Journal of Population Therapeutics & Clinical Pharmacology

RESEARCH ARTICLE
DOI: 10.47750/jptcp.2023.1110

Breast feeding practice and misinformation among women in Iraq, a cross sectional study

Basim A.A Abdul-Hassan[1,*], Aliaa M. Radi [2,] Rehab Abdulwehab[3]
[1]Specialist in Pediatrics, Al-Basra Maternity and Child Hospital and Member of Iraqi Association for Medical Research and Studies (IAMRS).
[2]Department of Pediatrics, College of Medicine, University of Basrah, Basrah, IRAQ
[3]Department of The Faculty of Intensive Care Medicine, Al-Zahraa medical college, Basrah, IRAQ

Correspondent Author: Basim AA Abdul-Hassan, Specialist in Pediatrics, Al-Basra Maternity and Child Hospital and Member of Iraqi Association for Medical Research and Studies (IAMRS). Email: [1]basim.abdulkarem@avicenna.uobasrah.edu.iq, [2]aliaa.radhi@uobasrah.edu.iq, [3]rehab.jaafer@uobasrah.edu.iq
Submitted: 06 January 2023; Accepted: 05 February 2023; Published: 04 March 2023

ABSTRACT

Despite the overwhelming benefits of breastfeeding, initiation and maintenance of exclusive breastfeeding are still unsatisfactorily low. This is because of the customs and traditions prevailing in our society. Mothers should come out of their culture through more awareness. In this research estimates of the degree of myths-related concepts and misinformation among the potentially lactating women have been studied in different communities to get more aware. The study was based on an internet survey. Survey included questions about the common information and misinformation spread in the community regarding infant feeding. A multivariable linear regression analysis using the demographic variables as independent variables and the final score as the dependent variable has been used. Basra showed a higher mean misinformation score regarding infant feeding, non-married women, and lower school graduation. Misinformation regarding infant feeding was found in a higher score in those who are below 20 years, unmarried women, and those with low education. Thus, breastfeeding practice is low, and Misinformation is high and is significantly related to age, marital status, education level. The most misinforming facts that had been attributed were advice from relatives, primary health care education, and internet were major sources of information about infant feeding among participants.

Keywords: breastfeeding, misconceptions

INTRODUCTION

Babies should begin breastfeeding immediately after birth, be exclusively breastfed for the first six months, and continue breastfeeding until at least two years [(1)]. While the evidence on the power of breastfeeding for lifelong health and prosperity is stronger than ever, there is much work to be done in improving breastfeeding practices worldwide. Globally, just over 40 per cent – or two out of five – of the world's infants under 6 months of age are exclusively breastfed, and there has been little progress over the past 15 years. Five out of seven regions with trend data have current rates around 30 per cent, and all of them have improved very little, if at all, in more than a decade. been little progress over the past 15 years. Five out of seven regions with trend data have current rates around 30 per cent, and all of them have improved very little, if at all, in more than a decade [(2).] Communities can be welcoming or hostile places for breastfeeding. Everyone wins when breastfeeding is normalized and women feel comfortable nursing their babies anyplace and anytime. Strengthened linkages between communities and health facilities may also encourage community networks to support breastfeeding [(1),(2)]

The reports of the health workers revealed that several socio-cultural factors and misconceptions of mothers and grandmothers negatively influence EBF practices of mothers [3]

It is defiantly that correct breastfeeding practice and trend are reflecting and associated with the right knowledge and culture and the reverse will be issued as misconceptions and wrong information can make the opposite, a lot of myths and concepts (Myth? Like that It's usual for breastfeeding to hurt – sore nipples are inevitable, many mothers can't produce enough milk. etc) are repeatedly discussed to have negative impact on the practice [4].

