KNOWLEDGE AND INFANT FEEDING PRACTICES' INFLUENCE ON ARAB IMMIGRANT MOTHERS' INITIATION AND EXCLUSIVE BREASTFEEDING

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Abstract

Breastfeeding is known to provide health benefits for newborns and breastfeeding mothers. The World Health Organization and Health Canada recommend exclusive breastfeeding for the first six months of an infant's life. However, the rates of exclusive breastfeeding practices among Arab immigrant mothers are lower when compared with rates for non-immigrant Canadian mothers and mothers in the immigrants' countries of origin. Critical ethnography was used to explore the contextual factors that influence the initiation and exclusive breastfeeding practices by Arab immigrant mothers in Canada. Critical ethnography, using individual in-depth interviews was employed to explore the breastfeeding practices among immigrant Arab mothers in Alberta, and factors influencing the mothers' decision or ability to breastfeed exclusively. Exploratory and open-ended questions were used. Face-to-face interviews were conducted with ten women for 1 and 1 and ½ hours . Participant selection criteria included Arab mothers who were within six months postpartum, aged 18–49 years, and who have resided in Canada for less than five years. An analysis of the qualitative narrative data indicated that knowledge and traditional infant feeding practices primarily influenced Arab immigrant mothers' initiation and exclusive breastfeeding practices. The findings from this study have the potential to facilitate supportive culturally safe and sensitive interventions that are tailored to address Arab mothers' breastfeeding concerns and needs, so that exclusive breastfeeding might be promoted within this population in Canada. Further, the research will provide information needed for addressing some key challenges relating to culture, religion, and the healthcare system.

Key words: Arab immigrant mothers, exclusive breastfeeding,

Introduction

Breastfeeding is universally recognized as the most appropriate method of infant feeding (1). It provides several health benefits for children, breastfeeding mothers, and for the community. WHO and Health Canada recommend that it be the only source of nutrition postpartum for healthy, full-term babies (2,3). This practice is known as exclusive breastfeeding and is defined as feeding infants human milk only, with no supplementation of any liquid or solids apart from vitamins, minerals, and medications for at least the first six months of an infant's life (4). Breastfeeding practices within Canadian society are considered a public health issue, due to the many associated health benefits and cost savings to health care (5,6,7).

Although breastfeeding initiation rates in Canada are high immediately after birth (90.3%), by 6 months of age, only 13.8 % of babies are breastfed exclusively (8). There is some evidence that new immigrants in Canada are more likely to initiate breastfeeding than their Canadian-born counterparts (9,10). However, by 16 weeks post-partum immigrant mothers are significantly less likely to opt for exclusive breastfeeding (50.7%) in comparison to non-immigrant Canadian mothers (70.9%) and mothers in the immigrants' countries of origin (11).

In Arab society, customs around childbearing are informed by the common language (12), the religion of Islam and family traditions. Fifty-five percent (55%) of Arabs who live in Canada are followers of Islam(13). Breastfeeding an infant is considered the child's God-given right, endorsed by the Qur'an (Islamic sacred book) and the Hadith (Islamic traditions), and is considered a spiritual act by Muslims (14, 15). These teachings influence individuals' breastfeeding perceptions and actions (14).

Overall, breastfeeding is a common practice among Middle Eastern mothers with high initiation rates in Kuwait (18), Lebanon (19), and Saudi Arabia (20). However, practicing exclusive breastfeeding for six months is less common among Arab mothers (21) with low exclusive breastfeeding rates. In the cultural context, Arab mothers seek to breastfeed their children for at least two years following birth (15). However, it is a common practice among Arab mothers to stop breastfeeding earlier. Experiencing breastfeeding problems is a key reason mothers quit breastfeeding early (22, 23, 24). Arab mothers' perceptions of insufficient breastmilk production or their uncertainty regarding the amount of milk the infant receives are significant factors contributing to the decision to continue or not continue with exclusive breastfeeding (21, 25). In various studies conducted in Arab countries, the mothers were found to be concerned about their inherited inability to produce milk, having "bad milk", and nutritional value or supposed health risks of colostrum (26, 27, 28).

Family traditions and beliefs may influence breastfeeding practices (14). The practice of introducing sweetened water and other non-milk supplementation early in an infant's life is especially common in Arab culture (29). Use of water or other supplementation within six months of childbirth has been associated with a reduction of frequency of breastfeeding, delay of lactation onset, rise in infant weight, and lower duration of breastfeeding (30). During breastfeeding, mothers are encouraged to take the herb black seed also known as blessed seed (Nigella Sativa) (31). Some Arab mothers, particularly in Egypt, are offered "mughaat" which is a combination of powdered fenugreek seeds and nuts fried in butter and sugar (31). Additionally, mothers are encouraged to take a lot of broth and soup to improve milk production (32).

Understanding cultural values, beliefs, and practice of breastfeeding among Arab mothers during the postpartum periods is necessary for the initiation and sustainment of successful exclusive breastfeeding. Therefore, the purpose of this qualitative research is to explore the social and cultural contexts that influence the initiation and exclusive breastfeeding practices among Arab immigrant mothers. In the current literature, few studies have examined breastfeeding among immigrants in Canada (i.e., the majority of studies reviewed were done in the United States and European countries). Secondly, an extensive search of the literature failed to identify an in-depth understanding of contextual factors by healthcare providers (HCPs) that influence Arab mothers' breastfeeding practices in Canada.

