Promotion of optimal breastfeeding practices through introduction of "Mother Support Groups"

Master of Public Health Thesis Project Utilizing Professional Publication Framework

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Yerevan, Armenia
October 2003

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Acknowledgements

I would like express my thanks to my primary advisor Grace Sullivan for her helpful suggestions, support and encouragement.

I gratefully acknowledge my second advisor Susan McMarlin for her continous support during the whole period of working on the project.

I would like to thank Anahit Derirchyan for her valuable comments and suggestions.

I am thankful to all MPH faculty who shared their knowledge and experience with us.

Special thanks to my family members for their patience, support and understanding.

Executive summary

Breast feeding an infant during the first six months of life is crucial. Breast milk provides an infant with the ideal nutrition needed for healthy growth and development. Breast-feeding is beneficial for infant's and mother's health.

The prevalence of breastfeeding (both exclusive and any) in Armenia abruptly declined in the early 1990s. The risk factors contributing to the low level of exclusive breastfeeding are considered to be the following: lack of knowledge on the benefits and management of breastfeeding, biological factors such as mastitis, sore nipples, social factor and health sector factor including the hospital practices that do not encourage exclusive breastfeeding and lack of support to breastfeeding mothers.

Literature and research reviews find that continuous support by mother support groups (MSGs) help mothers to overcome problems with breastfeeding. MSGs can provide appropriate support making mothers more confident in their ability to care for their babies and themselves.

The objectives of this study are 1) to enlighten and empower all women to decide to breast feed their children 2) to provide a supportive environment for all mothers to exclusively breastfeed their babies up to 6 months and to continue to breastfeed up to 2 years. Research questions addressed by this proposal are: what are the major problems that mothers face during breastfeeding practices; 2) what kind of help do they need during breast feeding practices; 3) whom do mothers prefer to see in the role of facilitator in a MSG; health care providers or mothers?

For this study a qualitative research method is used. Seven focus group discussions were organized: three in Yerevan and four in Aragatsotn Marz. The focus group guide (FGG) includes domains, which through open-ended questions identifies knowledge, attitudes, practices, and barriers in optimal breastfeeding management and mothers' opinions about MSGs and who they would prefer to see in the role of breastfeeding counselor in a MSG (HCP-to-mother or mother-to-mother).

Overall, the study shows that most of the participants lack appropriate knowledge and skills in breastfeeding management. Early introductionon of water, tea, cow milk, other liquids and ccomplementary feeding is very common. Exclusive breastfeeding practice is almost absent. The participants of the focus group discussions welcome the idea of a "mother support group" that could help them to overcome the problems that usually occur during breastfeeding. They prefer to receive counseling from a specialist or a specialist together with an experienced mother on breastfeeding management skills as part of these groups.

Based on the results of the focus group discussions the following recommendations are made: 1) to organize training on breastfeeding management skills for health care providers and experienced mothers who want to become breastfeeding counselors 2) to allot special area adjacent to polyclinic or maternity hospital for organizing "mother support groups" cabinets 3) MSGs can also pay home visits to mothers who have encountered with breastfeeding problems and 4) MSGs can also be directed toward fathers and other family members (e.g., grandmothers, mother-in-laws) who greatly influence the women's decision to breastfeed.

Background information

Breastfeeding an infant during the first six months of life is crucial. Mother's milk provides an infant with the ideal nutrition needed for healthy growth and development (1). Breast-feeding reduces the risk of infant mortality, morbidity and growth faltering, and for mothers it has a protective effect in terms of child spacing, reduced risk of breast and ovarian cancer. On a more global scale, breast-feeding is healthy for the environment (15). It has no packaging to pollute the environment and does not deplete natural resources.

Exclusive breast-feeding is defined as beast milk being the only source of nutrition and fluids for an infant (1). It is recognized as a major constituent for optimal infant nutrition by national and international authorities. Exclusive breastfeeding protects against diseases during the first six months of life (3). Breastfeeding decreases the risk of diarrhea, respiratory infections and other conditions, such as allergies, ear infections, meningitis as well as diabetes and obesity later in life (4).

The Convention on Children's Right cited breastfeeding as one of the most important factors for child's protection as well as well start. This resolution has been adopted by World Health Organization (WHO) in 1999 (1). Inducing new feelings in young women, great love toward her baby, the willingness to protect their child as well as to breast feed will reduce the number of orphans in our country that increases during the last decade (14).

The Innocenti Declaration suggests as "a global goal for optimal maternal and child health that all women should be enabled to practice exclusive breast feeding and all infants should be fed exclusively on breast-milk from birth to 4-6 months of age. Thereafter, mothers need to continue to breastfeed their infants, while introducing appropriate and adequate complementary foods for up to two years of age or beyond". Recent research has found that the benefits of breastfeeding increase with exclusiveness of breastfeeding during the first six months of life. Further, WHO studies on complementary feeding suggest that, with proper

breast feeding management, growth for most children is satisfactory throughout a six-month period of exclusive breast feeding (1).

The prevalence of breastfeeding (both exclusive and any) in the Republic of Armenia abruptly declined in the early 1990s. In 1988 64% of all infants were fully breastfed at the age of four months, but by 1993 this figure had dropped to 23% (14). Breastfeeding was widely practiced in Armenia and women did not need to be motivated to choose to breastfeed. However, under the Soviet system, Armenians grew accustomed to the wide availability of inexpensive infant formula resulting in the gradual decline of the breastfeeding rate. A devastating earthquake in 1988 followed by a break-up of the Soviet Union in 1991 accompanied by social-economic hardship throughout this period also contributed to the breastfeeding decline. After the earthquake there was an oversupply of infant formula imported to the republic as humanitarian aid. The formula was easily accessible through health care services and in the shops. Since breast milk alone is composed of all the nutrients necessary for the child during the first six months of life and antibodies providing for the child's immunity any use of formula was not supportive of optimal infant health (4).

