

## FACTORS THAT INFLUENCE EXCLUSIVE BREASTFEEDING: A LITERATURE REVIEW

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**ABSTRACT:** *Every year more than 10 million children under the age of five years die, mainly from one of a short list of causes which already can be prevented through a successful base of exclusive breastfeeding. Although WHO and Unicef recommends early initiation of breastfeeding (within an hour from birth) and exclusive breastfeeding for the first 6 months. The exclusive breastfeeding rate and early initiation to breastfeeding are still very low, because there are many factors that influence exclusive breastfeeding such as, lack of knowledge, lactation problems, poor family and social support, social norms, embarrassment, employment and child care, and health services. As well, a lot of barriers to successful exclusive breastfeeding among employed mothers have been identified in the work environment such as company policies/work culture, manager support/lack of support, co-worker support/lack of support, and the physical environment of the breastfeeding space. So; we see there is a need for implementation of an educational program through primary health care settings as well mass media to improve, promote and support the exclusive breastfeeding practices, both national and international among working and non-mothers should be done.*

**KEYWORDS:** Exclusive, Breastfeeding, Factors, Duration.

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### INTRODUCTION

Breast milk is critical for sustaining newborn infant health and wellbeing. Infants who are properly breast-fed grow better and experience less sickness and fewer deaths than other infants who are not breast-fed (John, 2005). Breastfeeding is a natural process of infant feeding involving two main methods; exclusive and partial with the latter being trendiest. Nevertheless, exclusivity is the absolute and suitable scheme with finest domino effect. However, a good mental, emotional and physical collaboration between the mother and her newborn for desired

outcome (Khresheh et al., 2011).

Breastfeeding definition is that internationally recommended by the World Health Organization. Full breastfeeding is breastfeeding either exclusively or predominantly. Exclusive breastfeeding means giving a baby no other food or drink, including water; in addition to breast milk (medicines and vitamin and minerals drops are permitted). On the other hand, partial breastfeeding includes other feeding methods in addition to breastfeeding (i.e. bottle, cup, lactaid) regardless of content. (WHO, 2017).

The American Academy of Pediatrics Policy Statement on Breastfeeding and the Use of Human Milk has established recommendations for exclusive breastfeeding for a baby's first six months of age, followed by the addition of complementary foods to continued breastfeeding through the baby's first year, and continuation of breastfeeding for as long as desired by both mother and infant (American Academy of Pediatrics, 2017; Eidelman et al., 2012).

The World Health Organization (WHO, 2017) and (UNICEF, 2017) have offered an even stronger recommendation: Initiation of breastfeeding within the first hour after the birth; exclusive breastfeeding for the first six months; and continued breastfeeding for two years or more, together with safe, nutritionally adequate, age appropriate, responsive complementary feeding starting in the sixth month.

However breastfeeding is nearly universal in Egypt, the Egyptian Demographic and Health Survey showed that 47 % of infants received prelacteal feeds (i.e., they are given some type of liquid until the mother's breast milk flows freely). As well; only a minority of babies are exclusively breastfed throughout the first 6 months of life (El-Zanaty and Associates, 2014).

In Egypt 42.5% of mothers reported exclusive breast feeding to infants less than 4 months of age (El-Gilany, 2003). But only 9.7% were exclusively breastfeeding their infants for 6 months at Egypt; among the different socio-demographic, maternal, and infant factors studied, only antenatal care (four or more visits), early breastfeeding initiation after delivery, male infant, and absence of breastfeeding difficulties were the significant predictors associated with higher chance for exclusive breastfeeding at Egypt (Al Ghwass and Ahmed, 2011).

Despite the great advances in health services in Saudi Arabia, studies have reported a downward trend in breastfeeding practice. In this study 24.4% of infants were exclusively breastfed at the age of 6 months. Much lower rates were reported from other regions of Saudi Arabia. In Riyadh only 0.8% of infants were exclusively breastfed for the first 4–6 months, and the rate rises to 1.7% among infants at the age of 6 months in Jidda. Higher rates of 27.3% and 33.1% were reported in Al-Kharj and in Dammam, respectively (Jasser et al., 2004).

