeeding rate at 12 months increased from 16% to 27% during that same time period.

This year, there are two new indicators of the quality of maternity care from the Maternity Practices in Infant Nutrition and Care (m PINC) survey. These indicators are related to immediate and continued contact between mother and baby during the hospital stay: skin-to-skin contact within one hour after birth and rooming-in together throughout the stay.

Breast feeding Report Card Indicators-2013

Outcome Indicators are five indicators profile to the extent to which infants are breastfed. Breastfeeding Support Indicators Elements of breastfeeding-friendly communities are measured using indicators that assess support from birth facilities, health professionals and child care settings.

Breast feeding Support Indicators, Birth Facility Support

Percent of hospitals and birth centers where at least 90% of mothers and

newborn infants have skin-to-skin contact for at least 30 minutes within one hour of an uncomplicated vaginal birth z Percent of hospitals and birth centers where at least 90% of healthy full-term infants are rooming in with mother for at least 23 hours per day z Percent of live births occurring at hospitals or birth centers designated as Baby-Friendly (CDC National Immunization Surveys, 2011 and 2012; 2011, 2013).

Health seeking behavior of parents for the child is an important factor affecting child health. In terms of illness behavior, it refers to activities undertaken by individuals in response to symptom experience (Sokhey, 1988). It is influenced by a large number of factors apart from knowledge and awareness (Centers for Disease Control and Prevention , 2009) operating at individual, family and community level, including the bio-social profile of individual, his past experiences, influences at the community level, availability of alternative health-care providers and his perceptions regarding efficiency and quality of the services available. . After years of widespread turmoil and the annihilation of one quarter of its population, Cambodia was left with an appalling health care system. Despite initial rebuilding efforts, Cambodia's health parameters remain amongst the lowest in South East Asia. Child mortality rates are terrible and many deaths are due to totally preventable childhood illnesses. Local government efforts to ameliorate the health status of Cambodians continue to be insufficient. A pressing need for international aid with a particular emphasis on maternal-child health exists (Natasha Saunders Maternal knowledge, 2005).

In a study at Karachi, Pakistan, Exclusive breastfeeding was reported by about 54% of the mothers. Thirty-five percent of the mothers gave prelacteal feed, 14% discarded colostrums and 43% woke up their infant to feed if time had exceeded 2 hours. Majority of the females were aware of the advantages (92%) and the disadvantages (85 %) of breastfeeding. However, the awareness of positive feedback relationship of milk production and sucking was lacking and breast feeding was considered to cause weakness in mothers (Sumera Ali et al., 2011).

Materials and Methods

One hundred and) five (105) Lactating mothers were interviewed followed by analyses of pretested preformed. Semi-structured surveys were conducted on 105 women with children less than 23 months of age. Interviews took place at the hospital Paediatric Department and lasted about 30 minutes. Questions about knowledge of various health issues focused on etiology, signs and symptoms of illness, and treatment of common childhood illnesses. Practice questions were directed at treatment of the child and health-seeking behaviors' of mothers when their child is ill as well as prophylactic measures taken by the mother for the child.

Study Design: A Semi-Structured Survey

This study was conducted as a semi-structured survey with a total of 23 questions. The first set of questions asked about demographics, followed by a set of questions about breastfeeding and nutrition knowledge and practices. The next set focused on diarrheal disease and the child followed by questions pertaining to respiratory illnesses and the child.

Questions then pertained to childhood immunizations, prenatal care and worms and the child. Lastly, the child was measured for height, weight, and head circumference.

The questionnaire was designed to ask questions of mothers of children under 23 months of age. Questions about knowledge of the various health issues focused on aetiology, sources of information about the illness, risk factors, signs and symptoms of illness, treatment, where and how to obtain health care. Questions about maternal attitude centred on feelings towards the illness, treatment and health care services offered. Practice questions were directed at treatment and(a) health-seeking behaviours of mothers(b) when their child is ill as well as prophylactic measures taken by the mother for the child (immunizations, etc).