Therefore the risk factors contributing to the low level of exclusive breastfeeding in Armenia are considered to be following: lack of knowledge on the benefits and management of exclusive breastfeeding, biological factors such as mastitis, sore nipples, social factor and health sector factor including the hospital practices that do not encourage exclusive breastfeeding and lack of medical staff trained in lactation management. Another reason for not continuing with breastfeeding and introducing supplements early is the perception that the mother has insufficient milk to feed the baby (9).

Finally, it is known that physiologically most mothers (95%) can produce amounts of breast milk adjusted to their baby's needs and it is therefore likely that a lack of appropriate ongoing support is an important underlying factor in decreasing breastfeeding. If mothers are

not given the correct advice to exclusively breastfeed during prenatal care in hospitals and are not continuously supported during the first 4-6 months, breastfeeding will not progress (11).

In 1993 the risk factors and assumptions outlined in this paper, convinced the Ministry of Health (MOH) to launch the national program of breastfeeding promotion. The program included the introduction of the Baby-Friendly Hospital Initiative (BFHI), patient counseling skills training among health care providers and mass media campaign, which would hopefully increase the number of breastfeeding mothers and bring significant improvements (14). The BFHI aims to train all health care staff in the skills necessary to implement this policy; inform pregnant women about the benefits and management of breastfeeding; help mothers initiate breastfeeding within a half hour of birth; show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants; give newborn infant no food or drink other than breast milk unless medically indicated; practice rooming-in thus allowing mothers and infants to remain together 24 hours a day, encourage feeding on demand, give no artificial teats or pacifiers to breastfeeding infants; foster the establishment of breastfeeding support groups and refer mothers to them on discharge from hospital (2).

During the period, from 1993 up to 2002, BFHI was initiated in 10 maternity hospitals. Three are in Yerevan ("Center of Perinatology and Ob-Gynecology", "Research Center of Maternal and Child Health Protection" and "Erebuni" Center), and seven in other cities of Armenia (Gumri, Artik, Maralik, Abovyan, Goris, Kapan and Kamo). In these maternity hospitals "Ten steps to successful breastfeeding" are almost completely implemented, whereas in other maternity wards throughout the country only the first five steps are implemented (14).

In spite of these efforts and initiative, the prevalence of exclusive breastfeeding in Armenia continues to be low – 21% according to the MOH official statistics. The demographic and health analysis, conducted in 2000 in Armenia, shows that only 62.5% of infants less than two months are exclusively breastfed. Further, at 2-3 months of age this number decreases

almost twice (33.8%). At the age of 4-5 months only 4.1% of infants are exclusively breastfed. MOH statistics also show that after a delivery 14% of infants are given fluids or other adapted infant milk during the first hours of life before the establishment of mothers' lactation. Fourteen percent of children up to four month are given other milk, 29% water and other juices and 8% other food. Of those children in Armenia breastfed up to six months, almost all of them receive supplemental food together with breastfeeding. The data also show that there is a direct connection between the duration of breastfeeding and mother's educational level. Mothers with high education (university degree) prefer to breastfeed their child for longer period (7).

Bottle usage among children up to four month is high - 34% and among 1-5 month children it is 59%. All these data affirm that breastfeeding experience for mothers in Armenia should be improved as early initiation (before six months) of supplemental food can be harmful for child health (7).

Breastfeeding Projects/Needs Assessments

From March 1 to 10, 2003, a group of MPH students of the American University of Armenia (AUA) in the scope of the "Qualitative Research methods" course conducted a survey on the topic of breastfeeding with caregivers. The purpose of this study was 1) to assess the knowledge, attitudes and practices of caregivers delivered at baby-friendly hospitals and non-baby-friendly hospitals in Yerevan; and 2) to understand the barriers to optimal behavior. The results of this study found that most of the caregivers identify the benefits of breastfeeding for infants' health and breastfeed their infants until at least 6 months of age. "However, some practices in particular exclusive breastfeeding, time of complementary feeding, and duration of any breastfeeding fall short of optimal practice. The barriers were described by individual mothers as insufficiency of breast milk, lack of maternal knowledge on how to breastfeed, social barriers as lack of support from health care providers and environmental factors as caregivers working/studying outside the home. Some

cultural factors, such as the belief that water is needed for the infant and that certain supplements alleviate gases also serve as barriers to optimal breastfeeding practices" (17).

In May, 2003 a needs assessment was done by this researcher addressing the scope of "Information, Education, Communication Campaign on Mother and Child Health" in Tavush Marz. The purpose of the baseline assessment was 1) to assess the level of knowledge, attitudes, beliefs, prevailing practices of women of reproductive age, 2) to understand the barriers to optimal behavior as well as motivating factors, which will help to focus the program on improving maternal and child health. Local health care providers also were surveyed to aid in assessing the existing MCH situation in the region. Examples of the main topics covered during focus group discussions were: safe motherhood and breastfeeding, feeding and nutrition of infants and children under five. The collected data was used in making informed decisions during the implementation of IEC campaign (16).

For the evaluation of community information needs on MCH issues six focus group discussions and two key informant interviews were conducted among women of reproductive age in eight communities (16).

