

Knowledge, attitudes and sources of information on breastfeeding among medical professionals in Baghdad

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المعارف والمواقف ومصادر المعلومات حول الرضاعة من الثدي لدى طلاب الطب والأطباء في بغداد
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الخلاصة: استكمل 320 من طلبة الطب و75 من الأطباء المقيمين و50 طبيباً ممارساً في بغداد، العراق، استبيانات لتقييم المعارف والمواقف والتدريب حول الرضاعة من الثدي. ورغم أن المواقف حول الرضاعة من الثدي كانت على وجه الإجمال إيجابية فإن أقل من 50% من المستجيبين قد أجابوا بشكل كافٍ على الأسئلة المتعلقة بالمعارف (كان أكثر من 50% منها صحيحاً). واتفق معظم الأطباء الممارسين (86.0%) على أن الرضاعة من الثدي هي النمط المفضل لتغذية الرضع، فيما لم يوافقهم على ذلك 58.4% من طلبة الطب و57.3% من الأطباء المقيمين. لقد كانت المصادر الرئيسية للمعلومات حول الرضاعة من الثدي هي المجتمع الطبي ودورات طب الأطفال، فيما عرضت النماذج الرئيسية للتعليمات المتعلقة بالرضاعة من الثدي من خلال المحاضرات والحصص السريرية. وقد استنتج الباحثون أن المنهج التدريسي في الكليات الطبية وفي التدريب أثناء فترة الإقامة لا تُعدُّ الأطباء إعداداً كافياً لأداء أدوارهم في تعزيز الرضاعة من الثدي.

ABSTRACT A questionnaire to assess doctors' knowledge, attitudes and training about breastfeeding was answered by 320 medical students, 75 resident doctors and 50 general practitioners in Baghdad, Iraq. Although attitudes towards breastfeeding were generally positive, less than 50% of medics had adequate scores on knowledge questions ($\geq 50\%$ correct). Most general practitioners (86.0%) agreed that breastfeeding was the preferred type of feeding compared with only 58.4% of medical students and 57.3% of resident doctors. General practitioners who had been on training courses scored better than those who had not. The main sources of breastfeeding information were community medicine and paediatric courses and the main modes of breastfeeding instruction were lectures and clinical sessions. Medical school curricula and residency training do not adequately prepare physicians for their role in breastfeeding promotion.

Connaissances, attitudes et sources d'information concernant l'allaitement au sein chez les étudiants en médecine et les médecins à Bagdad

RÉSUMÉ Trois cent vingt (320) étudiants en médecine, 75 internes et 50 généralistes à Bagdad (Iraq) ont répondu à un questionnaire visant à évaluer les connaissances, les attitudes et la formation des médecins concernant l'allaitement au sein. Même si les attitudes vis-à-vis de l'allaitement au sein étaient généralement positives, moins de 50 % des médecins ont eu un score satisfaisant pour les questions relatives aux connaissances ($\geq 50\%$ de réponses correctes). La plupart des généralistes (86,0 %) reconnaissaient que l'allaitement au sein était le type d'alimentation préféré contre seulement 58,4 % des étudiants en médecine et 57,3 % des internes. Les généralistes qui avaient bénéficié d'une formation ont eu un meilleur score que ceux qui n'en avaient pas bénéficié. Les principales sources d'information sur l'allaitement au sein étaient les cours de médecine communautaire et de pédiatrie et les principaux modes d'instruction étaient les cours magistraux et les sessions cliniques. Le programme d'études des écoles de médecine et la formation des internes ne préparent pas suffisamment les médecins au rôle qu'ils ont à jouer dans la promotion de l'allaitement au sein.

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Introduction

It has been estimated that the lives of 1 million infants a year can be saved in the developing world by promoting breastfeeding [1]. In addition to the nutritional and psychological values of breast milk, it contains antibodies that help to protect the baby against many common childhood diseases. It is clean, always at the right temperature, inexpensive and nearly every mother has more than enough of this high quality food for her baby. For such a promotional campaign to be effective, attitudes and practices of health providers must be changed [1–3]. Health professionals need accurate, current scientific information combined with lactation and breastfeeding management skills [4–7]. In order to assure the availability of such professionals, clinical learning opportunities concerning lactation and breastfeeding must become a core unit of medical and nursing education and of postgraduate training in prenatal specialties [8–13].

