A Study of Knowledge and Practice of Lactating Mothers on Exclusive Breast Feeding (EBF) and its Impact on Health Status of Infants

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Abstract

The study was conducted in two different Garment factory of Kapan VDC of Kathmandu district in June 2013. The respondents of this study were the breast feeding mothers. Main objectives of the study was to find out the knowledge and practice of mothers about breast feeding and its impact on health of infants who were less than six months old. To meet the objective, 100 lactating working mothers were selected by survey method. The study was based on exploratory and descriptive research and Interview schedule, and anthropometric measurement tool were developed to get necessary information. Among the respondents, only 32% were found delivered at home though the hospitals were very near from their residence. Among the respondents, only 64% fed colostrums to their babies after birth though 71% of them were aware of the importance of colostrums feeding. All most all the respondents of this study belonged to working class families where 82% elder children were the care takers of infants at home and factory premises. Among the infants, 46% were found perfectly healthy, 32% on the borderline, and rest were found in malnutrition condition. Within the six month period to study time, 68% infants were suffered from diarrhea, 28% ARTI, and rest 33% with other health problems.

Key words: Lactating mother, morbidity, breast feeding, bottle feeding, Acute Respiratory Tract Infection (ARTI).

Introduction

Breast feeding provides infants the best start in their life. It contains high nutrition value and is an ideal and natural food for baby. Adequate nutrition during infancy is crucial for child survival, optimal growth and development throughout life (UNICEF, 1990). The World Health Organization (WHO) recommends exclusive breastfeeding (EBF) for the first six months of life. After six months, infants should receive nutritionally adequate and safe complementary foods while continuing to be breastfed until the age of two years or beyond. The benefit of EBF for growth, immunity and prevention of illness in young infants is undisputable (Oddy, et al., 2003). It has been postulated that 13% of the current under five mortality rate could be averted by promoting proper breastfeeding practices (Jones, et al. (2003) which is seemingly the single most cost effective intervention to reduce child mortality in resource-constrained settings (Mullany, et al., (2008).The role of breast feeding in infant's health is tremendous with a special reference to the available information from countries in the Asian and Pacific regions. A report of UNICEF (2009) states that duration of breast feeding can potentially reduce mortality from diarrhea especially in the babies of developing countries by as much as 25 percent. The report further mentions that the under-privileged couples and in poorer countries have a high prevalence of breast feeding for prolonged durations is critically important in reducing the level of morbidity and mortality for children born.

Continuation of breast feeding practice has additional advantages in the growth process of babies. In the countries where the prevalence of infectious diseases including diarrhea is high, breast feeding saves many children from both morbidity and mortality incidence. It also saves the financial resources of the country that could be spent to other important areas of daily life. According to report of NDHS (2006) about 40,000 children die every year from diarrhea in Nepal and almost same numbers

of people die from ARI and other infections. In such condition, breast feeding could prevent many of such deaths by improving immunity in babies. Breast feeding develops immunological strength to a child, creates emotional bounding between babies and mothers and also plays significant role in fertility. A report of World Bank (2000) states that breast feeding is responsible for reducing total potential fertility by 30 percent.

In Nepal the traditional practice of breast feeding is nearly universal both in rural and urban areas (NDHS, 2006). However, the report further states that with the introduction of modern technologies and the adaptation of new lifestyles, it seems decreasing in urban areas because of employment and other reasons.

Statement of the Problem

Exclusive Breast feeding including colostrum has different situation in different countries. In Kuwait only 1 in 5 infants (18.2%) received colostrum as their first feed (Dashti et al., 2010). This report indicates that awareness on breastfeeding including colostrum is very much in need to be provided to mothers. The practice is also very low in Zambia where none of the urban mothers discarded the colostrum feeding (Fgeld et al., 2008). The report states that a few of the mothers in rural area fed colostrum to their babies. Regarding views on comparison of children fed with colostrum with those not fed, 56% felt that colostrum fed children were healthier while 8% said that it didn't make any difference.

Knowledge on colostrum feeding is correlated with higher age of marriage, higher age of pregnancy, better maternal education, higher socioeconomic status and antenatal care from tertiary care centre and private practitioners (WHO, 2001). Many mothers in developing countries lack knowledge about the importance of early initiation of breastfeeding and are not aware about the advantages of colostrum feeding. In some developing countries there is misinterpretation about breast feeding as it is believed that milk does not come in the first few days (UNICEF, 2009).

