AMJ Australasian Medical Journal

[AMJ 2021;14(2):57-64]

The opinion of family medicine residents in Saudi Arabia on breastfeeding education in their curriculum: A qualitative study using focus groups

Razaz Mohammed Wali[1-3], Maggie Bartlett[4]

1. Ministry of National Guard-Health Affairs, Jeddah, Saudi Arabia
2. King Abdullah International Medical Research Center, Jeddah, Saudi Arabia
3. King Saud Bin Abdulaziz University of Health Sciences, Jeddah, Saudi Arabia
4. University of Dundee School of Medicine, Dundee, Scotland

RESEARCH

Please cite this paper as: Wali R, Bartlett M. The opinion of family medicine residents in Saudi Arabia on breastfeeding education in their curriculum: A qualitative study using focus groups. AMJ 2021;14(2):57–64.
https://doi.org/10.35841/1836-1935.14.2.57-64

Corresponding Author:
Razaz Mohammed Wali
Al-Rehab district, Philsteen Street, Jeddah, Saudi Arabia
Email: dr_razazwali@hotmail.com

ABSTRACT

Background

Breastfeeding is the natural way of feeding babies; it has many health benefits for mothers and their babies. Mothers can face some challenges during the process of breastfeeding, which, if not addressed by a physician with specific knowledge and expertise, could lead to the cessation of breastfeeding.

Globally, breastfeeding education in the Family Medicine residency curriculum receives minimal attention for several reasons; some are related to the residents and other stakeholders, and some to financial aspects.

Aims

The objective of this study is to explore the Family Medicine residents' opinions regarding the potential introduction of breastfeeding education to their curriculum.

Methods

In this exploratory qualitative study, data were gathered using focus groups of Family Medicine residents working within Primary Health Care centers in Saudi Arabia. Data were analysed using an iterative thematic approach.

Results

Thirteen Family Medicine residents participated in the focus group. Three main themes were generated: Breastfeeding background and experience, the experience of breastfeeding education, the introduction of breastfeeding medicine aligned with residents' opinions. Residents acknowledge the lack and the inconsistent implementation of breastfeeding education in their curriculum; they acknowledge its importance. Residents are open to learning about breastfeeding to improve their practice, provided clear methods of teaching and evaluation exist. Residents highlighted the challenges that can face the implementation of such a program and possible solutions from their perspective.

Conclusion

This study could raise the awareness of decision-makers about breastfeeding education and supports the introduction of a national-level policy to integrate it into Family Medicine residency programs in Saudi Arabia.

Key Words

Breastfeeding, family medicine, residency program, curriculum

What this study adds:

1. What is known about this subject?

This study can be a foundation for further studies to establish, design, implement, and evaluate a 'learner-centered' curriculum in the area of breastfeeding medicine.

2. What new information is offered in this study?

It showed that residents acknowledge the importance of such education and are aware of its inadequacy in their curriculum. Residents are open to learning about

breastfeeding and improving their practice and wish for a clear method of teaching and assessment in this area.

3. What are the implications for research, policy, or practice?
This study should increase the awareness of decision-makers about breastfeeding education and recommend a policy at the national level to integrate it into Family Medicine residency programs all over Saudi Arabia.

Background

What is known?
Breastfeeding is the natural way to feed infants.[1] In addition to its nutritional benefits, breast milk contains immune modulators, anti-microbial, and anti-inflammatory factors. Breastfeeding may contribute significantly to decreasing health care costs.[2]

The initiation rate and the duration of breastfeeding may increase if the mother receives appropriate support from health care workers during pregnancy and the postnatal period, and this is more effective if face-to-face.[3]

While physicians have a high impact on mothers' decision to breastfeed, their knowledge of and comfort level with breastfeeding issues are sometimes suboptimal; this could be related to their training during residency programs.[4]

Family physicians are in a unique position. They are often the first contact point with the patient, and most women consult with them during pregnancy and the postpartum period. They are ideally placed to support families by providing education, counselling, and assisting new mothers in overcoming breastfeeding barriers.

