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Health behavior patterns related to galactagogue use among breastfeeding mothers of infants aged 0-6 months: a qualitative study in Türkiye

Meltem Aslan[1(A,B,C,D,E,F)], **Şimal Niğiz**[2(B,E,F)], **Cemile Say**[1(B,E,F)], **Zeliha Özge Kuroğlu**[1(B,E,F)]

[1]Department of Midwifery, Faculty of Health Sciences, Istanbul Esenyurt University, Istanbul, Türkiye

[2]Department of Nursing, Faculty of Health Sciences, Istanbul Esenyurt University, Istanbul, Türkiye

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Address for correspondence: Meltem Aslan, Department of Midwifery, Faculty of Health Sciences, Istanbul Esenyurt University, Zafer Neighborhood, Adile Naşit Boulevard, No:1, Esenyurt, Istanbul, Türkiye, e-mail: meltemaslan@esenyurt.edu.tr

ORCID: Meltem Aslan https://orcid.org/0000-0003-3847-2233, Şimal Niğiz https://orcid.org/0009-0000-7921-7744, Cemile Say https://orcid.org/0009-0007-5717-6962, Zeliha Özge Kuroğlu https://orcid.org/0009-0002-3104-0841

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Abstract

Background. This study aimed to examine in depth the experiences, motivations, decision-making processes, and perceived effects of mothers using galactagogues during the first six months of breastfeeding.

Material and methods. The research was conducted using a qualitative design based on a descriptive phenomenology approach. Participants were recruited through purposive and snowball sampling methods. Interviews were audio-recorded, transcribed verbatim using Transkriptor software, and analyzed with MAXQDA 24 according to Braun and Clarke's thematic analysis approach. The study followed the COREQ checklist, and themes were reviewed by expert academics.

Results. Thematic analysis revealed three main themes: motivations for galactagogue use, usage process and decision-making dynamics, and perceived effects and psychosocial reflections. Mothers mainly reported using galactagogues due to perceived insufficient milk supply and the aim of maintaining exclusive breastfeeding during the first six months. While many participants perceived an increase in milk production, others emphasized psychological comfort, increased self-confidence, and enhanced breastfeeding motivation. Adverse effects were limited, although some mothers reported issues such as hyperlactation.

Conclusions. Galactagogue use is not only a physiological attempt to increase milk production but also a psychosocial strategy for managing uncertainties during breastfeeding. The findings emphasize the importance of considering individual needs and emotional dimensions in breastfeeding counseling.

Keywords: galactagogues, maternal behavior, breastfeeding, lactation, qualitative research

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Introduction

Breast milk is an economical and easily accessible nutritional source that meets all the macro- and micronutrient needs of the infant, ensures growth and development, and is the right of every infant. Breastfeeding and breast milk feeding have benefits for both the mother and the infant [1].

The WHO and UNICEF recommend the initiation of breastfeeding within the first hour of birth, exclusive breastfeeding for the first six months, and continued breastfeeding along with complementary foods up to two years of age or beyond [2,3].

Since the initiation and maintenance of breastfeeding can be challenging in the postpartum period, it is crucial to support mothers regarding breastfeeding. Non-pharmacological methods used to increase milk production (skin-to-skin contact, frequent breastfeeding, warm application, massage, and galactagogues) contribute positively to the breastfeeding process by reducing maternal anxiety and stress [4].

Galactagogues are herbal, nutritional, or pharmacological substances that initiate breast milk synthesis, increase milk secretion, and ensure its continuity [5,6]. The most commonly used dopamine D2 receptor antagonists among galactagogues are metoclopramide and domperidone [5]. The use of herbal substances is widespread in many cultures worldwide and is passed from generation to generation [7]. The most frequently used galactagogues are fenugreek, fennel, linden, mint, cumin, anise, milk thistle, oats, dates, and figs [2,8,9].

