
Knowledge, Attitude and Behavior of Health Staff in Iraqi Kurdistan Regarding Exclusive Breast Feeding

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Abstract:

Aims: A Knowledge Attitude and Practice survey was done among the health staff in three major cities of Northern Iraq to investigate level of awareness and behavior regarding exclusive breast feeding (EBF) for 6 months.

Methods: 484 doctors and paramedics were interviewed through a structured face to face questionnaire.

Results: 65% (95% CI 60-69) of respondents had heard of EBF but only 40% (95% CI 34-45) of these correctly described it. 39% (95% CI 34-45) actually believed in EBF and 48% (95% CI 43-53) of them said they were willing to promote EBF. While 82% (95% CI 78-85) reported that they have given advices to mothers inconsistent with EBF during the past week.

Conclusion: This study highlights the gap in the knowledge of the doctors and health staff and the importance of accurate knowledge on EBF on their attitude and behavior in regard to EBF. Programmes that aim to promote EBF in developing countries should take this into account.

Keywords: Exclusive breast feeding, health staff, KAP survey, Iraq

Introduction

In 2001, the world health organization recommended exclusive breast feeding (EBF) for the first six months of life with introduction of complimentary foods and continued breast feeding thereafter^[1]. In Iraqi Kurdistan, breast feeding, at least initially, is still the norm. In a survey of children under five years of age, 90% of them were reported to have being given breast milk initially; however this proportion has declined in subsequent months^[2].

Practice of exclusive breast feeding during the first 3 months of age in the region has been reported at 18% in one survey^[3] and 10% in another^[1]. Elsewhere in Iraq a study has stated prevalence of 91% in the first week of life^[4]. Infants who were given food in addition to breast milk have 2-3 fold mortality and morbidity compared to exclusively breast-fed infants for six months^[5].

Practice of EBF is influenced by many social, cultural and individual factors. Several studies have shown significant association between EBF and education of the parents^[6,7,8], pressure from mothers and mothers in law^[7], hospital based promotion programmes^[9], knowledge of the mother about the accurate recommendations on EBF and regular prenatal visits^[8]. Repeated organized counseling sessions was also found to have a significant influence on prevalence of EBF^[10].

The current survey was done in May 2002 jointly by the Ministry of Health in Iraqi Kurdistan and UNICEF as part of a communication plan to promote exclusive breast-feeding. Previous exploratory research had shown the crucial role of doctors and health staff on mothers' practice of exclusive breast-feeding. Accurate information was

Lacking on the extent of awareness of health staff about the correct recommendations concerning EBF and their attitude and behavior about it.

The objectives of the study were to determine the level of awareness of the health staff on the accurate meaning of EBF; their behavior in giving advice consistent or inconsistent with EBF and their willingness to promote EBF.

Material & Methods

A cross sectional Knowledge Attitude and Practice (KAP) survey was done in 2002 to collect baseline information among the health staff and professionals required for designing a communication strategy for promotion of EBF. A precision-based calculation for a proportion was used to determine the sample size. The sample was selected among doctors and health staff who regularly come into contact with mothers which included pediatricians and obstetricians; junior doctors and practitioners working in Children's Hospitals and Maternity Hospitals; and staff of all Primary Health Care Centers (vaccination, growth monitoring and antenatal care units) from the cities of Erbil, Suleimaniyah and Dohuk. A total of 484 persons were interviewed through a structured questionnaire administered face to face by 12 well-trained interviewers. Interviewees were selected by random selection from the names of the health staff of the institution.

Data was entered into Epi-Info version 6.04 and analyzed using Stata version 7(11). Prevalence of different variables is calculated with 95% confidence intervals. Association of variables is examined by Chi square test.

Results

There were a total of 484 observations all of which were included in the analysis. Of these 65% were nurses and paramedics and 35% were doctors.

Distribution of the sample among the three cities was 38% for Suleimaniyah, 36% for Erbil and 26% for Dohuk (table 1).