According to report of Ministry of Health and Population of Nepal (2006), the mean total duration of breastfeeding in Nepal, like most other low and middle income countries, is long and usually more than two years but data on EBF shows up to six months of age as well as descriptions of mixed feeding practices are scarce. Information on breastfeeding practices and the factors influencing them is important for successful campaigns. The role of colostrum in promoting growth and development of the newborn as well as fighting with the infection is widely acknowledged (WHO, 2001). However, in Nepal, there are differences in cultures in the acceptability of colostrum and the prevalence of colostrum feeding. Although, breastfeeding is a common practice in Nepal, importance of colostrum feeding is still poorly understood.

In 2012, Kathmandu Medical Collage conducted research on breast feeding and more focus was given to colostrum feeding practice among outpatient mothers of teaching hospital. Colostrum is thick nutritious milk secreted initially by the mother which is rich in protein, minerals, vitamins and immunoglobulin which is essential for proper growth and development of children. This report shows that about 74% women heard about colostrum among which 30% received information through various media, followed by family and friends comprising 16%, antenatal visits (12%) and other sources (16%). The research found higher percentage of women who had knowledge on colostrum compared to few other studies done in this region. Regarding the importance of colostrum, 69% of pregnant women in this study knew about the role and importance of colostrum for the new born babies. Regarding the role of colostrum to child's health, 41 % women answered that it helps for proper growth of child and fights against infection, 27% felt it adds to good health but were not able to specify, whereas 31 % did not

know and 1 woman thought it has bad effect to the child's health.

Chaudhary et al. (2011) conducted a study on breastfeeding practice among the mothers who visited hospitals for medical care in Nepal. The research was conducted in BPKIHS, Dharan, in 2011. The report states that none of the mothers got advice regarding breast feeding during ANC visits. However because of the exposure to the media and health care facilities, most of the mothers were found aware of the importance of colostrum. Regarding the knowledge of colostrum, only 25% of women had an idea about colostrum. This shows that awareness programs are in need to organize especially for mothers of semi-urban and rural areas of Nepal to develop understanding in lactating mothers about the importance of breastfeeding including colostrum feeding.

Regarding the practice of breast feeding according to research report of Kathmandu Medical Collage (2012), only 44% of the mothers who visited hospital had given colostrum to their previous babies. That means 66% mothers did not feed colostrum to their previous babies and this really shows crucial situation about the practice of breast feeding in Nepal. Ulak et al., (2012) conducted study on breast feeding entitled 'Infant feeding practices in Bhaktapur, Nepal: a cross-sectional, health facility based survey. According to this study, 91% mothers fed colostrum to their previous babies. This shows significant progress in the practice of colostrum feeding to babies. Another study conducted in Dharan in 2011 with lactating mothers also shows almost same situation of the practice of feeding colostrum to babies. In this study 95% fed colostrums to their babies though only 25% of them were known to benefits of colostrum. Colostrum feeding rate in Nepal was 69% according to data given by NDHS 2006.

There are several affecting factors which cause problems in breast feeding right after birth of a child. Odent (2011) in her Doctoral thesis throws light on Nepalese situation about colostrum feeding. She says that prolonged labor and unconscious state are the hindrance to colostrum feeding. Neonatal illness is also one of the main barriers to colostrum feeding. Some babies are not able to suck breast milk due to illness, deformities or other reasons. Bathing baby and mother after birth also delays initiation of breastfeeding. Lack of family support, discouragement for early initiation of breastfeeding by traditional birth attendants, decision by family members to give other fluids are some important barriers to colostrums feeding. Since the knowledge and practice of EBF including feeding of colostrum to babies was found lacked while reviewing the literatures. Therefore, stated as the study on knowledge and practice of lactating mothers on exclusive breast feeding (EBF) and its impact on health status of infants has been carried out to recover this lack.

Objectives of the Study

1. To examine the existing knowledge and practice of breast feeding in mothers
2. To examine the effects of breast feeding on health status of infants
3. To recommend the possible ways of breast feeding to enhance its practice among lactating mothers.