And that even when Most of the women adopted appropriate practices regarding breastfeeding and complementary feeding, but still misconceptions were noted. Thus, more awareness should be created [5]

Despite the overwhelming benefits of breastfeeding, initiation and maintenance of exclusive breastfeeding are still unsatisfactorily low in many countries. Exclusive breastfeeding in the first 3 months is around 39% in Brazil, 19% in Greece, 16.7% in Taiwan and 30% in Singapore. [6],[7],[8]

Literature reviews did conclude that most of the women are aware about exclusive breastfeeding although they do not practice 100%. [5],[9]

This is because of the customs and traditions prevailing in our society. The hard work of community health workers, and it is very important to remove these myths. Health education regarding EBF should be given to pregnant females when they come for check-up. Health education among the women especially the elderly women can improve the knowledge. Awareness program should be conducted in such a way that the feelings of the people should not be hurt. There are many practices associated with breast feeding. But now-a day's women have become sensitive and awareness have developed in them. Mothers should come out of their culture [9]

For that reasons estimation of the degree of myths related concepts and misinformation among the potentially lactating women was frequently studied in different communities to get more aware about when and where to start in potentiating breast feeding practices, and that The identification of local beliefs assists to tailor training to the needs of the audience and assist trainers to address their local problems [10]

Misconceptions were studied through a special evaluation forms and found to be common even among higher education students in surrounding communities like Kuwait in high percent reaching 66%

Support of breastfeeding in public places was low for that reason efforts was concluded to be issued to correct common misconceptions on breastfeeding and increase the support of breastfeeding in public places among university students. [11]

Post-natal breastfeeding practices are extremely low and stand at 19.6 per cent, with most infants receiving additional milk and other liquids shortly after birth. Continuation of breastfeeding is poor with only 22.7 per cent of mothers reporting offering breast milk until the child reaches 24 months. [12]

For such a low level of achievement It was necessary to work to reveal the cognitive and cultural background of potential breastfeeding women through a questionnaire mediated sturvy that prompted the research group to design and work on it.

METHODOLOGY

MATERIALS AND METHODS Participants This cross-sectional study was based on an internet survey done between the 15 th of May 2021 till 1st of May 2022, for a total of 12 months of the survey. The authors published the following link to the survey through social media platforms.

https://docs.google.com/forms/d/e/1FAIpQLSfJwudQME_iJoxXgHlGw5NTWXUklgDXNjsw-zNhVxi3blp9GQ/viewform

The questionnaire was designed to be easily opened and answered through smartphones, tablets, and computers choices and choice boxes was well elaborated via a clipart illustration to assist even illiterates to participate. At the beginning of the questionnaire, information about the survey, its purpose, and the instructions to answer the questions were mentioned. It was also mentioned that participants privacy would be taken into account for participation and that any information that could lead to the persons identification would not be published or stored. People then continued the survey and answered the questions. Ethical approval for this study was obtained from the Ethical Committee in Basra Health Directorate.

Measures

The survey questionnaire consisted mainly of two parts: the demographics and the information. The demographic variables included age group, gender, occupation, level of education, marital status, and place of residence, being lactating or not beside type of feeding offered if yes. The information variables included 24 questions about the common information and misinformation spread in the community regarding the infant feeding, then nine questions did cover a special maternal attitude to different aspects during the feeding (as shown in appendix 1) these questions were formulated after reviewing different researches, that had been established for similar issue elsewhere, for the frequently asked questions and common myths about the infant feeding and breastfeeding. The participants had to answer each question by choosing Yes, No, or do not know. Also, there were numerous other questions in the survey follow a none SCQ battern. These asked about the most common source of information that the participant usually used to get information about the breastfeeding, whether the participants would get supported during feeding or not, whether the participant, cause of choosing breast feeding, way of having breastfeeding after return to job, attitude during covid era and relationship with breast vaccine.

Misinformation score had been calculated for each respondent in regard wrong answers divided on the total 28 misinformation evaluative questions, on sense questions and (don't know) answers were considered as a misinformation.

Statistical analysis

A Descriptive elaboration for the results of the responses

The participant final score was calculated from their correct answers in the 14 information questions. Then, a multivariable linear regression analysis using the demographic variables as independent variables and the final score as the dependent variable has been used. The statistical significance level was set at $p < 0.05$ (two-sided). SPSS version 25 was used for data analyses.

