Breastfeeding Education, Support, and Barriers among Iraqi Refugee Women in Jordan

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Abstract

UNICEF data indicates that Iraqi women have lower rates of breastfeeding than other Middle East countries and that breastfeeding rates are usually even lower among refugee women. This low rate of breastfeeding may be a result of refugee women's lack of public and social support and access to health professionals. This study identifies Iraqi refugee women's barriers to breastfeeding, as well as the amount of breastfeeding education and support they received. Analyses are based on a cross-sectional survey of 80 Iraqi refugee women, currently residing in Amman, Jordan, ages 18 years of age and older who had given birth within the last year. Results indicated that the majority of these women did not receive education or assistance about breastfeeding from health professionals, family or friends before or after giving childbirth. Furthermore, relatives and friends not healthcare professionals were identified as having largest influence on the decision to breastfeed. In view of these women's unique situation, the development of a peer counseling program to meet the educational, health and social needs is recommended. Further investigation into how peer counseling programs can be used to help women in refugee situations is needed.

Key words: *Iraq, Refugee, Breastfeeding, Peer Counseling, Jordan*

Introduction

The World Health Organization (WHO) recommends breastfeeding as the optimal form of nutrition for the development of infants and indicates breastfeeding has important physiological and psychological benefits for both the infant and mother.[1] The United Nations Children's Fund (UNICEF) estimates that 1.5 million infant deaths could be avoided each year if all infants were exclusively breastfed from birth to at least six months.[1] Studies have shown that the antibodies present in breast milk protect infants from infectious diseases. The beneficial effects of breastfeeding for infants are most evident in developing countries where health resources are scarce, infectious diseases are common, and infant mortality rates are relatively high.[2-6]

While exclusive breastfeeding is important for all women and infants, it becomes vital in situations of emergency where access to health care, clean water and adequate nutrition are limited.[1, 7] Studies have shown that children who are breastfed during emergencies have significantly lower mortality rates than children who are not breastfed.[8, 9] One study on refugees in Guinea-Bissau found that children who did not breastfeed had a six-fold increase in mortality rates during the first 3 months of conflict compared to children who were breastfed even controlling for factors such as living with mother, gender, ethnicity, and mother's schooling.[9] Thus, women living in war ravaged countries should be encouraged to breastfeed their infants.

Despite the importance of breastfeeding during emergencies, women living in war torn countries and refugee camps lack the support and knowledge to be successful at breastfeeding.[10] Research suggests that the prevalence of exclusive breastfeeding can be increased by educating women and that breastfeeding is highest among women who receive education and support at delivery and thereafter.[11]

Iraqi Refugees in Jordon

In the wake of the Iraq war, the Israel/ Lebanon conflict, and the ongoing violence in Palestine, Jordan has become a country overburdened with refugees. The United Nations Refugee Agency (UNHCR) estimates that over 3 million refugees are currently living in Jordan, with the majority being from Palestine, Iraq and Lebanon.[1] This great influx of refugees has greatly strained the country's social and political infrastructure and as a result most refugees have not been granted official status nor do they have access to public services and resources.[10] Consequently, infant mortality rates, morbidity rates, and fertility rates are much higher among refugees in Jordan than in the surrounding populations.[1, 10]

Currently very little information is available about the general health of Iraq refugees living in Jordan, nor is there information about breastfeeding prevalence among Iraqi refugees. Data on current breastfeeding practices in Iraq indicate low rates of overall breastfeeding (51%) and even lower rates of exclusive breastfeeding (12%).[12] In addition, Iraq has a much higher infant mortality rate (102 deaths per 1,000 live births) than surrounding countries like Jordan (17 per 1,000 live births) and Lebanon (27 deaths per 1,000 live births).[12] As breastfeeding rates are almost always lower among refugee populations, and infant mortality usually higher, it can be assumed that rates of exclusive breastfeeding among Iraqi refugee women may be even poorer than women in their home country.[10, 12]

Purpose of the Study

The purpose of this study was to evaluate the level of access of Iraqi refugee women to breastfeeding education and support, sources of education and support, and perceived barriers to breastfeeding by using the Theory of Planned Behavior.

Methods

Participants

Analyses are based on survey results of Iraqi refugee women ages 18 years of age and older who had given birth within the last year and were residing in Amman, Jordan. Eighty women were identified through a joint venture between Caritas-Jordan, a Catholic relief agency and UNHCR, the United National Refugee Agency. All women contacted completed and returned the survey.