It is now an established fact that breastfeeding is not a purely instinctive behaviour but it is an art transmitted from generation to generation and traditionally the skills of breastfeeding were handed down within families. Female relatives well-versed in the art of breastfeeding cared for new mothers and babies in the early weeks after childbirth. Breastfeeding has been undermined by the medicalization of pregnancy and childbirth and by commercial formula-milk popular since the 1950s. In the past 50 years, mothers have given birth increasingly in hospitals, away from the help of their families and cared for by hospital personnel with at best little or no experience in breastfeeding instruction and at worst incorrect knowledge and prejudicial attitudes. Even more recently, mothers and babies are sent home from the hospital just 1 or 2 days af-

ter delivery, long before the mother's milk has "come in" [14].

It was in this context that the present study was undertaken in Baghdad, Iraq to assess medical students' and physicians' knowledge, attitudes and training in relation to breastfeeding promotion. To the best of our knowledge, there are no previous published studies on this subject in Iraq.

Methods

The study was carried out between 1 April and 31 July 2000. Three groups of health professionals completed questionnaires:

- Medical students from the 4th, 5th and 6th years at University of Baghdad, Saddam University and Al-Mustansirya University. Questionnaire forms were distributed randomly to 400 medical students in the classroom following lectures.
- Resident doctors from 6 different hospitals selected randomly from Baghdad governorate. With the aid of chief residents of the hospitals, questionnaire forms were distributed randomly to 100 resident doctors.
- General practitioners from 6 different primary health care centres selected randomly from Baghdad governorate. Questionnaire forms were distributed randomly to 75 general practitioners in their primary health care centres.

The self-administered questionnaires included questions to assess basic breastfeeding knowledge, attitudes and training experiences. The form was designed and reviewed by a panel of doctors including a breastfeeding consultant and was pretested on a random sample of 10 medical students and 5 resident doctors to check for clarity of interpretation and ease of completion.

The questionnaire contained 50 items: 30 on knowledge about breastfeeding, 10 on problem-solving techniques, 6 on attitudes to breastfeeding and 4 on training about breastfeeding techniques. Regarding questions related to attitudes and teaching methods, participants were asked to choose the most accurate answer (some were multiple choice and other were yes/no format). For questions about breastfeeding knowledge and training experiences, participants given a series of statements and asked to score T for a true statement, F for a false one and D for don't know. Questions about problem-solving asked about suitable advice to give lactating mothers and suitable management of certain breastfeeding problems.

The pass mark for knowledge and problem-solving questions was 50% or more answers correct. To obtain a mean overall score for positive attitude, the percentages scoring positive for each question were summed and divided by 5.

Results

The total number of respondents was 445 (265 males and 180 females). The response rates were 80.0% (320/400) for medical students, 75.0% (75/100) for resident doctors and 66.7% (50/75) for general practitioners.

Table 1 shows that general practitioners had the most positive attitudes towards breastfeeding when asked "What do you prefer for feeding your baby in the future?"; 86.0% thought breastfeeding was the preferred type of infant feeding compared with only 58.4% of medical students and 57.3% of resident doctors. Similarly, responses to all 5 attitude questions showed that more general practitioners had positive attitudes towards breastfeeding (Table 2).

In contrast with the low scores for preferred type of feeding, a high percentage of all respondents said that they encourage their family members and friends to breastfeed their babies (Table 2). Less than half of the medical students and residents (36.3% and 49.3%) agreed they would encourage a working mother to breastfeed her baby in her workplace compared with 60.0% of general practitioners. Only 38.7% of resident doctors and 40.9% of medical students thought it was appropriate for a mother to breastfeed her baby with modesty anywhere compared with 54.0% of general practitioners. A high proportion of all types of medic agreed that it is important to begin breastfeeding immediately after delivery. The mean percentage of general practitioners with positive attitudes was 76.8% compared with 68.8% for medical students and 70.1% for resident doctors.

