

Promotion and support of breastfeeding: which role for a hospital portal?

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Abstract

The encouragement and the support of breastfeeding are public health priorities. Since 2013 “Ospedali Riuniti” of Palermo has been running a portal to promote initiation and duration of breastfeeding. The “*Allattamenti Riuniti*” portal provides women with information and individualized answers in case of breastfeeding problems. The activity of the service between April 2013 and January 2017 has been assessed. We illustrate the characteristics of mothers and the kind of questions asked.

Keywords

On-line counseling, breastfeeding, support.

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Introduction: the need for education

Breastfeeding and human milk are the normative standards for infant nutrition and one of the most effective preventive measures to protect both baby's and mother's health [1].

Short- and long-term benefits are dose-dependent. Therefore the World Health Organization recommends exclusive breastfeeding for the first 6 months (26 weeks) of life while continuing alongside complementary (family) foods for 2 years or beyond.

The success rate among mothers who want to breastfeed can be greatly improved through active support from their families, friends, communities, clinicians, health care leaders and policy makers [2].

In fact, although breastfeeding is natural, it is not easy for many mothers. Particularly first-time mothers need appropriate information and support in order to develop positive attitude, appropriate knowledge and skills necessary to initiate and continue exclusive breastfeeding.

Breastfeeding education involves fathers and other significant members of the family and is usually provided in the antenatal period and/or during hospital stay after childbirth.

Breastfeeding education can therefore be offered in many heterogeneous settings, such as public and private hospitals, libraries, health centers, religious facilities, schools and work sites [3].

Breastfeeding should be depicted as normal, desirable and beneficial. Moreover, information and advice should be delivered by professionals with expertise in lactation management and ability to communicate.

Many studies suggest that prenatal education increases both mothers' self-efficacy in breastfeeding and duration of breastfeeding [4, 5]. The U.S. Preventive Service Task Force (2008) stated that prenatal education programs, supplemented by ongoing support, increase the proportion of women continuing breastfeeding for up to 6 months (grade of recommendation B) and suggested one-to-one interaction with service providers or counselors [6].

Although several national and international guidelines on breastfeeding education are available, assessing the effectiveness of an intervention on breastfeeding education is a challenge [7, 8].

Breastfeeding support and promotion *via* a website

Searching information regarding child-care, mothers discovered Internet quite soon. In the '90s, long before the appearance of social media or forums, mothers began to provide breastfeeding or mothering support each another through simple emails. In the following twenty years the Web has been enriched with dedicated websites or e-health programs accessible to women (CINAHL, Medline, Current Contents, etc.).

Searching "breastfeeding", "breastfeeding support" and "breastfeeding site" on the Web retrieves respectively around 68, 35 and 46 million items (last access on February 13th, 2017).

Such a huge amount of resources is often difficult to discriminate. Mothers, surfing the network, can encounter incorrect information and choose inappropriate websites.

Worldwide, many peer-to-peer and/or professional lactation consultants' associations work effectively to promote breastfeeding *via* Web and provide good quality on-line support [9].

Some associations may charge a fee or request donations (e.g. the Australian Breastfeeding Association), but most are free (e.g. La Leche League International).

Concurrently, also governmental health institutions and scientific societies have built important websites, that can be accessed by mothers as well as by healthcare professionals and provide documents, position papers and possibly interactive information and advice through dedicated email contact (**Tab. 1**).

Breastfeeding education and support at "Ospedali Riuniti", Palermo

"Ospedali Riuniti" in the City of Palermo provides mothers with breastfeeding information and support through antenatal classes and a

Table 1. Breastfeeding resources in the web.

- **Allattamento.sip.it:** The website of Italian Society of Pediatrics
- **BreastfeedingCommunity.co.uk:** Forums to support UK mums
- **Centers for Disease Control:** Most recent releases and studies
- **Womenshealth.gov:** The website by USA federal government: phone support on the National Breastfeeding Hotline
- **Kellymom:** Informative in simple terms
- **La Leche League (LLL) International:** The most comprehensive and accurate resource
- **New Beginnings:** The USA LLL's bi-monthly magazine
- **International Lactation Consultant Association:** Help from certified consultants
- **The Academy of Breastfeeding Medicine:** American organization aimed to research. Also a Facebook page
- **The Australian Breastfeeding Association:** The leader in Australia's campaigns to promote breastfeeding
- **World Health Organization (WHO):** The world leader in health information

dedicated page of the corporate website (<https://sites.google.com/a/villasofia.it/allattamento/home>). Both interventions respond to the mission of health promotion by a public hospital and are run by a neonatologist (GG).

