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# Dysphoric Milk Release Reflex as A Problem in Breastfeeding Women

## ABSTRACT

Although breastfeeding is extremely beneficial to the health of women and infants, breastfeeding rates are not at the desired levels. The literature includes medical and physical difficulties that can lead to early discontinuation of breastfeeding. However, studies examining the impact of women's emotional experiences on the breastfeeding process are rather limited. Dysphoric milk release reflex (DMER) is characterised by dysphoria that occurs during milk release and lasts for several minutes. Symptoms include sudden and unpleasant feelings of anxiety, sadness, irritability or panic. The exact cause of DMER is not known. Studies suggest that the sudden drop in dopamine at the start of lactation causes a short-term dopamine deficiency in women, which can lead to dysphoria. It is known that women experiencing DMER have a negative process towards breastfeeding due to the uncomfortable feelings, and some women may stop breastfeeding or feel compelled to continue breastfeeding because of this discomfort. Although there is no medically proven treatment, it has been suggested that various non-pharmacological methods such as distraction, lifestyle changes, music and aromatherapy may be effective. As DMER has only recently been recognised, the literature is limited. The aim of this review is to present the current literature on DMER.

**Keywords:** Breastfeeding, breast milk, dysphoric milk ejection reflex , dopamine, oxytocin

Received 18.07.2024  
Accepted 05.02.2025  
Publication Date 26.03.2025

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Cite this article: Gökçek, A.İ. & Keser Özcan, N. (2025). Dysphoric Milk Release Reflex as A Problem in Breastfeeding Women. *Journal of Midwifery and Health Sciences*, 8(1), 76-80.



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## Introduction

Although breastfeeding is extremely beneficial for the health of mothers and babies, breastfeeding rates are not at the desired level. According to the World Health Organization (WHO) (2020), although breastfeeding rates are gradually increasing around the world, they are still not at the desired level. In its 2023 report, the WHO put the global breastfeeding rate at 48% and set a target of 50% by 2025 (WHO, GBC, UNICEF, 2023). While many women in developing countries continue to breastfeed their babies in the first year of life, this rate falls below 20% in developed countries (UNICEF, 2019; WHO, 2020). In Turkey, according to data from the Turkish Demographic and Health Survey (TDHS) 2018, 71% of children under two years of age were breastfed within the first hour of life and 86% within the first day. Of those who were breastfed, 42 per cent were given other foods before being breastfed. Only 41% of babies under six months were exclusively breastfed. The rate of exclusive breastfeeding decreases to 59 per cent in the first month, 45 per cent in the second and third months, and 14 per cent in the fourth and fifth months (TDHS, 2018). Most studies have identified various barriers to breastfeeding. In particular, latching problems and sore nipples are the most common barriers to women initiating and continuing breastfeeding (Francis et al., 2020; Beggs et al., 2021; Claesson et al., 2018).

The literature includes medical and physical difficulties that may lead to early cessation of breastfeeding. However, studies investigating the impact of women's emotional experiences on the breastfeeding process are quite limited (Ureño et al., 2018; Ureño et al., 2019; Deif et al., 2021). One of the challenges of breastfeeding is the dysphoric milk release reflex (DMER). DMER is a feeling of discomfort that lasts for a few minutes and starts just before milk is expressed. DMER is characterised by sudden and unpleasant symptoms such as anxiety, sadness, irritability or panic (Heise & Wiessinger, 2011; Ureño et al., 2018; Skowrońska et al., 2022; Kacır et al., 2024; Moriyama et al., 2024; Ahmed et al., 2024).

DMER causes women to stop breastfeeding. For all women affected by DMER, this is a distressing and lonely experience. Support from healthcare professionals and communication with other mothers can help women. As DMER has only recently been recognised, the literature is limited. The aim of this review is to present the current literature on DMER.

## Breast Milk Production Physiology

Lactogenesis is the start of milk production and consists of three stages. The first stage is lactogenesis 1, which begins during pregnancy. Colostrum is produced in lactocytes in the breasts from the 16th week of pregnancy. The hormone

prolactin is present in small amounts during pregnancy, but is inhibited by oestrogen and progesterone. Lactogenesis 2 is the start of milk production and occurs 30-40 hours after birth; the final stage, lactogenesis 3, is the end of the endocrine period and the beginning of autocrine control. During this period, milk production is triggered by milk secretion (Deif et al., 2021).