Critical ethnographic research is needed to provide in-depth information about Arab women's perceptions of breastfeeding which can then be used to develop health education programs and services that will support the initiation and sustainment of exclusive breastfeeding practices among Arab mothers. The following research questions guided this exploratory ethnographic research.

How do Arab mothers conceptualize exclusive breastfeeding practices, and utilize available health care services to support infant breastfeeding and exclusive breastfeeding? How do contextual factors influence Arab mothers' breastfeeding experiences and decisions regarding exclusively breastfeeding their infant and what services or strategies could promote Arab mothers' breastfeeding and exclusive breastfeeding? In this paper, Arab mothers' knowledge and infant care practices influence on their decisions regarding exclusive breastfeeding is described.

Methodology

Theoretical Framework: Critical Social Theory (CST)

The theoretical foundation for this qualitative study was based on CST. CST emphasizes language, power relations, and the social processes associated with knowledge. HCPs can use the communicative interpretations of CST to investigate and reduce communication failures that result from unconfirmed, unintentional, or erroneous assumptions and cultural misunderstandings between HCPs and patients (33). Inadequate communication may have serious negative consequences on the immigrant mothers, including increased psychological stress and misunderstanding of health information and medical advice (34). The language barrier was the most pervasive barrier to health care access and quality of care for Arab immigrants(34, 35). Adopting CST methodology empowers Arab mothers to have their voices heard and enhances their communication skills by freely sharing their experiences using the language of their choice.

In this study, Carspecken's critical ethnographic method (1996) is used as immigrant women of Arab origin who come from cultures that are significantly different from those in Canada. Further, due to their racial and cultural orientations, immigrant mothers are largely predisposed to discrimination which inhibits their level of access to opportunities (35). Findings from the various studies highlight the historical marginalization of visible minorities in Canada, immigration status, gender relation, and cultural values creating a background that influences infant feeding practices in recently immigrated mothers (9, 10). The critical ethnography, which has CST as its theoretical foundation, facilitates Arab mothers to have more authority to express their perspectives, challenges, and desires, address unequal power relations, and to gain a new understanding of factors that influence their health care practices through empowerment and critical thinking.

Participant selection criteria included Arab mothers living in a metropolitan city in western Canada; who were within six months postpartum; older than 18; thus able to provide informed consent; and residents of Canada for less than five years as the duration of immigration influences breastfeeding initiation and exclusive breastfeeding (36). Participants were excluded if their babies were born before 37 weeks of gestation or if they were caring for an infant with congenital abnormalities. As a significant place for attendance by members of the Arab community, key personnel in Postpartum Community Services (PCS) were identified. Detailed information about the study, its purpose, and eligibility criteria along with the first author (RD)'s contact information was shared with Arab mothers. A list of potential participants was shared with the RD after their permission was obtained. Purposive sampling and snowball sampling techniques were used for recruiting. Recruitment was ongoing until data saturation was reached after 10 interviews.

All mothers who enrolled in the study were interviewed face-to-face within six months of their infant's birth at their homes with minimal distractions. Participants were provided complete information about the research. They were given the choice to be interviewed in Arabic and English. All of them chose to be interviewed in Arabic. RD engaged in reflexive journaling during the research process to achieve reflexivity paying careful attention to her social, cultural, and professional positioning and how they influenced her actions and thoughts in the field and interpretation of the data.

Data Collection and Data Analysis

Carspecken's (37) five-stage process for doing critical ethnography was followed. Individual in-depth interviews, using a semi-structured questionnaire with open-ended questions such as "Tell me about the beliefs and values that influence your decision to participate in breastfeeding" and "what comes to your mind when I say "exclusive breastfeeding"? were used. Additional probing questions were used to explore, illuminate, and clarify Arab mothers' breastfeeding experiences in greater depth.

Prior to starting the recorded interviews, the participants' physical environment, behaviors, activities, social interactions, timing, tone of voice, gestures, body movements, and facial expressions were observed. The preliminary reconstructive analysis was used for analyzing the primary record and reconstructing meanings from the observations collected in the first-stage. When reviewing the primary record, RD identified relationships between meaning reconstruction, power, and roles that influence participants' breastfeeding experiences.

The interviews were conducted for approximately 60 to 90 minutes in duration in Arabic, the participants' primary language and, with permission from participants, were audio recorded. The recorded interviews were translated into English. Data analysis included three aspects: description, analysis, and interpretation of culture the Arab mothers shared. Data coding and categorization were undertaken using NVivo software. Data were coded into categories and themes using low-level coding to group initial data. High-level coding of abstraction was then generated by linking categories to provide coherence and meaning to themes. Throughout the research process, the data were revisited several times and reconceptualization in order to move beyond the categorisation of data to the more in-depth synthesis and construction of these meaning fields. To further achieve trustworthiness, credibility, transferability, dependability, and confirmability of meaning reconstructions, three participants were interviewed again for member checking. Additional information from these interviews was incorporated into the research results.

Results

Four primary components of support emerged from the analysis of the participant interviews: knowledge, family, religion, and infant feeding practices. Because a full discussion of all four themes would be very lengthy, this paper is limited to knowledge and infant feeding practices. Family and religion are presented in a separate paper. All participants' names used in this paper are pseudonyms.