Instrument and Procedures

An informed consent form accompanied the survey. The consent form indicated the general purpose of the study, that participation was voluntary, and that personal identifying information would not be collected. The study protocol was approved by the Institutional Review Board at Brigham Young University, Caritas-Jordan, and UNHRC.

The first section of the survey included demographic questions (age, marital status, religion, monthly income, education, and medical coverage). The second section asked the women eight questions

about breastfeeding support and any education that they may have received. The last section, asked the women to identify their level of agreement, on a scale from 1 to 5 (1 strongly disagree and 5 strongly agree), with 12 items related to their attitudes, beliefs, and perceived barriers to breastfeeding related to Ajzen's theory of planned behavior. These last questions were based on the Women, Infants, and Children (WIC) program questionnaire used in the United States to identify women's plans and attitudes toward breastfeeding.

Content and Face Validity

The questionnaire was developed in English and evaluated by two health educators for content validity. It was then translated to Arabic by a native speaker and then back translated to ensure validity. The questionnaire was also evaluated by a staff member at Caritas. It was also pilot tested among 5 Iraqi women. Consequently, several items were reworded to clarify the questions, and the skip pattern was simplified.

Data Analysis

Cross-tabulations were used to perform bivariate analyses between selected variables, with statistical significance based on the chi-square test for independence (X^2). [13] Factor analysis was used to describe covariance relations among the variables in terms of a few underlying, but unobservable, random quantities called factors.[14, 15] The method used for factor extraction was principal component analysis. Factors were retained based on the MINEIGEN greater than or equal to 1 rule. When more than one factor was identified, factors were presented according to an orthogonal varimax prerotation. Tests of significance were based on the 0.05 level against a null hypothesis of no association. Data were assessed using the Statistical Analysis System (SAS) software for personal computers, release 9.1. Procedure statements used in SAS for assessing the data were PROC FREQ, PROC FACTOR, and PROC UNIVARIATE.

Results and Implications

Participants ranged in age from 18 to 41 (M = 31.9, SD = 6.0). About 23% of the women had less than a high school education, but a similar percentage had a graduate degree (Table 1). Most of the women had low income (76.9%); were Muslim (62.0%); were married (98.7%); and did not have medical coverage (88.6%). However, all women had delivered in a hospital.

The distribution of respondents according to selected breastfeeding support and education issues is shown in Table 2. The majority of women were encouraged to breastfeed every 2-3 hours while in the hospital (66.2%); were not told where to get help with breastfeeding if they needed it after leaving the hospital (74.3%); received some prenatal instruction about breastfeeding (60.3%). In terms of breastfeeding, health professionals had a smaller influence on their decision to breastfeed (7.6%). Respondents indicated that they would turn to a family or friend first, followed by a doctor or midwife, and then a book for information about parenting. In addition, the majority (63.3%) did not receive breastfeeding help, information or support after leaving the hospital. When help, support, or information on breastfeeding was received in the hospital, it tended to come from the doctor, rather than a relative or friend.

Responses to these variables were not significantly associated with level of education, monthly income, religion or marital status (Chi-square $p > 0.05$). However, there was a significant association between medical coverage and whether they received breastfeeding help, information or support once at home. For those with medical coverage, 66.7% received breastfeeding help, information or support (mostly from health care professionals) once at home compared with 31.9% who did not have medical coverage [Chi-square (1) = 4.18, $p = 0.0408$].

Factor analysis identified two factor groupings, which was labelled"Health and Wellbeing" and "Barriers" (Table 3). The eigenvalues for these factors were 2.42 and 1.02, which together account for 65% of the standardized variance. Five items from the questionnaire had low loadings on both factor and were subsequently dropped. The first factor appeared to represent a cluster of the baby's health and the mother's wellbeing associated with breastfeeding, while the second factor reflected a cluster of barriers toward breastfeeding. Cronbach's standardized coefficient alpha was used to indicate how well the items in each factor grouping are correlated with one another. For "health and wellbeing" it was 0.84 and for "Barriers" it was 0.70. This finding indicates that the items listed under each category in the table are highly correlated, and load specifically onto one of these two independent, underlying factors.

The distributions of average scores for both factor groupings were dichotomized at their median and the relationship of the dichotomized variable was compared with each of the variables in Table 1. There were no

statistically significant associations. The dichotomized variables were then associated with each of the variables in Table 2. For the health and wellbeing dichotomized variable, significant associations were observed between two variables, as shown in Table 5. A higher level of agreement corresponds with deciding how to feed their baby before pregnancy or when the baby was born compared with making the decision during pregnancy. In addition, a higher level of agreement is associated with the primary influence on feeding decisions coming from written or audio materials or from relatives or friends.