The discussions revealed that the participants were well aware of the benefits of breastfeeding for infants, however only a few of them knew about the benefits of breastfeeding for mother's health. In this marz the practice of exclusive breastfeeding is almost absent. Most mothers give water or herbal tea from birth as a common practice. Also giving cow milk and early complementary feeding is widely practiced by mothers of 0-6 month old infants. In focus group discussions, the major causes for early breastfeeding cessation described by mothers are insufficiency of breast milk, poor breastfeeding techniques (cracked nipples, mastitis, etc), and lack of support from health care providers as well as family members (16).

Thus, the health system support of breastfeeding women before the discharge from maternity wards and during early post discharge period is very important factor in breast

feeding success (8). Hospitals need to consider monitoring measures of the actual quality of care provided by health care personnel and the impact on the outcome (13).

Existing Programs and Practice

In countries such as Netherlands, Macedonia, USA, England, the most accepted and effective method breastfeeding counseling and help is "mother-to-mother support groups". These groups are initiated and operated by mothers who facilitate the meetings. The facilitator may have received training, but her primary qualification is that she is a mother with practical breastfeeding experience, who can model optimal breastfeeding practices, share information and experiences, and offer support to other women in an atmosphere of trust and respect. At the meetings, new mothers as well as experienced mothers share information and are encouraged to voice their doubts and concerns. In some instances a health care provider may facilitate a mother's support group. Compared with the mother-to-mother support model, this facilitator is a professional, who is considered an expert in breastfeeding (6).

Many traditional societies have recognized that a new mother is often vulnerable and sensitive and needs encouragement and support. However, the traditional support systems that reinforce breastfeeding may not be effective where bottle-feeding has become the norm and the aggressive marketing of breast milk substitutes undermines mothers' confidence in their breast feeding abilities (5).

In such situations mother-to-mother support fills the gap, making it easier for mothers to share their concerns with other mothers. The mother-to-mother support provides an essential complement to the health care system, even in instances where health care providers are well-trained in lactation management. Mother-to-mother support also counters the dissemination of incorrect or misleading information, thus enabling the mother to make informed choices about the feeding of her baby (19).

The La Leche League (LLL), a worldwide organization founded in 1956 by seven women who had learned about successful breastfeeding while nursing their own babies, exists today with the sole purpose of helping breastfeeding mothers. LLL has developed with mother-to mother support groups in countries all around the world. LLL International is a nonprofit organization that offers breastfeeding education and encouragement through mother-to-mother support groups, telephone counseling and extensive interaction with physicians and health care providers (20).

Another project, known as "Linkages" is funded by USAID, aims to increase the effectiveness of women's groups. Women support one another regarding feeding decisions and find practical solutions to common problems by linking groups with existing health services and other community groups (19).

The Baby-Friendly Hospital Initiative's 10^{th} step states that facilities should foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital (6). Literature and research reviews by the WHO find that more effect is seen if pre and postnatal support interventions are combined with continuous support by MSGs. That means that the work of MSGs cannot be a single step in the promotion and support of breastfeeding. Good information during pregnancy, knowledgeable health care personnel surrounding birth and initial breastfeeding and frequent follow-up care are crucial to successful breastfeeding experience. MSGs can provide support in the day to day work of a breastfeeding mother when health professionals have difficulties in providing adequate follow-up care, and if mothers are reluctant to seek help from the formal health service when difficulties with breastfeeding occur(12). In this manner MSGs in the community provide appropriate support making mothers more confident in their ability to care for their babies and themselves (6).

During the last decades, from the experience of many countries, the inclusion of mother support groups as part of the Baby-Friendly Hospital Initiative strategy has shown to be the

most successful way of helping women to exclusively breastfeed for six months, giving timely nutritious complementary foods and continuing breastfeeding through the first two years of life and beyond (12).

Finally it is recommended that for the successful extension of breastfeeding, especially exclusive breastfeeding in Armenia, mother support groups (MSG) and/or specially educated lactation consultants such as health providers in primary health care, neonatology-nurses, pediatric-nurses or experienced mothers be available to provide support and advice regarding lactation management to mothers in difficult situations.

The objectives of the research

1. Enlighten and empower all women to decide to breast feed their children
2. Provide a supportive environment for all mothers to exclusively breastfeed their babies up to 6 months and to continue to breastfeed even for 2 years or more.

The target groups were pregnant women and post discharge mothers with families including children aged 0-24 months.

Research questions addressed by this proposal

- What are the major problems that mothers face during breast feeding practices?
- What kind of help do they need during breast feeding practices?
- Whom do mothers prefer to see in the role of facilitator in a Mother Support Group; health care providers or mothers - both trained in optimal breast-feeding counseling methods?

Methods

This research project is aimed to conduct a needs assessment among mothers to identify their knowledge, attitudes, practices (KAP) and barriers to optimal breastfeeding practices. The research is also aimed to find out 1) do mothers need MSGs, 2) who will

provide breastfeeding counseling in a MSG - a professional consultant or a peer consultant (mother-to-mother), and 3) whom do mothers prefer to see in the role of the breastfeeding consultant.

The researcher chose a qualitative research method. This method allowed the exploration of the problem as deeply as possible by stimulating group interaction for maximal response and gathering necessary information. Qualitative research methods give an opportunity for a better understanding of particular behaviors. Seven focus groups were conducted in this study. Discussions were held in health care facilities where the target group participants receive health care (specifically pediatric polyclinics in Yerevan and ambulatory in villages). The inclusion criteria for the target population in this survey were all mothers that have children at the age of 0-24 months. The focus group guide (FGG) includes domains, which through open-ended questions identifies knowledge, attitudes, practices, and barriers in optimal breastfeeding management among the mothers (see the appendix I). Also questions explored mothers' opinions about MSGs and who they would prefer to see in the role of breastfeeding counselor in a MSG (HCP-to-mother or mother-to-mother). To provide content validity for the FGG, a focus group was conducted in one of the Yerevan district policlinic among the five mothers with an infant 0-24 month of age. The guide for the focus group was developed with input from other professionals involved with infant care.