The rate of exclusive breastfeeding varies in Middle Eastern countries. In Al-Ain, United Arab Emirates, only 4% of mothers practiced exclusive breastfeeding during the first month of their infants' lives (Al-Mazroui et al., 1997). In Iran, a recent study reported that 82% of infants were exclusively breastfed during the first month of life, but this statistic decreased to 44% and 2% at the ages of 4 and 6 months, respectively (Koosha et al., 2008). A more recent study in

Iran reported rates of 56.8% and 27.7% at 4 and 6 months of age, respectively, at the national level. 21 In Aqaba, Jordan, the exclusive breastfeeding rate was 46% for infants in the first 6 months of life (Amayreh et al., 2007).

A study in Bangladesh reported an exclusive breastfeeding rate of 53% at 1 month and then a gradual decline to 5% at 6 months of age (Arifeen et al., 2001). A recent study in Bangladesh showed that this rate gradually declined from 87.1% at 1 month to 77.2% at 3 months and 61.4% at 6 months (Mihirshahi et al., 2008).

Also, universally the breastfeeding rates was decline over the past four decades. The percentages of infants younger than 6 months old who were exclusively breastfed in 2000–2007 were 38% worldwide, 23% in West/Central Africa, 39% in Eastern/Southern Africa, 44% in South Asia, 26% in Middle East/North Africa, and 43% in East Asia/ in addition's in United State only 79.2% of women initiated breastfeeding, 49.4% were still breastfeeding at six months, and 26.7% continued breastfeeding to twelve months (CDC, 2014; UNICEF, 2009).

### **Exclusive Breastfeeding Advantages:**

Breast milk consists of basic nutrients containing proteins, vitamins and carbohydrate. However, presence of minerals fulfills micronutrient needs and maternal antibodies improves the immune system inhibiting infantile infections like gastrointestinal, respiratory and skin infections and increases physical and neurological growth of the baby. There is increased production of hormones that are responsible for uterine contraction, preventing hemorrhage and maternal mortality. Lactational amenorrhea is mentioned as a natural contraceptive benefactor following exclusivity. As well, breast cancer and ovarian cancer risk prospects are reduced among mothers who give exclusive breast milk correlates with weight loss that preventing early cardiac morbidity and mortality (Fairbrother and Stanger-Ross 2009).

Breastfeeding is an essential measure for the prevention of malnutrition and protection against infection in infancy (Livingstone et al., 2000). Breastfeeding is one of the oldest practices recommended by all religions and it is the universally endorsed solution in the prevention of early malnutrition (Dana, 1979). It is estimated that the lives of one million infants can be saved in the developing world by promoting breastfeeding (Moreland and Coombs, 2000).

Each year more than 10 million children under the age of five years die, mainly from one of a short list of causes which can be prevented easily through exclusive breastfeeding, and the majority live in low-income countries (Black et al., 2003). Millennium development goal number 4 is to reduce child mortality by two thirds by 2015 (United Nations Statistics Division, 2005). Under-nutrition is estimated to be the under lying cause of 53% of under five mortality (Bryce et al., 2005). Appropriate feeding practices are of the fundamental importance for the survival, growth, development and health of infants and young children (John, 2005). Fault feeding practices including lack of breastfeeding and early introduction of solid foods have been reported as health risks (Uany and Solmons, 2005).

WHO and UNICEF recommends early initiation of breastfeeding (within an hour from birth), exclusive breastfeeding for the first 6 months, followed by continued breastfeeding for 2 years or beyond, together with adequate and safe complementary foods ( WHO, 2002 and UNICEF, 2017).

WHO, 2002 reported that globally, more than half of the newborns are not breastfed within one hour from birth, less than 40% of infants under 6 months are exclusively breastfed and only a minority of women continue breastfeeding their children until the age of two. The rates on infant and young child feeding: Early initiation = Proportion of children born in the last 24 months who were put to breast within one hour of birth. Exclusive breastfeeding = Proportion of infants 0–5 months of age who are fed exclusively with breast milk. Continued breastfeeding at 2 years = Proportion of children 20–23 months of age who are fed breast milk. Moreover; complementary feeding = Proportion of infants 6–8 months of age who receive solid, semi-solid or soft foods.