Table 1: Characteristics of respondents

Characteristics	No (%)
Governorate	
Erbil	174(36)
Suleimaniyah	182(37.6)
Dohuk	128(26.4)
Staff category	
Pediatricians/obstetricians	46(9.5)
Practitioners and junior doctors	123(25.4)
Nurses, paramedics	313(64.7)
Missing	2(0.4)
Doctors(combined)	169(35)
Nurses, paramedics	313(65)
All respondents	484(100)

Results of questions testing the knowledge, attitude and behavior of the respondents in relation to EBF are shown in table 2. Just over 74% (95% confidence interval 70-78) of respondents said that normal children may be given water before the age of 6 months and 59% (95% CI 55-64) said they may be given soft food. Only 18% (95% CI 15-22) said they may not be given neither water nor soft food. When asked whether they had heard about EBF, 65% (95% CI 60-69) of respondents were affirmative. But out of this informed proportion of the staff, only 40%(95% CI 34-45) correctly described EBF in terms of mother's milk alone for the duration of 6 months. 61% (95% CI 56-65) reported exposure to new information on breast feeding from various sources such as media, print material and training.

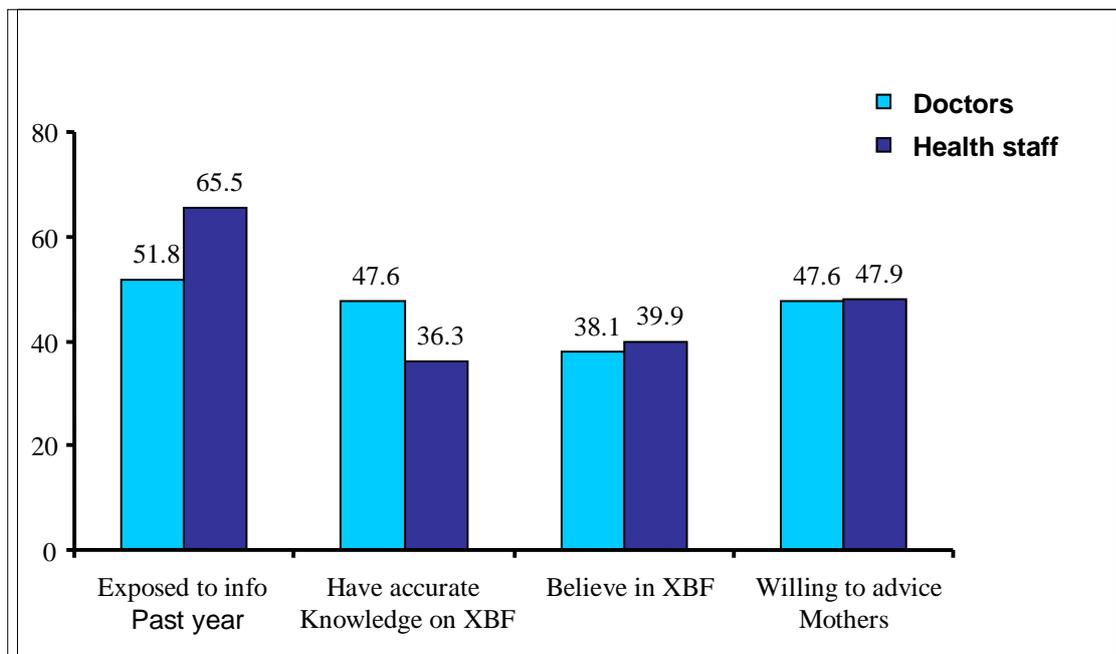
In terms of attitude and behavior, 82% (95% CI 78-85) reported that they have given advice to mothers inconsistent with EBF during the past week. Additionally 30% (95% CI 26-35) reported

giving advice consistent with EBF during the same period. When asked whether they actually believed in breast-feeding alone for 6 months even without water, only 39% (95% CI 34-45) replied affirmatively. The final question was about willingness to give advice on EBF to mothers, where 48% (95% CI 43-53) of respondents said they were willing to do so.

