INTRODUCTION

Human breast milk is the best source of nourishment for human infants **(Hausman and Bernice, 2003)** preventing disease, promoting health and reducing health care costs **(Huggins and Kathleen, 1999).** Experts agree about how long to breastfeed to gain the greatest benefit and about the risks of using artificial formulas. In both developing and developed countries, artificial feeding is associated with more deaths from diarrhea in infants **(Mohrbacher and Stock, 2003).**

The World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life and then breastfeeding up to two years or more. Exclusive breastfeeding for the first six months of life provides continuing protection against diarrhea and respiratory tract infection that is more common in babies fed formula **(Stuart-Macadam and Dettwyler, 1995; Leeson et al., 2001).**

Breast milk provides the right balance of nutrients to help an infant grow into a strong and healthy toddler **(Dewey, 2oo1).**Breastfed infants and those who are fed expressed breast milk have fewer deaths during the first year and experience fewer illnesses than babies fed formula **(Kilewo et al., 2008) .**Some of the nutrients in breast milk also help protect an infant against some common childhood illnesses and infections such as diarrhea, middle ear infections and certain lung infections **(Coutsoudis et al., 2002).**

Artificial baby milk carries inherent dangers that are not associated with breast milk **(American Academy of Pediatrics, 1997)**. Women giving formula

to their infants do not know many of those dangers. Information on the dangers of formula must be known to the mother **(Borresen et al., 1995).**

A baby who is artificially fed is ten times more likely to be hospitalized in the first year of life for serious illness than his breastfed counterpart **(Corrieri and Donna, 1995) .**Known risks associated with artificial baby milk increase in gastrointestinal illness, respiratory illnesses, ear infections, childhood obesity, tooth decay, increased allergies ranging from skin rashes to asthma, increased risk of immune system disorders in addition to the economical burden to the family and the society There is increased demand for artificial feeding due to aggressive marketing and availability of such milk at low cost in the MCH and family health centers **(Cunningham and Allan, 1990 ; Danner and Sara, 1986; Dungy et al., 1992).**

Relactation is the rebuilding of one's milk supply weeks or even months after lactation has stopped. A woman who is willing to relactate her baby must be informed about the ways to increase her milk supply, be patient that it takes time **(Freed et al., 1996).**Techniques used can involve self-breast stimulation by massage or breast pump and re-teaching the baby to nurse at the breast .It almost always requires supplementing the baby until the supply is reestablished. This method can markedly reduce the health care costs on infant milk formula and its hazards **(Margit, 1994**; **Jane, 1998**; **Judith, 1998).**

Breastfeeding support through education and counseling for relactation is implemented all over the world, yet its success in Egypt is limited. Currently in Egypt, there is a movement to decrease consumption of artificial milk by limiting their distribution through FHC/MCH outlet and increasing the education of mothers towards exclusively breastfeeding their

infants for ensuring adequate support of mothers in the postpartum period. Counseling for exclusive breastfeeding has not properly examined. Not enough studies are available to assess the ideal methods for education and counseling messages for the return to breastfeeding and the causes of failure in our settings as well as the skills needed by the staff to successfully assist mother in this intervention

AIM OF THE WORK

1. To identify the causes of early discontinuation of lactation among mothers attending MCH and family health centers in Alexandria.
2. To assess the outcome of an educational intervention program to assist the mothers to be willing to return to lactation.
3. To identify the barriers to breastfeeding continuity.
4. To recommend strategies that can be used to effectively increase the use of relactation though MCH and family health centers.

Chapter I

Interventions for Postpartum Support of Breastfeeding

The United Nations Global Strategy on Infant and Young Child Feeding recommends that all infants should be exclusively breastfed until 6 months, and that breastfeeding should continue at least until age 2 years. This report states that infants who are not breastfed, for whatever reason, should receive special attention from the health and social welfare system since they constitute a risk group **(WHO, 2003).**

Breastfeeding is recognized as contributing to several public service agreement targets and is an important part of the strategy to improve health **(Department of Health, 2007).** Targets have been set to raise both initiation and duration rates of breastfeeding, as it is an important factor in reducing health problems and infant mortality **(Health Inequalities Unit DoH, 2007)**.Furthermore breastfeeding is recognized as having a role to play role in improving children's health **(DCSF/DoH; 2008).**

The five areas of health promotion action identified for health promotion was used as frameworks to assist classification of the different types of intervention to promote breastfeeding among infants were **(WHO, 1987)**:

- Public policy such as legislation.
- Supportive environments that protect natural resources and generate healthy living and working conditions (e.g. private rooms for expressing, provision of pumping equipment to express at home).

- Community action that uses existing human and material resources to enhance self-help and social support (e.g. social support through family, peers).
- Development of personal skills through the provision of information, education for health, and enhancing life skills (e.g. education programmers, clinical support)
- Reorientation of health services to promote health (e.g. staff training, the BFHI).

The most effective interventions for postpartum support for breastfeeding include the following (WHO, 2003):

1. Breastfeeding education and support interventions

Relevant interventions include those that aim to offer support, education and/or counseling to parents of babies in neonatal care settings, and to take place in hospital or at home during an infant's hospital stay, or following discharge. Interventions may be offered by professionals or peers on a one-to-one or group basis using a range of strategies including oral communication via face to face or telephone methods or written information via leaflets and other materials.

2. Staff training interventions.

Interventions that aim to improve health-care professionals' knowledge, skills and behavior in relation to lactation and breastfeeding, and practices to support and promote breastfeeding and breast milk production by mothers of infants in neonatal units.

3. Increased mother and infant contact interventions by the help of baby friendly hospitals.

Relevant interventions are those that promote warmth, developmental care, and early and successful breastfeeding for infants in need of special care. This includes skin-to-skin contact, which is defined as any contact between the mother's and the infant's skin over any period of time, usually from birth **(Edmond and Bahl, 2006)** and kangaroo mother care which is applied by skin-to-skin contact in the kangaroo position, namely, between the mother's breasts in an upright position and frequent and exclusive breastfeeding **(Charpak et al., 1997)**.

RECOMMENDATIONS ON BREASTFEEDING FOR HEALTHY TERM INFANTS;

1. Pediatricians and other health care professionals should recommend human milk for all infants in whom breastfeeding is not specifically contraindicated and provide parents with complete, current information on the benefits and techniques of breastfeeding to ensure that their feeding decision is a fully informed one **(American Dietetic Association ,2001)**. When direct breastfeeding is not possible, expressed human milk should be provided **(Schanler and Hurst, 1994).**
2. Peripartum policies and practices that optimize breastfeeding initiation and maintenance should be encouraged. Education of both parents before and after delivery of the infant is an essential component of successful breastfeeding. Support and encouragement by the father can greatly assist the mother during the initiation process and during subsequent periods when problems arise. Avoid procedures that may interfere with breastfeeding or that may traumatize the infant, including

unnecessary, excessive, and over vigorous suctioning of the oral cavity, esophagus, and airways to avoid oropharyngeal mucosal injury that may lead to aversive feeding behavior **(Widstrom and Thingstrom-Paulsson, 1993).**

3. Healthy infants should be placed and remain indirect skin-to-skin contact with their mothers immediately after delivery until the first feeding is accomplished **(Righard and Alade, 1990).**
4. Formal evaluation of breastfeeding, including observation of position, latch, and milk transfer, should be undertaken by trained caregivers at least twice daily and fully documented in the record during each day in the hospital after birth **(Hall et al., 2002).**

Chapter II

Maternity Hospital Practices Supporting Breastfeeding

Evidence for the Ten Steps to Successful Breastfeeding.