Antenatal breastfeeding education

At “Ospedali Riuniti” nearly 300 pairs of parents per year attend antenatal classes on breastfeeding. The following topics are covered: benefits of breastfeeding, timing of latch onto the breast, correct position of the baby during breastfeeding, early physical problems of the breastfeeding woman (nipple pain and fissures, breast engorgement, etc.), expressing and storage of human milk, breastfeeding and medications, frequent concerns, common myths.

The website “Allattamenti Riuniti”: structure and contents

The portal “Allattamenti Riuniti” (which in Italian means “Joint Breastfeeding”) offers in-depth insights to new-parents and health workers as well. It provides selected international protocols, guidelines, recommendations, papers, excerpts from Italian legislation on maternity protection and a list of national and international breastfeeding specialized websites. Moreover, moms and dads can address their own questions to the following email addresses latte.farmaci@villasofia.it and allattamenti.riuniti@villasofia.it and receive individualized advice.

Every single session email consultation is later publicly shared, ensuring anonymity, in a dedicated section of the website.

From April, 1st, 2013 up to January, 31st, 2017 the portal “Allattamenti Riuniti” recorded more than 75,000 contacts and 762 consultancies.

Each user fills an on-line brief questionnaire collecting data about home address, age, professional status, previous pregnancies, mode of delivery, maternal health conditions, age of the baby, perceived partner’s support. Processed data define the profile of the mothers accessing our service.

Results

Mothers’ identikit

Most mothers using our dedicated email are above 35, graduated and healthy. They are first-

time mothers and gave birth vaginally. Their partners are perceived as supportive.

Our average mother lives in Palermo city or its province and, while participating antenatal classes, has been informed about Internet breastfeeding help of “Ospedali Riuniti” (**Tab. 2**).

A relevant percentage of mothers (29.7%), however, has simply come across the service surfing the Internet and lives out of Sicily (22.2%).

Table 2. Mothers’ identikit: age, address, health, parity, delivery mode, schooling, professional status, partner’s perceived support (762 contacts).

	%	n
Age		
21-25 years	3.20%	24
26-30 years	25.60%	195
31-35 years	32.00%	244
36-40 years	30.20%	230
> 40 years	9.00%	69
Place of residence		
Province of Palermo	70.30%	536
Other provinces of Sicily	7.50%	57
Southern Italy	9.50%	72
Central Italy	3.00%	23
Northern Italy	9.70%	74
Mother’s health		
No illness	85.80%	653
Diabetes	6.90%	53
Autoimmune disease	6.70%	51
Other	0.60%	5
Parity/Delivery mode		
First baby	63.60%	485
Second baby	36.40%	277
Vaginal birth	66.60%	507
Cesarean section	33.40%	255
Schooling		
High school	26.10%	199
Degree	73.90%	563
Professional status		
Employee	54.80%	418
Housewife/jobless	20.20%	154
Freelance	25.00%	190
Partner’s perceived support		
High	60.20%	459
Adequate	12.30%	94
Sufficient	15.80%	120
Low	10.00%	75
No partner	1.80%	14

Reasons for seeking advice on breastfeeding

Most mothers use the breastfeeding help service mainly between 1 and 6 months after childbirth (**Fig. 1**) and seek advice on practical management (**Fig. 2**), such as solving a breast engorgement, latching baby properly and milk expression or storage (**Fig. 3**).

Mothers raise questions about their children (**Fig. 4**), their own needs (**Fig. 5**) or use of medications during breastfeeding (**Tab. 3**).

Few mothers ask questions about minor (e.g. dental anesthesia) or major surgery (e.g. mammoplasty) compatibility with breastfeeding.

Sometimes mothers just seek encouragement and support to face incomprehension, prejudices,