Aim of the work

Despite the widespread use of galactagogues, little is known about how mothers interpret and integrate this practice into their breastfeeding experience. The aim of this study was to explore the experiences, motivations, and meaning-making processes related to galactagogue use among breastfeeding mothers of infants aged 0-6 months. Specifically, the study sought to understand how mothers perceive milk insufficiency, how they make decisions regarding galactagogue use, and how this practice influences their breastfeeding experiences, psychological well-being, and perceptions of maternal adequacy within the sociocultural context of breastfeeding. By adopting a qualitative phenomenological approach, the study aimed to provide an in-depth understanding of mothers' lived experiences and to contribute to the development of evidence-based and family-centered breastfeeding counseling practices in nursing care.

Material and methods

Research design

The research was conducted using a qualitative design based on the Husserlian descriptive phenomenology approach [10,11]. In accordance with this approach, the researcher aimed to describe the participants' lived experiences regarding galactagogue use through their

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own expressions by consciously suspending (bracketing) their own preconceptions and clinical knowledge.

Participants and sample

The study sample consisted of 29 mothers who had infants aged 0-6 months and stated that they used galactagogues at least once during the breastfeeding process. The sample was determined using the purposeful sampling method, and participants were recruited using the snowball technique. Initial participants were asked to recommend other mothers with similar experiences, and the sample was expanded through these referrals.

The primary reason for preferring the snowball technique was that galactagogue use, while common in society, lacks systematic registration and is a private practice based primarily on individual experiences. This approach facilitated access to "information-rich" individuals, in accordance with the aim of the research.

Inclusion criteria

- Being 18 years of age or older,
- Having an infant aged 0-6 months,
- Actively breastfeeding,
- Having used galactagogues during the breastfeeding process,
- Agreeing to participate in the interview voluntarily.

Exclusion criteria

- Mothers for whom breastfeeding is medically contraindicated,
- Individuals with a serious psychiatric diagnosis,
- Individuals experiencing difficulty in self-expression during the interview.

Data saturation

The sample size was not predetermined numerically; participant recruitment continued until data saturation was achieved. The data collection process was concluded at the point where

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the emergence of new data and themes diminished, and expressions began to repeat as the interviews progressed [12].

The data collection process was concluded after the 29th mother, as no new themes or sub-themes emerged. This demonstrates that conceptual saturation was achieved and that the sample size was sufficient according to qualitative research standards.

Data collection process

Data were collected via semi-structured in-depth individual interviews. The interviews were conducted based on an interview form prepared by the researcher, which was finalized following expert consultation. The form consisted of open-ended questions addressing motivations for galactagogue use, usage patterns, perceived effects, sources of information, and psychosocial implications.

Interviews were conducted face-to-face in settings chosen by the participants, with each session lasting approximately 20-25 minutes. All the interviews were audio-recorded with the participants' consent.

Data analysis

Following the interviews, audio recordings were transcribed verbatim using Transkriptor software and converted into text in Word format. The obtained qualitative data were analyzed via the thematic analysis method using the MAXQDA 24 program. Data analysis was conducted in accordance with Braun and Clarke's thematic analysis approach [13].

The following stages were followed in the analysis process:

1. familiarizing with the data (repeated reading),
2. coding meaningful expressions,
3. generating themes by collating codes,
4. reviewing and refining themes,
5. defining and naming themes and sub-themes,
6. reporting the findings.

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Researcher positionality and reflexivity

This study was conducted by a researcher with clinical and academic experience in the fields of breastfeeding counseling and maternal-infant health. While the researcher's professional knowledge and field experience regarding breastfeeding processes fostered sensitivity toward the research topic, the potential for this situation to create bias in data collection and interpretation processes was acknowledged.

Therefore, strategies of reflexivity and bracketing (suspending preconceptions) were adopted in the research process, in accordance with the fundamental principles of the Husserlian descriptive phenomenology approach. Prior to data collection, the researcher recorded their professional assumptions regarding galactagogue use, breastfeeding success, and maternal competence in writing; during the interviews, care was taken not to direct participant narratives and to consciously suspend personal interpretations.

During the analysis process, the researcher regularly reviewed coding decisions through field notes and reflexive journals and compared themes and sub-themes with independent expert opinions to prevent personal interpretations from excessively reflecting on the themes. Thus, the researcher was involved in the process with an awareness of their position, aiming to reflect participant experiences as authentically as possible.