The "Ten Steps to Successful Breastfeeding" are the foundation of the WHO/UNICEF Baby Friendly Hospital Initiative (BFHI). They summarize the maternity practices necessary to support breastfeeding. The purpose is to review the evidence for the efficacy of the 'Ten Steps', and to provide a tool for both advocacy and education **(Inch and Garforth, 1989).**

STEP 1

"Have a written breastfeeding policy that is routinely communicated to all health care staff."

The health facility should have a written breastfeeding policy that addresses all 10 steps and protects breastfeeding. Should be available so that all staff that takes care of mothers and babies can refer to it **(El-Kerdany et al., 1993; Abul-Fadl, 1994).**

It should be visibly posted in all areas of the health care facility, which serve mothers, infants, and/or children...and should be displayed in the Language most commonly understood by patients and staff. **(The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992).**
Thus, this step requires:

1) Appropriate policies on all practices concerning breastfeeding agreed between relevant authorities
2) Those policies made explicit in a written document

3) All staff and patients made aware of the policies **(El-Kerdany et al., 1993)**.

A policy is necessary to - Ensure that administrators of maternity facilities and other senior staff agree to implement and enforce practices, which support breastfeeding

- Internalize the issue among medical and nursing staff.
- Develop recommendations, which are applicable to the specific environment.

The process includes **(Wright et al., 1996):**

- Obtaining local data on breastfeeding practices and outcomes example.
- Holding meetings and discussions with all staff concerned.
- Making presentations of relevant clinical and research results.
- Holding short courses such as promoting breast-feeding in health facilities. A short course for administrators and policy-makers.
- Holding study days, with invited speakers.
- Giving written information about breastfeeding to staff.
- Looking at other hospitals' policies.
- Organizing study visits to hospitals with exemplary.

STEP 2

"Train all health care staff in skills necessary to implement this policy. All health care staff who has any contact with mothers, infants and/or children must receive instruction on the implementation of the breastfeeding policy**.**

Training in breastfeeding and lactation management should be given to various types of staff including new employees; it should be at least 18 hours

in total with a minimum of 3 hours of supervised clinical experience and cover at least eight steps. It is self-evident that training is necessary for the implementation of a breastfeeding policy. Health workers who have not been trained in breastfeeding management cannot be expected to give mothers effective guidance and provide skilled counseling (**The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992)**.

STEP 3

"Inform all pregnant women about the benefits and management of breastfeeding."

If the hospital has an affiliated antenatal clinic or antenatal ward. Breastfeeding counseling should be given to most pregnant women using those services.

The antenatal discussion should cover the importance of exclusive breastfeeding for the first 4-6 months, the benefits of breastfeeding, and basic breastfeeding management. Pregnant women of 32 weeks or more gestation should confirm that the benefits of breastfeeding have been discussed with them.

Common sense suggests that it must be important to talk to all pregnant women about infant feeding, to prepare them for this aspect of motherhood. They should be given all the education that they need to make a fully informed decision **(Wright et al., 1996)**.

Antenatal education commonly includes the following components, which need to be considered separately:

1) Information about the benefits of breastfeeding, to motivate women to breastfeed.
2) Education about breastfeeding technique, to give skills and confidence.
3) Physical examination of the breasts and preparation of the nipples.

STEP 4

"Help mothers initiate breastfeeding within a half-hour of birth." Mothers in the maternity ward who have had normal vaginal deliveries should confirm that within a half-hour of birth.

They were given their babies to hold with skin contact, for at least 30 minutes, and offered help by a staff member to initiate breastfeeding. At least 50% of mothers who have had cesarean deliveries should confirm that within a half-hour of being able to respond, they were given their babies to hold with skin contact (**Wright et al., 1996).**

STEP 5

"Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants."

Nursing staff should offer further assistance with breastfeeding within six hours of delivery and mothers should be shown how to express their milk or given written information on expression and/or advised where they could get help,

Mothers with babies in special care should be helped to initiate and maintain lactation by frequent expression of breast milk. Staff should teach mothers positioning/attachment and techniques for manual expression of

breast milk (**The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992).**

Step 6

"Give newborn infants no food or drink other than breast milk, unless medically indicated."

For any breastfeeding babies being given food or drink other than breast milk there should be acceptable medical reasons.

No promotion for infant foods or drinks other than breast milk should be displayed or distributed to mothers, staff, or the facility (**The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992).**
It is common practice in maternity facilities to give formula, glucose water or plain water to newborns, before the first breastfeed (prelacteal feeds) or in addition to breastfeeding (supplements).This practice is associated with early termination of breastfeeding.

In many communities, prelacteal feeds of, for example, herbal teas or banana are given for ritual purposes **(Wright et al., 1996).** Reasons include the belief that colostrum is harmful, and to clean the infants' gut.

The first breastfeed may be delayed for several hours or days, and colostrum may be discarded. When prelacteal feeds are given in health facilities also, the initiation of breastfeeding may be delayed **(Dungy et al., 1997).**

Giving prelacteal feeds or supplements lead to:

1. Increases the risk of infection in the infant. If they are given by bottle, they also may interfere with suckling.

2. Giving supplements reduces the frequency of breastfeeding, and hence the amount of nipple stimulation and of breast milk removed. This contributes in the first few days to engorgement, and later to decreased milk production **(Dungy et al., 1997).**

STEP 7

"Practice rooming-in - allow mothers and infants to remain together - 24 hours a day."

Mothers with normal babies (including those born by cesarean section) should stay with them in the same room day and night, except for periods of up to an hour for hospital procedures, from the time they come to their room after delivery (or from when they were able to respond to their babies in the case of cesareans).

It should start no later than one hour after normal vaginal deliveries. Normal postpartum mothers should have their babies with them or in cots by their bedside unless separation is indicated (**The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992).**

STEP 8

"Encourage breastfeeding on demand."

Mothers of normal babies (including cesareans) who are breastfeeding should have no restrictions placed on the frequency or length of their babies' breastfeeds.

They should be advised to breastfeed their babies whenever they are hungry or as often as the baby wants and they should wake their babies for breastfeeding if the babies sleep too long or the mother's breasts are overfull (**The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992).**

More generally, it is now accepted that scheduling feeds leads to breastfeeding problems and insufficient milk production, which may cause mothers to start artificial feeding. Restricting feed length may result in the baby getting less of the energy rich hind milk (**Woolridge and Baum, 1993).**

STEP 9

"Give no artificial teats or pacifiers (also called dummies or soothers) to breast-feeding infants**."**

Infants should not be fed using bottles with artificial teats (nipples) nor allowed to suck on pacifiers (**The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992).**

Bottles with artificial teats may be considered the only alternative feeding method when infants cannot be fed directly from the breast. However, both pacifiers and artificial teats can be harmful, by carrying infection, by reducing the time spent suckling at the breast and thereby interfering with demand feeding, and possibly by altering oral dynamics (**Musoke, 1990)**.