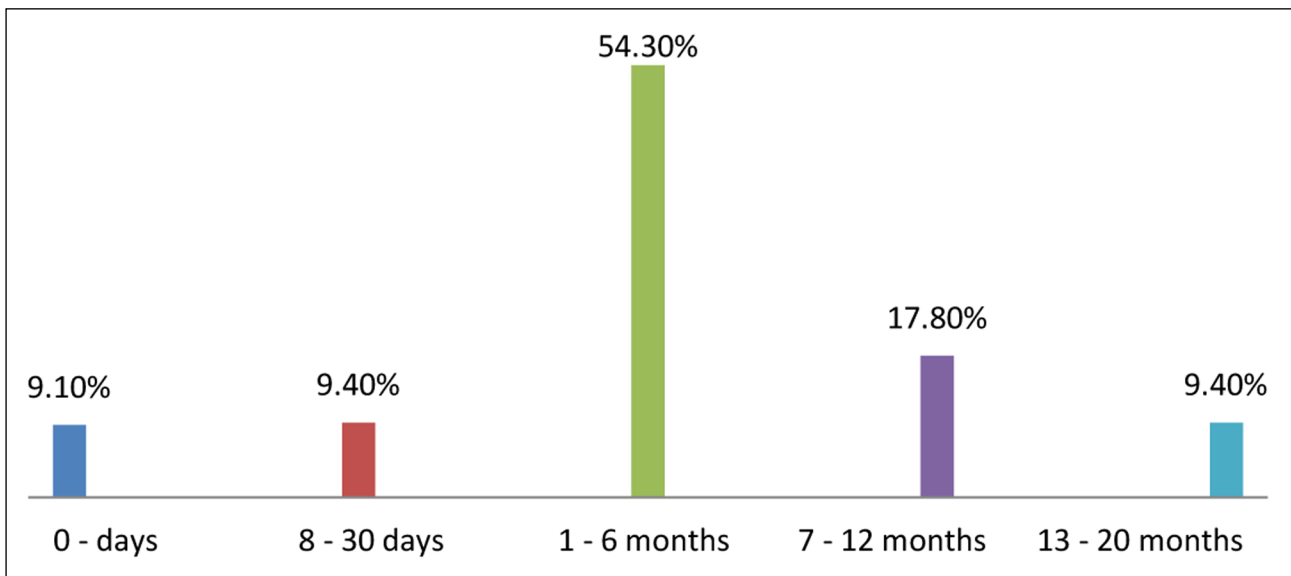


Figure 1. Age of infants (762 contacts).