Table 1 Respondents' preferences for type of infant feeding

Type of feeding preferred	Medical students (n = 320)		Resident doctors (n = 75)		General practitioners (n = 50)	
	No.	%	No.	%	No.	%
Breastfeeding	187	58.4	43	57.3	43	86.0
Artificial feeding or mixed feeding	133	41.6	32	42.7	7	14.0

n = number of respondents.

Table 2 Respondents with positive attitudes towards breastfeeding

Attitude question	Medical students (n = 320)		Resident doctors (n = 75)		General practitioners (n = 50)	
	No.	%	No.	%	No.	%
Do you encourage your family members and friends to breastfeed their babies?	314	98.1	73	97.3	50	100.0
Do you encourage a working mother to breastfeed her baby in her workplace?	116	36.3	37	49.3	30	60.0
Do you think it is appropriate for a mother to breastfeed her baby with modesty anywhere?	131	40.9	29	38.7	27	54.0
Is it important to begin breastfeeding straight after delivery?	315	98.4	73	97.3	50	100.0
Is it correct to ban the use of bottles and teats in teaching hospitals unless prescribed by doctors?	224	70.0	51	68.0	35	70.0
Positive attitude (mean of 5 questions)		68.8		70.1		76.8

Values are the number and percentage of respondents giving a positive response to each question.

n = number of respondents.

Table 3 shows that scores on knowledge and problem-solving approaches towards breastfeeding were slightly higher among general practitioners; 50.0% had adequate knowledge $\geq 50\%$ of questions correct) compared with 45.3% of resident doctors and 49.1%, 47.5% and 40.0% of 6th year, 5th year and 4th year medical students respectively. Of the 24 general practitioners who had received training, 75.0% scored over the pass mark on the knowledge questions whereas of the 26 untrained general practitioners, 27.0% scored a pass. The training, which is only available for general practitioners, is a World Health Organization 40-hour course about breastfeeding counselling. It is not a standard course for all general practitioners but any may choose to take it.

The sources of information and modes of instruction about breastfeeding for medical students and resident doctors during their college years are shown in Table 4. Community medicine and paediatric courses were the most common sources of information while the obstetric course was the least frequent source. Lectures and clinical sessions were the most common modes of instruction about breastfeeding while video presentations were the least frequent mode.

Discussion

There were some limitations to the study design; the difficulty in convincing the doctors to participate in the study is reflected

Table 3 Respondents with adequate scores on knowledge about breastfeeding and problem-solving approaches towards breastfeeding

Type of question (no. of questions)	Medical students (4th year) (n = 80)		Medical students (5th year) (n = 120)		Medical students (6th year) (n = 120)		Resident doctors (n = 75)		General practitioners (n = 50)	
	No.	%	No.	%	No.	%	No.	%	No.	%
Knowledge questions (30)	36	45.0	54	45.0	66	55.0	47	62.7	25	50.0
Problem-solving questions (10)	32	40.0	31	25.8	47	39.2	42	56.0	35	70.0
Total (40)	32	40.0	57	47.5	59	49.1	34	45.3	25	50.0

Values are the number and percentage of respondents scoring correctly on $\geq 50\%$ of questions.
n = number of respondents.

in the low response rate from general practitioners.