Selection Criteria and Sampling

Only women of with at least one child aged less than 23 months were eligible for interview. All information pertaining to maternal practices concerning child health was taken in reference to the youngest child only. The interview took place only after informed consent was given. A total of 105 lactating women were covered in the period of two months who brought the infant in Paediatric OPD. Mothers whose children were severely ill and unwilling to participate in trial were excluded.

Data Collection and Analysis

All interviews were conducted by the researchers. Each of the 105 lactating women interviewed gave informed consent and all data were included for analysis. Data from the interviews were translated from Hindi to English and were recorded in English on individual copies of the questionnaire. All data entry and analyses were carried out using Microsoft Excel and statistical software.

Result and Discussion

Generally, meals were prepared separately and Folifar tablets were being given to all during the antenatal and lactating periods. 83.30% of the Lactating mothers were found to be in the age group of 20-.30 years. 91.4% children were born in the hospitals with 79.83% mothers were educated up to high school.

Number of Breast feeds /day

The study revealed that out of 105 Lactating women 44.76% of them followed fixed timings. The details are given in Table No. 1.

First time Breast feed after birth

It was found that 63.60% of Lactating women breast feed their new born child within six hours. The details are in Table No. 2.

Type of first feed

In 75.23% lactating women the breast feeding was found to be given as first feed. The details are as per Table No, 3.

Artificial Feeding

During the period of study, only one Lactating women was found to have given artificial feeding to her infant in a 1:1 dilution of Cows milk. The details are given in Table No.4.

Weaning

28 of children have been introduced to weaning after the stipulated 4-6 months and in 15 cases only between 7^{th} to 11^{th} months. The details are in Table No. 5.

Immunization

104 lactating mothers were found to be aware of the importance of immunization. The details are in Table No.6.

Dietary practices of locating Mothers

90.56% lactating mothers were not practicing fasting during the pregnancy and lactation periods, 92.45% were found to consume Breakfast, Lunch & dinner while 97% were taking meals with their husbands and children. 97.16% of lactating mothers cooked their meals separately while only 7% of lactating mothers admit to having consumed the leftover food of the previous days. 67.61% of Lactating mothers cooked their meals separately while, only 7% of Lactating mothers admit to having consumed the leftover food of the previous days. 67.61% took a varied menu in Breakfast. The details are given in Table No. 7.

The well to do women (59% to 88%) in India was found to have Lactation failure or insufficient breast milk as a reason for not feeding (Anand, 1985).This was not applicable to the Lactating mothers despite 79,68% having an educational status up to high school only. Breast feeding practices bear a strong relation with social customs and Beliefs (Arora et al 1985) . It was found that number of breast feeds day, the first-breast feed (Jotji and Shrivastava, 1987; Anand and Sureka, 1987) type of first feed (Kushwa et al., 1985) vary with social customs and beliefs prevalent depend on the areas to which the Lactating mothers belongs, only one child was, found to be on artificial feeding while Dutta found 18.2% to be artificially fed (Datta, 1985). Weaning in 89.26% was introduced up to 6 months it in conformity with Awasthi et al. (1987) , while Singhania et al found this to be so in only 50% of the upper social economic status (Singhania et al. 1990). According to Behar (1987) age alone should not to be the deciding factor for introducing weaning but one must consider the developmental stage of the infant, the types of food available, the environmental conditions, facilities to prepare and aminister the food, and safety. ICMR in their Multi-centric study found that the age group 2 months in Calcutta & the age group 10 months in Delhi and Hyderabad (Report of working group ICMR TRS 27,1977) to be the average age for weaning. Immunization awareness among lactating women was found to be 99% while Basu found 20-44% were not aware of its importance (Basu, 1985). Injection Tetanus Toxoid was found to have been given to all booked cases while only 67.6% were found to have been vaccinated against Tetanus toxoid in a Delhi survey (Chadha and Trivedi, 1986). Ninety three surveys conducted in 1987 revealed that the two `doses of Tetanus toxoid were given in 41% only (Chadha and Trivedi, 1986) , but in areas covered by the multipurpose Health worker it was found to be high(Bahuguna et al., 2013). Dietary Practices among Lactating women was found to be high (23). Dietary practices among Lactating women was found to be satisfactory including intake of tablet Folifar for at least two months but for consumption of milk. This finding is similar to the finding of the