Knowledge

The findings of the study indicated that all participants had some knowledge regarding breastfeeding. However, they did not have specific knowledge about exclusive breastfeeding, nor were they aware of the recommended number of months to exclusively breastfeed. Six out of ten Arab mothers breastfed their infants; none of them practiced exclusive breastfeeding for six months as recommended by the WHO and Health Canada. They provided fluids other than breastmilk to their baby without knowing the negative impact of these fluids on breastfeeding frequency and duration. When asked about exclusive breastfeeding, the participants had never heard of it or mistranslated and misunderstood the phrase as "only the mother feeding the baby". The participants of this study indicated that they were never told by their family members or HCPs back home or in Canada about the practice of exclusive breastfeeding. Lena put forth that the concept of exclusive breastfeeding was unfamiliar to Arab mothers: "This terminology does not really exist in the Arab world"

Five participants expressed their concern that the practice of exclusive breastfeeding would not be sufficient for a baby's growth. Rather, they supported the introduction of formula as a complement to breastmilk to meet the baby's demands and promote their growth. Eman voiced her thoughts on this subject: "I learned that breastmilk is better than formula feeding but not only breastmilk." Haneen feared that she may not have "enough milk" to fully feed the baby without supplements. "Based on my experience, I think it will be next to impossible to only breastfeed without formula feeding. Without the formula, my baby will lose weight and her health will deteriorate", she added.

Misinformation about the nutritional value of the formula in comparison to breastmilk may have influenced breastfeeding practices among Arab mothers. Rania voiced her opinion on breastmilk versus formula saying: "In general, I think that formula is also very good. I do not think there is any difference between the two." Some of the mothers conveyed the belief that formula milk contains more nutrients than breastmilk. This was evident in the statement by Shaima who said: "When they [mothers] look at the formula feeding label, they see all the vitamins and they think they do not have it in their milk." Consequently, their lack of knowledge and misinformation inhibited their ability to make informed decisions about optimal feeding options for their infants.

Four participants spoke about the possible negative impact of formula feeding on infants, for example, diarrhea, constipation, stomach gas and discomfort, and lack of immunity. Four of ten participants mentioned that formula supplementation was advised by the doctors and nurses to maintain the child's growth, weight, and hydration. Maya mentioned that she was sent to the hospital emergency room for the child's weight loss where the doctor advised her to formula feed. Maya said, "I think it is the doctor's decision, it is not the mother…if a mother cannot breastfeed for more than two days, they would immediately give formula feeding." These mothers seemed to believe that by combining breastmilk and infant formula, their babies had better outcomes in terms of weight gain and overall wellbeing.

The participants acquired knowledge through a variety of ways including handouts in clinics, doctors' offices, and the hospital, internet, DVDs, and incidental (non-scheduled) teaching by nurses, lactation consultants, and dietitians. However, the mothers asked for more information about aspects such as feeding, positioning the baby to facilitate latching, how often to feed, and whether to combine breastfeeding with formula feeding. They also had questions about what foods they should eat to stimulate milk production, how to care for engorged breasts and sore nipples, and whether lack of breast engorgement was an indicator of lack of milk. What they were advocating for, although they did not use the term, was an expansion of the nurse's role to include these components of care more completely. Receiving a brochure that included the information they needed was not sufficient since it did not give the nurses the opportunity to ensure that their clients understood the relevant information. For example, Fatima suggested: "It would be better to inform mothers about the benefits of breastfeeding… may be teaching mothers about the latching positions."

Even when knowledge was made available, a major barrier to its acquisition was language. Some of the mothers spoke about the language barrier as an obstacle to understanding the information given by the HCPs. Lena said: "I do not speak English, so it was hard for me to understand the nurses." Their lack of comprehension was compounded further by the use of medical terms by the HCPs preventing even those who could speak English from really understanding. For instance, Sara explained: "My English is very poor, and I could not understand the medical terms." This lack of ability to communicate can be frustrating and worrying, and indirectly inhibit mothers' ability to breastfeeding.

Infant Feeding Practices

The participants came from a variety of Middle Eastern countries with different cultural beliefs and practices pertaining to the production of breastmilk and its quality, and introduction of foods in addition to breastmilk.

Traditionally in Arab societies, water, herbs, formula milk, medicinal liquids, and supplements are given to babies at various stages of infancy. As Sara explained: "In our culture [in Iraq], we give our babies sugar dissolved in water in the first three days of the baby's life to clean their stomach from bacteria and the amniotic fluids that were swallowed inside the mother's womb." Maya, who is also from Iraq, cited the practice of giving herbs such as anise meant to alleviate gas pains. Maya chose not to give this herb, despite her grandmother's insistence, based on advice she received from Canadian doctors and nurses. This is an example of conflict, which can arise between cultures that have different beliefs and practices. Giving herbs is also the practice in Egypt although they are started after the first month. It is believed that products such as anise, licorice, fennel, etc. help to calm and relax the babies.

Giving water in addition to milk was also a practice among Arab mothers in this study, although the reasons were not always clear. In Canada, the participants reported that the nurses told them not to give water to their babies although Haneen was told she could begin giving water when her baby was six months old. The advice to withhold water created a conflict for Rania. While in Canada, she chose not to give water to her baby. However, when she visited Tunisia, she was reprimanded for not giving water to the baby. Most, but not all, of the participants said they were likely to hold to traditional beliefs and follow the traditional practice in their decision to give or not to give water. Other participants stated that they also gave their babies medicinal liquids and supplements. For example, Fatima and Asma started giving their children Gripe Water right after birth to treat colic or stomach discomfort.

Participants reported divergent practices related to the early introduction of solid foods in contradiction to the teachings in Canada where solid foods are not introduced until six months of age. Explaining the tradition she followed in Iraq, Eman said, "After turning three months old, I [normally] try to feed them things that we eat. I learned it from my family." Other participants, like Shaima and Fatima, mentioned that they start having their infants taste food within the first 40 days of the baby's life, so the infant can "get used to it". Also, right after birth, they start feeding infants boiled milk, dates, and some fruits in order to, as suggested by Shaima, provide extra nutrition and build up their immunity against food allergies. Fatima added that introducing solid foods can reduce picky eating habits in children.