This reflexive approach aimed to increase transparency in the interpretive process of the research and ensure that the findings were structured based on participant narratives rather than the researcher's perspective.

Validity and reliability

Multiple strategies were employed to enhance the scientific rigor of the research. After generating themes and sub-themes, expert opinions were obtained from two academicians specializing in qualitative research; subsequently, codes and themes were revised and finalized in line with their recommendations.

Furthermore, the analysis process was conducted and reported in accordance with the COREQ (Consolidated Criteria for Reporting Qualitative Research) checklist [14].

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Results

In this study, as a result of the thematic analysis conducted to understand the experiences of mothers using galactagogues during the 0-6-month breastfeeding period, it was determined that participant narratives clustered around three main themes. The findings indicate that galactagogue use is addressed not merely as a physiological attempt to increase milk quantity but as a multidimensional experience shaped within the context of uncertainties, anxieties, and maternal responsibility experienced during the breastfeeding process. The emerging themes reflect the mothers' motivations for use, decision-making processes, and the perceived effects of galactagogues on the breastfeeding experience within a holistic framework.

The ages of the participants ranged from 25 to 39, with the majority falling into the 30-34 age group. Of the mothers, 55.2% were not employed. In terms of education level, the majority of participants held a bachelor's degree or higher. A large portion of the sample consisted of mothers with a single child (Table 1).

Table 1. Sociodemographic characteristics of the mothers (n=29)

Characteristic	N	%
Age (years)		
25-29	9	31
30-34	11	37.9
35-39	9	31.0
Total	29	100.0
Employment status		
Employed	13	44.8
Unemployed	16	55.2
Total	29	100.0
Education level		
Secondary education	5	17.2
Undergraduate/Bachelor's degree	17	58.6
Graduate/Postgraduate degree	7	24.2

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Total	29	100.0
Total number of pregnancies		
1	15	51.7
2	10	34.5
3	4	13.8
Total	29	100.0

THEME 1. Experience of difficulty shaped by "milk sufficiency" at the initiation of breastfeeding and during the first 0-6 months

This theme demonstrates that mothers interpret the process experienced from the first days of breastfeeding around the concepts of "ease/difficulty of initiation" and "milk sufficiency anxiety". While breastfeeding commenced smoothly immediately after birth for some mothers, for others, it evolved into a process requiring "management" due to factors such as breast refusal, preterm birth, or the need to establish a pumping schedule.

Sub-theme 1.1. Divergence between the "I started immediately" discourse and the "difficult start" narrative

While some mothers emphasized rapid adaptation to breastfeeding with expressions such as "I started immediately", others stated that breastfeeding did not proceed spontaneously due to situations such as the infant refusing the breast or preterm birth at the onset, noting that it required support and time. This divergence also determines the pathway to galactagogue use: even mothers who experienced breastfeeding as an 'easy-flowing" process could develop milk anxiety in subsequent weeks, whereas those experiencing a difficult start developed multifaceted strategies to sustain breastfeeding.

M1: "My baby refused the breast at first and did not suck immediately. S/he started breastfeeding slowly over time. During this process, I received support from a lactation consultant".

M12: "I started breastfeeding immediately after birth. I did not experience any problems at the beginning; everything progressed in its natural flow".

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M24: "My breastfeeding process was difficult because I had a preterm birth. I could not breastfeed directly at first; we established breastfeeding over time by pumping milk and setting up a routine".

Sub-theme 1.2. Breast refusal and anxiety regarding breastfeeding "interruption"

In the mothers' narratives, breast refusal is not merely a technical breastfeeding issue; it is also an experience that threatens the goal of "feeding with breast milk" and constitutes an emotional burden. Mothers who experienced breast refusal described the process using direct expressions such as "it challenged me", demonstrating that the issue evolved into a source of stress affecting daily life and the perception of motherhood.

M5: "My baby did not latch onto the breast when first born and did not want to suck. The constant refusal worried me greatly and demoralized me".