RESULTS

Table (1) Misinformation score in correlation to certain respondent

Age Category	No.	percentage	Misinformation score	Standard deviation	P value
< 20	12	2.9	13.9	3.7	13.9+_3.8
21-30	181	44	13.9	3.7	
31-40	130	31.6	12.8	3.8	
41-50	70	17	12.9	3.7	12.7+_3.8
51-60	14	3.4	10.4	3.9	
>60	5	1.2	9.1	3.8	
Gevernorate					
Basra	351	85.4	13.4		
Baghdad	18	4.4	11.5		
Mysan	16	3.9	12.6		
wholly Najaf	5	1.2			
Karbala	5	1.2			
babel	5	1.2			
Di Qar	4	1			
Naynwa	3	0.7			
Other (46,11.1%)	10	2.4			
Marital Status					
married	375	91.2	13.3	3.8	
non married	36	8.8	12.9	3.7	
Academic achievement					
primary	42	10.2	14.9	3.7	14.1_+3.7(114)
secondary	72	17.5	13.4	3.8	
higher education	297	72.3	12.1	3.8	
Currently or previously fed a child					

yes	284	71.2	13.1	3.8	
no	127	28.8	13.5	3.7	
Type Of Feeding(If Lactating)					
exclusive breastfeeding	195	47.4	11.4	3.8	
exclusive bottle feeding	21	5.4	14.5	3.7	14.2
mixed feeding	194	47.2	14.2	3.8	
Total	411	100	13.2/28	3.81	

411 respondents did participate in the survy,351(85.4%) were from Basra and 46(11.1%) from other cities of Iraq 323(78.5) of them were aged below 40 years and 89(21.5%), 351(85.4%) were from Basra and 46(11.1%) were from other cities .Majority of them (91.2%) were married, having graduated as higher education 297(72.3%)Were fed a child before 284(71. 2%).Mode of feeding her babies were exclusive breastfeeding in 195(47.4%), and nonexclusive in 215(52.3%) of respondents

The final misinformation scores for the participants ranged from 0 to 28, with a mean equal to 13.2, SD = 3.81, suggesting an overall 47.9% (13.2/28 * 100%) misinformation score rate on the 28 evaluative questions.

Answers that reflect a misinformation were found in a higher score in those who are below 20 years, on married women, primary school graduation, on previously fed a child and in those practicing an exclusive bottle feeding (13.9,13.3,13.1,14.2) respectively respondent from Basra showed a higher mean misinformation score the collectively other governorates (13.4,11,1).

Table 2. misinformation distribution according to the different questions.

What is your main source of information about breastfeeding **	
advices of relatives	178(43.3)
medias	76(18.5)
social media	49(11.9)
primary health care education	123(29.9)
through internet	103(25.1)
reading a magazine	40(9.7)
* from a total of 411 responses	
**from a total of 409 responses	

The question that did shown a higher misinformation score in general information category was (What is the sufficient period for exclusive breastfeeding (with which nothing else is given) 248 (60.3), while in the breastfeeding myths related was (Breastfeeding causes jaundice) 318 (77.9%) And in bottle feeding myths related (artificial feeding is associated with a better relationship and bonding between the child and the mother) 297 (72.8%).

Table (3) questions about certain maternal circumstances

general information evaluation	no.(%)	no.(%)	no.(%)
What is the sufficient period for exclusive breastfeeding (with which nothing else is given)	248(60.3)	163(39.7)	
What is the best time to start breastfeeding?	114(17.7)	297(72.3)	
Do you think that a person who has undergone breast plastic surgery can breastfeed her son?	200(48.7)	211(51.3)	
What should the mother do if her breast milk is low?	131(31.9)	280(68.1)	
question about myths related beliefs	wrong	correct	may be
artificial feeding causes more constipation in the baby	88(21.6)	221(54.2)	99(24.3)
artificial feeding causes more diarrhoea	69(16.8)	261(63.5)	83(20.2)