Table.1 Number of times Breast fed/day

Timing of Breast feeding	Number of Lactating mothers (N=105)	Percentage(95% CONFIDENCE LIMIT)
As and when Baby cried	34	32.78% (23% - 41%)
Fixed timing	47	44.76% (35% - 54%)
Semi-demand (Fixed demand + As and when Baby cried)	24	22.85% (15% - 31%)
TOTAL	105	100.00

Table.2 First time breast fed after birth

First time fed after birth	Number of lactating women (n=105)	Percentage(95%CI)
As soon after birth	08	7.61% (3% - 13%)
Within six months	67	63.80% (55% - 73%)
Within 24 hours but after 06 hours	03	2.85% (% - %)
After 48 hours but after 24 hours	03	2.85% (% - %)
On 3rd day but after 48 hours	00	00.00
TOTAL	105	100.00

Table.3 Type of first feed

Type of Feed	No. of Lactating mothers (n = 105)	Percentage(95%CI)
Breast Feed	79	75.23% (67% - 83%)
Honey	17	16.19% (9% - 23%)
Sugar water	09	8.57% (3% - 14%)
TOTAL	105	100.00

Table.4 Artificial feeding

Type of feed	no. of lactating mothers
Cow's milk	01 (1:1 dilution)
Buffaloes' milk	00
Breast feed	104
TOTAL	105

Table.5 Infant weaning started in period after delivery

S.No.	Particulars	90-120 Days	121-150 Days	151-180 Days	181-210 Days	>211 Days	Total
1	Weaning of infants started in period	09	19	24	03	05	60*

*45 lactating mother were primi-para with infant age < 5 months, hence not applicable

Table.6 Immunization knowledge and attitude

Types of Knowledge and Attitude	Yes	No	Total
Awareness of importance of Immunizations (n=105)	104	01	105
Immunizations schedule complete in other elder siblings (n=83)	79	04	83
Reason for not completing the schedule(family being kept in village as husband posted else where)	79	04	83*
Inj TT Given	103	02	105**

*In 22 cases not applicable as being primi para
** 2. Un-booked cases

Table.7 Dietary practices of lactating mothers

Parameters	**Fasting days per week**				
No of Fasting days per week	**1DAY**	**2 DAYS**	**3DAYS**	**NO FASTING**	**TOTAL**
	06	02	01	96	105
Food taken along with family	With husband and children 77		Before husband and children NIL		After husband+ children 28
Meals cooked separately (LUNCH & DINNER)	Lunch & dinner separately 103		Not cooked separately 02		105
Left overs of prevIous day Consumed	07		98		105
Details of Breakfast	No. of lactating mothers*				
	N		Percentage		
Left over of previous day	31		29.52%		
Tea, Toast Bread	46		43.80%		
Milk +eggs	71		67.61%		
Dosa/Vada/Samosa/Idli/Upma/ Pakora	58		55.23%		

Many mothers are consuming variable menu, hence the overall numbers are more than N

National Institute of nutrition, Hyderabad (Venkatachalam and Rebell, 1983).

This study in Somalia found that knowledge; attitude and practices on breastfeeding are mainly controlled by culture through maternal grandmothers and other elderly women in the community, and are generally unsatisfactory. Most children are put on breast 2-3 days after delivery and the colostrums is not fed to children by majority of mothers as it is considered heavy, thick, course, dirty, toxic, and harmful to children's health. Early introduction of complementary foods was reported from all livelihood zones, where, from birth to three months, children are mainly fed on cow or goat milk in addition to breastfeeding. (Somali Knowledge Attitude Practices Study(KAPS)**,** 2007)

Measures taken by usa to promote breast feeding

The measures(Infant and young child feeding practices, 2010) taken by USA as given in succeeding paragraphs gives idea's for taking similar measures in this country.