Curricula for residents vary in the way that they specify their clinical content. Breastfeeding may not appear as a specific topic. Still, as part of a general statement about support for pregnant or perinatal women and new parents, Some residency programs in the USA, Canada, and the UK introduced breastfeeding education to their curriculum; they acknowledged its importance.[5] It ranged from a few hours to two weeks, where residents attended lectures, problem-solving, and breastfeeding clinics. As a result, the resident's knowledge, satisfaction, and confidence in dealing with breastfeeding problems significantly increased.[6] The main issue with these programs is that they are inconsistent; they differ from one program to another and from one country to another.

In Saudi Arabia, the curriculum in medical school and postgraduate programs is deficient in formal breastfeeding education; only discrete subjects are taught to residents but no clinical attachment or problem-solving skills. Stakeholders from different countries, including Saudi Arabia, assume that students and residents are exposed to breastfeeding knowledge during their clinical rotation in paediatrics and obstetrics departments, but acquired information and method of delivery were not assessed because of the lack of study in this area.[7]

What is Unknown?
Despite the substantial number of studies that show how breastfeeding education is essential to residents, none of the studies, to the researcher's knowledge, has explored the opinion of the residents about introducing breastfeeding education to their curriculum. As key stakeholders in the curriculum, their views are significant.

This study aims to explore the Family Medicine residents' opinions regarding the potential introduction of breastfeeding education to their curriculum.

The Problem:
Breastfeeding in Saudi Arabia
Breastfeeding is mentioned in the Quran (Islam's holy book), and it is considered as a child's right according to Islamic law; however, the prevalence of breastfeeding in Saudi Arabia is low; 13.7 per cent compared to the WHO standards,[8] which may be related to lack of information and support within the health care system but also social and cultural factors. Women in Saudi Arabia are usually covered, i.e., they wear the formal Saudi dress (Abaya) and are reluctant to breastfeed in front of men or to discuss breastfeeding with them, and this includes male doctors in settings such as paediatric or well-baby clinics.

Aim of this work
This study aims to explore the Family Medicine residents' opinions regarding the potential introduction of breastfeeding education to their curriculum.

Method

Study design
This qualitative, exploratory study design used focus groups with Family Medicine residents within a grounded theory approach in the context of an interpretive paradigm.

Setting/ Subjects
This research was set within the primary health care centers in Saudi Arabia as it was a familiar environment and was convenient for both the residents and the researcher. The

entire residency year group was invited.

Sampling

Non-probability purposive theoretical sampling was used, where the participants were purposefully selected because they are Family Medicine residents.

Data collection/ Analysis

Demographic details were recorded for each participant (age, marital status, and year group). Data were collected through focus groups and transcribed from audio recordings. They were coded and analysed in an iterative process where each step informed the other. A thematic approach was used where the themes were raised from the data.

Results

Thirteen residents participated in this study; nine attended the first session, and four participated at the second session. Twelve were female, and one was male. All residency year groups were included. Seven out of thirteen residents were single; one was divorced, five were married. Two of the study participants had children and successful personal breastfeeding experience.

Eight out of thirteen participates had positive breastfeeding experience in their families, while five had unsuccessful or no breastfeeding experience in their family.

Quotes from female participants are identified with the letter F, and those from male participants are identified with the letter M. The numbers refer to individual participants. The lower case f1 and f2 refer to the two focus groups.

Three main themes were identified, as shown in Figure 1.

After further exploration of the main themes, two principle constructs were developed:

1. Residents lack knowledge and skills in breastfeeding medicine.
2. Residents are willing to have breastfeeding education included in their curriculum.

The Themes

1. Breastfeeding background and experience

Demographic background

All residency year groups were included. Seven out of thirteen residents were single; one was divorced, five were married. Two of the female study participants had children and successful personal breastfeeding experience.

Eight out of thirteen participates had positive breastfeeding experience in their families, while five had unsuccessful or no breastfeeding experience in their family.

Some of the residents had personal or family experiences of breastfeeding, which may have influenced their opinions.