There are many reports from mothers and health professionals of difficulty getting infants who have bottle-fed to attach to the breast **(Mohrbacher and Stock J, 1991**; **Riordan, 1991)**. Several differences, both mechanical and dynamic, have been described between suckling at the breast and suckling on an artificial teat **(Woolridge, 1986a; Nowak et al., 1994).**

These suggest that using a teat may interfere with an infant learning to suckle at mother's breast. This is independent of the effect of the supplement on the infant's appetite. Some infants appear to develop a preference for an artificial teat, though the mechanism has not been fully explained. The

difficulties may be determined by peripherally as well as centrally causal mechanisms (**Neifert et al., 1995).**

With sufficiently skilled care, individual infants can be helped to abandon the preference and suckle at the breast. However, such care is often not available and routine use of artificial teats may reduce overall breastfeeding rates **(Fisher and Inch, 1996).**Pacifiers are generally used to calm an infant without giving a feed, and infants who use pacifiers may have fewer daily breastfeeds. When breast stimulation and milk removal are reduced, milk production decreases, which can lead to early termination of breastfeeding. Thus, pacifier use appears to compound and increase a problem with suckling that might otherwise be overcome **(Victora et al., 1997)**.

STEP 10

"Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic."

Mothers who are breastfeeding should be explored for their plans for infant feeding after discharge. They should also be able to describe one thing that must be recommended to ensure that they will be linked to a breastfeeding support group (if adequate support is not available in their own families) or report that the hospital will provide follow-up support on breastfeeding if needed (**The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992).**

The nursing officer in charge of the maternity ward should be aware of any breastfeeding support groups in the local area and, if there are any, describe a way mothers are referred to them.

Alternatively, she or he should be able to describe a system of follow-up support for all breastfeeding mothers after they are discharged (early postnatal or lactation clinic checkup, home visit, telephone call) (**The Global Criteria for the WHO/UNICEF Baby Friendly Hospital Initiative, 1992).**

Numbers of different kinds of postnatal breastfeeding support seem to be effective in sustaining breastfeeding up to 3-4 months, and in one group up to 6 months. It is probably an advantage if support starts before discharge from the maternity facility, to enable mothers to establish breastfeeding, and to prevent difficulties.

A combination of antenatal, in-hospital and post-discharge support are likely to act synergistically. A mother's immediate family, especially her male partner and her baby's grandmothers and close friends should be involved, as they may have an important influence on breastfeeding practices. Counselors may be more able than formal health services to provide the frequent one-to-one help that mothers need to build their confidence and to overcome difficulties.

Possibly a combination of day-to-day support from the community backed up by more specialized help from health services when the need arises could be more effective than either alone.

The International Code of Marketing of Breast milk Substitutes (WHO, 1981).

This code controls and restricts the unethical marketing of breast milk substitutes. This guide is designed to help seller, distributors, manufacturers, importers, exporters, governments, health professionals, health care systems and facilities to understand and comply with WHO/ UNICEF the International

Code of Marketing of Breast milk Substitutes. The code covers all products include infant milk formula, bottles, pacifiers and complementary foods that are given by bottles before six months to all babies under six months old. Manufactures and distributors of theses products are subjected to the following restrictions and obligations under The International Code of Marketing of Breast milk Substitutes.

1. No advertising or promotion of breast milk substitutes and products with in the scope of the code and relevant World Health Assembly resolutions to the public.
2. No free samples or gifts to mothers or health workers.
3. Information and labels must advocate breastfeeding warn against bottle-feeding and contain no pictures of infants or text that idealizes the use of breast milk substitutes.
4. The health care system must not be used to promote the use of breast milk substitutes.
5. No free or low-cost supplies of breast milk substitutes.
6. Health professionals allowed receiving samples only for research purposes.
7. Information to health workers must be scientific and factual.
8. No contact between marketing personnel and mothers.
9. No gifts or personal samples to health workers.
10. All information on artificial feeding, including labels, should explain the benefits of breastfeeding, the costs and hazards associated with artificial feeding and the correct use of breast milk substitutes.

Chapter III
Breastfeeding Continuity

Human breast milk is the most healthful form of milk for human babies. Breastfeeding promotes health, helps to prevent disease and reduces health care and feeding costs. In both developing and developed countries, artificial feeding is associated with more deaths from diarrhea in infants. Experts agree that breastfeeding is beneficial, but may disagree about the length of breastfeeding that is most beneficial, and about the risks of using artificial formulas **(Riordan and Auerbach, 1999).**

Both the World Health Organization (WHO) and the American Academy of Pediatrics (AAP) recommend exclusive breastfeeding for the first six months of life and then breastfeeding up to two years or more (WHO) or at least one year of breastfeeding in total (AAP). Exclusive breastfeeding for the first six months of life "provides continuing protection against diarrhea and respiratory tract infection" that is more common in babies fed formula. The WHO and AAP both stress the value of breastfeeding for mothers and children. While recognizing the superiority of breastfeeding, regulating authorities also work to minimize the risks of artificial feeding **(Stuart-Macadam and Dettwyler, 1995).**

Causes of Breastfeeding cessation (breastfeeding difficulties)

1. Milk sufficiency

It is divided into **(Lawrence and Lawrence, 1999)**:

A. Real:

1. Related to squeals of pregnancy/birth complications.
2. Underlying maternal condition.

3. As result of delayed, infrequent, or insufficient milk emptying due to "scheduled" infective breastfeeding, or inadequate compensatory milk expression.

B. Perceived:

1. Related to confusion resulting from an increase in the total number of daily breast feedings.
2. Confusion from variations in the infants' breastfeeding patterns and difficulty differentiating one infant from another.

The Intervention (Newman and Pitman, 2000)

1. Establish-increase milk production via increased compensatory milk expression by temporarily decreasing time at breast for any multiple affected by ineffective breastfeeding.
2. A mother is more likely to feel confident and continue breastfeeding efforts when milk production is less of a concern.
3. Addition of galactogogues as needed and under the guidance of medical personnel, as an adjunct to increased milk removal
4. The infant's ability at the breast often improves with time/ maturity; milk production can improve or be maintained only if milk is removed with adequate frequency.

2. Nipple or breast pain.

Nipple pain or damage may occur more often due to :(Lawrence and Lawrence, 1999):

1. The increased likelihood of ineffective breastfeeding related to the increase of preterm and near-term birth for multiples with related immature suck-swallow-breathe coordination.

2. Infant-related complications and maternal surgical birth are more likely to result in antibiotic use and development of fungal infection that may spread to a mother's nipples and areola **(Mohrbacher and Stock, 2003).**
3. Tongue tie — Infants who have ankyloglossia, also known as "tongue tie," are often not able to latch-on correctly, which can cause nipple injury to the mother **(Lawrence and Lawrence 1999)**.
4. Delayed or missed feedings that leads to milk stasis, engorgement and plugged duct or mastitis if a breastfeeding postponed or missed **(Lawrence and Lawrence, 1999)**.

Methods and considerations of intervention: (American Academy of Pediatrics, 2002).

1. Early breastfeeding In the half hour after birth, the baby's suckling reflex is strongest and the baby is more alert, so it is the ideal time to start breastfeeding. Early breast-feeding is associated with fewer nighttime feeding problems.

2. Time and place for breastfeeding

1. Breastfeeding at least every two to three hours helps to maintain milk production.
2. For most women, eight breastfeeding or pumping sessions every 24 hours keeps their milk production high.
3. Newborn babies may feed more often than this: 10 to 12 breastfeeding sessions every 24 hours is common and some may even feed 18 times a day.
4. Feeding a baby "on demand" (sometimes referred to as "on cue"), means feeding when the baby shows signs of hunger; feeding this way rather than by the clock helps to maintain milk production and ensure the baby's needs for milk and comfort are being met.