Study design

Seven focus group discussions were organized, three in Yerevan and four in Aragatsotn Marz villages. Yerevan was chosen because almost half of the Armenian population lives there. Aragatsotn Marz was chosen because the results of the DHS show that the rate of diarrhea among 0-24 month children is high and water accessibility is low compared with other Marzes. Those morbidities are an important consideration for infant oral intake. The distance between the communities of Aragatsotn Marz and Yerevan widely differ (varies from 10 km to 120 km).

Due to the resource limitations (fuel, car renting) the villages, selected for this research, were situated maximum 30-35km from Yerevan. In Yerevan three district polyclinics are chosen, using simple random sampling, which are “Kentron”, “Zejtun-Qanaqer” and “Nor-Nork” district child polyclinics. In Aragatsotn Marz the following villages were selected; Ohanavan, Karpi, Voscevaz and Oshakan. Sample size was estimated to be up to 50 participants (5-7 participants in each focus group). Mothers from these chosen regions participated in the focus group discussions, which lasted about 1-1.5 hour. During the discussion the moderator took notes. The participants were recruited by convenience with the help of health care providers working in the district policlinics of Yerevan and in the ambulatory of the selected villages.

Theoretical framework

Improved breastfeeding practices are more likely to occur if women perceive them as beneficial, feasible, and socially acceptable. One behavior change model identifies five stages in the process of changing individual behaviors and community norms (18).

1. Awareness of the alternative behavior and its benefits
2. Intention to try out the behavior
3. Trial of one or two feasible, effective actions
4. Adoption and maintenance of the alternative behavior
5. Advocacy of the new behavior to others

Those who promote breastfeeding can facilitate this process by presenting clear and adequate information on the benefits of breastfeeding, and by identifying practical actions to improve breastfeeding practices. In this program the process includes counseling and supporting women who adopt and maintain the behaviors that promote and support optimal breastfeeding practices.

Risk/benefit

The study had no risk for the participants who participated in the focus group discussions. Subjects will not have any direct benefits from participation, but during the discussion each mother acquired important information from other mothers that may support her in future breastfeeding.

Confidentiality assurances

Approval for the study was gained from the Institutional Review Board (IRB) of the American University of Armenia (AUA). Collected data is kept confidential. Each participant was assigned an identification number and only the principal investigators have access to the raw data. These data will be kept in a locked cabinet for at least three years. Only the aggregated data will be reported. After three years notes the will be destroyed thus assuring confidentiality and anonymity of the participants.

Discussion

In 2003, the researcher conducted seven focus group discussions among mothers from rural and urban areas, particularly in Aragatsotn Marz and Yerevan (see the attached notes of focus group discussions).

All of the focus group discussions started with a brief introduction of study objectives and explanation of the consent form (see appendix III). The discussions started with an "ice-breaking" question to the mothers to tell about their last delivery and the health of their baby at birth (for example weight and height).

The following sections were organized by the type of qualitative research questions that aimed to find out:

- mothers' general **knowledge and attitude** on breastfeeding;
- breastfeeding **practices**;

- participants' **opinion** about the introduction of mother support groups for maintaining optimal breastfeeding practices.

Responses to questions are presented here in summary format with quotes illustrating the main ideas.

Knowledge and attitude of the participants on optimal breastfeeding practices.

All participants mentioned **early initiation of breastfeeding**, as an important factor for optimal breastfeeding practices. Some of them report that early initiation of breastfeeding (1-2 hours after delivery) is very difficult for mothers, who are exhausted and are unable to accomplish it so early. Some of them mentioned the best time for breastfeeding initiation is after half a day or a day.

> *"Breastfeeding initiation should be started as soon as the mother is able to breastfeed. It is preferable to see the infant as early as possible to avoid problems. I have a book on infant care and this book helps me very much".*

The results of the focus groups revealed that the caregivers have inadequate knowledge of early initiation of breastfeeding. Although, most of the mothers know about the importance of early initiation of breastfeeding, they do not understand this concept as an underlying factor for good lactation maintenance, prevention of postpartum hemorrhage, etc. The results of the focus group discussions also show that caregivers are not well aware that early initiation is a good start for mother and child health. Few participants mentioned about the importance of colostrums providing a child's with "first immunization" in the form of natural immunity received from mother.

The majority of participants mentioned that **rooming-in practice**, which is now common in both urban and regional maternity hospitals, as a good practice that allows mother to be with her child 24 hours. For some of the mothers rooming-in practice was considered tp

be inconvenient because mothers want to have a rest, especially during the first few days after the delivery.

> *"I know that early initiation of breastfeeding is good, however, mothers are usually very tired after delivery and they need more rest, but in the hospital the child is taken to the room a few hours after delivery, when mothers cannot even take care of themselves".*

The results of the study show that some mothers do not view rooming-in as an opportunity for lactation promotion as well as for establishment of close relationship between mother and a child.

Most of the participants report that they breastfeed their children **on-demand**. However, few participants mentioned that scheduled breastfeeding is preferable.

> *"Now medicine denies scheduled breastfeeding and child should be fed on demand, for example I feed my child as soon as he wants".*
>
> *"I know that frequent, on demand feeding is good for maintaining lactation".*
>
> *"I think that a child up to forty days should be fed on-demand but then for normal development a child should sleep and eat on schedule".*

The majority of the participants are aware of the importance of on-demand breastfeeding and they consider it to be an optimal breastfeeding practice.