Health benefits

Residents appreciated the health benefits of breastfeeding for babies and their mothers. They believed that breast milk is a natural source of nutrients, has benefits on the immune system, can result in higher IQ and less obesity in babies, and can lead to the stronger bonding between mothers and their babies. They believed that breastfeeding decreases the incidence of uterine and ovarian cancers for mothers in the longer term and postpartum depression and emotional lability in the shorter term.

"[Breastfeeding] it is the best gift for the baby." (F5f1)

Breastfeeding challenges

Residents acknowledged that breastfeeding mothers could face some challenges such as fatigue and restriction of daily activities. Others included issues such as breast shape changes, mastitis, and engorgement.

More broadly, residents commented on the need for mothers to feel supported by the baby's father, their own family, and society. They included the need for positive role models, and effective health education during pregnancy and the postpartum period,

"It is important to make sure whether the mother has [all the supporting factors] in breastfeeding (food, home, and work)." (F3f1)

Participants did not mention any breastfeeding challenges for babies.

There were some false beliefs among the study participants, such as "breastmilk does not have all the nutrients," and "thin mothers cannot breastfeed."

"[Breastfeeding] is very important, it gives the immunity and the nutrient to the baby, but breastfeeding does not have all the vitamins, we have to educate the family to give additional food." (M1f2)

2. **Current breastfeeding learning practices and experiences:**

Amount of teaching

Residents had experienced minimal breastfeeding education in medical school, usually during rotations in Paediatrics, Family Medicine, and Obstetrics. Some had received no breastfeeding education at all.

In their residency program, there had been no formal breastfeeding education. Residents learned about breastfeeding by attending informal sessions within or out of the program, or by self-directed learning.

Lectures were the most commonly experienced teaching method, followed by small group discussions and clinical teaching. Sometimes, teaching about breastfeeding was related to the interest of the teacher, and others would study breastfeeding just for the exam.

"During the 5th medical year, there were two lectures, one in family medicine rotation and the other in paediatrics…the composition of breastmilk and comparison of breastmilk with formula)".(F3f1).

Residents described various sources of education; most had made personal summaries of material they had gathered from books/journals. Medical websites and clinical experience came second; some had read other people's summaries or consulted the attending physician.

Teachers were mostly doctors, but some were nurses and health educators. Residents agreed that tutors should have good knowledge, confidence, and clinical experience to teach breastfeeding medicine in their program.

Clinical teacher gender was an issue for most of the female residents; they described discomfort when being taught by a male and attributed this to cultural taboos. They had no problem talking with a family about breastfeeding, but they did not want to talk about breastfeeding or attend breastfeeding events in public.

The male participant did not describe any feelings of discomfort about the teaching.

"If I took a lecture or workshop with a male, I will be shy and feel embarrassed … I prefer a female to give this topic". (F8f1)

"As a male, I had no uncomfortable feelings; it was a regular lecture with new information; in fact, I was interested". (M1f2)

Most felt they could use their skills of history taking and clinical examination and then manage mothers with their current level of knowledge and experience, while some would discuss the case with the attending physician, and few would refer to the breastfeeding educators. Two said they would be unable to manage such cases at all.

"I will try to answer her if I know the information. If I do not know, I will tell her that I do not know, I will ask others, and I will read more. I am not confident enough to answer her. Moreover, I will give her another appointment; I will be disappointed with myself". (F12f2)

"I never encountered such cases, and at this level, I do not think I can manage her". (F4f1)

Perceptions about the teaching of breastfeeding

All residents agree that trying to manage mothers with problems was often a negative experience; they felt they were unconfident and uncomfortable and were disappointed with their knowledge. All agreed that breastfeeding education given during medical school and the residency program was insufficient.

Residents expressed more confidence when dealing with problems with breastfeeding when seeing it as 'disease' than when dealing with the 'natural' aspects of breastfeeding.

Perceptions about the need for being taught about it

Residents knew the importance of learning about the medical aspects of breastfeeding, believing that it would give them confidence, the ability to help people and improve community health. The majority thought it should be mandatory in the curriculum.