M9: "The breast refusal process exhausted me both physically and psychologically. I felt as though breastfeeding was going to end completely".

M12: "I felt very helpless when my baby did not want to take the breast. Experiencing breast refusal really challenged me; I feared that I would not be able to breastfeed".

Sub-theme 1.3. Physical bodily burden: swelling – pain – nipple sores

Mothers may experience physical problems (breast engorgement, pain, nipple sores) during the first months of breastfeeding, irrespective of milk volume. A notable point in these narratives is that pain can strain "breastfeeding motivation", and mothers often manage the solution through self-management strategies (e.g. creams). This physical burden further complicates attempts to increase milk supply for some mothers (e.g. excessive pumping, hyperlactation).

M3: "Not being able to express milk sufficiently and my breast being constantly swollen challenged me greatly. As the swelling increased, the pain increased as well, and this situation affected my daily life".

M6: "I had nipple sores; I was experiencing severe pain while breastfeeding. Therefore, every breastfeeding session became a challenging situation for me".

M7: "The injury on the nipple hurts, but I was trying to alleviate this pain somewhat by using creams".

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Sub-theme 1.4. Spillover of breastfeeding into daily life: sleeplessness and "using the breast as a pacifier"

Some participants define breastfeeding difficulty not merely as physiological, but as a problem "disrupting daily life routines". In this sub-theme, breastfeeding evolves into a cycle that triggers a sense of exhaustion in the mother by intertwining with sleep, sleep-wake patterns, and the infant's soothing behaviors.

M8: "Sleeplessness challenged me greatly. Waking up constantly, especially at night, combined with the pain in my nipples, was even more exhausting".

M9: "I started breastfeeding on the very first day of birth and am still breastfeeding. I provide only breast milk; I gave formula support for a short time during periods of breast refusal".

M24: "My baby started using the breast not only for feeding but also like a pacifier. S/he would not sleep otherwise and wanted to stay at the breast constantly".

THEME 2. Pathway to galactagogue use: the decision to "increase milk", product selection, and trust building

This theme demonstrates that for mothers, galactagogue use is not merely a simple "supplement"; rather, it is a decision-making domain established through the effort to manage milk sufficiency anxiety, mitigate risk perception, and rely on trustworthy information. The decision predominantly originates from direct justifications such as "my milk is low/was not coming" and is subsequently shaped by criteria such as ingredients, natural product status, pharmacy approval, and shared experiences in response to the question, "what should I use?"

Sub-theme 2.1. Core of the decision: "Milk insufficiency/absence of milk" and the "first 6 months goal"

The majority of mothers justified the decision to use galactagogues based on milk volume. This justification frequently positions the "success" criterion of breastfeeding in the form of "milk coming in/increasing". Conversely, one participant framed the decision in a more goal-oriented manner, highlighting the motivation to sustain the ideal of "breast milk for the first 6 months".

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M1: "My milk supply was very low; I thought it was not enough for my baby. Therefore, I started using it to increase my milk".
M3: "Actually, I had milk, but I wanted to provide only breast milk for the first 6 months. I used it as support to be able to meet this goal".
M12: "After birth, my milk hardly came in at all; I was afraid I wouldn't be able to breastfeed. That is why I used a galactagogue".

Sub-theme 2.2. Medical processes causing breastfeeding interruption: "separation" and the subsequent effort to regain milk

In this sub-theme, galactagogues emerge not merely as tools for increasing milk but as part of an attempt to "restore/re-establish milk" when mother-infant contact is interrupted. M7's narrative demonstrates how forced separation following a clinical complication rendered the breastfeeding process fragile and how galactagogue use acquired meaning as a "compensatory strategy" within this fragility.
M5: "Because I had a Cesarean section, my milk did not come in during the first days. I was forced to start breastfeeding late, and therefore, I sought support to increase my milk".
M7: "I currently have a three-month-old daughter. Since I experienced a vascular occlusion after birth, I was hospitalized in the cardiovascular ward for two weeks. I remained separated from my daughter and could not establish contact because I was using antibiotics and blood thinning injections. After being discharged, I realized my milk had decreased significantly. I started using milk-enhancing foods and products to be able to increase my breast milk again".
M24: "Having low milk was my biggest problem. I had difficulty breastfeeding at the beginning, so I turned to using galactagogues".