Significance of the Study

The importance of exclusive breast feeding for optimal growth and development, irrespective of country of residence, is also reflected in the recent WHO growth standard for children (Onyango, A. et al., (2009). Introduction of foods other than breast milk before six months of life is not only undesirable, but could also be harmful (Heider, et al., 2000). These foods not only displace nutritious mother's milk, but also serve as a vehicle for infectious pathogens that can lead to severe illness. Despite well-established guidelines for promotion of EBF, the adherence to EBF is quite low in many settings (Engebretesen, et al., 2007). They also mention that childhood malnutrition and

growth faltering affects more than half of children under five in developing countries, and usually starts during infancy, possibly due to improper breastfeeding and mixed feeding practices.

Colostrum is the first milk produced by the mammary glands of mammals in late pregnancy just prior to giving birth and continuing through the early days of breastfeeding (http://www.llli.org/faq/colostrum.html). Colostrum is very rich in proteins, carbohydrates, vitamin A, and sodium chloride, but contains lower amounts of lipids and potassium than normal milk (Ghai, et al.,2009). Newborns have premature digestive system which suits the low-volume concentrated form of nutrient supply system of colostrums. The laxative effect of colostrum encourages passage of baby's first stool, meconium. This helps to clear excess bilirubin which is produced in large quantities at birth and helps prevent jaundice. It contains various immunoglobulins like IgA (reactive to Escherichia coli virulence associated proteins) IgG and IgM[3] (Louraino et al, 1998). Other immune components of colostrum are lactoferrin, lysozyme, lactoperoxidase, complement and proline-rich peptide (PRP). It also contains various cytokines and growth factors. PRP helps to fight against various viral infections like herpes viruses and HIV, bacterial and viral infections which are difficult to treat, various cancer, asthma, allergies and autoimmune diseases. It helps to reduce one of the leading causes of death in our country like diarrhea and ARI (Arifeen et al., 2001).

According to Edmend et al., (2006), initiation of breast feeding within the first hour of birth reduces both infant morbidity and mortality. Edmond and his team conducted a research on EBF in Ghana and found that there was a marked increase in risk with increasing delay in initiation. The research report further states that even one day late lactation after birth caused 2-4 folds increase in risks. Giving pre-lacted feeds also increased the risk of neonatal mortality.

It is seen that child morbidity and mortality are the burning problem of most of the developing countries. Diarrhea, ARI, malnutrition and other infectious diseases cause adverse effects on the health of infants in Nepal even at present time. In such condition proper knowledge and practice on EBF helps mothers to provide adequate care to their babies and promote their health status. The main points of significance of the study are as follows:

1. The study helps mothers to provide better care to their babies with the initiation of Exclusive Breast Feeding practice.
2. The study is useful to find the impact of knowledge and practice of lactating mothers on health status of infants.
3. The study can be used as a guideline for educators, planners to plan and implement EBF program in their respective areas.
4. This study helps concerned authorities to know the existing situation of EBF in Nepal.
5. The study can be helpful for the researchers for their further research in the days to come.

Research Questions

1. What do the mothers of garment factory think about Exclusive Breast Feeding?
2. How do they practice EBF in the Factories and families?
3. What types of health problems did mothers notice in the last six months?
4. What type of recommendation do they need to improve knowledge and practice on EBF?

Methodology

The following methodoloty was adopted to carry out the study:

Research Design

Exploratory and descriptive research design was used in this research. The research explored the existing knowledge and practice in mothers of exclusive breast feeding including colostrums feeding to babies and health status of infants. The research also explored the situation of Nepal.

Sources of Data

For the purpose of this research, required data was generated through primary and secondary sources. Primary data were collected through interview with mothers who had at least one less than one year old babies. Anthropometric measurement of the infants was taken by weighing and height measuring scale. Secondary data was collected through different secondary sources.

Sampling Procedure and Size

The total number of mothers with at least one baby of less than one year were selected by survey method because all the mothers who were under selection criteria were taken for this research. However, anthropometric measurement was done with the babies who were under six months old. In the record of factories there were 136 mothers involved in two factories but only 100 of them were present during study period and all of them were selected.

Tools and Instruments

The researcher used interview schedule for collecting data from the respondents. He also used weighing scale and height measuring scale for infant's anthropometric measurement.