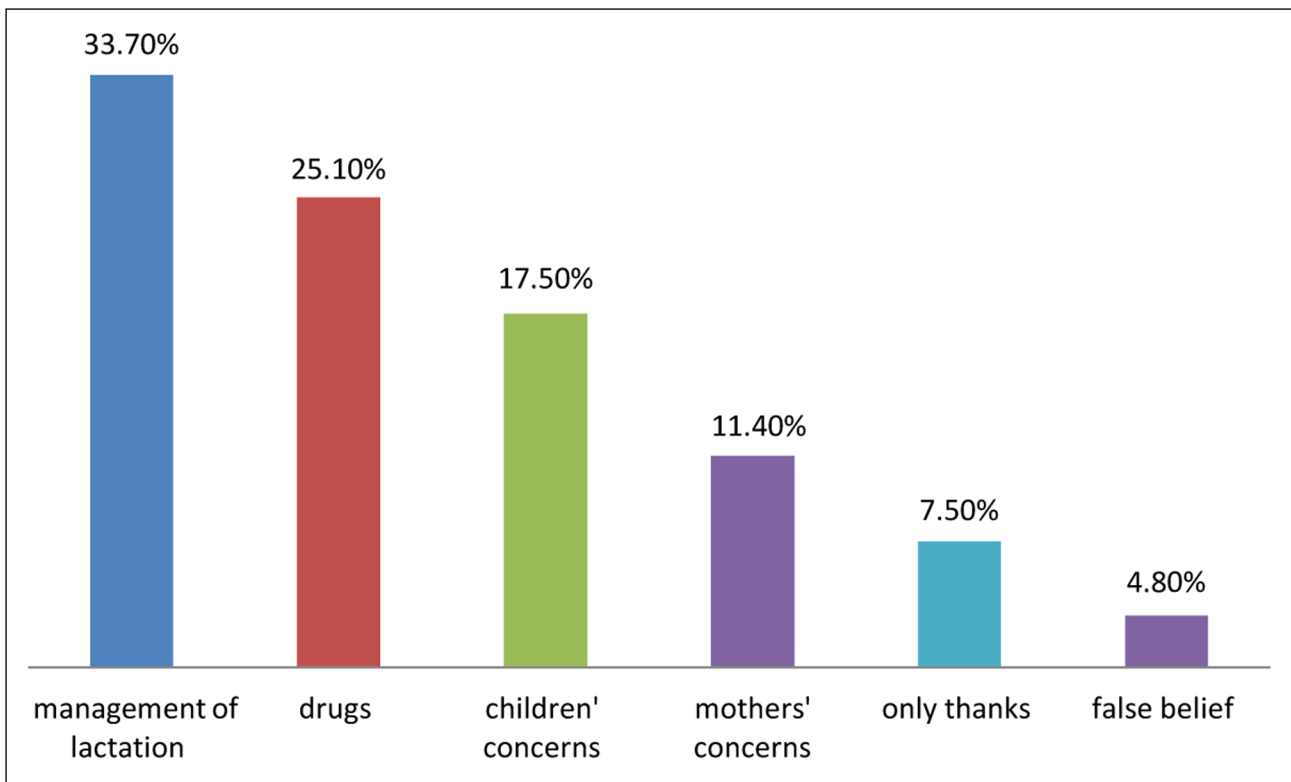


Figure 2. Main topics of the queries written by mothers (762 contacts).

criticism and blame of a breastfeeding-unfriendly social context.

Discussion

E-technologies have been acknowledged as powerful and effective instruments in improving personal breastfeeding attitude and breastfeeding knowledge and, thus, the rates of exclusive breastfeeding initiation and exclusive breastfeeding at 4 weeks and 6 months [10-12].

Further evidence is needed before traditional face-to-face method of education and support for

women intending to breastfeed could be replaced [13]. However, breastfeeding promotion *via* the Web seems to be an appealing alternative to time-consuming and expensive clinic-based breastfeeding counseling.

The use of web-based sources may empower women to learn about breastfeeding on their own schedule, in their own private setting and, last but not least, may offer opportunity to share the learning experience with relevant members of their family [14].

Overcoming obstacles such as time, distance and cost, e-technologies have the potential to reach

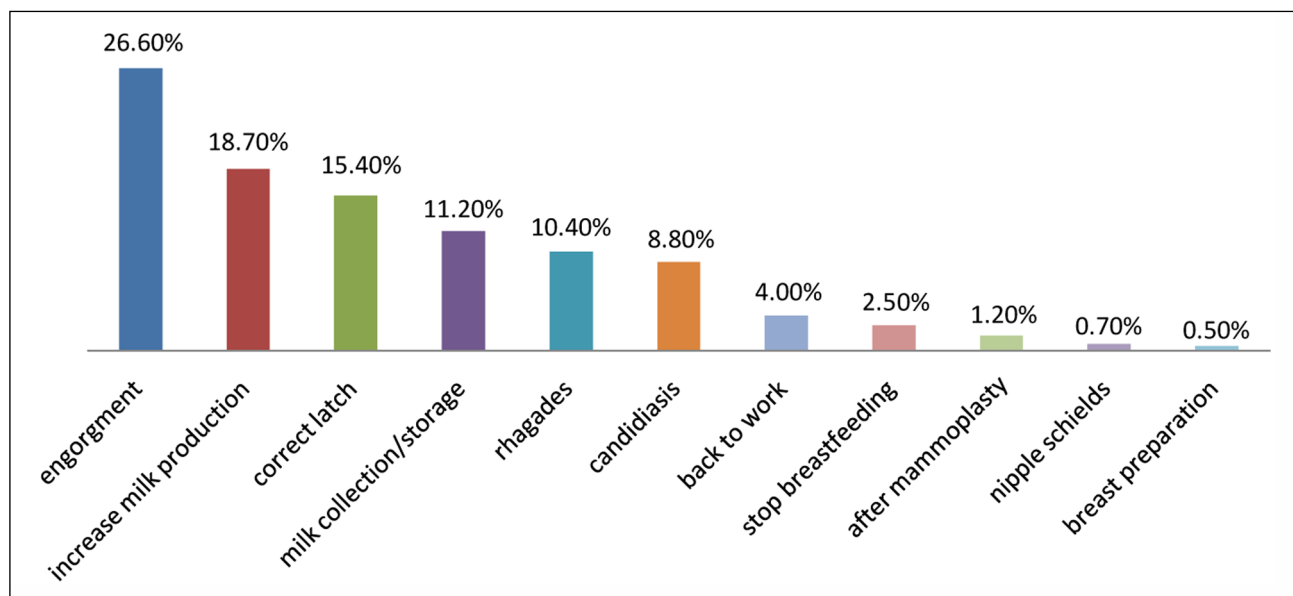


Figure 3. Mothers' queries about the management of breastfeeding (257 contacts).