Sub-theme 2.3. Product selection: the expectation of being "natural – harmless" and the need for "pharmacy/approval"

Mothers evaluate product selection not solely based on effectiveness but on the axis of "will it harm me/my baby?". While the emphasis on "natural ingredients" is the primary basis of trust for some mothers, for others, the criterion establishing trust is "known and approved pharmacy products". This indicates that in the minds of mothers, galactagogues are situated between the categories of "food/herbal support" and "medical product".

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M1: "When choosing the product, I paid the most attention to it having natural ingredients. I wanted it to be something that would not harm either me or my baby; I was apprehensive about it being chemical".

M3: "I did not want to buy something at random. I paid particular attention to it being a known and approved product sold in pharmacies".

M12: "I checked for the presence of barley in its content because I had heard that barley increases milk, and I felt safer because it was natural".

Sub-theme 2.4. Galactagogue repertoire: brand/product, herbal-medicine, and traditional foods

The galactagogues used by participants are not "uniform"; while some specify certain products/brands (drops, malt), others reference traditional foods (compote, bulgur, fennel, dill) or a more general category using the expression "herbal medicine". This diversity demonstrates that mothers combine galactagogue use sometimes with cultural practices and sometimes with commercial products.

M5: "I drank compote, used malt, and there were also milk-enhancing drops I bought from the pharmacy. I tried them all together".

M8: "I consumed things like fennel tea, dill, compote, and bulgur. These were things I heard from the elders; I did it thinking it would increase the milk".

M12: "I used Bestlak drops. I chose it with confidence because the doctor and pharmacist recommended it".

THEME 3. Effects and meaning-making: from the experience of "increased milk" to "psychological well-being" and the domain of social knowledge

This theme demonstrates that while mothers predominantly consider galactagogues to be "effective", this effectiveness is constructed not merely through physiological means but also through psychological relief, self-confidence, a sense of control, and interaction with the social environment. While mothers report concrete outcomes such as "milk came in/increased", they may simultaneously reframe this effectiveness as "psychological".

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Sub-theme 3.1. Concrete impact: milk volume, pumping quality, and infant relief/weight gain

Almost all the participants point to an "increase in milk" following galactagogue use. In some narratives, the effect is not solely volume; there is an outcome domain extending to both maternal and infant comfort, such as "quality of expression" and "relief of the infant's gas".

M7: "I noticed my milk was more abundant and fattier. When I saw my daughter gaining weight faster, I attributed this to the milk".

M9: "My milk increased, and my baby started nursing more comfortably. His/her gas also decreased; both s/he and I were relieved".

M12: "After using it, my milk came in significantly. It was very scarce beforehand, but afterwards, both my breastfeeding and pumping became easier".

Sub-theme 3.2. Unintended situations and risk perception: the "hyperlactation" exception within the "no side effects" narrative

While mothers predominantly express that they did not experience side effects, M1's experience renders the issue of hyperlactation visible through "overdoing it and excessive pumping". This situation points to two critical aspects: (1) behavioral factors such as "dosage/measure" and "pumping frequency" may be determinants in galactagogue use; (2) mothers may often attribute the side effect not to the "direct effect of the product" but to the manner of usage.

M1: "Actually, I cannot call it a side effect, but I overdid the product a bit and pumped very frequently. As a result, my milk increased excessively, and I experienced a hyperlactation problem".

M7: "No, I did not experience any side effects during the time I used it. It did not have a negative effect on me".

M8: "I also did not notice any side effects; I went through the process without problems".