Although breastfeeding rates are slowly increasing, they remain still very low. The Egyptian government has made very little efforts to support and promote breastfeeding, despite its well-known impact on reducing under-5, infant and neonatal mortality rates. The major causes of infant mortality in 2008 were: neonatal causes (61%); pneumonia (7%); and diarrhoea (5%) which already can be prevented through successful base of exclusive breastfeeding (Geneva Infant Feeding Association, IBFAN Arab World and Sayed, 2013).

### **Physiologic and Psychosocial Benefits of Breastfeeding:**

The myriad of benefits of breastfeeding are documented extensively in the literature, and new benefits continue to be identified. Emerging research also indicates stronger associations between longer duration of exclusive breastfeeding and enhanced maternal and infant benefits (American Academy of Pediatrics, 2017; Ip et al, 2009).

The Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) reported the following benefits of breastfeeding for infants, breastfeeding has short-term and long-term health benefits. In the short-term, breastfeeding reduces the risk of gastroenteritis, necrotizing enterocolitis, ear infections, pain following minor procedures, hospital readmissions, respiratory infections, Sudden Infant Death Syndrome, and urinary tract infections. In the long-term, breastfeeding reduces the risk of asthma, atopic dermatitis, cardiovascular disease, celiac disease, diabetes, childhood inflammatory bowel disease, obesity, and sleep disordered breathing. Further, breastfeeding is associated with increased cognition and neurodevelopment (AWHONN, in press).

Breastfeeding is also beneficial to the mother's health. Postpartum benefits include decreased blood loss, lower risk of postpartum infection and anemia, and greater weight loss. Breastfeeding also has been associated with reduced risk of maternal disease later in life including breast cancer, diabetes (type II), hypertension, cardiovascular disease, metabolic syndrome, ovarian cancer, osteoporosis, and rheumatoid arthritis (AWHONN, in press).

Additionally, mothers who feel empowered to breastfeed successfully are more likely to breastfeed exclusively and continue breastfeeding. Self-efficacy, which has been defined as the woman's perceived ability to successfully master a task such as breastfeeding, is associated with an increased duration of breastfeeding at six months (Kingston et al., 2007; McCarter-Spaulding and Gore, 2009; Wilhelm et al., 2008). Researchers have also shown that women who participated support workshops focused on breastfeeding self-efficacy were more likely to exclusively breastfeed at eight weeks postpartum than women who did not attend such workshops (Noel-Weiss et al., 2006).

Breastfeeding enhances the relationship between a mother and her infant by improving bonding. For example, skin-to-skin contact during breastfeeding has been shown to improve the infants' vital signs, especially immediately after birth (Moore and Anderson, 2007). Indeed, it is theorized that many of the identified health benefits of breastfeeding may be related to not only the composition of human milk, but also to the close contact between the mother and her infant during feeding (Moore et al., 2012). Breastfed infants also have more control over how much food they eat and when they eat (Hung and Berg, 2011; Widström et al., 2011), which may be part of the association between reduced rates of obesity among breastfed infants (American Academy of Pediatrics, 2017).

#### **Public Health Benefits of Breastfeeding:**

In addition to the numerous health benefits associated with breastfeeding, there are a number of financial benefits for families, society, public and private insurers, employers, and government programs. In a cost analysis of the financial benefits of breastfeeding, the authors concluded that if 90% of new mothers' breastfed exclusively for six months, 13 billion health care dollars would be saved (Bartick and Reinhold, 2010).

When an infant is breastfed, the family saves approximately \$1,500/year in direct costs for feeding supplies and formula. The family also saves indirect costs related to fewer medical bills and fewer lost days of work because the infant is healthier (USDHHS, 2011). When employers supported breastfeeding, they received a \$3 return for every \$1 invested in a lactation program. Reduced turnover rates led to cost savings in recruitment and training, less absenteeism, and reduced costs for health insurance claims (U.S Breastfeeding Committee (USBC), 2013).

Breastfeeding is also beneficial to the environment and does not require manufacturing plants, packaging, storage, transportation, or refrigeration; it generates no waste and is a renewable resource (Save the Children, 2012). Researchers estimated that for every one million formula-fed infants, 150 million containers used in formula packaging were disposed of, many in landfills (USDHHS, 2011).