5. In hospitals, rooming-in care permits the baby to stay with the mother and improves the ease of breastfeeding. Some commercial establishments provide breastfeeding rooms, although laws generally specify that mothers may breastfeed anywhere, without requiring them to go to a special area.

3. Infections or Painful Lumps (WHO, 2002).

1. The mother does not have to stop breastfeeding in the meantime. It is perfectly safe to continue, even when an infection is present.
2. If the pain is from a blocked milk duct, the mother should apply moist or dry heat compresses to your breast for 10 minutes, three times a day.
3. Massage the breast in a warm shower. As the duct unplugs, the mother may express some milk, which helps relieve pain.
4. Continuing to feed on that breast is important because breastfeeding helps further open the milk duct.

4. Yeast Infections or Thrush (Johnston and Marcinak, 1990).

Yeast infection is a less troubling but still uncomfortable condition on the surface of the breast skin. This problem can develop even after weeks or months of successful nursing. The thrush is a form of yeast infection that thrives on milk. This infection will likely affect both the mother and her baby.

Signs of thrush include red or pink shiny skin that usually itches, and may flake or peel to learn if the baby is infected, look for white spots on the inside of the cheeks, or sometimes a persistent diaper rash. The mother must not stop breastfeeding but should have treatment.

5. Engorged Breasts (Lawrence and Lawrence, 1999).

Engorgement is normal and can develop when the milk begins to flood from the breasts, usually between the second and sixth day after the mother starts nursing your baby.

Because that swollen tissue pushes down on the milk ducts, the ducts can sometimes clamp shut. When milk cannot express, it builds up inside the breast and engorgement occurs. The best solution is to place cold packs on the breast, along with clean washed cabbage leaves. Both can help in reducing the swelling and allow the ducts to open.

6. Latching on, feeding and positioning (W H O, 1989).

1. Correct positioning and technique for latching on can prevent nipple soreness and allow the baby to obtain enough milk.
2. The "rooting reflex" is the baby's natural tendency to turn towards the breast with the mouth open wide; mothers sometimes make use of this by gently stroking the baby's cheek or lips with their nipple in order to induce the baby to move into position for a breastfeeding session, then quickly moving baby onto the breast while baby's mouth is wide open.
3. In order to prevent nipple soreness and allow the baby to get enough milk, a large part of the breast and areola need to enter the baby's mouth.
4. To help the baby latch on well, tickle the baby's top lip with the nipple, wait until the baby's mouth opens wide and then bring the baby up towards the nipple quickly, so that the baby has a mouthful of nipple and areola.
5. The nipple should be at the back of the baby's throat, with the baby's tongue lying flat in its mouth. Inverted or flat nipples can be massaged so that the baby will have more to latch onto. Resist the temptation to move towards the baby, as this can lead to poor attachment.

7. Pacifiers (Lawrence and Lawrence, 1999).

A new mother comforting her baby is one of her highest priorities and she may find a pacifier very helpful. A pacifier is not a substitute for feeding. Its disadvantages are increasing the risk of middle ear infections also can interfere with successful breastfeeding because sucking on a pacifier can easily become a habit that lead to nipple confusion.

8. Working mothers (Lawrence and Lawrence, 1999)

By continuing to breastfeed after the mother return to work, she will:

1. Provide the best nutrition for her baby.
2. Make it possible to keep breastfeeding when she is with her baby.
3. Keep a special closeness to her baby even when she must be apart.
4. Save money.
5. Avoid the health risks associated with formula feeding.
6. Miss less work because breastfed babies are sick less.

Chapter IV

Counseling and Education

The Three-Step Counseling Strategy

The Three-Step Counseling Strategy developed by Best Start Social marketing helps health care professionals identify and counsel women prenatal about their breastfeeding concerns **(American Academy of pediatric, 2002).**

The Three-Step Counseling Strategy uses the steps in the table below **(American Academy of pediatric, 1997)**:

Step Action

1. Ask open-ended questions.
2. Affirm feelings.
3. Educate.

Step 1. Ask Open-ended Questions

Your initial question is very important in opening the conversation. Using

Open-ended questions help elicit concerns about breastfeeding. An open-ended question is a question with a wide range of possible answers. Examples of open-ended questions to begin conversations about Breastfeeding include:

- "How do you feel about breastfeeding?"
- "What have you heard about breastfeeding?"
- "What can you tell me about breastfeeding?"

Step 2. Affirm Feelings

The second step is to affirm a woman's feelings. This acknowledges that you heard what she said and lets her know that her feelings are normal. This helps women feel more comfortable and makes them more likely to open up and be receptive to your ideas. Affirming feelings also builds the client's self-confidence. This step is the most difficult one to master. It is often skipped by health Professionals in their rush to begin providing information.

Step 3. Educate (American Academy of Pediatrics, 1997).

The third step is to provide breastfeeding education targeted specifically to the concerns just discussed.

1. Focus on the concern heard in Step 1

Carefully focus the education to the concern of the mother uncovered in Step1. Not all mothers have the same concerns about infant feeding.

2. Give information in small amounts

If the counselor provide too much information, breastfeeding may sound complicated. It also wastes your time. Provide information directly related to the concerns expressed. Mothers are more receptive to information that addresses their particular needs. This teaching strategy also promotes learning and retention.

3. Talk about breastfeeding

Plan several short conversations about breastfeeding instead of one long session. Research has shown that the number of times breastfeeding is discussed with each woman is more important than the total amount of time spent on breastfeeding education.

The counseling strategies about breastfeeding should include education about the following: (American Academy of Pediatrics, 1997; Bryant et al., 1992)

1. Benefits of breastfeeding (Hartley and O'Connor, 1996; Abul-Fadl, 1995).

Breastfeeding provides numerous benefits to infants, women, and society. It is often appropriate to discuss these benefits during counseling.

Benefits to infants

Breastfeeding provides benefits to infants in the following ways:

- Creates a special bond between mother and infant.
- Decreases risk types of infections and illnesses.
- Enhances dental development.
- Reduces risk for allergies.
- Aids in cognitive development.
- Reduces risk for SIDS.
- Decreases overfeeding.
- Decreases the risk for obesity in later life.

Benefits to mothers

Breastfeeding provides benefits to mothers in the following ways:

- Helps the uterus return to pre-pregnancy size faster.
- Reduces risk of breast, ovarian, and uterine cancers.
- Decreases risk for osteoporosis.
- Promotes postpartum weight loss.
- Enhances emotional health (especially for teenaged mothers).
- Saves money otherwise spent on formula and feeding supplies.
- Reduces family healthcare costs.

Benefits to society **(Bryant et al., 1997**; **Montgomery and Splett, 1997);**

Breastfeeding benefits society in the following ways:

- Protects the environment by decreasing waste for landfills.
- Reduces parent days absent from work (breastfed infants are healthier).
- Improves the effectiveness of immunizations.
- Improves the health of families.