Almost all participants recognized the **benefits of breastfeeding for infant health** and growth. They consider breastfeeding as the best food for infant growth and development. The most frequent mentioned benefits of breastfeeding for infants included the perception that the breast milk meets the total nutrient requirement of infants, and that it protects infants from infections. In addition, it prevents the intestinal disorders, infections and is a convenient and easy way of infant feeding. They also mentioned the negative effect of breast milk substitutes on child's health. Although, some of the participants report that it is as nutritious as mother's milk. They also see no difference in weight gain between artificially fed and breastfed child and consider weight gain as a good health indicator.

"Breastfeeding positively affects child's health… it safeguards infant's health".

"Breastfed child is quieter, not nervous; and nothing can substitute mother's milk".

"Breastfed children do not have intestinal infections and their immune system is well developed. Such children are partially protected from other infectious diseases such as measles".

The research shows that overall the participants have a common understanding and adequate knowledge on the importance of breast milk for infants' health.

The awareness of the participants on the **benefits of breastfeeding on mother's health** is poor and incomplete, especially among rural participants. Only a few of them mentioned prevention of breast and ovarian cancer, contraction of uterus after delivery, and birth spacing as benefits of breastfeeding for mother's health. Many participants recognize breastfeeding as being financially beneficial, other participants mentioned psychological effect that establishes close relations between the mother and the child thus affecting positively on them.

"During breastfeeding close relationship develops between a mother and a child, artificial feeding does not generate emotions, even I can say that mother emotionally becomes cold toward her child".

They also do not know the proper usage of the lactation amenorrhea method for pregnancy prevention. Most of them think that they are protected from pregnancy as long as their menstrual cycle is not recovered.

"I know that breastfeeding can protect a woman from pregnancy for at least a year, or as long as her menstrual cycle is not recovered".

"Early initiation of breastfeeding shortens the uterus quickly thus preventing bleeding".

However, many participants mentioned the disadvantages of breastfeeding in terms of breast form changes, weight gain, tooth decay and the exclusion of many food types from diet during lactation period. Most participants thought that for effective lactation women should eat and drink after each BF. Also there is discrepancy between the counseling provided by health care providers from maternity hospitals and district pediatricians from polyclinics. The health care providers in the maternity hospitals exclude many food types from lactating

woman diet (cucumber, oranges, strawberry, pork, etc), whereas pediatricians restrict only few types of food (garlic, onion).

> *"Almost all women after breastfeeding have unattractive breast form. Breasts change their shape that's why some women avoid to breastfeed".*

> *"I had to eat and drink after each breastfeeding for lactation maintenance and after it I have gained additional weight".*

> *"It also has negative effect, e.g. it takes calcium from mother's body, thus affecting on teeth".*

During the discussions many **problems** were mentioned **that prevent a woman from maintaining and continuing breastfeeding**. Early breastfeeding cessation is more common among rural participants than urban participants. The main reasons for early breastfeeding cessations stated by rural participants are insufficiency of breast milk, cracked nipples, mastitis, work, and study. A few participants mentioned bottle-feeding, early complementary feeding, usage of teats and initiation of water and other drinks as impediments for early cessation of breastfeeding.

> *"I fed my child with breast milk up to three months, then when I felt that it was not enough I started to give her cow milk".*

> *"My child was not surfeited as breast milk was not enough for her".*

The participants mentioned the importance of physical and emotional rest for lactation maintenance. They also mentioned hard work or being a student as an impediment for continuing breastfeeding practice.

> *"Armenian women are usually overloaded with many responsibilities about the house and this can be a big impediment for early cessation of BF, because breastfeeding mother needs both emotional and physical rest".*

> *"Stress may dry up breast milk. Any bad or even good news may affect on breast milk production".*

> *"Problems connected with mother, e.g. problems with nipples, if their shape is different, and children that cannot suckle the nipples or they have cracked nipples, also if a child less than six months is given food or drink by bottle, it also can prevent breastfeeding".*

Some of the participants mentioned pregnancy and other illnesses for breastfeeding prevention. Almost all mothers immediately stop breastfeeding as soon as they found out they were pregnant. They think that breastfeeding can affect negatively both fetus's and child's health.

"As soon as I know that I am pregnant I stopped BF when my child was 11 months old. Although he ate normally and his digestion was normal but I was told to stop BF".

Almost all impediments for breastfeeding, mentioned by the participants are the results of incomplete knowledge and poor breastfeeding practices. They were not well aware that for the maintenance of breastfeeding the most important components are frequent breastfeeding that stimulates breast milk production and comprehension of breastfeeding techniques that assure long duration of breastfeeding.

Breastfeeding practices

The **optimal duration of breastfeeding**, according to the participants from Yerevan, is 1-2 years. Rural participants think that the optimal duration of breastfeeding is 6-12 months. Many of the participants think that breast milk looses its quality after six months, even some of them reported that after a year breast milk becomes poisonous.

"I BF my child four months, after which I felt that my breast milk was not enough for him. The doctor prescribed artificial feeding because he did not gain weight well".

"I BF my child 1.5 months then I started artificial milk and other foods little by little".

"During the first 4-5 months my child was only BF then I introduced other foods".

"Six months is compulsory, after it I know that breast milk quality is not as good and it's not as nutritious, that is why one year or so is completely enough".