Sub-theme 3.3. Information sources and guidance quality: the tension between expert – pharmacy – Internet – culture/social media

Mothers' sources of information are multi-layered; pharmacy/physician recommendations, the social environment, the Internet, and social media are simultaneously in

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play. While this multifaceted landscape establishes a clear hierarchy for some mothers where "expert opinion is the most reliable", for others, it simultaneously produces a desire for rapid experimentation driven by social media influence, alongside the awareness that this might be "wrong". Healthcare professional guidance is also not homogeneous; expressions ranging from "it was insufficient" to "I did not receive guidance" suggest that counseling support is not equally accessible or effective for every mother.

M6: "I did not receive direct guidance on this subject. I decided mostly based on my own research and what I heard from my environment".

M8: "Social media is very influential; you want to try something immediately as soon as you see it. When you think about it later, you realize that this could actually be very wrong".

M12: "The information I received from healthcare personnel did not feel sufficient to me. There was no clear direction regarding what I should use".

Sub-theme 3.4. Emotional impact: self-confidence, reduction of anxiety, and the sense of "inadequacy"

Galactagogue use is described by some mothers as distinctly "relieving" and "self-confidence enhancing". At this point, the galactagogue becomes a tool that nourishes not only the milk volume but also the dimension of maternal "adequacy". However, this is not the case for every mother: while M24 states "I felt inadequate", M5 reports a heavier affect with the expression "emotional trauma". This differentiation suggests that galactagogue use cannot single-handedly heal the emotional fissures in the breastfeeding experience; it implies that for some mothers, the burden of a difficult initiation/experience persists.

M1: "Seeing my milk increase gave me the feeling of 'I am not inadequate'. This significantly increased my self-confidence".

M5: "The breastfeeding process was very difficult for me; I can even say that I experienced emotional trauma".

M24: "No matter what I did, I felt inadequate. Even though I used galactagogues, that feeling inside me did not pass".

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Sub-theme 3.5. Reframing effectiveness: "primarily psychological" and "actually breastfeeding increases it"

Although some mothers accept the effect of galactagogues, they later reinterpret this effect by attributing it to "psychological well-being" and "breastfeeding frequency". This points to the mothers' need to explain the experience not only through the outcome (milk increase) but also through the cause. While for some mothers the galactagogue remains a concrete solution "compensating for weight loss", for others, it acquires meaning as a support that "works because it makes one feel good and increases breastfeeding".

M6: "I think it is primarily psychological, but I consumed it anyway".

M7: "My daughter had experienced weight loss, and as a mother, this situation was challenging me quite a bit. Thanks to galactagogue use, we more than compensated for the weight loss".

M8: "It made me feel good psychologically; actually, my milk was increasing for this reason".

Sub-theme 3.6. Decision to continue: fear, control, and "no longer needing it"

The intention to continue is associated with mothers' risk perception and need for control. While the fear of "will my milk decrease?" fuels the decision to continue, some mothers choose to discontinue the galactagogue, stating "I no longer need it/sufficient increase". Here, the galactagogue serves as an "assurance" during a certain period; when the process stabilizes, mothers either discontinue it or sustain it with additional rationales such as "increasing fat content/feeling good".

M7: "Yes, I intend to use it because the fat in breast milk is very beneficial for the baby. I think the galactagogue is effective in making the milk fattier".

M8: "I no longer need it. I am trying to breastfeed more, and I drink plenty of water instead".

M12: "Yes, I continue to use it because I am afraid my milk will decrease if I stop. This feels like an assurance to me".

Discussion

This study was conducted to identify the use of galactagogues to increase milk supply during the breastfeeding period among mothers of infants aged 0-6 months and to determine the causes and effects of this practice. Upon examining the sociodemographic data of the 29

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mothers included in the study, the mothers' motivations regarding galactagogue use, their decision-making processes, and their breastfeeding experiences have been revealed in a holistic manner. The relatively high proportion of mothers with higher education may have increased their access to and tendency to seek information from various sources such as digital media, healthcare professionals, and pharmacies, thereby shaping their decision-making processes regarding galactagogue use.

THEME 1. Initiation of breastfeeding and the experience of difficulty shaped by "milk sufficiency" in the first 0-6 months

It has been revealed in many studies that the most common reason for terminating breastfeeding early is the "perception of insufficient milk supply" [15]. Our study supports this finding.