There was a significant difference between health staff and doctors in terms of their reported exposure to new information on breast feeding during the past year (figure 1). While 65.5% of staff reported such exposure, 51.8% of doctors did so (Chi-square=8.6, P=0.003). Despite this, 36.3% of the staff (Chi-square=3.6, P=0.056) accurately described EBF versus 47.6% of doctors. There was no significant difference between the two groups in terms of their belief in EBF, 39.9% for staff versus 38.1% for the doctors (Chi-square=0.2, P=0.7). The same was true with regard to their willingness to advocate for EBF, 47.9% versus 47.6.

Table 2: Affirmative response for different variables related to exclusive breast feeding (proportion of total and 95% confidence interval)

Variable	Affirmative(Yes) response	
	Number(total)	Proportion(95% CI)
May give water before 6 months	359(482)	74.5 (70.3-78.3)
May give soft food before 6 months	287(483)	59.4 (54.9-63.8)
May not give water & food before 6 months	88(484)	18.2 (14.8-21.9)
Heard about XBF	313(484)	64.7 (60.2-68.9)
Know XBF is nothing but mother's milk	180(311)	57.8(52.2-63.4)\
Know XBF is for 6 months	206(309)	66.7 (61.1-71.9)
Know XBF accurately(both above)	123(309)	39.8(34.3-45.5)
Believe in XBF for 6 months	190(483)	39.3 (35-43.9)
Given advice consistent with XBF last week	147(483)	30.4 (26.4-34.8)
Given advice inconsistent with XBF last week	396(484)	81.8 (78.1-85.2)
Willing to advice mothers on XBF	232 (483)	48 (43.5-52.6)
Exposed to information on BF last year	293 (483)	60.7 (56.1-65)
<i>CI: confidence interval</i>		

**Figure 1: Proportion (%) of doctors and health staff who reported certain knowledge and attitudes**

Association of having accurate knowledge on EBF was tested separately with the respondents' belief in EBF, presence of reported consistent advice during the past week and willingness to advocate for EBF (**figure 2**). The association was highly significant at $P < 0.001$ in all the three cases. 77.9% of those having accurate knowledge said they believed in EBF versus 27.4% of those who had no accurate knowledge (Chi-square=75,

$P < 0.001$). Also 87.8% of those having accurate information said they were willing to advocate for EBF versus 42.2% of those who had no such information (Chi-square=64, $P < 0.001$). In terms of practice, while 58.2% of people with accurate information said they had given consistent advice during the past week, only 24.2% of people without accurate information reported doing so (Chi-square=36, $P < 0.001$).