General practitioners had the most positive attitudes towards breastfeeding of the 3 groups of medics, with 86.0% agreeing that breastfeeding was the preferred meth-

od of infant feeding and 76.8% having an overall positive attitude on 5 questions. This might be due to experience of breastfeeding for their own children and the fact that many had attended breastfeeding training courses. The teaching curriculum of

Table 4 Respondents' sources of information and modes of instruction about breastfeeding

Sources of information/ instruction	Medical students (4th year) (n = 80)		Medical students (5th year) (n = 120)		Medical students (6th year) (n = 120)		Resident doctors (n = 75)		
	No.	%	No.	%	No.	%	No.	%	
<i>Sources of information</i>									
Community medicine	61	76.3	89	74.2	58	48.3	34	45.3	
Paediatrics	36	45.0	114	95.0	104	86.7	75	100.0	
Obstetrics	0	0	8	6.7	12	10.0	16	21.3	
Other ^a	0	0	2	1.7	3	2.5	0	0	
<i>Modes of instruction</i>									
Lectures	80	100.0	120	100.0	120	100.0	75	100.0	
Clinical sessions	48	60.0	80	66.7	74	61.7	47	62.7	
Breastfeeding demonstration	19	23.8	20	16.7	28	23.3	28	37.3	
Slides	39	48.8	38	31.7	53	44.2	10	13.3	
Videotape	5	6.3	4	3.3	17	14.2	7	9.3	

^aSurgery.

n = number of respondents.

medical students in Iraqi universities includes little on infant feeding, rarely more than 2 hours of lectures, and residency training includes limited opportunities for direct patient interaction about breastfeeding [15].

It was found that a very high percentage of respondents would encourage breastfeeding among relatives and friends. These findings are higher than those of a study by Hollen on paediatricians and obstetricians in Los Angeles, California, which found that less than 45.0% of obstetricians and paediatricians would encourage an undecided mother to breastfeed [8]. Surprisingly, the proportion of medics preferring breastfeeding is lower than that encouraging breastfeeding among family members and friends. This discrepancy might be explained if most respondents know the benefits of breastfeeding so they encourage breastfeeding, but at the same time they believe that it is difficult for mothers to breastfeed their infants when they are working outside home most of the time. This reflects gaps in their knowledge about the practice of breastfeeding, milk expression and storage.

The present study also shows that a very high percentage of respondents thought that it was important to begin breastfeeding immediately after delivery. These results are higher than those found in a study done by Hull et al. in Indonesia, where they found that only 46.0% of 167 health professionals thought that breastfeeding should be initiated immediately after delivery [6].

Although obstetricians have the most important role on the decision to breastfeed and on the initiation of breastfeeding [16], the study shows that breastfeeding and infant feeding are generally dealt with during a course in paediatrics and community medicine. Rarely are these subjects dealt with during training in obstetrics and in

other fields, and when they are, the instructions are usually essentially theoretical, while audio-visual materials, which can stimulate discussion or illustrate a specific aspect of the programme, are less frequently used [17–19]. These results are similar to that found by Freed et al. on paediatric and obstetric residents and practitioners from American medical colleges [20,21].

The highest general positive attitude and success rates among general practitioners were probably due to the training courses that they had taken during their service life. This study found that 75.0% of general practitioners who were trained had adequate knowledge compared with only 27.0% who had not been trained, and this coincides with the results of Rea et al. on health professionals in Sao Paulo, Brazil [22].

Conclusion

Although attitudes toward breastfeeding were generally positive among medical students and physicians in Baghdad, there were many areas in which knowledge was incomplete and in which wide variation existed in advice given to breastfeeding mothers. Thus the need for improved training of doctors is clear. It is necessary, however, to learn more about what constitutes effective, high quality training, including content and methodology and necessary hours of teaching and of supervised clinical practice, instead of just the effect of “any” versus “no” training.

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Regional workshop on infant and young child feeding

The World Health Organization organized a regional workshop on infant and young child feeding in Casablanca, Morocco, from 28 to 31 July 2003. The objectives of the workshop were to review the present status of infant and young child feeding in countries of the Eastern Mediterranean Region in relation to the global strategy for infant and young child feeding, and also to develop an outline of a country plan of action for promoting the implementation of the global strategy for infant and young child feeding at the national level in Member States. Experts from Afghanistan, Bahrain, Egypt, Islamic Republic of Iran, Morocco, Oman, Pakistan, Sudan, Syrian Arab Republic and Tunisia participated in the workshop as well as from UNICEF, FAO, USAID/West Bank, some nongovernmental organizations and WHO concerned staff.