Validation of Tools

For validation process, interview schedule was put on pre-testing with twenty mothers of another factory located near study area and necessary correction was done. For weighing scale, the condition of scales was checked properly before the use of instrument.

Data Collection Procedure

After constructing tools for data collection, researcher visited to both factories and met with owners and Management Authorities. He then appraised them about the purpose of visit and requested them to provide actual number of mothers with at least one babies of less than six months old with them. Upon my request for the total number of mothers, they called me after two days and provided the number of mothers. Then they managed five to six individual interviews in the premises of factories. Measurement of infants was also taken right after interview each day with the help of measuring scales. It took nearly one month period to complete data collection process.

Data Analysis and Interpretation

After collecting data required for this research, the researcher tabulated the collected data in different groups according to their nature. The collected data was then presented in different tables and graphs. The researcher used text, tables, bar-diagram, pie chart and percentage in the analysis and then adequate interpretation was made after analysis.

Major Findings

The major findings of the study were as follows:

1. Among the total number of respondents, 76 % mothers were from nuclear families. Majority of the respondents (84 %) were from out of Kathmandu valley and rest were from local communities. The respondents were from different ethnic and caste groups. Regarding literacy, only 78 % of them were literate out of which only 2 % mothers were twelve passed 13 % were SLC passed and others studied up to class nine. The age of the respondents was varied from 19 years to 34 years old. Almost all the mothers (96%) belonged to working class families, 82% elder children were found as care takers of infants who fed boiled milk and bottle milk at home.
2. Among the respondents, 26% started breast feeding within an hour of their deliveries, 39% within 4-6 hours, 27% within 4-8 hours, and 5% after one day of their deliveries. A baby up to six months needs at least 6-8 times breast feeding within their eight working hours in the factory but only 21 % mothers fed to infants. Among others, up to 4 times was managed hardly to their babies in a day before and after their working hours. Regarding knowledge part, 74% responded breast feeding as an essential food for baby up to couple of years.

3. The 64% mothers responded that they fed colostrums to their babies. However, rest could not feed because of the illnesses of mothers during birth. However, 71% mothers were found knowledgeable about the importance of colostrums feeding.
4. Exclusive breast feed refers only to breast milk, breast milk with water and breast milk with liquid diet but only 24 % of them were found knowledgeable about it. Out of the total respondents, 23% replied that their breast milk was sufficient for babies up to six months whereas 77% responded that their milk was not sufficient for their baby because they had to go for work and even the amount was not sufficient for their babies. The disadvantage of bottle feeding was responded by 34% mothers however they were in favour of this feeding because they had to leave for work each day. They were equally concerned about proper cleaning of bottles before putting milk. Rest of the 66% mothers were in favour of either boiled milk with spoon feeding or bottle feeding and even not aware of the disadvantage of it.
5. Out of the total respondents, 62% had the practice of cleaning their breast before feeding to their babies and 38% did not do this practice and these second category mothers did not see even significance of washing every times their breast unless it got dirty. For them, cleaning once a day could be sufficient. Burping practice helps to prevent vomiting in babies' right after breastfeeding but only 93% of respondents did not apply this practice after breast feeding and only 7% applied this practice.
6. Among the infants, 46% were found perfectly healthy, 32% on the borderline, and rest were found in malnutrition condition. Within six month period to study time, 68% infants were suffered from diarrhea, 28% ARTI , and rest 33% with other health problems.

Recommendations

1. Awareness on Exclusive Breast Feeding needs to be integrated with antenatal clinics. During visit to clinics, pregnant and lactating mothers should be educated about the benefits of colostrum feeding.
2. Significant number of home deliveries is found in study area though it is nearer to some advanced hospitals and birthing centers. Here, the recommendation is needed to mothers to manage births at health institutions in the days to come.
3. Disadvantages of bottle feeding to health should be given to mothers along with other options of feeding. Hygienic aspect of feeding should also be focused while giving health education to mothers.
4. Provision of Exclusive Breast feeding and more frequency of breast feeding should be viewed from child right perspective. Here, recommendation is made to factory authorities to manage breast feeding facility to those mothers who have breast feeding babies up to six months of age. Provision of day care like centre can be the suitable option for this.

About the author

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