Consequences of lack of teaching

Lack of teaching about breastfeeding had some negative consequences for the residents themselves, in terms of their lack of confidence, their avoidance of the subject, the lack of efficiency, and impacts on personal pride from having to ask seniors for help.

Why is it not being taught?

In response to the question "why is breastfeeding not in the current curriculum?", residents identified barriers related to stakeholders (Saudi Commission for Health Specialties,

program directors, clinical teachers), barriers related to themselves, and financial barriers related to the costs of teaching it.

Regarding barriers related to stakeholders, the residents thought that stakeholders view breastfeeding as natural, not a disease, and therefore all mothers would know how to breastfeed and did not justify curricular time in the Family Medicine residency. They perceived these stakeholders to think it was covered in other specialties or rotations such as Paediatrics and Obstetrics & Gynaecology. Most importantly, the stakeholders would not know the consequences of not teaching about breastfeeding and the implications for parents, babies, and the community. Lack of interest in the subject was the main barrier for residents; some did not think they needed to be taught about the 'normal' aspects of it but did need to be taught about the pathological aspects.

"Very big question mark (she laugh), it could be, the people how put the curriculum they feel it is not of an important topic, [they do not feel that breastfeeding need to be spoon-fed] since everybody should know about it."(F6f1)

"Breastfeeding is [not a disease] but a natural thing like cleaning your teeth."(F8f1)

3. **The introduction of breastfeeding medicine: how to learn about it**

Where is the best fit?

The majority of the residents agreed it should be mandatory to include breastfeeding education in their curriculum. They decided it should be a structured program with specific objectives that would apply across all Family Medicine programs and in which males and females would learn the same topics.

"It should be structured because there are basics that everybody should know if it was unstructured; some of the basics will be missed." (M1f1)

Residents saw the advantages of including breastfeeding education in their curriculum as increasing their level of knowledge and clinical skills, giving them more confidence and comfort in their clinical practice, increasing awareness in doctors and patients, and improving healthcare.

All of the residents agreed that the Family Medicine program was the best fit for breastfeeding education. One resident thought it should also be covered in other specialties, namely Obstetrics & Gynaecology and Paediatrics.

Suggested methods of teaching were small group discussions or lectures prepared by residents or physicians, clinical exposure with an expert health practitioner, or in simulated clinics. Teaching could be delivered by physicians, nurses, midwives, or expert mothers.

Residents had different opinions about the duration and frequency of breastfeeding teaching activity; some suggested it should be repeated once or twice yearly and some every two years. Regarding the assessment process, some suggested that it should be part of their continuous assessment; others suggested a pre and post-teaching session test. Only one thought it should be in the formal summative assessment because having a topic in the exam motivates the learners to learn about that topic, consistent with the idea that assessment drives learning.

Barriers to it being in the formal curriculum

A number of barriers to the introduction of breastfeeding education were identified; cultural and gender issues, unavailability of experienced and interested tutors, managerial issues and the financial cost of changing the curriculum, training tutors, the cost of educational materials, and competing demands on curricular time.

"It is a health promotion subject; they will not see it as important as other diseases; residents could not be interested, another barrier when the males are included in teaching." (F3f1)

Residents agreed that for a successful introduction of breastfeeding education, a clear, realistic plan would be needed; all training centers should have a least one breastfeeding expert, access to training the trainer courses and breastfeeding educational materials. They thought the best way to introduce breastfeeding education successfully would be to link it to the 2030 Saudi Arabian vision, which includes enhancement of preventative medicine (Saudi Vision 2030, 2016) and that small steps could make significant changes.[9]

Residents acknowledge the lack and the inconsistent implementation of breastfeeding education in their curriculum; they acknowledge its importance. Residents are open to learning about breastfeeding to improve their practice, provided clear methods of teaching and evaluation exist. Residents highlighted the challenges that can face the

implementation of such a program and possible solutions from their perspective.