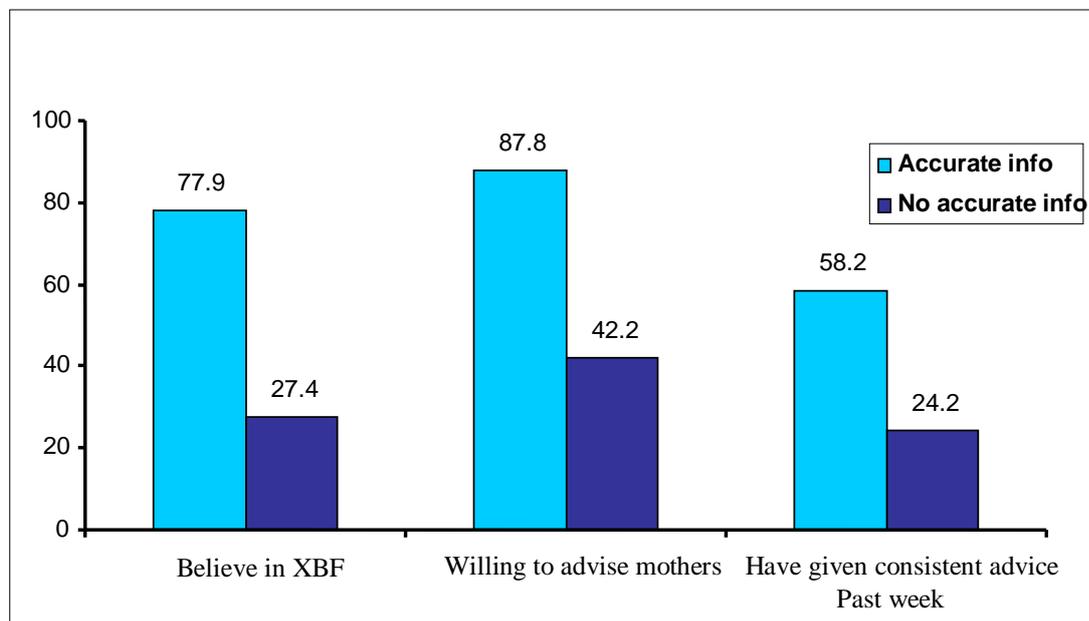


Figure 2: Proportion (%) of respondents with and without accurate information on exclusive breast-feeding who reported certain attitudes and behaviors

Discussion

Response rate in this survey was almost 100% (only one doctor refused to reply). Item response rate was also very high, as it is clear from table 2 there are very few missing cases for individual questions.

We used both direct and indirect questions to test awareness of EBF. Initially there were 2 questions about the age in months that a baby may be given water and soft food. In this indirect method only 18% of responses were consistent with accurate meaning of EBF. In response to the direct questions only 65% said they had heard of EBF and out of this number only 40% correctly described EBF. If we consider all of those who had not heard of EBF as having no correct information on EBF, which is logical, then it turns out that only 25% of the sample correctly described EBF later in the questionnaire. The two results are close with some overlap in the confidence interval. The indirect results, though, may be more realistic because of

the way and the time the relevant questions were asked.

It appears from these results that hearing of something is not equal to knowing it correctly. Some of the staff had obviously heard things about EBF but their information was not accurate. Indeed 61% who reported exposure to new information during the past year is not a high percentage keeping in mind the length of the exposure time and the priority that was given to the issue by the health authorities and several agencies. Promotion of EBF in the region dates back to 1993 according to some agencies though there is acknowledgement that objectives of such programs are yet to be achieved^[12].

Apart from exposure to information, there is no significant difference between doctors and health staff in their position on EBF; similar proportions of each believe in EBF and are willing to be involved in consistent advice. A higher proportion of health staff reported exposure to new information during the last year. There are several possible

reasons for this such as more exposure to mass media; more involvement in training activities as paramedics were mainly targeted in training programmes; and the different meanings of "new information" for doctors and health staff.

The significant association between having accurate information on EBF and the attitude and behavior of health staff (belief in XBF, willingness to give consistent advice, and actual practice of consistent advice in the past week) is noteworthy. There is a clear difference between staff having accurate information on EBF and staff lacking that information. In a cross sectional study like this, causality cannot be assumed, none the less the trend highlights importance of presence of accurate information among the health staff on their attitude and practice in regard to EBF.

Proportion of staff reporting behavior inconsistent with EBF during the past week (advising mothers of children below 6 months to give anything apart from breast milk) was 82%, quite comparable with the proportion lacking accurate information on XBF. This gives an additional assurance to the quality of data.

In interpretation of these results it should be remembered that this study targeted doctors and health staff who are in more regular contact with mothers rather than doctors and health staff everywhere. The results, thus, could not be generalized to the health staff as a whole. In addition, results of such KAP studies largely reflect reported behaviors, attitudes and knowledge exposures. Some of the knowledge questions, however, were designed to maximize the reality such as questions on meaning of EBF.

Conclusion

Only one in five doctors and health staff who have contact with mothers knows exactly what exclusive breast-feeding means according to the latest WHO recommendation. Two in five believe in that definition and one in two are willing to promote that definition among the mothers but in practice four in five staff had acted against the definition.

This is not an encouraging situation keeping in mind the importance of exclusive breast feeding in developing countries particularly in crisis situations. Serious work is required to promote the accurate meaning of EBF among doctors and health staff and more work is needed to convince them of

its value. Behavior change is even more difficult but accurate information is an essential and early stage in that direction. Without this, the prospects for promotion of EBF in the population and its practice by nursing mothers will remain doubtful.

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