According to the results of a survey conducted in the USA, 50% of 1,323 mothers stated that they had to stop breastfeeding in the early period due to insufficient breast milk [16]. In another study also conducted in the USA, 76% of the participating mothers stated that they thought their milk was insufficient, 60% consulted a healthcare institution regarding this, and 46% reported giving supplemental formula to the baby [17]. In another study, it was observed that the majority of mothers using galactagogues had a "perception of insufficient milk" [18].

While breastfeeding initiates smoothly for some mothers immediately after birth, in some instances, it can evolve into a more complex process due to causes such as breast refusal or premature birth. In our study as well, some mothers stated that they started breastfeeding immediately, while others indicated that breastfeeding was delayed or disrupted for various reasons. In such cases, it is considered that healthcare professionals should place greater emphasis on education to prevent a decrease in milk supply and that counseling services aimed at increasing the mother's motivation for boosting milk production are of greater importance.

In another study, it was reported that 60% of 1,876 women used at least one galactagogue during the breastfeeding period and that the perception of milk insufficiency specifically increased galactagogue use. These findings are consistent with the results of our study [19].

THEME 2. Pathway to galactagogue use: the decision to "increase milk", product selection, and building trust

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Herbal medicines and supplements used without consultation during breastfeeding may pose a risk to maternal and infant health; therefore, it is important to consult a healthcare professional before use [20]. In a study conducted in Australia, only 28.6% of mothers using galactagogues stated that they informed their doctors about the herbal supplements they used [21]. Even though the historical harmlessness of traditional plants constitutes a sense of safety for mothers, the Academy of Breastfeeding Medicine does not recommend the use of galactagogues due to the lack of evidence regarding their safety and efficacy [22]. In our study, none of the mothers reported side effects after using galactagogues; only one mother stated that she experienced a problem with hyperlactation. Although there is no conclusive evidence regarding galactagogues, a healthy and natural diet is important for breastfeeding mothers, and dietary diversity will increase milk production [22].

In a study, it was reported that 76% of mothers in Southeast Asia used at least one milk-enhancing product; 51% used food and herbal products together, 39% preferred only food-based products, and the use of pharmacological galactagogues was uncommon [23]. In our study as well, the fact that mothers generally used herbal foods indicates that the two studies corroborate each other. In a study conducted in Indonesia, it was revealed that herbal galactagogues had a higher rate of increasing milk compared to pharmacological galactagogues [24]. In the study, it was observed that the most commonly used galactagogues were dates, oats, soybeans, spinach, ginger, and fenugreek [23]. In our study, it was observed that the most frequently used galactagogues were herbal foods such as fennel and bulgur, while some mothers preferred approved pharmacy products. This indicates that mothers perceive galactagogues as both herbal support and medical products.

In a study conducted in the province of Malatya, it was observed that products such as bulgur and fennel were among those frequently preferred [25]. In another study, while it was observed that the most consumed traditional food was bulgur pilaf, a statistically significant difference was found between the provinces of Istanbul and Van (p<0.05) [9]. Additionally, it was observed that approximately one-fourth of both provinces used fennel. In our study as well, mothers using galactagogues stated that they consumed products such as fennel tea, dill, compote, and bulgur. In this context, the studies conducted support each other.

During the breastfeeding process, the sole focus of healthcare professionals should not be on the quantity of milk; the specific foods the mother consumes that may affect milk supply

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should also be monitored. In this way, lactation education can be ensured to proceed more efficiently and accurately.

THEME 3. Effects and meaning-making: from the "milk increased" experience to "psychological well-being" and the sphere of social knowledge

While the mothers participating in our study reported perceived increases in milk quantity, improved infant weight gain, and a more comfortable breastfeeding experience following galactagogue use, observational evidence suggests that such effects are primarily interpreted through maternal perceptions rather than objective short-term measurements. In an observational study, breastfeeding women commonly described galactagogues as supportive for breastfeeding continuation, although consistent measurable changes in milk production were not systematically demonstrated [26]. In a review study, however, no effect of plants such as fennel was found on increasing milk [15]. Additionally, in a review conducted in 2024, most of the mothers using foods such as fennel, bulgur, and linden reported an increase in milk, similar to our study [27].