2. Practices supporting breastfeeding (American Academy of Pediatrics, 1997; Bryant et al., 1992).

1. Nurse as soon as possible after birth as babies are more likely to be alert and ready to feed in the first few hours after birth.
2. Breastfeed every 1½ -3 hours as frequent feeding establishes milk supply.
3. Stop offering a pacifier as babies who use pacifiers in the early weeks and use them regularly feed less often and their feedings are shorter, interfering with establishing milk supply.
4. "Rooming in" or keeping the infant in the room as much as possible these arrangements facilitate frequent nursing and establishing a good milk supply. It also helps mothers learn the signs of hunger and builds her confidence in her ability to breastfeed.
5. No supplemental bottles of formula or water unless medically indicated as supplemental feedings in the early days of breastfeeding interfere with building milk supply. In the absence of medical complications, these feedings are unnecessary.
6. Mothers often need help learning how to use a pump. Some mothers need to begin pumping early to establish milk supply because their babies get off to a slow start.

7. A lactation consultant or nurse knowledgeable about breastfeeding who has experience and education about breastfeeding can help the mother.

2 Barriers to Breastfeeding

Understanding the common barriers will improve your counseling.

1. Lack of social support

Many women will not receive support to breastfeed from their family and friends. Some will get anti-breastfeeding messages at home because bottle-feeding is a cultural habit. Family and friends may not have been breastfed themselves or know anyone that has breastfed **(Bryant et al., 2000**; **Montgomery and Splett, 1997).**

Counseling points:

1. The most influential source of support and advice about infant feeding is a woman's mother. This includes choosing to breastfeed or formula-feed, starting solids, using supplemental formula and weaning.
2. A mother's partner is also influential. Include the woman's mother and mother in- law, husband and close friends in discussions about infant feeding.

2. Embarrassment

Most women have concerns about breastfeeding in front of other people.

They often fear criticism from family and friends and do not want to make others feel uncomfortable. For some women, this concern applies only to those outside of close family and friends. For others, breastfeeding in front of close family members is also of concern **(American Academy of Pediatrics, 1997; Bryant et al., 1992)**.

Counseling points:

1. Help women try to overcome embarrassment by offering suggestions on covering up or finding a private location to breastfeed.

2. Some women may be concerned about this issue during pregnancy but find they are not worried about it after the baby is born.

3. Busy lifestyles . Mothers worry that breastfeeding will take too much time and interfere with their social life or returning to work or school.

Counseling points:

1. Women can combine an active lifestyle with breastfeeding. Breastfed babies are very portable especially in the early months.
2. Several options are available when mother and baby are separated, including pumping and storing breast milk, nursing the baby during breaks.

4. Fear of pain

Mothers fear that breastfeeding will be painful, causing them to choose formula feeding or to discontinue breastfeeding prematurely. Fear of pain is of particular concern for teens **(American Academy of Pediatrics, 1997).**

Counseling points:

1. Mothers need to know that breastfeeding is not supposed to hurt.
2. When breastfeeding causes pain women need to seek help from a health care professional who is supportive of breastfeeding.

5. Diet and health restrictions

Some mothers are concerned that they will have to make major changes in eating, drinking, smoking and medication practices if they choose to breastfeed **(Bryant et al., 2000**; **Montgomery and Splett, 1997)**.

Counseling points: Counsel women on current diet and health recommendations and provide accurate information **(American Academy of pediatric, 2002).**

6. Confidence

Many women (especially first time mothers and mothers who experienced breastfeeding difficulties) lack confidence in their ability to

nourish an infant through breastfeeding. They question their ability to produce an adequate milk supply and believe that breastfeeding will be difficult to learn **(American Academy of Pediatrics, 1997)**.

Counseling points:

1. Mothers need to know that their feelings are common and shared by many other women. A basic understanding of how milk production works helps new breastfeeding mothers feel more confident in their ability to feed a baby.
2. Provide breastfeeding information at several contacts, rather than all at once, to make breastfeeding seem manageable and practical.

7. Teaching tools

Teaching the mothers about overcoming difficulties that they may face:

1. Engorgement.
2. Inverted nipple.
3. Low milk supply.
4. Breast refusal and milk expression

Chapter V

Relactation

Definition

Relactation is the process of rebuilding the mother milk supply once she have started nursing and then stopped for a period of weeks or months **(Thorley, 2006)**.

Relactation has been practiced:

A. When the mother wishes to return to breastfeeding after weaning, to enhance maternal-infant bonding.

B. To correct infant health problem that followed weaning such as:

1. Proven or suspected intolerance or allergy to artificial baby milks **(ABM, 2004).**
2. Constipation.

C. The situation that led to weaning or to failure to initiate breastfeeding has been overcome such as.

a. Maternal breast or nipple conditions **(Kesaree et al., 1993)** illness, or maternal-infant separation **(Brown, 1978).**
b. Unsupportive hospital practices that have prevented the initiation of breastfeeding in the postnatal period **(De, 2003)**.
c. Infant conditions such as prematurely **(Thompson, 1996)**, Oral-facial anomalies **(Menon and Mathews, 2002)**, severe dehydration **(Sofer et al., 1993)**, or hospitalization **(Auerbach and Avery, 1979a).**
d. Emergency or disaster situations exist following a natural disaster, warfare or civil strife **(Gribble, 2005b)**.

Most babies younger than three months can be persuaded back to the breast, especially if their attempts to suckle are promptly rewarded. Babies between three and six months may or may not be willing to nurse, depending on their individual temperaments. Babies older than six months are pretty set in their ways and usually cannot be convinced to nurse **(Phillip, 1993)**.

Assessment.

1. History.

A. Questions that apply when a mother is relactating for her biological child. **(Phillip, 1992)**.

1. Did the mother breastfeed this child at all?
2. If so, then for how long?
3. What was the reason for weaning/not breastfeeding?
4. Were there any breastfeeding difficulties? Is so, were they related to the Infant (for instance, prematurity, tongue-tie, other oral anomalies, hypertonic bite, developmental lag) or to the mother (such as inverted nipples. illness).
5. How and what is the infant currently being fed?

B.Previous breastfeeding experience.

a. Has the mother breastfed previous children, and if so, for how long?
b. Did she have any breastfeeding difficulties? If so, what, and were they resolved?
c. What were her reason(s) for weaning and the age of the child?
d. How long is the lactation gap (length of time from last breastfeeding to commencing induction of lactation?

   A longer lactation gap has been associated with a longer time to achieve a milk flow **(Lakhkar, 2000**).

e. Assess the mother's education on breastfeeding in general, such as reading, classes, and videos, irrespective of presence or absence of previous breastfeeding experience **(ABM, 2004).**

2. Cultural influences.

1. Assess the mother's support system.
2. Determine the mother expectations about her ability to make breast milk.
3. Determine the mother expectations about her ability to introduce her baby to the breast.

3. Infant's current health status.

1. Birth details (for example, normal vaginal, forceps, vacuum extraction, cesarean, birth asphyxia).
2. Infant's health history, and current growth and developmental status.
3. Is the infant strong enough to suckle?
4. Have factors related to previous feeding difficulties been addressed **(Phillip, 1992)**.
5. Age of infant.
   a. Babies who are less than two or three months old may be more willing to accept the breast.
   b. Babies older than this may respond to measures appropriate to breast refusal **(Phillip, 1993)**.

4. Breast and nipple assessment.

a. Is the mother producing any breast milk at present?

b. How long has it been since the last breastfeed or expression of milk?

c. A very short lactation gap may mean a short time to achieving a flow of milk **(De, 2002)**.

Planning.

1. Expected outcome. Encourage a focus on the breastfeeding relationship.

2.Counseling.