All of the participants identified the quantity of milk they produced as a source of concern. In the absence of any method to measure the milk, some believed that the amount of milk was insufficient especially when their babies did not settle readily or slept only short periods between feedings. Factors that affected the production of breastmilk included infant sucking difficulties, mother's fatigue, stress, diet, bottle preference by the baby, and supplementation with formula. A number of interventions were initiated in response to these factors. Shaima, who practiced both breastfeeding and formula feeding due to low milk production, argued, "I tried to breastfeed her [the baby] for the first month; however, the milk secretion got lower slowly … so, I had to give her formula milk." Similarly, Rania struggled with getting her son to latch on properly, she also felt that her milk supply was inadequate for him. Although at first, Nadia was able to easily feed her baby, once her milk supply started to diminish, she chose to formula feed as well; now she just formula feeds. Lena contributed her baby's weight loss to the low milk supply which caused her to switch to formula feed.

Getting the baby to latch properly was one of the breastfeeding difficulties encountered by several of the mothers. Two reasons for this included nipple size (too large, too small) and incorrect positioning of the baby. Haneen said, "Due to my [big] nipple's size, the nurse gave me a nipple shield to make the sucking process easier for the infant." Eman emphasized: "A nurse actually helped and showed me how to put the baby in position for breastfeeding. Before that, I used to use only one position to breastfeed my baby." These mothers noted that the support provided by the nipple shield and the concurrent teaching by the nurses helped them to initiate breastfeeding.

Measures used to stimulate greater milk production included using a breast pump, feeding the baby on demand, medications, breast massage, application of warm cloth on the breast prior to feeding, and the mothers' diet. Asma explained: "I massaged my breast and put something warm on top of my breast to help increase the milk supply. It worked for a while, but I generally do not have enough milk." In relation to diet, Rania maintained that the amount of breastmilk she produced was dependent on the amount of milk that she drank. When these various interventions failed to achieve the desired result for at least eight of these mothers, they were advised by HCPs to supplement breastfeeding with formula feedings. Nadia described:

I breastfed her [the baby], but she always cried a lot and the nurse asked me to give her formula milk. The milk supply […] came out in such small doses. The nurse told me to give her the formula at night so that she sleeps, and I can rest too." However, some of the participants noted that supplementation with formula reduced the number of breastfeedings resulting in diminished milk production. Consequently, while some of the women continued with a combination of breast and formula feedings, others discontinued breastfeeding in favor of formula feedings only. None of the women continued with breastfeeding exclusively.

Other factors that influenced the participants' decision to breastfeed versus formula feed were convenience and finances. Breastmilk was readily available, free of contaminants, easy to store in the freezer without deteriorating, and inexpensive. Asma expressed her concern regarding the price of the formula: "Not everyone

can afford the financial status to provide formula milk." Haneen suggested: "It is better to breastfeed if a mother can, to save some money." On the other hand, Rania touched on the inconvenience of breastfeeding due to her inability to go out to work, or out to rest and relax.

Other potential negative outcomes of breastfeeding that were expressed by participants were related to body image. As Nadia stated: "It [breastfeeding] changes the breast's shape and makes it look saggy." Sara asserted: "Some mothers would rather choose style and clothes over their child's health because it is uncomfortable to wear stylish clothes while breastfeeding […] so the formula is the new trend." During the member checking, it was observed that there was general concern among some mothers with regards to the long-term effects of breastfeeding on their physique and social life. Lena confirmed: "I know that many women, including my sister, would not breastfeed because they do not want their breasts to sag."

Discussion

Knowledge

The level of knowledge among the Arab mothers with regards to exclusive breastfeeding influences delayed initiation and early cessation of breastfeeding. Emmanuel (38) reported that inadequate knowledge about exclusive breastfeeding may cause mothers to turn to a combination of breastfeeding and formula feeding or formula feeding alone. This is especially true when the mothers perceived that their milk supply was inadequate for their babies' needs. Studies related to the evaluation of the nature of breastfeeding decisions (39, 40, 41, 42) suggest that mothers are predisposed to make poor choices when there is a lack of adequate knowledge or family and spousal support. Moreover, mothers with lower education backgrounds often reported more misconceptions regarding breastfeeding and formula feeding (43). According to Wandel et al.(24) improving the level of maternal education is positively linked to the enhancement of infants' health outcomes. Despite several Arab mothers in this study having a post-secondary education, a significant number of them did not follow the six-month requirement for exclusive breastfeeding. Thus, Siggia and Rosenberg (44) suggested the need to adopt effective education strategies about the relative benefits of different breastfeeding methods.

In this study, Arab mothers with low milk supply as assessed by the HCPs in the hospital were advised to use formula milk to satisfy their infants. Such advice undermines the practice of exclusive breastfeeding especially if the mother does not know that giving formula negates exclusive breastfeeding (45, 46). One of the mothers in the study felt that the healthcare provider did not give her any option other than to introduce formula feeding to her baby. Others were reluctant to use formula supplementation but, after further discussion with the nurse, capitulated. De Almeida, De Araújo Barros Luz, and Da Veiga Ued (47) reported that many HCPs possessed theoretical expertise on breastfeeding, but they lacked the practical skills related to promoting breastfeeding. To better support exclusive breastfeeding, Chantry et al.(45) suggested that strategies should be sought to support breastfeeding and to avoid unnecessary formula supplementation. HCPs need to be better trained to implement strategies that promote exclusive breastfeeding.