In a study conducted in Thailand, an increase in milk quantity was observed at the end of the 3rd day in mothers given a banana flower beverage, and no side effects were observed [28]. In another study, however, no significant difference was found in mothers of premature infants who consumed banana flower [29]. There are no data or maternal information regarding this in our study.

Most of the mothers participating in our study stated that they obtained information regarding methods to increase milk supply from social media, experienced family members, and their social circle, while a smaller proportion stated that they received education from healthcare personnel and lactation consultants. These findings are consistent with the results of a qualitative study examining the breastfeeding experiences of mothers using galactagogues in the USA [30].

In a recent observational study, breastfeeding women reported a need for guidance regarding the use of galactagogues, and many indicated that information obtained from informal sources, such as social networks and online platforms. played an influential role in their decision-making processes [26]. The sources found trustworthy by the mothers in our study are multi-layered.

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In a study conducted in the USA, while most mothers obtained information from social media and healthcare professionals, it was stated that the most useful source was lactation consultants [30]. However, one of the mothers participating in our study stated that the education she received from a healthcare professional was not sufficient.

Evaluating this study alongside other research, it is observed that the educational method mothers trust most is the training provided by lactation consultants; however, it is also evident that mothers obtain a significant amount of information from digital environments. In this context, by focusing on digital media literacy, lactation consultants can prevent mothers from falling into technological misconceptions and increase the accessibility of counseling to all segments of society.

Conclusions

By examining the experiences of mothers using galactagogues during the 0-6 month breastfeeding period within a qualitative framework, this study has revealed that galactagogue use is interpreted not merely as a physiological intervention aimed at increasing milk quantity but as a multidimensional psychosocial process shaped within the context of uncertainty, anxiety, and maternal responsibility experienced during the breastfeeding process. The findings indicate that beyond being a support mechanism for sustaining the breastfeeding process, galactagogues assume a function that strengthens the perception of self-efficacy and plays a role in the reconstruction of maternal identity.

Furthermore, the study reveals that motivations for galactagogue use are largely based on the perception of milk insufficiency, and that this perception is shaped more often by the mothers' subjective experiences and emotional evaluations rather than by objective clinical indicators. Especially in the early stages of breastfeeding, galactagogues function as a confidence and control strategy developed against the anxiety that breastfeeding will be interrupted; in this respect, they are evaluated as a holistic practice that includes not only biological but also behavioral and emotional dimensions.

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Strengths and limitations

The strength of this study lies in the fact that it does not merely examine the physiological aspects of galactagogue use to increase milk supply; by exploring the psychological and social dimensions of breastfeeding and milk quantity, it provides a multidimensional perspective for the fields of nursing, midwifery, and lactation counseling regarding the effects on the mother.

However, some limitations must be acknowledged. The responses of the mothers participating in our study regarding galactagogue use were not monitored in a clinical setting. This situation may have caused the responses to be influenced by environmental and psychological factors. Since the information regarding perceived milk increase was obtained from mothers with infants aged 0-6 months, retrospective reflections may be subject to recall bias. Nevertheless, as the aim of our study is not to make generalizations, it remains an undeniable fact that the use of galactagogues motivates mothers throughout the breastfeeding process. Since the study was conducted in Türkiye, cultural practices and traditional beliefs surrounding breastfeeding and galactagogue use may influence the findings, which may limit the transferability of results to other cultural contexts.

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The research was conducted with ethical approval obtained from the Istanbul Gelisim University Ethics Committee (Decision No: 2025-06-16). The purpose, scope, and confidentiality principles of the study were explained to all participating mothers, and their informed voluntary consents were obtained. The participants' identity information was kept confidential, and the data were used solely for scientific purposes. To ensure participant anonymity, codes ranging from M1 to M29 were assigned to the mothers.

Artificial intelligence (AI) was not used in the creation of the manuscript.

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