#### **Factors associated with positive or negative impact on exclusive breastfeeding rates:**

Internationally there are many factors associated with poor exclusive breastfeeding and must consider when investigating the reasons for lower than recommended rates and duration of breastfeeding identified many of the most common barriers to successful breastfeeding. The

seven barriers addressed in the call to action were found to be: lack of knowledge, lactation problems, poor family and social support, social norms, embarrassment, employment and child care, and health services (USDHHS, 2011).

Many barriers to successful exclusive breastfeeding among employed mothers have been identified. Five aspects of the work environment that contribute to a mother's overall perception of workplace breastfeeding support have been described: company policies/work culture, manager support/lack of support, co-worker support/lack of support, and the physical environment of the breastfeeding space (Greene and Olson, 2008).

### **Company policies/work culture:**

Data shows that 61.1 % of United States mothers with children under three years old were employed (Women's Bureau, 2014). It was known that mothers who were not employed were more than twice as likely to be breastfeeding at six months as were mothers who worked full time (Ryan et al., 2006). Also, in Egypt 50.1% of female at the reproductive age mentioned that they currently employed at time of survey (Egypt Demographic and Health Survey (EDHS) (2014), which made added factor to success breastfeeding .

Employers, especially private sectors usually became un certain about breastfeeding support polices. But, a strong correlation between part-time employment and increased breastfeeding initiation and duration was observed (Women's Bureau, 2014).

### **Obstacles/problems have been identified in Egypt:**

Geneva Infant Feeding Association, IBFAN Arab World and Sayed (2013), mentioned the following obstacles:

Exclusive breastfeeding and early initiation to breastfeeding rates are still low, related to lack of the community awareness and education on the importance of breastfeeding and the risks of artificial feeding. As well, inadequate information and training programs of health care professionals on infant nutrition and breastfeeding, and the management of the code. In addition to violations of the code by baby milk formula companies are frequent, including in health care facilities.

Moreover; maternity leave of only 90 days for 2 babies only makes exclusive breastfeeding for 6 months impossible. The by-law No. 2075/2010 is weaker than the International Code and has many gaps. The Egyptian government is going against the spirit of the International Code by subsidizing baby milk formulas. Also, the criteria for dispensing subsidized breast milk substitutes should be revised as it includes twins, mothers whose breast milk has stopped for one month and those below six months. Moreover; there is no policy concerning breastfeeding for mothers with HIV/AIDS, and no policy for breastfeeding in emergencies.

### **The Role of the Nurse in Promoting Exclusive Breastfeeding :**

Nowadays the majority of births occur in hospitals where nurses are the primary health care providers supporting women from labor and birth through discharge. Nurses play a vital role in preparing, educating, encouraging, and supporting women to breastfeed while the mother came at primary health care for ante natal care and follow-up; so the nurse is a cornerstone and instrumental in facilitating, promote and support the initiation and continuation of breastfeeding (AWHONN, 2014a).

Nurses and other health care professionals who care for mother-infant dyads should acquire the knowledge and demonstrate the competence needed to provide consistent and evidence-based breastfeeding information and support throughout the preconception, prenatal, and postpartum periods. If the health care professional does not possess the knowledge and skills needed to provide support, consultation with or referral to a lactation specialist or other clinical expert should be offered for all mother-infant dyads (AWHONN, 2014b).

There are many competencies that promote the knowledge, skills, and attitudes that health professionals should possess in order to help women prepare for, initiate, and sustain breastfeeding. Also, developing academic education programs for all health care professionals should include content on lactation (AWHONN, 2014c).

All women have the right to expect culturally sensitive breastfeeding promotion and support. Health care providers especially nurses should strive to understand and be prepared to address cultural issues in all aspects of breastfeeding promotion and support for the population of women they serve. Breastfeeding has different meanings and levels of acceptance in different cultures; therefore, it is essential that providers explore the specific breastfeeding concerns of the individuals with whom they are working. All women have the right to obtain information about the benefits of breastfeeding, so that, they are able to make informed decisions (UNICEF, 2017).