Discussion

The majority of Family Medicine Residents on this program in Saudi Arabia recognize the deficiency of their learning and experience in the field of breastfeeding and would welcome its introduction into their residency program.

They appreciated the role of physicians and other healthcare workers' roles in supporting mothers in the challenges they may face during breastfeeding in line with previously published work.[10-12]

The findings demonstrate the paucity and inconsistency of breastfeeding education and training in medical schools and the Family Medicine residency curriculum in Saudi Arabia, which is consistent with studies from all over the world; often, such education is insufficient to support and manage breastfeeding mothers.[4,13,14] Reviewing the curriculum of the Family Medicine program in Saudi Arabia (Saudi Board for Family Medicine Curriculum, 2020),[7] it was found that breastfeeding education receives minimal attention and is insufficient to provide the knowledge and skills to run a breastfeeding clinic and address mothers' concerns with confidence.

Residents in this study had different approaches to mothers with breastfeeding problems, which depended on the source of their information, the opinion of the attending clinical teacher, and their personal breastfeeding experience. It was usually ad hoc depending on the interest of both the teachers and the residents and lacked specific teaching objectives or formal assessment.

These findings are similar to those of Simmons, who explored the conflicting breastfeeding advice and management among midwives and demonstrated the lack of consistent education.[15]

The residents experienced negative feelings when they encountered a mother with a breastfeeding problem that they were unable to manage without the availability of the senior, as described by Renfrew et al.[14] It is possible that these negative experiences could lead to avoidance of the issues.

Amongst the group of residents, personal breastfeeding experience positively influenced their comfort in discussing problems with mothers and managing their problems, which is consistent with findings from other studies.[16,17]

There were some cultural taboos that prevented free discussion about breastfeeding; these included gender, particularly related to public speaking, and the issue of children attending breastfeeding talks. Most of the female residents in this study found it uncomfortable to be taught about breastfeeding by a male teacher; they described shyness and embarrassment. The only male resident in the study felt differently; he was open to talking and discussing breastfeeding with a female teacher.

The residents thought that formal, structured breastfeeding education should be mandatory in their curriculum, consistent with the conclusions of Renfrew et al.[14] They expressed opinions that it was not included because stakeholders consider it inessential, there being more important topics to be included, and its crossing of discipline boundaries (Family Medicine, Obstetrics & Gynaecology, Paediatrics) makes it difficult to place. They perceived that the Family Medicine board, program directors, and clinical teachers do not recognise that the lack of knowledge among residents might be implicated in the low breastfeeding rates among mothers.

Residents in this study thought the teaching could be provided by physicians, nurses, midwives, or even expert mothers but Tender, et al. showed better results when attending with an expert in the field such as International Board Certified Lactation Consultant (IBCLC).[18] Rather than place the responsibility solely on medical educational programs, Smale et al. recommend a policy that supports breastfeeding education on a national level rather than on a residency program curriculum level.[19]

Limitations of the study

In Saudi Arabia, Arabic is the primary language for daily communication, but when it comes to medical school, everyone speaks English. During data collection, some residents mixed between Arabic and English, and some strong expressions were made in Arabic, which can only be imprecisely translated into English and are therefore open to some interpretation. Efforts were made to translate as precisely as possible.

The fact that there was only one male participant is a limitation, particularly because participants in the study have expressed gender-specific perceptions; the opinion of a single male participant may not be representative of all male residents on the program or more generally.

The number of participants is small and confined to a single program in a single country. The results of this study may

not be representative of all Family Medicine residents and, therefore, may not generalizable to other Family Medicine programs in other countries due to differences in context and culture.

The lead researcher was aware that participants might not speak freely because of the potential power imbalance because of her being a senior member of the teaching faculty; this was addressed by explicitly informing them that their participation would have no impact on any future teaching or assessments during their residency.

Conclusion

This study explored the opinions and experiences of a group of Family Medicine Residents in Saudi Arabia residents' introduction of breastfeeding education to their residency program. It showed that residents acknowledge the importance of such education and know its inadequacy in their curriculum. Residents are open to learning about breastfeeding and improving their practice and wish for a clear method of teaching and assessment in this area.