A. Emphasize the breastfeeding relationship facilitated by skin-to-skin contact **(Riordan, 2005).**

B. focus upon having the baby nurse at the mother's breast.

C.Breastfeeding confidence is important for relactation **(Lakhkar, 2000)**.Confidence building support from a knowledgeable health worker has been recommended by various authors **(ABM, 2004).**

D. Two partners are involved in relactation: the mother and her baby.

E. Realistic levels of achievement. While some mothers fully relactate, some mothers may never achieve full lactation but are able to breastfeed with supplementation (**Riordan, 2005)**.

F. What are the mother goals?

For some mothers, mixed feeding may be an achievable goal while employed; that is giving the baby breast milk, with some ABM or age appropriate complementary foods.

G. Regular telephone contact may be an appropriate form of professional support.

H. If the baby is suckling at very frequent intervals, a flow of breast milk cart appear in a few days to a few weeks. It is unwise to suggest a specific period.

I. Support from family and friends **(Seema et al., 1997).**

- Psychological support and household assistance.
- Appropriate information, support, and encouragement from a knowledgeable health worker.
- Ongoing support from a mothers support group or breastfeeding counselor **(Banapumath et al., 2003).**

3. Re-establishing lactation/weaning reversal.

A. Stimulation to induce breast milk production by the following;

1. Nipple stimulation (through nipple exercises or stroking, suckling or expressing) for development and maturation of breast tissue prior to breastfeeding (**Auerbach and Avery, 1979c)**.

2. Many women have induced lactation solely by expressing or by nursing the baby or combining this with nipple stimulation **(Auerbach and Avery, 1979c; Lakhkar, 2000).**

3. Breast and nipple stimulation has been reported to include the following **(Auerbach and Avery, 1979c; Lakhkar, 2000) :**

a. Nipple exercises every three to four hours.

b. Breast massage or application of warmth.

c. The baby nursing at the breast as the sole or main stimulus (**ABA, 2004; Lakhkar, 2000).**

d. Use of a tube-feeding device that delivers milk while the baby is simultaneously sucking at the breast **(Hormann and Savage, 1998)**.

4. Some mothers may not have breast secretions prior to putting the baby to the breast. Mothers who have previously breastfed are more likely to have milk after manual or mechanical stimulation prior to putting the baby to the breast although the difference is not always significant. Many women have achieved relactation simply by nursing the baby intensively with or without manual stimulation of the breast and nipples found no difference in relactation outcomes between mothers who used breast/nipple hyper stimulation (very frequent suckling) and those who used metoclopramide **(Taylor ,1995).**

B. Infant suckling at the breast

1. The mother can offer the breast as a pacifier if her baby is willing to accept it even before her milk comes in.

2. Using breast massage and switch nursing (alternating between both breasts several times during a feeding) can help increase your milk production.

C. Expressing breast milk.

1. Assess the mother's comfort with manual or mechanical expressing.
2. Teach and asses the mother ability to hand-express the breasts.
3. Discuss the types of manual and electric breast pumps available and the mother's ability to access them. Simultaneous bilateral (double) pumping with a portable, hospital grade electric pump is more efficient than other pumping options (**Siebenaler, 2002).**
4. Assess the mother's ability to use these technologies correctly.
5. Assess the mother's ability to achieve expression frequency.
    a. Ideally, as frequently as a newborn would breastfeed (8-12 times per 24 hours **(Hormann Et Savage, 1998)**. OR
    b. Two-hourly with one or more expressions at night, OR.
    c. At least six times per 24 hours, at 15 minutes per expression.
6. Discuss expression strategies while traveling if the mother is required to travel to another country in the case of an overseas adoption.
    a. Manual expression.
    b. Does the electric pump have a manual mode and does the mother know how to use it?

4. Galactagogues.

A. Increases in prolactin secretion

Through stimulations of the sensory nerves of the breast during breastfeeding by certain drugs **(Auerbach and Avery, 1981)**.

a. Metoclopramide **(ABM, 2004; Hale 2006)**.

b. Domperidone **(Hoffmeyr and Van, 1985**; **ABM, 2004; Hale, 2006)**.

c.Sulpride **(Hale, 2006; Ylikorkala et al., 1984).**

B. Stimulation of oxytocin for the milk ejection reflex.

1. Skin—to—skin contact.

2. Syntocinon nasal spray **(Walker, 2006)**.

C. Herbal galactagogues, dietary supplements, and alternative medicine have been used in most cultures as galactagogues.

1. Most information is anecdotal.

2. It is common for mothers who are inducing lactation to improve their own diets and increase fluid intake **(Auerbach and Avery, 1979c; De et al., 2002).**

3. Many mothers believe that dietary supplements or increasing fluid intake will stimulate milk production but evidence that special foods or herbal products will enhance milk synthesis is lacking. Those that have been used include:

   a. Brewer's yeast (may cause fussiness in some infants).

   b. Beer; alcohol; may, however, both inhibit the milk ejection reflex and reduce the baby's suckling behavior and sleep **(Mennella, 2001; Mennellaet al., 2005).**

   c. Fenugreek generally regarded as safe but may have a hypoglycemic effect on the mother **(Bryant, 2006; Hale, 2006).**

   d.Fenugreek, fennel and anise (not star anise) have been used as herbal galactagogues; they may be allergenic in susceptible individuals **(Humphrey, 2003).**

   e.Fennel; considered safe, but no documentation of galactogoguic effects **(Hale, 2006)**.

So-called "natural" treatments should be used with caution because some herbal products have been found to be detrimental to infant health **(Rosti et al. 1994).**

Evaluation

Many babies will get frustrated when you put them to the breast initially and little or no milk is coming out, so they will not stay on for long **(ABM, 2004; Hale**, **2006)**.

1. Skin-to-skin contact.

a. Begin skin contact when the baby is not hungry.

b. Older babies not used to being held close may at first find skin-to-skin threatening so patience and respect for the baby's feelings are needed.

2. Establish breastfeeding.

a. Facilitate good attachment and positioning.

b.Encourage the mother to begin to nurse the infant on the side on which he or she is used to being fed (for example, if bottle-fed on the left side, begin breastfeeding on the left breast).

c.Facilitates short, frequent breastfeeds (8-12each 24 hours).

d. The infant should not be forced to the breast or to breastfeed. Early refusal is not predictive; infants who reject the breast initially may later learn to accept it **(Auerbach and Avery, 1980**).

e. To encourage a reluctant baby, teach the mother to:

1. Assuage hunger with partial feeding before breastfeeds, using a cup, syringe, or bottle, or finger feeding with a feeding tube.
2. Use the drop and drip method to encourage suckling; that is, dribble milk onto the areola while the baby is attached **(Lakhkar, 2000)**, the milk can be dropped from a spoon, dropper, syringe, or bottle.
3. Breastfeed when the baby is drowsy.
4. Breastfeed in a darkened and quiet room.
5. Use a supplemental feeding tube device to deliver milk while the baby is suckling at the breast **(Auerbach and Avery, 1980; Bryant, 2006)** placing the device's milk container higher will initially allow for a faster flow.

6. Some babies will take the breast without the supplemental at night.
7. Some babies will latch and stay attached if the mother walks around; wearing the baby in a sling may facilitate breastfeeding.

f. Teach the mother to recognize milk transfer.

g. Do not allow the infant to cry at the breast; the breastfeeding experience should be pleasurable.