In rural area using **cow milk** as infant feeding in case of insufficient breast milk is very common, while participants from urban area give **breast milk substitutes** in the form of prepared formula. Giving cow milk in rural area is partly due to financial difficulties for

purchasing breast milk substitutes and also low awareness about the difference between adapted and cow milk.

> *"During the first four days I gave breast milk, then the doctor told to give artificial feeding. First I gave NAN but the child was not surfeited from it, then I started to give cow milk and everything was normal.*

> *"I breastfed only 1.5 month… I drank teas and milk all day long, but it didn't help. The child didn't grow very well, and I started to give cow milk together with other vegetable soups and porridges.*

Some of the participants from rural areas think that cow milk should be given to children under one year of age. They also mentioned that their mother-in-laws insist on feeding a child with cow milk from 5-6 months or earlier.

> *"I also first knew that my milk was fatty but then my mind had changed, as the child was not surfeited. As soon as I gave cow milk the child calmed, but I continue breastfeeding up to six months".*

> *"In a village giving cow milk is very common and mother-in-laws often keep down their daughter-in-laws".*

Also some participants, mostly from urban area, pointed out the bad, insufficient quality of breast milk with watery consistence and without fat.

> *"One of the mothers in the maternity hospital told me to express the milk into a glass and see if a layer of fat appear on it, and I saw that my milk wasn't fatty at all, after which I stopped breastfeeding".*

Exclusive breastfeeding practice in rural areas is almost absent. All of them **started giving food or other drinks** from birth. Some of the participants from Yerevan are aware about exclusive breastfeeding; however most of them give water and other drinks from birth. They consider water as a necessity for child's survival.

> *"My child was very restless and wanted to eat more frequently. Then I started giving sweetened tea or water from bottle to calm down the child".*

> *""I think water and juices can be given from two three months. For example I gave my child water and tea from birth. I gave her special teas to avoid gases, then from 2 months juices".*

The early introduction of **complementary feeding** to an infant is also very common among both urban and rural participants. They start giving fruits, vegetables, soups and pures early (before six months), and those who stopped breastfeeding even earlier.

"I started from 4 months with vegetable pures and soups, fresh juices".

"From three months I started to give my child vegetable soups, then soups with meat, mashed potatoes and other porridges".

Also the participants' awareness on exclusive breastfeeding, especially among rural participants, is low. They introduce water from birth and they consider 2-3 months as an appropriate time for introducing foods other than breast milk. They do not perceive early introduction of liquids to an infant as one of the main reasons of decreased breast milk production and the cause of frequent diarrhea among infants. Perceived insufficiency of milk, inappropriate breastfeeding management skills and poor knowledge on optimal breastfeeding practices also contribute to the above situation.

Almost all participants reported that they received **breastfeeding counseling** while pregnant, in the maternity hospital or after the discharge from the hospital by HCPs. However, all participants were not content with the quality and amount of received counseling. They also mentioned that the district pediatricians and nurses from polyclinics were more attentive, gave more useful advises and were better advocates for breastfeeding maintenance than the HCPs from maternity hospitals. The participants mentioned the importance of right breastfeeding techniques for avoiding lactostasis and cracked nipples. However, the participants from Yerevan are better informed about correct attachment of infant to a breast than the participants from rural area. Rural participants complain that they were not shown or told the correct techniques of breast attachment, especially mothers delivering first babies. Mainly the participants got counseling from their mother-in-laws, neighbors or other experienced mothers when they experienced problems with breastfeeding.

"I did not receive any counseling, neither from nurse nor from the doctor. Mothers in the room help each other and give advises more than any of health providers in the hospital do".

"In the maternity hospital usually are not as helpful, but our pediatrician and nurse pediatrician have paid home visits after the discharge from the hospital, and they were very attentive, gave a lot of advises for maintaining BF longer".

"Now in many maternity hospitals babies stay with mother just after giving birth and inexperienced mothers do not know how to feed. I think good support is needed for them for BF establishment".

Most of the participants reported that they have developed sore nipples, their breasts were hardened, and they could not breastfeed the child appropriately. Some of them mentioned that they wash breasts before and after each feeding. HCPs from maternity hospitals do not provide appropriate breastfeeding counseling. Most of them still advice mothers to use liniments, buckhorn berry oil for sore nipple treatment.

"In the hospital they told me to apply special liniment to the cracked nipples and told me to wash carefully before BF or to use oil, common oil and I preferred to use oil".

"I had mastitis and I didn't know what to do. I was told to use traditional methods such as pickles, I put chopped pickle on the breasts, which only worsened the situation and then we had to refer to the doctor. I was also told to use green nutshell for flat nipples, to make them out".

"I am for breastfeeding but I was not able to feed as I had problems with breasts, mastitis began".

"During breastfeeding an infant should suckle whole areola and mother should hold it with a proper position".

All problems that occur during the breastfeeding period are mainly due to the luck of breastfeeding counseling, inappropriate advise received from family members, as well as HCPs. Most of the participants refer to traditional methods or healer's treatment rather than a specialist in case of problem (cracked or flat nipples, lactostasis and mastitis).

"My mother-in-low was my first adviser".

"My adviser is my mother-in-low and as she was abroad for few months I couldn't overcome the problems and stopped breastfeeding from three months".

"Our grandmother, mothers-in-low give us advises. But I prefer to refer to a health care provider. When I had hardening in my breast the nurse suggested me to breastfeed the child more often and it helped".

Mother support groups

Most of the participants considered **introduction of mother support groups** as an interesting and good idea for preventing breastfeeding problems. They think that it would be very helpful for mothers, especially for those who experienced their first delivery and needed more support and promotion for breastfeeding maintenance. Some of the participants thought that such groups should start their work not only after delivery but during pregnancy, when a woman was more prone to accept new ideas and was less overloaded with other responsibilities.