Research has shown that mothers who have access to individualized breastfeeding support demonstrate more positive outcomes (48). Most of the Arab mothers in this study sought assistance from a range of sources including professionals in the health sector, lay people or both to increase their breastfeeding knowledge. A combination of these two approaches has been observed to deliver better outcomes in terms of exclusive breastfeeding achieving longer periods of exclusive breastfeeding as recommended by WHO and better health results for breastfed children(49).

The most used source of information pertaining to breastfeeding (except for their mothers) by the Arab mothers was the Internet which functioned as a complementary lay support system (49). Latcu et al.(48) reported the Internet's potential of offering personalized support to breastfeeding mothers during the early postnatal phase through professional websites that are linked to credible and verifiable health information and maintain accountability. The Internet helps mothers transcend the challenges of cost and isolation in access to health professional services (50, 51). In the context of exclusive breastfeeding, the Internet assists mothers to address breastfeeding problems, hence, increasing the potential to attain the six-month period. In this study, some mothers used Google search and YouTube to learn about breastfeeding practices, such as the positioning of the baby or evaluating the benefits of formula milk. Here again, the lack of English fluency can limit their ability to discern the validity of the information they access.

Issues relating to the poor quality of information from nurses or the lack of self-determination in breastfeeding practices were some of the key areas of concern. Professional education enhances the knowledge, skills, attitudes, and behaviors of the healthcare providers so as to value the significance of breastfeeding it should be implemented. HCPs involved in maternity care such as obstetrics, midwifery pediatrics and those in the family practice as well as lactation consultants, midwives, and nurses, etc. can highly impact the decision, desire, and ability of a breastfeeding mother to continue to breastfeed. Breastfeeding education programs that are provided online or in person, in-service presentations by trained health care professionals within the health care centers and clinical protocols developed by experts can be used to provide in-depth knowledge and skills pertaining to breastfeeding and lactation management among the health professionals. To address this problem, there is a need to undertake a collaborative approach involving both HCPs and immigrant mothers. Schools of nursing can promote breastfeeding by including its physiology,

benefits, challenges, cultural aspects, management, and evidence-based research outcomes in their curricula. An advanced practice nurse educator/instructor can provide experiential examples and demonstrations to nursing students that will enable them to provide more inclusive care.

Lack of English fluency among some of the participants created a communication barrier when explanations included unfamiliar medical and technical terms. This barrier needs to be addressed to effect progressive social change as identified in the CST. HCPs should, therefore, consider ways to appropriately communicate their knowledge to make it accessible to Arab women. Such a situation can be solved by providing more written information in the women's native language or having translators available. Furthermore, accessibility to trained bilingual (English and Arabic) staff with skills and knowledge covering all aspects of breastfeeding is needed. In addition, Arab mothers should be empowered to strengthen their English language skills to effectively access health care services and interpret breastfeeding-related information.

Infant Feeding Practices

The participants in this study displayed low adherence to the WHO and Health Canada's recommendation of exclusive breastfeeding infants for the first six months. Various studies by Jessri et al.(52), Millar and Maclean(25), as well as Oweis et al.(21) reported broad support in Arab cultures for use of supplementary feeding stemming from concerns about inadequate milk to meet the nutritional needs of their children. Although these feeding practices have been scientifically determined to inhibit the process of breastfeeding (53), they were carried out by some of the Arab mothers in this study. This implies a strong impact of cultural socialization on interpretations and perceptions held by the mothers with regards to milk supply and unquestioning acceptance of social norms. The CST emphasizes the need to challenge these basic assumptions in order to develop a true understanding and propose effective solutions.

The traditional breastfeeding practices are borrowed from and propagated by elders and mothers who are considered a source of authority due to their many years of experience with childrearing. As these customs are established and successfully practiced over the years, it becomes very difficult for individuals to depart from them without anything concrete to discredit them. The system and the lifeworld concepts of CST(54) are demonstrated herein that mothers have to immerse themselves in the lifeworld shared with others. There is little personal choice here as they must follow certain regular patterns to further the strategic interest of their environment. Interventions that introduce or reinforce the Baby-Friendly Initiative (BFI) practices which ... are needed to improve breastfeeding initiation, and to reinforce exclusive breastfeeding (55). Access to scientific information on milk secretion might have a positive impact on the exclusive breastfeeding practice of these mothers.

The Arab mothers in this study experienced some difficulty when adapting to new breastfeeding practices in Canada. For instance, the suggestion by the postpartum nurse to breastfeed the baby for half an hour and then waiting three hours before the next feed resulted in an inadvertent rejection of an "on-demand" schedule. Jessri et al.(52) argue that Arab women might be less knowledgeable and confident about issues of breastfeeding. These perceptions influence the extent to which these mothers are perceived to be open to new ideas on breastfeeding. Also, the cross-cultural differences might have contributed to a lack of confidence in HCPs by the Muslim Arab mothers in this study, some of whom turned to their cultural values and religion to inform their practices.

Arab culture forbids indecent exposure by women which further complicates the process of breastfeeding for Arab lactating mothers (56). The participants found the requirement of modesty a significant challenge because it imposed isolation. The interview data also suggests that mothers need help understanding what services, resources, groups, etc., are available to them. Prenatal Arab mothers need to be referred to, or encouraged to attend, such groups so that they can share their problems with other immigrant mothers and exchange advice with each other. This can be part of a wider socialization program to deal with the issue of isolation.