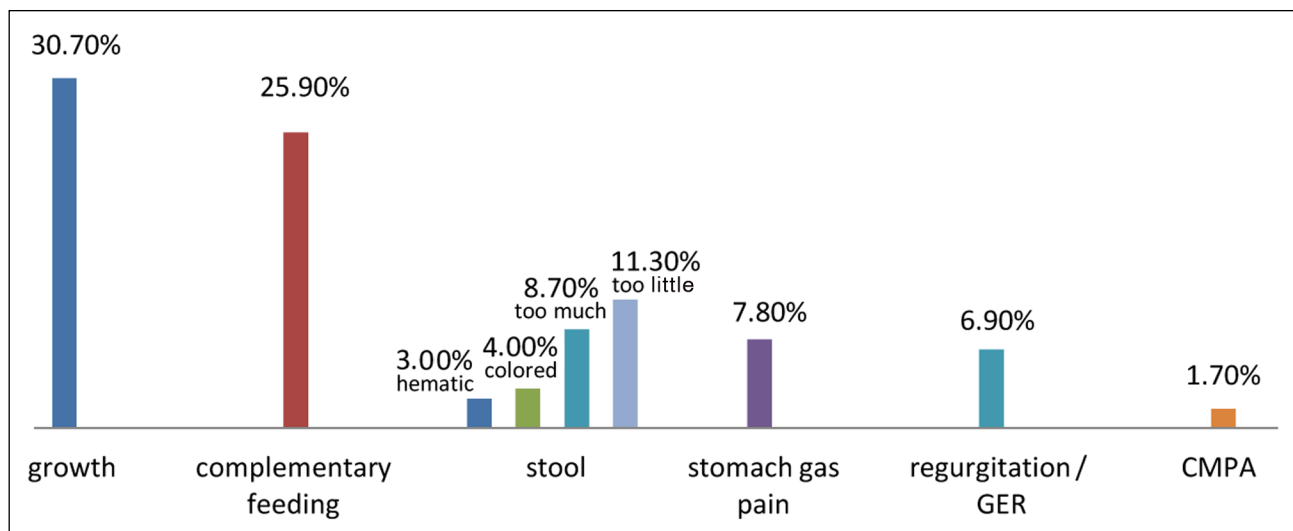


Figure 4. Mothers' queries regarding problems and needs of infants (133 emails).

GER: gastro-esophageal reflux; CMPA: cow's milk protein allergy.

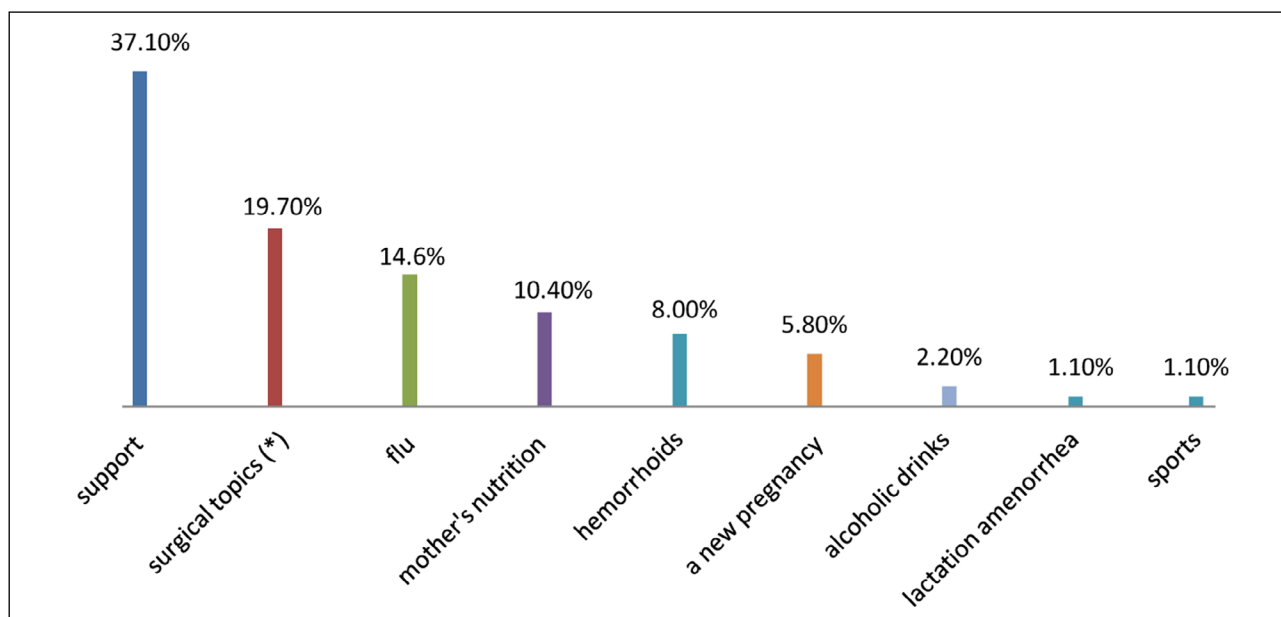


Figure 5. Mothers' queries regarding personal problems and needs (87 emails).