"I welcome such initiative, which will be useful not only for a pregnant woman but also for a mother, as many problems occur that you can not imagine until you are encountered with them. If a pregnant woman participates she will not have problems in future".

"It will be beneficial for both mother and a child. Mother will not develop sore nipples and will BF with pleasure and child will not be nervous".

"I think it's a good idea, especially for primipara women. This will be helpful, as mothers, who usually rely on their parents 'or neighbors' advises, will know whom to refer for professional help".

"I think it will be good because primipara mothers don't know very much about breastfeeding, also counseling during pregnancy will be helpful in preparing mothers for future and I think it's even compulsory. If pregnant mother is prepared in advance for overcoming problems they are somehow ready to meet them".

In **the role of breastfeeding counselor**, most of the participants suggested a HCP rather than an experienced mother. However, there were some participants who suggested both a HCP and an experienced mother to provide counseling together.

"Experienced mother is good, however she will give advises only based only on her own experience. That's why I would prefer a doctor or a nurse. Also most of the doctors and all nurses are women, who have their own children and they can also give advises from their own experience as well".

"As for me I prefer an experienced mother as contacts with her will be easier, but it's preferable to take place under the supervision of a health professional".

"Of course health care provider because she is more knowledgeable, and she can give advises not only about breastfeeding but also on other problems".

"It would be better that both together provide counseling. It's easier to contact with a mother, but from the other side a health care provider knows more, that's why together will be better".

The results of the discussions show that the participants were very enthusiastic about the idea of mother support group introduction that could help mothers to overcome problems with breastfeeding. They refer to see a specialist in the role of breastfeeding counselor, because they trust them more in terms of knowledge and experience in that field.

"I think all people trust a specialist more than any other, even experienced person. However, people refer them less because specialist's consultation is expensive. That's why people refer to traditional healers or their friends and neighbors, because their advice is free and only after, when nothing help they bring their child to the doctor".

"I would trust a doctor more in terms of both knowledge and experience, because an experienced mother may provide counseling from only her own experience".

Almost all participants suggested the district polyclinic as an appropriate place for provision of breastfeeding counselling provided by mother support groups. They explained that mothers frequently pay visits to the district polyclinics for child health and growth monitoring, as well as for immunizations and it would be convenient to receive breastfeeding counseling during that time. A few participants mentioned maternity hospital, women consultation or a separate place for counseling provision.

"The polyclinic will be convenient, because mothers often go there".

"Ambulatory will be convenient, as we often go there for immunization or in case of other problems".

The **information** that most of the participants would like to receive from mother support groups was not only about breastfeeding counseling but also many other problems that mothers usually encounter during the first few years of a child's life.

"During this discussion I have found out that I miss a lot of information on how and what to feed or when to start giving other foods to a baby".

"About everything that we have talked during the discussion, like BF, complementary feeding".

"About healthy child nutrition, or lactating mother's nutrition or how to prevent sore nipples, mastitis".

Most of the participants first of all suggested that pregnant women and inexperienced mothers receive breastfeeding counseling from mother support groups. Some of them proposed fathers and other family members to receive counseling from those groups. They mentioned that family members, especially mother-in-lows, dictate to young mothers about how to take care of a child, giving wrong advise and insisting on them.

"Mother-in-lows and grandmothers should participate in such training, because sometimes they give wrong advises and insist on them, and it's difficult not to follow them".

"It will be good if fathers also participate, although Armenian fathers would hardly come to these groups".

"I think mother-in-lows should receive such counseling because mostly they suggest us to do this or that way".

During the discussions some of the participants expressed a desire to become a breastfeeding counselor and help breastfeeding mothers in case of problems. Those are mostly experienced mothers who managed to breastfeed their children successfully. Some of them were ready to provide counseling on a voluntary bases. The other participants did not feel confident in taking such responsibility for counseling provision and thought that it was HCPs' responsibilities.

"I think BF couseling is HCPs' business and they will conduct it very well with provision of other important information besides BF".

"If I were paid for this job I would work with pleasure, without payment I would think a little bit".

"Although I have a great experience in child raising, I wouldn't like to conduct such counselling, I would prefer to refer them".

"I will participate in such a training with great pleasure and help other mothers on voluntary bases".

The discussions found out that the role of health care providers was perceived to be very important by the participants, and their roles should be taken into consideration for the implementation of mother support groups.

Conclusion

Overall, the study shows that most of the participants positively percieve breastfeeding and consider it as an important factor for a child's healthy growth and development. Most of the participants are well aware about the benefits of breastfeeding for infant health but few of them know its benefits on mother's health.

The practice of exclusive breastfeeding is almost absent. The early introduction of water, tea, cow milk, and other liquids is very common. Complementary feeding usually starts early (before six months of infant's life). The main impediments to optimal breastfeeding practicies are reported by the mothers to be insufficiency of breast milk, sore niples, mastitis, lack of knowledge about breastfeeding management, and lack of support for breastfeeding from health care providers as well as family members. Also other social and environmental factors such as working and studying are also perceived as barriers to optimal breastfeeding practices.

The main sources of information for breastfeeding identified by the study participants are family members, friends, other experienced mothers as well as HCPs.
Almost all participant welcome the idea of a "mother support group" that could help them to overcome the problems that usually occur during breastfeeding. Most of them prefer to receive counseling from a specialist or a specialist together with an experienced mother on breastfeeding management skills as part of these groups.