The lack of adequate facilities to support breastfeeding mothers in public spaces such as nursing rooms presents a significant barrier to the process (57). The CST school of thought advances the idea that change can only be realized by challenging the existing social and economic structures. This implies that in addition to establishing a debate geared towards advocacy and policy change on breastfeeding, more emphasis should be placed on socializing the public and HCPs on the need to create better social and economic support for breastfeeding mothers.

The intake of fluids other than breastmilk could have a negative impact on breastfeeding frequency and duration, which suggests a need for increased prenatal and postnatal breastfeeding education. In terms of health policy, new mothers need to be taught how to breastfeed, how to express and store breastmilk, alternative methods of offering expressed breastmilk, a list of foods that promote milk production, stress management techniques, and ways to deal with fatigue. This information could be provided in printed pamphlets, booklets, or in the form of audio-visual presentations. Further, the integration of scientific knowledge on breastfeeding will play a crucial role in influencing positive outcomes towards exclusive breastfeeding. More particularly, this will focus on challenging the practice of prelacteal feeding through providing factual information on its implications hence promoting better breastfeeding outcomes.

Conclusion

The initiation of breastfeeding by Arab mothers in Canada is high, but by six-months after birth, breastfeeding duration rates quickly drop below the desired international rates. Lack of knowledge and support available to immigrant Arab mothers contribute to the lack of successful breastfeeding, leading them to prematurely wean their infants. This critical ethnography study has provided insight into the breastfeeding experiences of Arab mothers and the contextual factors that influence their experiences. The findings from this qualitative study revealed influences of mother's knowledge and traditional infant feeding practices on initiation and exclusive breastfeeding practices by Arab immigrant mothers.

The findings show that women's lack of knowledge of exclusive breastfeeding and their tendency to carry out the religiously endorsed traditional customs against the recommendations of the HCPs influences the frequency and duration of exclusive breastfeeding. Mothers also actively sought information regarding breastfeeding from sources such as the Internet to assist them with problems they faced, rather than only going to HCPs, who they did not always understand due to the language barriers. A clearer understanding of the socio-cultural contexts that support and encourage exclusive breastfeeding is an important consideration by HCPs caring for Arab immigrant mothers in Canada. Culturally sensitive interventions that are tailored to the specific Arab mothers' breastfeeding concerns and needs are needed in order to have exclusive breastfeeding become the norm among this population in Canada.

For future research on the topic, participatory action research can be done with Arab mothers to develop educational programs and support regarding exclusive breastfeeding. Educational programs should be provided to these mothers in a culturally sensitive way. Since mothers voiced isolation and a need for support, it is important for researchers to involve mothers in program planning and evaluate the outcomes of their participation. Further research is needed to evaluate best ways to involve male Arab partners in supporting exclusive breastfeeding. Further critical ethnographic research can be conducted with nurses, lactation consultants, and physicians who provide care to mothers and their families to evaluate these practitioners' beliefs and practices that may affect exclusive breastfeeding among Arab mothers. Moreover, the spouses who are perceived to play a minor role in supporting breastfeeding practices may provide greater insight into understanding new perspectives towards exclusive breastfeeding.

References

1. World Health Organization (2018a). Early initiation of breastfeeding to promote exclusive breastfeeding. Retrieved from http://www.who.int/elena/titles/early_breastfeeding/en/

2. Health Canada (2010). Duration of exclusive breastfeeding in Canada: Key statistics and graphics. Retrieved from http://www.hcsc.gc.ca/fnan/surveill/nutrition/commun/prenatal/exclusive-exclusif-eng.php.

3. World Health Organization (2016). Infant and young child feeding. Geneva: World Health Organization. Retrieved from http://www.who.int/mediacentre/factsheets/fs342/en/

4. World Health Organization (2018b). Exclusive breastfeeding for optimal growth, development and health of infants. Retrieved from http://www.who.int/elena/titles/exclusive_breastfeeding/en/.

5. Siregar, A. M., Pitriyan, P., & Walters, D. (2018). The annual cost of not breastfeeding in Indonesia: the economic burden of treating diarrhea and respiratory disease among children (< 24mo) due to not breastfeeding according to recommendation. International Breastfeeding Journal, 131. doi:10.1186/s13006-018-0152-2

6. Pokhrel, S., Quigley, M. A., Fox-Rushby, J., McCormick, F., Williams, A., Trueman, P., & ... Renfrew, M. J. (2015). Potential economic impacts from improving breastfeeding rates in the UK. Archives of Disease in Childhood, 100(4), 334-340. interviews:10.1136/archdischild-2014-306701

7. Ma, P., Brewer-Asling, M., & Magnus, J. (2013). A Case Study on the Economic Impact of Optimal Breastfeeding. Maternal & Child Health Journal, 17(1), 9-13. doi:10.1007/s10995-011-0942-2

8. Costanian, C., Macpherson, A. K., & Tamim, H. (2016). Inadequate prenatal care use and breastfeeding practices in Canada: a national survey of women. BMC Pregnancy & Childbirth, 161-10. doi:10.1186/s12884-016-0889-9

9. Dennis, C. L., Gagnon, A., Van Hulst, A., Dougherty, G., & Wahoush, O. (2013). Prediction of duration of breastfeeding among migrant and Canadian-born women: results from a multi-center study. The Journal of pediatrics, 162(1), 72-79.