Breastfeeding Report Card.
U.S. National Immunization Survey
Infant Feeding Practices Survey II
Maternity Care Practices Survey**.**
Health Styles Survey**.**
Other Monitoring Systems for Breastfeeding Data
National Health and Nutrition Examination Survey (NHANES)
National Survey of Family Growth (NSFG**).**
The Pediatric Nutrition Surveillance System (Ped NSS)

The Pregnancy Nutrition Surveillance System **(**PNSS)
Pregnancy Risk Assessment Monitoring System (PRAMS)
National Birth Certificate Data (et al., 2013).

Ten indicators to measure infant and young child feeding (Infant and young child feeding practices, 2010**).**

There are 10 indicators to measure infant and young child feeding in the program areas:
1. Timely initiation of breastfeeding (children 0-23 months)
2. Exclusive breastfeeding under 6 months
3. Timely complementary feeding
4. Introduction of solid, semi-solid or soft foods
5. Continued breastfeeding at 1 year
6. Minimum dietary diversity
7. Minimum meal frequency
8. Minimum acceptable diet
9. Consumption of iron-rich or iron-fortified foods
10. Bottle feeding.

In Somalia, consistently high levels of acute malnutrition and under 5 mortality rates (U5MR) have been reported from South and Central Somalia. Accesses are further hampered by re-current insecurity situation in the country. Available data on care practices of young children also indicate alarming practices in breastfeeding, complementary feeding and treatment of childhood illness.

Early introduction of complementary foods was reported from all livelihood zones, where, from birth to three (3) months. In households where they have difficulties accessing milk, the milk is often replaced with tea or porridge after the third month (Venkatachalam and Rebell , 1983).

Prolonged breast feeding beyond 6 months, bottle feeding, nocturnal bottle feeding containing sweet drink and milk and higher frequency of consumption of sweets emerged as significant risk factors for dental caries (Somali Knowledge Attitude Practices Study(KAPS), 2007). Impact of ritual pollution on lactation and breastfeeding practices in rural West Bengal, India is observed (Infant and young child feeding practices , 2010).

To conclude, this study agrees with that of Achar and Mukhopadhya that the Lactating mothers had undergone considerable social reform and evaluation to accept new ideas & concepts in a comparative study (Mridula Bandyopadhyay, 2009**).**

However, there is still further scope for improvement in maternal child health-related KAP is partly insufficient and urgent intervention is required to implement local educational programs for women of child-bearing age. Education must include topics such as immunizations, sanitation, and treatment of diarrhea, acute respiratory infections and worms. Most importantly, infant and child nutrition programs must be put into place (Achar and Mukhopadhyay , 1990; Gursimer Jeet, 2013).

Several important findings with implications for guiding further development of such Project and its evaluation emerged from this survey. Most respondents of Primary Health Care Reform (PHCR) Project, Armenia desire health education information. Most (> 80%) respondents expressed interest in receiving information on one or more health education topics. Knowledge is highest for healthy lifestyle and child care topics. Healthy lifestyle Scores

approached 80% and child care scores averaged approximately 65%, as did Reproductive health. STD knowledge was slightly lower at 55%. Chronic disease knowledge is the lowest. The lowest KAP scores were observed for osteoporosis and UTI (approximately 20%), hypertension and diabetes (approximately 35%), and TB (approximately 40%). These findings stress the need for targeting these topics in IEC activities. KAP scores vary by key respondent characteristics. Women were more likely to have favourable KAP scores, suggesting the need to target men. KAP scores were positively associated with education, suggesting directing messages to the less educated (Richard A. Yoder, 2008).

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