Mothers’ Knowledge and Attitudes toward Breast Milk Banking in Developing Countries

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Abstract

Background: Maternal breast milk (BM) is the recommended form of enteral nutrition for term and preterm or very low birthweight (VLBW) infants with much evidence highlighting the benefits.

Aim: To increase awareness among mothers regarding human milk banking in developing countries like Bangladesh.

Method: A qualitative study through face to face interviewing can be conducted for exploring the mother’s knowledge, attitude and perceptions.

Discussion: When a mother is unable or unwilling to breastfeed her child due to maternal illness, insufficient milk supply or other reasons, an alternative source must be sought. Individual studies and systemic review show that human milk banking is preferable than infant formula. In view of the potential consequences of formula feeding, a suitable substitute should reasonably be pasteurized donated BM, if the mother’s own milk is unavailable or inadequate. Moreover, BM has been shown to increase gastric emptying and intestinal motility, enhance gastrointestinal growth and maturation, and increase tolerance of a full enteral feeding specially for preterm and VLBW infants, conceivably owing to the macronutrients in BM being more easily digested than formula.

Conclusion: There is a limited data on human milk banking as well as awareness regarding this issue in developing country like Bangladesh. Further research and collaboration will be needed to achieve a consistent approach towards human milk banking and ensure the anticipated cost benefits eventuate.

ABBREVIATIONS

BM: Breast Milk; VLBW: Very Low Birth Weight; SIDS: Sudden Infant Death Syndrome

INTRODUCTION

The beneficial belongings of breastfeeding for mothers and babies are glowing. In low-income and middle-income countries, children younger than 6 months of age are exclusively breastfed are only 37% [1]. Breast milk provides the superlative nourishment for infants. It has a nearly perfect assortment of vitamins, protein, and fat, everything which a baby desires to nurture. Breast milk encompasses antibodies that aid the baby bout off viruses and bacteria. Babies who are breastfed exclusively for the first 6 months, have scarcer ear infections, respiratory illnesses, and stretches of diarrhea. Breastfeeding has been allied to advanced IQ scores in later childhood. The American Academy of Pediatrics (AAP) says breastfeeding also plays a role in the prevention of SIDS (sudden infant death syndrome). It’s been alleged to lower the risk of diabetes, obesity, and certain cancers as well and for mother breastfeeding scalds extra calories, so it can aid to lose pregnancy weight faster. It releases the hormone oxytocin, which helps uterus reappearance to its pre-pregnancy size and may reduce uterine bleeding after birth [2]. It is well recognized that breastfeeding has a significant effect on birth spacing [1]. Breastfeeding also lowers the jeopardy of breast and ovarian cancer and lower the risk of osteoporosis too [2]. When maternal breast milk is not obtainable in adequate quantity for reasons such as a baby being at risk of getting diseases and infections from a mother with certain diseases [3] or for the sick, hospitalized newborn, pasteurized human donor breast milk should be recommended [4] as a bridge to satisfy the needs of these infants and compensate for the inadequate supply of their mothers [5]. Different countries’ non-breast fed infants receive various types of diet like animal milk in most of the poor societies and formula in middle-income and high-income populations [1]. Available evidence shows that compared with formula, donor human milk is associated with lower incidence of the severe gut disorder, necrotizing enterocolitis, and other infections during the initial hospital stay after birth [6]. In LMICs, 36-3 million (63%) children, younger than 6 months were not exclusively breastfed at the time of the most recent national survey (Among the 117 countries from 2000-2013). The percentages were 53% in low-income countries, 61% in lower-middle-income countries,
and 63% in upper-middle-income countries correspondingly. Some reviewed study showed that breastfeeding practice is more common in high-income, better-educated women than those in low-income groups with fewer years of formal education [1].

Nevertheless, after the death of an infant and in case of excess production beyond the requirement of the infant, breast milk often is disposed of without consideration of donation because the public and healthcare providers are aware of non-availability of human milk banks particularly a country like Bangladesh. Breastfeeding mothers can be donated their expressed milk for several reasons: positive breast milk donation experience, altruism, excess milk production, prior experience or knowing that another mother was unable to breastfeed, avoiding waste, access to information about the importance of breast milk donation, self-esteem, social significance, support of hospitals and breast milk banks, and an understanding of the nutritional quality of human milk [7].