When the dichotomous variable was barriers (higher vs. lower agreement) discouraging breastfeeding, two variables were significant. These are shown in Table 6. Those who felt stronger agreement about the barriers were more likely to have been encouraged to breastfeed while in the hospital. Those who felt more strongly about barriers made their decision on how to feed their child during pregnancy.

Results of this study indicate that the majority of Iraqi refugee women living in Amman, Jordan did not receive educational information or assistance on breastfeeding before or after their pregnancy. Although a large percentage of women responded that they were encouraged in the hospital to breastfeed every 2-3 hours, a much smaller percentage of women were told by health professionals about where to get help and support for breastfeeding after leaving the hospital, or how to receive help or information about breastfeeding within the first 48 hours after delivery. In addition, the majority of women indicated that they did not receive breastfeeding help, information or support from family or friends once they returned home from the hospital.

The majority of Iraqi refugee women indicated that relatives or friends were the primary influence on their decision to breastfeed, followed by written or audio educational materials, their spouse, and then a health professional. These results are consistent with results from a study involving 200 mothers in the Al-Fateh Pediatric Hospital in Benghazi, Libya where the majority of respondents reported having received information about breastfeeding from their mother-in-law, a relative, or a neighbor.[16] The results are also consistent with another study indicating health professionals have less influence on women's feeding decisions, particularly for low- income women, than do the attitudes and beliefs of women's socials networks and supports.[17]

On the other hand, a study involving women in Lebanon showed that the vast majority of mothers reported that physicians were the most influential in their feeding decision (42.8%), followed by mothers (22.0%), relatives (11.0%), the media (7.0%) and books (7.1%).[18] The difference between the influence of physicians on Lebanese women's feeding decisions versus Iraqi refugee women's reliance on relatives, friends and educational manuals for information and decisions about breastfeeding could be the results of their comparatively lower access to health care services.

Considering the unique population studied and the small sample size generated, results may not be generalizable to other refugee populations and may not be representative of the overall experience of Iraqi refugees in Jordan or in other countries. However, the research questions, survey instrument, and data analysis may be used in future studies better understand or compare breastfeeding barriers for refugee populations.

Another limitation was the self-report nature of several critical variables including the amount of education and support these women had received. It is possible that these women recalled their experiences differently depending on how long it had been since they had delivered. However, actual measurement of these variables in hospital settings would have been difficult.

Furthermore, this study didn't address the length of time these women had exclusively breastfed, their knowledge of breastfeeding techniques, and food supplementation, further research may be warranted to better understand this population. This study also focused on women who had delivered within a year of data collection when conditions for Iraqi refugees had started to improve. Results lack information on Iraqi refugee women who had delivered in Jordan prior to that when access to health care may have been worse. However, to help women who will be breastfeeding, knowing the current situation seemed more relevant and administratively feasible.

Conclusions and Recommendations

In view of Iraqi women's limited access to health professionals and medical information peer counseling may be an effective way to educate Iraqi refugee women about breastfeeding and to provide them with the support they need to be exclusively breastfed for up to six months. Evidence from other studies involving low income and deprived women suggests that peer counseling networks can have a great influence in supporting women who

breastfeed.[19-21] A peer counseling program involves women with previous and successful breastfeeding experience to visit women in their homes several times before and after the baby is born in order to provide educational information and support. One study found that home-based peer counselors significantly increased both the level and duration of exclusive breastfeeding.[22]

Peer counseling in this special population should consider specific barriers identified, including: "breastfeeding may be embarrassing", "breastfeeding prevents me from doing my normal activities", and that "I think breastfeeding is too hard." Peer counseling programs can help to reduce these barriers by creating a "culture of breastfeeding" with the community.[11] Peer counselors are expected to not only give support for breastfeeding, but also to model positive breastfeeding behaviors. Studies have found that women who see relatives or friends successfully breastfeed have increased confidence and success in breastfeeding.[23]

In addition to the educational and supportive role of peer counseling programs, they may also provide guidance for prenatal care. This may be crucial for this population, where the majority of Iraqi refugee women in this sample indicated not having made a decision about how to feed their baby until after the baby was born; which may be indicative of limited prenatal care.

The majority of Iraqi refugee women in Jordan did not receive education or assistance about breastfeeding from health professionals, family or friends before or after giving childbirth. Thus, it may be useful to better train physicians and health care professionals to deliver clear breastfeeding messages to these women, in addition to developing a resource center for these women to receive help. However, with the limited amount of funding available for Iraqis in Jordan the development of peer counseling program to meet the educational, health and social needs of these women may be more beneficial and sustainable especially where the majority of the women reported that their relatives and friends were their primary influence on breastfeeding. Further investigation into how peer counseling programs can be used to help women in refugee situations is needed.