1. Remove a crying baby from the breast and sooth or divert her/him in other ways.
2. Talk or sing to the baby while at the breast.

h. Begin with short, frequent breastfeeding attempts, extending the time as the child indicates willingness. Once the child accepts the breast, expressing can be discontinued and replaced with frequent suckling.

3. Supplementation: (Auerbach and Avery, 1980; Bryant, 2006).

a. Supplementation is essential for the baby's well-being while establishing the mother's milk supply.

b. If banded human milk is unavailable, the ABM that the baby was already drinking should be continued, unless there is good reason to change it.

c. Eliminate/decrease the use of bottles and artificial nipples, including pacifiers, by putting the child to the breast frequently and providing whatever additional nourishment is needed via feeding tube device at the breast, or by cup or syringe after breastfeeding.

d. If a supplemental feeding tube device is not being used and milk has been observed:

1. Offer the supplement only after the baby has nursed at the breast.
2. Offer the ABM after every second feed, provided breastfeeds are approximately two-hourly.
3. Fed the baby on the breast alone at night, if the mother and baby are sleeping in close proximity and able to breastfed.

e. If a cup is used for supplements, teach the mother to cup-fed the baby in an upright position.

f. If supplements are given by bottle, bottle-feed on both the left and right side to avoid a one- sided preference.

g. Baby if receiving milk more slowly. Gradually decrease ABMs and other foods as appropriate. Using infant output and growth as guides. However,

1. Do not dip the baby hungry in an attempt to encourage suckling at the breast; this is counterproductive because the baby becomes weak and less effective at nursing (**Avery, 1973).**
2. Do not dilute the supplementary milk, for similar reasons.
3. Do not restrict the amounts of supplements.
4. If the baby's output lessens or growth fasters, temporarily increase the supplement.

h. Replace milk expression/pumping with additional breastfeed; however, expression after some feeds may be necessary for additional stimulation if the baby is weak and suckles poorly.

i. Gradually reduce any galactagogue being used.

j. Some babies will require supplementation for as long as the mother nurses.

<u>Evaluation</u> (ABM, 2004; Hale 2006)

<u>1. Mother-infant relationship</u>

a. Skin-to-skin contact is facilitating bonding.

b. A harmonious mother-infant relationship is developing with mother-infant dyad happy and contented.

<u>2. Mother is reducing breast milk</u>.

a. Mother is producing breast milk in increasing quantities.

b. Milk secretion observed on expression.

<u>3. Infant indicators of breast milk intake</u>.

a. Evidence of milk transfer/swallowing.

b. Changes in stools, which any vary through the day.

c. Milk/food intake from other sources diminishing, while the urinary output (diaper count) remains normal.

d. Pre-and post-feed weights to assess amounts of milk obtained directly from the breasts.

e. Weight checks every three to five days and then weekly. To assess that adequate growth continues.

4. Infant taking all nutrition from breast.

a. Cessation of supplementary ABM/foods.

b. Cessation of use of feeding tubes, bottles, cups, or other devices.

c. Other stimulation (expressing, galactagogues) no longer needed.

d. Milk production maintained by infant's breastfeeding.

Problems,

1. Relactation is not always easy and physiological responses to induced lactation and related discomforts **(Auerbach andAvery, 1979a)**.

2. While for mother-infant dyad a flow of milk is soon established, for others it may take weeks to increase the milk yield.

3. Baby not accepting the breast and the presence of frustration before there is a milk flow. It can overcome by rewarding the baby with supplemental milk through the drop and drip technique (dripping donor breast milk or artificial baby milk (ABM) onto the areola) or through a supplemental feeding tube device can reduce frustration **(Avery, 1973).**

4. Worry About the baby getting enough milk **(Auerbach and Avery, 1979a)** that may lead to stress **(Bose et al., 1981).**

5. Uncertainty about decreasing supplements.

a. Regular contact with relevant members of the health care team (lactation consultant, physician, child health nurse) for guidance.

b. Emotional support/reassurance.

6. Expressing / feeding equipment difficulties

a. Nipple pain **(Seema et al., 1997)** which should be overcome by practicing good attachment and position and selection of appropriate diameter of breast pump and correct use of it.**(Banapurmath et al., 2003)**

b. Breast pain.

c. Nipple and breast changes, including fullness **(ABA, 2004; Riordan, 2005).**

d**.** Signs of milk ejection.

7. Finding the time to initiate lactation due to competing demands of other children or employment.

8. Menstrual cessation or irregularities **(Riordan, 2005).**

9. Increased appetite and weight changes **(Auerbach and Avery, 1979c)** reported either gain or loss.

10. Fatigue.

Chapter VI

Policies for Promoting, Protecting and Supporting Breastfeeding

Research has shown that breastfeeding supports optimal growth and development for infants and offers lifelong health advantages. Breastfeeding also contributes to the health of mothers and enhances the economic well-being of society **(Abul-Fadl, 1992).**

The benefits of breast-feeding for both child and mother in terms of nutrition, immunological protection, anti-infective, biochemical, anti-allergic and contraceptive effects, and emotional satisfaction have been widely documented. Over the past decade this has been recognized by public health development organizations, public health experts and governments around the world. At the beginning of this decade, commitments were made to:

a) Protect current breast-feeding from the aggressive marketing of breast-milk substitutes **(Breast-feeding promotion practice, 1993)**.

b) Support women's behavior in relation to breast-feeding by providing appropriate health services, accurate and complete information and an environment which reinforces breast-feeding **(Rashad, 1994).**

c) Promote breast-feeding practices and increase the prevalence of breast-feeding **(Hafez and Bagchi, 1995).** Egypt has made the promotion of breast-feeding one of its key strategies. Indeed, one of its goals is to raise the exclusive breast-feeding rate to 80% by the year 2000 **(National achievements and challenges, 1996)**.

In spite of the declaration of goals and targets, breast-feeding programs have seldom been assessed. This is because breast-feeding is a practice carried out entirely by mothers and its determinants are multiple and complex. Moreover, there are no quantifiable commodities associated with its practice. Hence, it is difficult to define what should be measured and how to measure it. Furthermore, assessing breast-feeding practices, as an outcome of promotional services is difficult as many breast-feeding services are integrated into maternal and child health and primary health care services **(Hafez and Bagchi, 1995).**

Egypt was one of the pioneer countries in which the BFHI was first in 1991.Prior to1991 breastfeeding promotion was introduced through family planning and MCH programs .By 1995/6 over 120 hospitals (with delivery and childcare services) were declared as baby friendly to WHO/UNICEF to the Ten Steps and successful breastfeeding .Hundreds of staff in the hospitals and primary health centers by 18 hours BFHI models and thousands of mothers were supported to early exclusive breastfeeding.

The World Health Organization promote for breastfeeding exclusively for 6 months **(WHO, 2002)** also the United State Department of Health and Human Services presented a breastfeeding blueprint for action on breastfeeding (November 2000) recommending that children be breastfed exclusively for the first 6 months of life, with gradual introduction of solid foods after 6 Months **(United States Breastfeeding Committee, 2001)**.The Blueprint recommends the continuation of breastfeeding for at Least the first year of life **(American Academy of Pediatrics, American College of Obstetricians and Gynecologists, 2002).**

When childcare settings become strong partners and advocates in encouraging mothers to continue to breastfeed, the benefits to families are enormous. In addition, childcare settings themselves benefit from the improved health status of the children in their care. Responsibility for providing this support lies with both the Public and the private sectors. Governmental agencies, including licensing and regulatory sectors, can support breastfeeding by: **(United Nations Children's Fund, 1999):**

1. Providing breastfeeding support and encouragement to their own employees.
2. Providing accurate information about the storage and handling of human milk.
3. Continuing to provide information for feeding expressed human milk under the Child and Adult Care Food Program National.