artificial feeding is associated with more colds and infections	73(18)	255(62.8)	78(19.2)
artificial feeding create a calm alert baby	67(16.4)	210(51.5)	131(32.1)
artificial feeding causes more allergies and asthma	103(25.2)	166(40.7)	139(34.1)
artificial feeding increases the intelligence of the child	70(17.2)	248(60.8)	90(22.1)
artificial feeding causes diarrhoea	88(21.6)	221(54.2)	99(24.3)
artificial feeding is associated with a better relationship and bonding between the child and the mother	297(72.8)	74(18.1)	37(9.1)
artificial feeding is associated with better baby health	63(15.4)	288(70.6)	57(14)
Breast feeding related myths beliefs			
Breastfeeding causes anaemia	35(8.6)	308(75.5)	61(15)
Breastfeeding causes distortion of the mother's appearance	69(16.9)	284(69.6)	52(12.7)
Breastfeeding causes weight loss	149(36.5)	197(48.3)	55(13.5)
Breastfeeding causes jaundice	318(77.9)	32(7.8)	55(13.5)
Breastfeeding boosts immunity against corona	16(3.9)	310(76)	81(19.9)
Breastfeeding is associated with colic and requires more anti-colic administration	68(16.7)	248(60.8)	87(21.3)
mother related misconception questions	wrong	correct	may be
Breastfeeding inevitably causes cracked nipples	178(43.6)	155(38)	58(14.2)
A mother who has a rash should not breastfeed her child	52(12.7)	184(45.1)	169(41.4)
Do you think that eating some foods by a nursing mother affects the baby?	353(86.3)	56(13.7)	0
Breastfeeding causes prolonged uterine bleeding after childbirth.	25(6.1)	301(73.8)	81(19.9)
Breastfeeding causes mental fatigue for the mother	110(27)	240(58.8)	52(12.7)
do you think it is possible of covid mother to breast fed her baby *	177(43.5)	230(56.5)	0
do you think that the covid vaccinated mother can breast fed her baby **	152(36.9)	251(62.3)	0
*from a total of 407			
**from a total of 403			

347(84.4) of the respondents did answer to have a support if they got lactated, A percentage of (55.2%) of the breastfeeding women expressed that the reason behind adopting breastfeeding is that it is considered a religious duty,215(51.9%) did answered wrongly for the way to deal when return to work or study before the period needed to have exclusive breast feeding,58.4 did have information about Do you know how to extract milk and do you have information on how to store milk,(71.2%)did practiced breast feeding before and only (28%) of the women heard about the 10 steps for successful breast feeding.

Advices of a relatives, primary health care education and internet browsing were the three main ways to have information about the way to feed a baby among the respondents.

DISCUSSION

Breast milk makes the world healthier and exclusive breastfeeding can save 520,000 children live over the next 10 years [13]

Exclusive breast feeding in the study cohort was significantly low, comparable coverage in USA showed a higher percentage although for which it was considered alarming and unsatisfactory where although most infants born in 2017 started breastfeeding (84.1%), only 58.3% of infants were breastfeeding at 6 months [13,14]

A similar correlation between education level and misinformation did find in China. Mothers with a higher education were more likely to initiate early breast feeding [15],[16]

In this study misinformation regarding the infant feeding were found in a higher score in those who are below 20 years, non-married women, lower school graduation, non-previously fed a child and in those practicing an exclusive bottle-feeding, Basra showed a higher mean misinformation score the collectively other governorates but this may reflect a pitfall of the non-homogenous distribution of the respondents beside the percentage of the overall misinformation among the total cohort.

A similar finding was found in a comparable study in regarding these factors Whoever initiation of

breastfeeding within 1 h after birth was significantly higher among young mothers aged <24 years in Tanzania [17], the revers found in other study in which younger females showed higher breastfeeding ratio [18] beside a better attitude in married women toward breastfeeding [18]

Table 4. source of information about child feeding

If you were breastfeeding, would you receive support and assistance from your family? *		
yes	347(84.4)	
no	64(15.6)	
If you are breastfeeding, is this because you believe that breastfeeding is a religious duty for the mother?		
yes	227(55.2)	
no	184(44.8)	
If you return to work or study, what is your idea as a solution to breastfeeding? *		
milk extraction and preservation for nursing	198(48.1)	
shift to artificial formulas	213(51.8)	
other wrong practices	2(0.1)	
Do you know how to extract milk and do you have information on how to store milk Y/N		
no	171(41.6)	
yes	240(58.4)	
Have you chosen breastfeeding because you have practiced it before and experienced its benefits?		
yes	293(71.2)	
no	107(26)	
other beliefs	11(2.8)	28.8
Have you heard about the 10 Steps to Successful Breastfeeding?		
yes	115(28)	
no	175(42.6)	
may be	121(29.4)	72