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Table 1 Distribution of respondents by select demographic variables

Variable	Percentage
Education Level (n=78)	
Less than High School	23.1
High School	20.5
Associates or Diploma	9.0
Bachelors	24.4
Graduate Degree	23.1
Monthly Income (n=78)	
Under 250 JD	76.9
250- 499 JD	16.7
500+ JD	6.4
Religion (n=79)	
Muslim	62.0
Christian	30.4
Other	7.6
Marital Status (n=78)	
Single/never married	1.3
Married	98.7
Medical Coverage (n=79)	
Yes	11.4
No	88.6

Note: JD stands for Jordanian Dinars

Table 2 Distribution of respondents according to selected support and education related questions

Item	Percentage
Encouraged to breastfeed every 2-3 hours while in hospital (n=71)	
Yes	66.2
No	33.8
Prior to leaving hospital, told where to get help with breastfeeding if needed later (n=70)	
Yes	25.7
No	74.3
Primary source of help, support, or information for breastfeeding within 48 hours after delivery (n=78)	
No help or information	39.7
Doctor	21.8
Midwife	6.4
Relative or friend	17.9
Lactation specialist	6.4
Other	7.7
Source of prenatal instruction (n=78)	
None	28.2
Nurse	1.3
Doctor	35.9
Education materials	26.9
Pregnancy or prenatal class	7.7
Primary influence on feeding decisions for baby (n=79)	
Spouse	20.3
Relative or Friend	30.4
Health professional	7.6
Written or audio materials	24.1
Other	17.7
When did you make the decision on how to feed your baby? (n=80)	
Before this pregnancy	22.5
During this pregnancy	12.5
When the baby was born	65.0
If you have problems or questions about parenting, who do you turn to for information? (n=79)	
Doctor/Midwife	29.1
Community Agency	8.9
Family/friend	31.6
Books	26.6
Other	3.8
Once at home, received breastfeeding help, information or support (n=79)	
Yes	36.7
No	63.3

Table 3 Loading of items based on factor analysis

	Health and Wellbeing	Barriers
Breastfed babies are healthier than bottle fed babies	**.581**	-.207
Breastfeeding may be embarrassing	-.039	**.619**
Breastfeeding prevents me from doing my normal activities	-.068	**.590**
Breast milk is the best food for my baby	**.705**	-.167
I think breastfeeding is too hard	-.123	**.581**
Breastfeeding brings mothers and babies closer together	**.879**	-.013
Breastfeeding makes a mother feel good about herself	**.822**	-.002

Note: Bolding indicates which factor item loaded on.

Table 4 Mean level of agreement and standard deviation for select attitudes towards breastfeeding

	Mean*	SD
Health and Wellbeing		
Breastfed babies are healthier than bottle fed babies	4.73	0.66
Breast milk is the best food for my baby	4.77	0.60
Breastfeeding brings mothers and babies closer together	4.72	0.77
Breastfeeding makes a mother feel good about herself	4.54	0.89
Group mean	4.69	0.60
Barriers		
Breastfeeding may be embarrassing	2.45	1.25
Breastfeeding prevents me from doing my normal activities	2.84	1.10
I think breastfeeding is too hard	2.17	1.20
Group mean	2.47	0.93

* Strongly Disagree = 1, Strongly Agree = 5

Table 5 Level of agreement (Higher/lower) on barriers related to feeding decisions

	Median or greater	Less than median	Chi-square p value
When did you make the decision on how to feed your baby?			
Before this pregnancy	77.8	22.2	0.0453
During this pregnancy	30.0	70.0	
When the baby was born	61.5	38.5	
Primary influence on feeding decisions for baby			
Spouse	50.0	50.0	0.0321
Relative or friend	66.7	33.3	
Health professional	16.7	83.3	
Written or audio materials	84.2	15.8	
Other	57.1	42.9	

Note: percentages sum to 100% across rows.

Table 6 Level of agreement (Higher/lower) toward health and wellbeing related to breastfeeding decision

	Median or greater	Less than median	Chi-square p value
Encouraged to breastfeed every 2-3 hours while in hospital			
Yes	66.0	34.0	0.0090
No	33.3	66.7	
When did you make the decision on how to feed your baby?			
Before this pregnancy	27.8	72.2	0.0045
During this pregnancy	90.0	10.0	
When the baby was born	59.6	40.4	

Note: percentages sum to 100% across rows.