Community health nurse and other health care providers should support each woman's choice of infant nutrition by providing women with information about the risks and benefits of various feeding options to facilitate informed decision making. There may be certain rare instances when a woman wants to breastfeed, but is unable to or should avoid doing so, including some women who have had breast surgery, women with HIV infection, certain substance use disorders, untreated tuberculosis, or who are taking medications contraindicated in breastfeeding. In these situations, women should be given information by their nurses and encouraged to further consult with their health care providers to help them make infant feeding decisions. There may be other instances where women erroneously think that breastfeeding is contraindicated (e.g., smoking cigarettes), and nurses should provide correct information regarding these misconceptions. Nurses should encourage women to discuss their medications and herbal and other nutritional supplements with a health care provider who has expertise in breastfeeding and is knowledgeable about the interactions of prescription and over-the-counter medications and supplements with breastfeeding (Nies and Mcewen, 2015).

If the mother chooses to or is required to formula feed instead of breastfeed, nurses should warn her about disadvantages and health problems associated with formula feed; if she is not persuaded the community health nurse must support her to understand how to safely prepare, feed, and store formula and bottles. Education and resources should also include information about the risks of contamination of formula, feeding systems, and/or water supply. Women should be advised to monitor whether a particular feeding system and/or formula is recalled for safety or other reasons (Nies and Mcewen, 2015).

### **Baby-Friendly Hospital Initiative (BFHI):**

#### **The Ten Steps to Successful Exclusive Breastfeeding (WHO and UNICEF, 2009):**

The Baby-friendly Hospital Initiative (BFHI) was launched by WHO and UNICEF in 1991, with main goal to promote breastfeeding. That focused on every facility providing maternity services and care for newborn infants should:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within half an hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming-in - that is, allows mothers and infants to remain together - 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

AWHONN supports the implementation of The Ten Steps to Successful Breastfeeding developed by the Baby-Friendly Hospital Initiative (BFHI), of which nurses are key leaders (BFHI, 2014). The implementation of these practices increases initiation and duration of breastfeeding, whether a facility has achieved Baby Friendly designation or not. Researchers found that women who experienced at least four of the 10 Baby-Friendly hospital practices,

including implementing skin-to-skin at birth and 24-hour rooming in, had a greater likelihood of breastfeeding at one and four months than women who experienced fewer than four of these practices (Brodribb et al., 2013).

The measurement of compliance with BFHI practices is a key step in achieving Baby-Friendly designation. AWHONN encourages the measurement of the quality of nursing care (AWHONN, 2014b) and in particular has developed the following nursing care quality measures that track nursing practices that support breastfeeding (AWHONN, 2014c) that includes: Skin-to-Skin is Initiated Immediately Following Birth; Duration of Uninterrupted Skin-to-Skin Contact and Eliminating Supplementation of any other forms of feeding rather than breast milk. The BFHI Ten Steps are targeted to the term infant population only; therefore, additional and individualized strategies to promote and support breastfeeding in the NICU population are needed (Spatz, 2004).

## CONCLUSION

Although breastfeeding rates are slowly increasing, exclusive remain still very low, related to many factors that influence exclusive breastfeeding practices. There is a need for implementation of an educational program through primary health care settings as well mass media to improve, promote and support the exclusive breastfeeding practices, both national and international among working and non-mothers should be done. Also, we give a special hint and recommendation to the Egyptian Government to change the old law that gives only three months for maternity leave. Suggested to replace by six months for all mothers, this only strategy makes exclusive breastfeeding possible for working mother.

## RECOMMENDATIONS

The research team suggests the following recommendations to promote exclusive breastfeeding:

- Raise awareness about the benefits of exclusive breastfeeding using mass media, such as television, radio, newspaper and magazines, for encouraging this practice.
- Implementation of national health education campaigns that encourage women to breastfeed, especially during pregnancy by all primary health care nurses.
- Enhancement and development of policies, rules, regulations, legislation and laws that appropriately promote as well supports breastfeeding in and outside work locations.

- Emphasis on legislation and policies that mandate employers to facilitate lactation in the workplace, including breaks for breastfeeding women and access to a private area for breastfeeding or milk expression that is not a bathroom.
- Expansion the maternity leave duration for at least six months for all working mothers.
- Increase the funding for all programs that support breastfeeding.
- Increase the funding for researches that promote exclusive breastfeeding.

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