(*) Dental and dermatological surgery included.

Table 3. Medications that prompted mothers to address the service on breastfeeding.

Class of drugs	%	n
NSAIDs	18.9%	37
Topic medicament (ointments, aerosols, eye drops)	11.8%	24
Antibiotics + antivirals	10.4%	21
Local anesthetics (including dental treatments)	7.8%	15
Supplements	5.9%	12
Antihypertensives (including beta blockers)	5.2%	10
Naturopathic drugs	4.6%	9
Contraceptives	4.6%	9
Hair dye	4.6%	9
Anticoagulants	4.6%	9
Systemic corticosteroids	3.9%	7
Diuretics	2.6%	5
Acetaminophen	2.0%	4
Vaccines	1.3%	2
Methylergometrine (methergin)	1.3%	2
Anxiolytics	1.3%	2
Thyroxine	1.3%	2
Mucolytics	1.3%	2
Metformin	1.3%	2
Omeprazole	1.3%	2
Loperamide	0.65%	1
Ursodeoxycholic	0.65%	1
Antiasthmatics	0.65%	1
Antidepressants	0.65%	1
Contrast medium for CT	0.65%	1
Preparation for colonoscopy	0.65%	1

In some emails, multiple questions were submitted.

all mothers, above all low-income mothers whose access to breastfeeding consultations and support would be otherwise not possible and/or affordable [15, 16].

Since the practice of email consultations is relatively new, national or international data to properly compare our findings are not available.

Using web-based instruments, parents may obtain information on developmental needs of children, on improvement of their own skills, on references to helpful resources [17].

On the other hand, breastfeeding websites may contain answers to a list of frequently asked questions (FAQs).

La Leche League International, e.g., focuses on practical management of breastfeeding (latching, adequate lactation, milk collection and storage, body shame, etc.) (Tab. 4).

U.S. government health agencies, such as the Centers for Disease Control and Prevention (Atlanta) and The Office on Women's Health (Washington), enlarge the number of topics among their FAQs including benefits of breastfeeding, adequate growth, optimal duration of breastfeeding, safety of medications, smoke, alcoholic drinks, contraception among breastfeeding mothers (Tab. 5 and Tab. 6).

Conclusion

The Web portal "Allattamenti Riuniti", dedicated to breastfeeding support and promotion, is

Table 4. FAQs about breastfeeding according to La Leche League International [18].

- Does breastfeeding hurt? Won't the baby bite me?
- How do I know if my baby's getting enough milk?
- Can I breastfeed without exposing myself?
- What's in it for me? (benefits for child and mum)
- Can I breastfeed if I'm not large breasted?
- Won't I have to give up eating the foods I enjoy?
- Doesn't breastfeeding tie you down?
- How long does it take to breastfeed?
- Why bother breastfeeding when I know I'll be returning to work (or school)?
- Will I be able to satisfy my baby?
- What about the baby's father? Won't he feel left out if he can't feed the baby?

Table 5. FAQs about breastfeeding according to the Center for Control of Disease and Prevention (CDC) [19].

- Are growth charts for breastfed infants available?
- When should a baby start eating solid foods?
- How long should a mother breastfeed?
- What can happen if someone else's breast milk is given to a child?
- Are precautions needed for handling breast milk?
- Should a mother who smokes breastfeed?

Table 6. FAQs about breastfeeding according to the The Office on Women's Health (U.S. Department of Health and Human Services) [20].

- Why should I breastfeed?
- Does my baby need cereal or water?
- Does my baby need more vitamin D?
- Is it okay for my baby to use a pacifier?
- Is it safe to smoke, drink, or use drugs?
- Can I take medicines if I am breastfeeding?
- Do I still need birth control if I am breastfeeding?
- Does my breastfed baby need vaccines?

increasingly popular among Italian breastfeeding mothers. Although huge high-quality information is available on the web, targeted answer provided by our service seems to be appreciated. The analysis of users queries allows us to monitor and improve our service.

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Declaration of interest

The Author declares that there is no conflict of interest.

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