References

1. World health organization. 10 facts about breastfeeding. (2017). from https://www.who.int/features/factfiles/breastfeeding/en/. Retrieved July 23, 2019.
2. Rouw E, von Gartzen A, Weißenborn A. The importance of breastfeeding for the infant. Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz. (2018);61(8):945–951.
3. Mattar C, Chong YS, Chan YS, et al. Simple antenatal preparation to improve breastfeeding practice. Obstet Gynecol. 2007;109:73–80.
4. Esselmont E, Moreau K, Aglipay M, et al. Residents' breastfeeding knowledge, comfort, practices, and perceptions: results of the Breastfeeding Resident Education Study (BREST). BMC Pediatr. 2018;18(1):170.
5. Kim YJ. Important role of medical training curriculum to promote the rate of human milk feeding. Pediatr Gastroenterol Hepatol Nutr. 2017;20(3):147–152.
6. Albert JB, Heinrichs-Breen J, Belmonte FW. Development and evaluation of a lactation rotation for a pediatric residency program. J Hum Lact. 2017;33(4):748–56.
7. Saudi Board for Family Medicine Curriculum. (2020). from https://www.scfhs.org.sa/MESPS/TrainingProgs/TrainingProgsStatement/Documents/Family%20Medicine%202020.pdf. Retrieved January 8, 2020.
8. Alyousefi NA, Alharbi AA, Almugheerah BA, et al. Factors influencing Saudi mothers' success in exclusive breastfeeding for the first six months of infant life: a cross-sectional observational study. Int J Med Res Health Sci. 2017;6:68–78.
9. Saudi Vision, 2030. (2016). From https://vision2030.gov.sa/sites/default/files/report/Saudi_Vision2030_EN_2017.Pdf. Retrieved May 17, 2019.
10. Hendaus MA, Alhammadi AH, Khan S, et al. Breastfeeding rates and barriers: a report from the state of Qatar. Int J Womens Health. 2018;10:467–475. doi: 10.2147/IJWH.S161003. PMID: 30174463; PMCID: PMC6110662.
11. Feferbaum R. Interventions for promoting the initiation of breastfeeding. Sao Paulo Med J. 2014;132(1):68.
12. Meedya S, Fernandez R, Fahy K. Effect of educational and support interventions on long-term breastfeeding rates in primiparous women: a systematic review and meta-analysis. JBI Database System Rev Implement Rep. 2017;15(9):2307–32.
13. Freed GL, Clark SJ, Curtis P, et al. Breast-feeding education and practice in family medicine. J Fam Pract. 1995;40(3):263–9.
14. Renfrew MJ, McFadden A, Dykes F, et al. Addressing the learning deficit in breastfeeding: strategies for change. Matern Child Nutr. 2006; 2(4):239–44.
15. Simmons V. Exploring inconsistent advice & practice: Part 3. Br J Midwif. 2003;11(9):564–67.
16. Isabella PH, Isabella RA. Correlates of long-term breastfeeding: A study of social and personal factors. 1991.
17. Sattari M, Levine D, Neal D, et al. Personal breastfeeding behavior of physician mothers is associated with their clinical breastfeeding advocacy. Breastfeed Med. 2013;8(1):31–7.
18. Tender JAF, Cuzzi S, Kind T, et al. Educating pediatric residents about breastfeeding: evaluation of 3 time-efficient teaching strategies. J Hum Lact. 2014;30(4):458–65.
19. Smale M, Renfrew MJ, Marshall JL, et al. Turning policy into practice: more difficult than it seems. The case of breastfeeding education. Matern Child Nutr. 2006;2(2):103–13.

PEER REVIEW

Not commissioned. Externally peer reviewed.

CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

FUNDING

None

ETHICS COMMITTEE APPROVAL

Ethical approval registration number RJ18.101.J was obtained from the Institutional Review Board of King Abdullah International Medical Research Center (KAIMRC). Ethical principles were maintained throughout the study.

Figure 1: The Themes arising from the data