The role of the primary health care visits in potentiation of breast feeding had discussed in a Ethiopia as sub-optimal breast feeding was found to be high. Delayed initiation and non-exclusive breastfeeding practices were major contributors to sub-optimal breast feeding (19), Interventions were delivered in health facility, community, and home/family environments. Programmes and interventions that reached women and their families with repeated exposure and beginning during pregnancy were more likely to improve EIBF and EBF outcomes. (20)

The question that did shown a higher misinformation score in general information category was (What is the sufficient period for exclusive breastfeeding (with which nothing else is given) myths related was (Breastfeeding causes jaundice) And in bottle feeding myths related (artificial feeding is associated with a better relationship and bonding between the child and the mother) all these myths were so considerably evident that UNICEF publication did frequently cover it with myth correction activity [21].

The role of religious teachings significant variation in feeding practice was also seen among ethnic and religious groups, and across regions in an other African study. [22]

CONCLUSIONS

1. Breast feeding as practice is still low
2. Misinformation is high among studied group is high and is greatly related to the age, marital status, education level, being lactating previously and among breastfed females
3. The most misinforming facts that had been attributed was about
4. Advices of a relatives, primary health care education and internet browsing were a major source of information about infant feeding among participant.

RECOMMENDATIONS

1. Efforts to raise the level of education about breastfeeding, especially the ten steps to successful breastfeeding, among health workers

2. Local health authorities should seek to assess the level of breastfeeding adoption in the community
3. Action to initiate an awareness campaign targeting myths related to breastfeeding and formula
4. Work to activate the law to protect breastfeeding and restrict the trade and distribution of formula milk
5. Supporting health education programs within health institutions, media education through various programs

LIMITATIONS

1. Online survey makes the sampling non homogenous
2. Concentration on other community categories like health workers, young females and less educated categories
3. Larger sample is needed to be more reflexive for the community attitude.