A. National and state childcare organizations can support breastfeeding in child care settings by (Shealy et al., 2005):

1. Increasing current awareness of the need for protecting, promoting, and supporting breastfeeding.
2. Initiating new training programs to improve childcare providers' knowledge about breastfeeding and its importance **(World Health Assembly, 1981)**.
3. Participating in health promotion campaigns that disseminate information about the benefits of breastfeeding.
4. Integrating breastfeeding into plans for the design of a childcare facility, its equipment and furnishings, and the training.
5. Providing a welcoming atmosphere that encourages mothers to initiate and continue breastfeeding after returning to work or school.
6. Training staff to provide accurate basic breastfeeding information and referrals for skilled breastfeeding support when necessary.

7. Designating a space for the safe expression and storage of human milk.
8. Offering children breast milk in containers other than bottles (e.g., cups or spoons) when parents request it.
9. Providing space for mothers to breastfeed their children on-site.
10. Creating an environment that fosters the formation of parent support groups and the ability to share information.
11. Empowering families to advocate at their workplaces for policies that support breastfeeding Families themselves must be responsible **(American Academy of Pediatrics, American College of Obstetricians and Gynecologists, 2002).**
12. Establishing clear communication with the childcare provider about shared responsibilities related to caring for a breastfed child and handling expressed human milk. **(American Academy of Pediatrics, Section on Pediatric Dentistry, 2003).**
13. Sharing knowledge of community resources that may be unfamiliar to the childcare provider **(American Academy of Pediatrics, Section on Pediatric Dentistry, 2003).**

B. Health Care System by creating a breastfeeding-friendly health care system.

Attitudes toward and success with breastfeeding are greatly influenced by events during pregnancy, labor and birthing, the time immediately after birth, and during later visits with health care providers **(Fewtrell et al, 2001).**Education and counseling during pregnancy regarding maternal readiness, breast health and breastfeeding initiation can affect a woman's decision to Breastfeed.

Birthing practices can play a pivotal role in the initiation and Length of time breastfeeding continues. The presence of a supportive, nonjudgmental individual throughout labor and delivery both eases labor and enhances breastfeeding. Because of its relationship with the birth experience, breastfeeding must be supported throughout the maternity hospital stay and then extended to the community after the infant and mother return home **(American Academy of Pediatrics, Breastfeeding Promotion in Physicians' Office Practices Program, 2001).**

Breastfeeding must also be supported in all medical services that serve mothers of young children, whether surgical, infectious disease or other. Unnecessary disruption of breastfeeding is often the result of medical interventions outside the maternity or newborn setting. Board certified lactation consultants are available in many areas and can provide lactation management services and adjunct support to health care providers within the health care facility itself and/or in the home of the breastfeeding mother **(Freed et al., 1995).**

Facilities such as birthing centers, hospitals and pediatric practices that are breastfeeding-friendly typically experience an increase in breastfeeding rates **(Brown et al., 2003).**Actions taken to become a breastfeeding-friendly health facility can be part of a comprehensive set of practices such as those implemented in pursuit of World Health Organization/UNICEF Baby-Friendly Hospital Initiative (BFHI) designation. They can also be discrete, less comprehensive interventions, which, over time, create a more breastfeeding-friendly environment.

C. Work place breastfeeding support (U.S. Department of Health and Human Services, Child Care Bureau, Maternal, and Child Health Bureau, 2001).

The private sector including employers, insurance companies, and other organizations and agencies can support breastfeeding by:

1. Developing health campaigns for employees that include breastfeeding promotion and protection.
2. Considering childcare settings when developing consumer education materials, breastfeeding promotion campaigns and quality improvement initiatives.
3. Supporting cost-effective rentals or purchase of electric breast pumps for expression of human milk when such devices are needed childcare settings are the natural and logical place for supporting breastfeeding mothers.
4. Workplaces can support breastfeeding by providing flexibility in the work schedule, work locations and break times and job-sharing to accommodate breastfeeding or milk expression. Employers can utilize many different strategies to support breastfeeding depending upon the size and needs of the agency or organization **(Fein and Roe 1998).**
5. One of most effective ways to support breastfeeding at the workplace is having support for breastfeeding from supervisors and colleagues.Ideally; all workplaces would offer a Nursing Mothers Room (NMR). The NMR should be centrally located with adequate lighting, ventilation, privacy, seating, a sink, an electrical outlet, a refrigerator and a changing table**.** This area should be a clean, comfortable and secure space for breastfeeding or expressing milk and a safe space for storing expressed milk **(Roe et al., 1999)**.

Recommendations for Action – Workplaces

1. Educate business and industry about the benefits of instituting breastfeeding-friendly workplace policies and practices for both employers and employees **(Bar-Yam, 1998)**.
2. Provide technical assistance to businesses and schools about becoming breastfeeding-friendly. The technical assistance should address assuring support of employees for breastfeeding; establishing a private and safe space for on-site expression and storage of breast milk; including breastfeeding services and equipment as a component of company benefits; and protecting breastfeeding women from harassment **(Baldwin and Friedman, 2002)**.
3. Disseminate information on effective breastfeeding-friendly workplace models for diverse settings including: small, medium and large businesses; businesses that are that are professional, technical, or agricultural in nature; and businesses that have salaried and/or hourly employees.
4. Create a workplace recognition program to honor employers and schools who support breastfeeding employees and students.
5. Require implementation of breastfeeding-friendly policies.
6. Establish a model workplace lactation support program within state and local government agencies **(American Academy of Pediatrics (AAP), 1997).**

Employers Consider flexible scheduling options: Flexible work arrangements can ease new mothers' return to work following childbirth. Regardless of flexibility, there will be a period of adjustment **(Shealy et al, 2005)**.

Examples of scheduling options that can benefit both mothers and employers include:

1. Part-time work.

2. Earned time, in which sick time, vacation time and personal days are grouped into one set of paid days off work, from which workers can take time at their own discretion.
3. Job-sharing, in which two workers each work part time and share the responsibilities and benefits of one job.
4. Phase-Back, in which workers return from leave to their full-time workload over several weeks or months.
5. Flex-Time, in which workers arrange to work unusual hours to accommodate their home schedules.
6. Compressed workweek, in which employees work more hours on fewer days.
7. Telecommuting, where employees work all or part of their jobs from home.

Allow women sufficient break time to breastfeed or express milk on the job, and provide space in a private, clean place **(Cohen and Mrtek, 1994**; **Cohen et al., 1995).**

1. Breastfeeding or expressing milk during working hours enables a mother to keep up a good supply of milk for her child.
2. The number of breaks needed to breastfeed or express milk is greatest when the child is younger, then gradually decreases.

For milk safety reasons, mothers must have clean hands and must clean equipment after use.

Benefits for Employers (WHO, 2002)

1. Cost savings invested in breastfeeding support.
2. Less illness among the breastfed children of employees.
3. Reduced absenteeism to care for ill children.
4. Lower health care costs.
5. Improved employee productivity and Improved ability to attract and retain valuable employees.