The history of human breast milk donation can be outlined back to 1909 and the first human milk bank unfastened in Vienna, Austria [4]. Breast milk banks recruited and screened mothers who have superfluous milk or are enthusiastic to express for the milk bank beyond their own baby’s requirements [8]. The banks are accountable for the collection, processing, screening, storage, and dispersion of the donated milk to encounter the specific needs of individuals for whom breast milk was prescribed by doctors [9] such as adopted/foster, preterm, low birth-weight babies or ill infants whose mothers are incapable of providing their own milk [4].

However, particularly in preterm and other high-risk infants, feeding with donor milk is an effective strategy for the prevention of infectious diseases, enhanced feeding tolerance, improved neurocognitive function, and other long-term health benefits [10,11]. It can be suggested that using donor milk can be cost-effective, with considerable cost savings to individuals, families, and health systems by reducing the number of necrotizing enterocolitis cases, late onset sepsis, food intolerance in infants, and length of hospital stay.

CASE PRESENTATION

Women who have at least one under five children or currently lactating or pregnant, provided informed written consent will be the case and the women who are mentally ill or have any psychological problem and refuse to give consent will be excluded. A semi-structured questionnaire and in depth face to face individual interview will be conducted. The mother who will not want to participate in the individual face to face in depth interview, a focus group discussion can be conducted with them. The questionnaire will be used to collect the information from mother’s knowledge, views, attitude, perception and other relevant information about human milk banking. The study can be conducted at hospitals, clinics or Health and Family Welfare Centers where mothers will have visited more frequently.

DISCUSSION

Breast milk is the optimal food for infants, including premature and low birth weight infants, providing substantial nutritional and immunological benefits [12]. There are no disparities between rich and poor mothers in exclusive breastfeeding rates in LMICs [1]. Using human milk is particularly imperative for those infants which mothers are unable to feed breast milk due to any reasons [13]. Researchers have designated the importance of human milk for newborn babies, but many of the mothers of those young infant’s experience lactational glitches immediately after the birth of babies [14]. Continued breastfeeding is still more common in poor mothers than in wealthy mothers, but rates seem to be dropping among these while remaining stable in rich mothers. It is a major priority to protect breastfeeding in the world’s poorest populations [1]. Milk banks, which collect, screen, store, process and distribute breast milk provided by donors, play a crucial role in meeting these requirements [15]. The American Academy of Pediatrics (AAP) strongly endorses that human milk is species specific and the banked human milk is an appropriate ancillary to optimal nutrition for infants [7]. Exertions to surge supply nationwide include edification of providers and recipients concerning human milk banking, use of social media to engross potential donors, and outreach to news media [16]. Low income countries should have a comprehensive, integrated breastfeeding promotion strategy including donor breast milk banking with the aim of improving child survival. Scale up of donor breast milk banks would have a profound impact on breastfeeding promotion which is vital to improve infant survival rates [12]. The Euro-Growth study (Haschke 2000) also reported that there is a strong association between prolonged and exclusive breastfeeding and slower growth during infancy [17]. In many developed countries, donor milk banking has been unified into child health policy and regulation and is protected, promoted, and supported as an extension of national breastfeeding policies [18] [See (Table 1)]. Moreover, before considering establishing human milk banking in developing countries, a standardized education in needed for health care providers who will be responsible for educating and encouraging mothers to breast or donated human milk as an alternative [19].

### Table 1: Comparison between Developed and Developing countries about Human Milk Banking

<table>
<thead>
<tr>
<th>Human Milk Banking</th>
<th>Developed Countries</th>
<th>Developing Countries</th>
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</thead>
<tbody>
<tr>
<td>Acceptance (Social &amp; Cultural)</td>
<td>Well accepted</td>
<td>Not well accepted</td>
</tr>
<tr>
<td>Motivation</td>
<td>Motivated</td>
<td>Not motivated</td>
</tr>
<tr>
<td>Awareness</td>
<td>Well known</td>
<td>Not well enough</td>
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<tr>
<td>Popularity</td>
<td>Popular</td>
<td>Least popular</td>
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<tr>
<td>Facility for milk-banking</td>
<td>Enough</td>
<td>Very rare</td>
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<tr>
<td>Donor availability</td>
<td>Available</td>
<td>Limited</td>
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<tr>
<td>Knowledge about Health Benefit</td>
<td>Enough</td>
<td>Poor</td>
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<tr>
<td>Regional Association for Human Milk Banking</td>
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<td>Not present</td>
</tr>
<tr>
<td>Research studies to facilitate knowledge and spread awareness</td>
<td>Done</td>
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REFERENCES


2. Breastfeeding Overview.