10. Woldemicael, G. (2009). Breastfeeding practices of immigrant mothers in Canada: The role of immigration status, length of residence, and ethnic minority. In Health over the Life Course Conference. Retrieved from https://ir.lib.uwo.ca/do/search/?q=author_lname%3A%22Woldemicael%22%20author_fname%3A%22Gebremariam%22&start=0&context=674312&facet=

11. Dennis, C., Gagnon, A., Van Hulst, A., & Dougherty, G. (2014). Predictors of breastfeeding exclusivity among migrant and Canadian-born women: Results from a multi-centre study. Maternal & Child Nutrition, 10(4), 527-544.

12. Nydell, M. K. (2018). Understanding Arabs: A contemporary guide to Arab society. New York: Nicholas Brealey Publishing.

13. Dajani, G. (2015). Canadian Arab Institute: Religion and Marital Status in the Canadian Arab Community. The second in a four-part series analyzing the 2011 census data by Statistics Canada. Retrieved from http://www.canadianarabinstitute.org/publications/reports/religion-and-marital-status-canadian-arab-community/

14. Zaidi, F. (2014). Challenges and practices in infant feeding in Islam. British Journal of Midwifery, 22(3), 167-172.

15. Jamil, N. A., Muda, S. M., & Ismail, H. (2016). Breastfeeding in Islamic perspective: A thematic analysis. IIUM Repository (IREP). Retrieved from http://irep.iium.edu.my/id/eprint/59553

16. Radwan, H., & Sapsford, R. (2016). Maternal Perceptions and Views about Breastfeeding Practices among Emirati Mothers. Food & Nutrition Bulletin, 37(1), 73-84. doi:10.1177/0379572115624289

17. Shaikh, U., & Ahmed, O. (2006). Islam and infant feeding. Breastfeeding Medicine, 1(3), 164-167. doi:10.1089/bfm.2006.1.164

18. Dashti, M., Scott, J. A., Edwards, C. A., & Al-Sughayer, M. (2010). Determinants of breastfeeding initiation among mothers in Kuwait. International Breastfeeding Journal, 5(1), 7.

19. Batal, M., & Boulghaurjian, C. (2005). Breastfeeding initiation and duration in Lebanon: Are the hospitals "mother friendly"? Journal of Pediatric Nursing, 20(1), 53-59.

20. Amin, T., Hablas, H., & Al Qader, A. A. (2011). Determinants of initiation and exclusivity of breastfeeding in Al Hassa, Saudi Arabia. Breastfeeding Medicine, 6(2), 59-68.

21. Oweis, A., Tayem, A., & Froelicher, E. (2009). Breastfeeding practices among Jordanian women. International Journal of Nursing Practice, 15(1), 32-40. doi:10.1111/j.1440-172X.2008.01720.x

22. Alzaheb, R. (2017). Factors Influencing Exclusive Breastfeeding in Tabuk, Saudi Arabia. Clinical Medicine Insights. Pediatrics, 11(11), 1179556517698136.

23. Falah-Hassani, K., Shiri, R., Vigod, S., & Dennis, C. L. (2015). Prevalence of postpartum depression among immigrant women: a systematic review and meta-analysis. Journal of Psychiatric Research, 70, 67-82.

24. Wandel, M., Terragni, L., Nguyen, C., Lyngstad, J., Amundsen, M., & de Paoli, M. (2016). Breastfeeding among Somali mothers living in Norway: Attitudes, practices and challenges. Women and Birth, 29(6), 487-493.

25. Millar, W. J., & Maclean, H. (2005). Breastfeeding practices. Health Reports, 16(2), 23. Retrieved from http://www.publications.gc.ca/Collection-R/Statcan/82-003-XIE/0020482-003-XIE.pdf

26. Osman, H., El Zein, L., & Wick, L. (2009). Cultural beliefs that may discourage breastfeeding among Lebanese women: A qualitative analysis. International Breastfeeding Journal, 4(1), 12.

27. Rogers, N., Abdi, J., Moore, D., Nd'iangui, S., Smith, L., Carlson, A., & Carlson, D. (2011). Colostrum avoidance, prelacteal feeding and late breast-feeding initiation in rural Northern Ethiopia. Public Health Nutrition, 14(11), 2029-2036.

28. Steinman, L., Doescher, M., Keppel, G., Pak-Gorstein, S., Graham, E., Haq, A., & ... Spicer, P. (2010). Understanding infant feeding beliefs, practices and preferred nutrition education and health provider approaches: an exploratory study with Somali mothers in the USA. Maternal & Child Nutrition, 6(1), 67-88. doi:10.1111/j.1740-8709.2009.00185.x

29. Abdul Ameer, A. J., Al Hadi, A. H. M., & Abdulla, M. M. (2008). Knowledge, attitudes and practices of Iraqi mothers and family child-caring women regarding breastfeeding. Eastern Mediterranean Health Journal, 14(5), 1003-14.

30. Kirkland, V. L., & Fein, S. B. (2003). Characterizing reasons for breastfeeding cessation throughout the first year post-partum using the construct of thriving. Journal of Human Lactation, 19(3), 278-285. doi: 10.1177/0890334403255229

31. Di Giovanni, E., & Fantauzzi, A. (2017). Anthropological reflections on breastfeeding between care and culture. International Journal of Humanities & Social Studies, 5, 204-206.