Declaimer: authors has no conflict of interest

REFERENCES

1. UNICEF South Asia, Misinformation and formula milk donations are threatening breastfeeding during COVID-19 Breast milk is a baby's 'first vaccine,revised at 20 August 2020 p.1.
2. United Nations Children's Fund (UNICEF).From the first hour of life: Making the case for improved infant and young child feeding everywhere
3. Nsiah-Asamoah C, Doku DT, Agblorti S (2020) Mothers' and Grandmothers' misconceptions and socio-cultural factors as barriers to exclusive breastfeeding: A qualitative study involving Health Workers in two rural districts of Ghana. PLoS ONE 15(9): e0239278. doi:10.1371/journal.pone.0239278
4. UNICEF South Asia. Misinformation and formula milk donations are threatening breastfeeding during COVID-19.Breast milk is a baby's 'first vaccine'
5. Rahalkar Ashwinee A1,*, Phalke Deepak B, Phalke Vaishali D. A study of breastfeeding and complementary feeding practices with emphasis on misconceptions amongst the women with under two year children in rural area International Journal of Medical Research & Health Sciences 2014, Volume : 3, Issue : 4.p : (851- 855) DOI:10.5958/23195886.2014.00013.7
6. Chien LY, Chu KH, Tai CJ, Lin CY. National prevalence of breastfeeding in Taiwan. J Hum Lact. 2005;21:338-344.29.
7. Foo LL, Quek SJ, Ng SA, Lim MT, Deurenberg-Yap M. Breastfeeding prevalence and practices among Singaporean Chinese, Malay and Indian mothers. Health Promot Int. 2005;20:229-237.
8. Al-Fadli H, Al-Jasem L, Masoud G. Factors influencing the mother's decision to breast-feed in Ahmadi Region, Kuwait. Kuwait Med J. 2004;36:108-112
9. Uzma Eram. A Review Article: Myths, Beliefs and Malpractices Relating to Breastfeeding and Complementary Feeding Practices International Journal of Pharmaceutical Science Invention ISSN (Online): 2319 – 6718, ISSN (Print): 2319 – 670X www.ijpsi.org Volume 6 Issue 1, January 2017,P. 14-16.
10. Azza MAM Abul-Fadl MD, Amal Zaki MD, Atef ElShetani MD, Dina Abdel Hady, Adel Shakshak, Mohamed Nour-el-Din.Traditional Misbeliefs and Malpractices that Challenge Successful Breastfeeding Initiation and Continuation in Sohag. Egyptian Journal of Breastfeeding (EgJB) Volume (11) January, 2015.
11. Bader Ebrahim, Hadeel Al-Enezi, Mohammed Al-Turki, Ali Al Turki,Fatma Al-Rabah, Majeda S. Hammoud,Abdullah Al-Taiar, Knowledge, Misconceptions, and Future Intentions Towards Breastfeeding Among Female University Students in Kuwait. Journal of Human Lactation 27(4) 358–366.
12. UNICEF Iraq. 2018 Multiple Indicator Cluster Survey (MICS6) Briefing.https://www.unicef.org/iraq/reports/2018-multiple-indicator-cluster-survey-mics6-briefing.
13. Victora CG, Bahl R, Baros AJD, Franca GV, Horton S, Krasavec J et al.., Breastfeeding in the 21thcentury: epidemiology, mechanism, and lifelong effect. The Lancet, 2016. 387(10017): p. 475–490
14. CDC,breastfeeding data and statistics. Breastfeeding Report Card United States, 2020.https://www.cdc.gov/breastfeeding/data/reportcard.htm.
15. Tang K, Wang H,Tan SH, et al. Association between maternal education and breast feeding practices in China: a population-based cross-sectional study. BMJ Open 2019;9:e028485. doi:10.1136/ bmjopen-2018-028485
16. Pandey S, Tiwari K, Senarath U, Agho KE, Dibley MJ, Determinants of infant and young child feeding practices in Nepal: secondary data analysis of Demographic and Health Survey 2006. Food and nutrition bulletin, 2010. 31(2): p. 334–51. 10.1177/156482651003100222
17. Victor R, Baines SK, Agho KE, Dibley MJ, Determinants of breastfeeding indicators among children less than 24 months of age in Tanzania: a secondary analysis of the 2010 Tanzania

Demographic and Health Survey. BMJ open, 2013. 3(1): p. e001529. 10.1136/bmjopen-2012-001529.
18. dirangu M, Gatimu S, Mwinyi H, Kibiwott D, Trends and factors associated with early initiation of breastfeeding in Namibia: analysis of the Demographic and Health Surveys 2000–2013. BMC pregnancy and childbirth, 2018. 18(1): p. 171. 10.1186/s12884-018-1811-4.
19. Hoche S, Meshesha B, Wakgari N, Sub-optimal breastfeeding and its associated factors in rural communities of Hula District, southern Ethiopia: a cross-sectional study. Ethiopian Journal of Health Sciences, 2018. 28(1): p. 49–62. 10.4314/ejhs.v28i1.7.
20. Benedict RK, Craig HC, Torlesse H, Stoltzfus RJ. Effectiveness of programmes and interventions to support optimal breastfeeding among children 0-23 months, South Asia: A scoping review. Matern Child Nutr. 2018 Nov;14 Suppl 4(Suppl 4):e12697. doi: 10.1111/mcn.12697. PMID: 30499251; PMCID: PMC6519148.
21. UNICEF parenting Busted: 14 myths about breastfeeding.https://www.unicef.org/parenting/food-nutrition/14-myths-about-breastfeeding.
22. Belachew AB, Kahsay AB, Abebe YG. Individual and community-level factors associated with introduction of prelacteal feeding in Ethiopia. Arch Public Health. 2016 Feb 8;74:6. doi: 10.1186/s13690-016-0117-0. PMID: 26858835; PMCID: PMC4745177.