Recommendations

Based on the results of the focus group discussions the following recommendations are made:

- To organize training on breastfeeding management skills for health care providers and experienced mothers who want to become breastfeeding counselors. The involvement of pediatricians, ob-gyn physicians and nurses working in primary care is especially important. These professionals have significant contact with mothers and infants during pre-natal and post-natal care.
- To allot a special area adjacent to the polyclinic or maternity hospital for organizing "mother support groups" cabinets. These groups can provide free counseling conducted by a breastfeeding counselor (specialist, experienced mother). They can organize frequent group discussions by inviting experienced mothers, primipara mothers and pregnant women for sharing their experience with each other, of course in the presence of a specialist, increasing knowledge in managing lactation problems, and enhancing mothers' confidence regarding breastfeeding..
- Mother support groups can also pay home visits to mothers who have encountered breastfeeding problems.
- Mother support groups can also be directed toward fathers and other family members (e.g., grandmothers, mother-in-laws) who greatly influence the women's decision to breastfeed.

Time framework

The research lasted seven months – from March till September, 2003 (see appendix II). In March open-ended questions were prepared for target beneficiaries. In June seven focus groups were organized. In July and August analysis of results was completed. Based on the

analysis and the results, in August and September the research was reported in written and oral presentation.

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Appendix I

Field Guide for Focus Group Interview with Caregivers from Yerevan and rural areas:

Needs assessment for introduction of mother support groups to maintain optimal breastfeeding practices among breastfeeding mothers.

1. Tell me about the delivery with your last baby. (How much did he/she weight, what was his/her health status at birth?)

General knowledge and attitude of the caregiver on breastfeeding

2. What do you know about the optimal breastfeeding practices?
3. In your opinion when the newborn infant should be initiated with breastfeeding after the delivery?
4. What is your opinion about breastfeeding?
5. In your opinion what are the benefits of breastfeeding for infants? (What are the disadvantages?)
6. How do you think breastfeeding affects the woman's body?
7. In your opinion what kind of problems could you think of that prevent a woman to maintain and continue breastfeeding?

Breastfeeding behavior of the caregiver

8. How did you feed your baby after the delivery? What kind of food did you give your child and what were the reasons for doing that way?
9. How did you feed your baby; scheduled or on-demand?
10. Now how do you feed your child during the day?
11. When do you think is the best time to start giving any food or liquids other from breast milk to the baby?
12. Tell me what influences you to feed your child this way?
13. Tell me about the duration of breastfeeding. (How long does the whole period of breastfeeding last, as well as the duration each breastfeeding?)
14. How can you tell that your baby is getting enough milk?
15. Tell me about any problems you have that disturb breastfeeding. (What did you do?)
16. Tell me about the work you do. (How may your work affect your breastfeeding practice?)

Participants' opinion about "Mother support groups" (MSG)

17. What kind of advice did you get from the nurse/physician of the maternity ward?
18. Describe your contacts with health care providers. What is your attitude toward them?
19. Were you shown the right breastfeeding techniques? Whom do you refer when problems occur?
20. Are you satisfied with the care you receive/ received from medical personnel?

21. What do you think about a mother support group that will provide free breastfeeding counseling to mothers after their discharge from the maternity hospital?
22. Do you think MSGs will be helpful to overcome problems that occur during breastfeeding period? How do you imagine it?
23. Whom do you prefer to see in the role of breastfeeding counselor in MSG a health care provider or an experienced mother? Explain why?
24. Whom would you trust more a health care provider or an experienced mother? Explain why.
25. Where (location) do you prefer to get such kind of counseling? Why?
26. If there were such groups would you refer them for professional help? Explain why?
27. What kind of information, help would you like to receive from MSGs? In what frequency would you like to have contacts with MSGs?
28. Besides mothers who else should receive breastfeeding counseling from MSGs?
29. If you had an opportunity to get training in optimal BF practices, would you like to conduct such counseling? Explain why?

Appendix II

Gannt Chart

Activities	March	April	May	June	July	August	September
Preparation of questionnaire	X						
Preparation of IRB form		X	X				
Focus Group discussions				X	X		
Analysis					X		
Final analysis						X	X

Appendix III

American University of Armenia

Department of Public Health

Disclosure Statement

Hello, my name is Victoria Sargsyan. I am a student at the American University of Armenia. You are invited to participate in a group discussion of a research study. The aim of this study is to find out the role of the Mother Support Groups. You are chosen for this discussion as your child's age meets the requirement of this study – 0-24 months.

I would like to talk with you about the way you feed your child, about what you feel and know on breastfeeding, its benefits and also the problems that you face.

Please, feel comfortable during the discussion. I will try not to touch upon sensitive questions during the discussion. If you however find any of them rather sensitive, please feel free not to answer them. The information that you provide will be used only for this project purpose. Any information that you provide will be kept confidential. Your names will not appear in the report. Only aggregate data will be reported. Any other information that may identify you is not required. Collected data will be kept in locked cabinets for three years and then destroyed. Only principal investigators may have an access to the raw data.

The discussion will last an hour. Your participation is your voluntary choice. You have the right not to participate or drop out from the discussion anytime. You are free to express your ideas, comments and suggestions, as well as ask questions about the study or about the discussion.

There is no risk for you as a participant in this study. You will not receive monetary benefits for your participation in this project, but your participation and the information that you will provide during the discussion will be valuable for our study.

If this information is not clear to you or you need additional explanations you may call the American University of Armenia to Yelena Amirkhanyan with the following phone number (3741) 512568 or Michael Thompson (3741) 51 25 92.

Thank you very much for your participation.

Focus Group Moderator's Signature _____ **Date**_____