32. Saaty, A. H. (2010). Breastfeeding Practices among Arab Women Living in the United States. Master's Thesis and Doctoral Dissertation. Retrieved from http://commons.emich.edu/these/287

33. Smyth, W., & Holmes, C. (2005). Using Carspecken's critical ethnography in nursing research. Contemporary Nurse: A Journal for the Australian Nursing Profession, 19(1-2), 65-74. doi:http://dx.doi.org.ezproxy.lib.ucalgary.ca/10.5172/conu.19.1-2.65

34. Lebrun, L. A. (2012). Effects of length of stay and language proficiency on health care experiences among immigrants in Canada and the United States. Social science & medicine, 74(7), 1062-1072.

35. Shah, S. M., Ayash, C., Pharaon, N. A., & Gany, F. M. (2008). Arab American immigrants in New York: health care and cancer knowledge, attitudes, and beliefs. Journal of Immigrant and Minority Health, 10(5), 429-436.

36. Harley, K., Stamm, N. L., & Eskenazi, B. (2007). The effect of time in the US on the duration of breastfeeding in women of Mexican descent. Maternal and Child Health Journal, 11(2), 119-125. doi:10.1007/s10995-006-0152-5

37. Carspecken, P. F. (1996). Critical ethnography in educational research: A theoretical and practical guide. New York: Routledge.

38. Emmanuel, A. (2015). A literature review of the factors that influence breastfeeding: An application of the health belief model. International Journal of Nursing and Health Science. 2(3), 28-36.

39. Cardoso, A., e Silva, A. P., & Marín, H. (2017). Pregnant women's knowledge gaps about breastfeeding in northern Portugal. Open Journal of Obstetrics and Gynecology, 7(03), 376.

40. Lee, S., Bai, Y. K., & You, S. B. (2018). Ecological Factors Influencing Breastfeeding Decisions among Korean Immigrant Mothers in America. Journal of Child and Family Studies, 27(3), 928-943.

41. Rempel, L. A., Rempel, J. K., & Moore, K. C. (2017). Relationships between types of father breastfeeding support and breastfeeding outcomes. Maternal & Child Nutrition, 13(3), e12337.

42. Tucker, E. A., & Fouts, H. N. (2017). Connections between Prenatal Physical Activity and Breastfeeding Decisions. Qualitative Health Research, 27(5), 700-713.

43. Zhao, J., Zhao, Y., Du, M., Binns, C. W., & Lee, A. H. (2017). Maternal education and breastfeeding practices in China: A systematic review and meta-analysis. Midwifery, 50, 62-71.

44. Siggia, G., & Rosenberg, S. (2014). Does Breastfeeding Education of Nurses Increase Exclusive Breastfeeding Rates in a Large Academic Medical Institution? Journal of Obstetric, Gynecologic, & Neonatal Nursing, 43(S1), S38.

45. Chantry, C. J., Dewey, K. G., Peerson, J. M., Wagner, E. A., & Nommsen-Rivers, L. A. (2014). In-hospital formula use increases early breastfeeding cessation among first-time mothers intending to exclusively breastfeed. The Journal of Pediatrics, 164(6), 1339-1345.

46. Guruge, S., Thomson, M. S., George, U., & Chaze, F. (2015). Social support, social conflict, and immigrant women's mental health in a Canadian context: A scoping review. Journal of Psychiatric and Mental Health Nursing, 22(9), 655-667.

47. De Almeida, De Araújo Barros Luz, & Da Veiga Ued. (2015). Support of breastfeeding by health professionals: Integrative review of the literature. Revista Paulista De Pediatria (English Edition), 33(3), 355-362.

48. Latcu, A., Grama, A., Melit, L., Chincesan, M., & Marginean, O. (2017). OC-22 Are knowledge and attitudes about breastfeeding improved by internet intervention? Arch Dis Child, 102(2), 1-192.

49. Thaker, D. A., Monypenny, R., Olver, I., & Sabesan, S. (2013). Cost savings from a telemedicine model of care in northern Queensland, Australia. Med J Aust, 199(6), 414-417.

50. Furkin, J. (2018). Mom to Mom: Online Breastfeeding Advice, ProQuest Dissertations and Theses. doi:https://doi.org/10.13023/ETD.2018.066

51. Giglia, R., & Binns, C. (2014). The effectiveness of the internet in improving breastfeeding outcomes: a systematic review. Journal of Human Lactation, 30(2), 156-160.

52. Jessri, M., Farmer, A. P., & Olson, K. (2013). Exploring Middle-Eastern mothers' perceptions and experiences of breastfeeding in Canada: an ethnographic study. Maternal & Child Nutrition, 9(1), 41-56.

53. Patil, C. L., Turab, A., Ambikapathi, R., Nesamvuni, C., Chandyo, R. K., Bose, A.,.... & Caulfield, L. E. (2015). Early interruption of exclusive breastfeeding: results from the eight-country MAL-ED study. Journal of Health, Population, and Nutrition, 34(1), 10.

54. Habermas, J. (1978). Knowledge and human Interests (paperback). Beacon Press, USA.

55. Pound, C., Ward, N., Freuchet, M., Akiki, S., Chan, J., & Nicholls, S. (2016). Hospital Staff's Perceptions with Regards to the Baby-Friendly Initiative: Experience from a Canadian Tertiary Care Centre. Journal of Human Lactation, 32(4), 648-657.

56. Nikaiin, B. B., Donnelly, T., Nazir, N., Dorri, R. A., Mohammad, A., & Petal, N. (2013). Contextual factors influencing breastfeeding practices among Arab women in the State of Qatar. Qualitative Sociology Review, 9(3).

57. Russell, K., & Ali, A. (2017). Public Attitudes toward Breastfeeding in Public Places in Ottawa, Canada. Journal of Human Lactation, 33(2), 401-408.