Two important hormones in lactation physiology are oxytocin and prolactin. Prolactin is secreted by the anterior pituitary and oxytocin by the posterior pituitary. While prolactin is the hormone responsible for breast milk production, oxytocin is responsible for the milk ejection reflex (MER). Oxytocin is released within the first 1 minute of breastfeeding, while prolactin is released slowly in response to suckling and gradually increases about 10 minutes after breastfeeding. Oxytocin is a hormone that calms a woman, makes her feel happy and reduces stress during breastfeeding (Jones, 2018).

The let-down reflex is an important reflex in the milk production process (Deif et al., 2021). Milk let-down supports the initiation and maintenance of breastfeeding and milk production. When the let-down reflex is triggered, prolactin levels increase in the hypothalamus and dopamine is suppressed in association with this increase. Studies suggest that the sudden decrease in dopamine at the onset of lactation causes a short-term dopamine deficiency in women, which can lead to dysphoria (Heise & Wiessinger, 2011; Ureño et al., 2018; Skowrońska et al., 2022; Kacır et al., 2024; Moriyama et al., 2024; Ahmed et al., 2024).

## Dysphoric Milk Release Reflex

The milk ejection reflex (MER) is an important part of milk production. It is a neuroendocrine reflex that occurs when the nipple and areola are stimulated. Some women experience dysphoric, or uncomfortable, sensations when they express milk. This condition is called 'dysphoric milk release reflex' (DMER) (Heise & Wiessinger, 2011; Ureño et al., 2018; Deif et al., 2021). DMER was first identified in 2007 by Alia Macrina Heise. Heise, a lactation consultant, noticed that she was experiencing emotional changes while breastfeeding her third child. When she shared this with others, she met women who were trying to cope with the same issues. In 2008, Heise created the website [www.d-mer.org](http://www.d-mer.org) to educate women about the situation and provide support (Heise & Wiessinger, 2011).

As an under-researched area, the first study investigating the epidemiology and prevalence of DMER was published in 2018, suggesting a prevalence of 9.1% (Ureño et al., 2018). In the studies conducted, the reason for the low rates was identified as the fact that women do not report the condition they are experiencing to health professionals. Some reasons

for this are given in the literature. These reasons are that women think that this situation is not a problem and therefore do not seek help, they think that they have to use psychological drugs against the problem they are experiencing, and they feel ashamed because they do not experience positive emotions, although breastfeeding should actually produce positive emotions (Heise & Wiessinger, 2011; Deif et al., 2021).

DMER is defined as a physiological response to let-down, not a psychological response to breastfeeding (D-MER, 2023, Ureño et al., 2019). Women who experience DMER only experience dysphoria during milk expression. For most women, dysphoria only occurs in the presence of MER and does not require contact with the breast or areola (Heise & Wiessinger, 2011; Skowrońska et al., 2022). As a result of the case study, it was reported that direct sucking stimulation of the nipples is not necessary for the onset of feelings associated with DMER (Heise & Wiessinger, 2011).

Mothers with DMER experience a range of emotional and physical symptoms. Some of these symptoms include anxiety, sadness, worry, rapid heartbeat, nausea, extreme sadness, restlessness, anger, panic and dizziness. In a study conducted on this topic, mothers experiencing DMER reported feeling homesick; in addition, the terms homesickness and longing were used to describe the symptoms (Heise & Wiessinger, 2011). In a case report, the mother described the symptoms of DMER as a feeling of emptiness in the stomach, anxiety, sadness, fear, introversion, irritability, worry, longing, hopelessness and general negative emotions (Ureño et al., 2018).

DMER symptoms appear within seconds and disappear about 5 to 10 minutes after the start of breastfeeding. Symptoms may subside and last for up to 3 months or persist throughout the breastfeeding period (Cox, 2010; Deif et al., 2021). Mothers experiencing DMER experience a negative process towards breastfeeding due to uncomfortable feelings. Due to the emotional changes reportedly experienced in DMER, some mothers may stop breastfeeding, while others may find it difficult to continue (Liu et al., 2023). Studies have shown that mothers are unable to control emotional fluctuations and have difficulty coping (Uvnas-Moberg & Kendall-Tackett, 2018; Stacey, 2020; Deif et al., 2021; Frawley and McGuinness, 2023).

Although the physiological mechanisms of DMER are not fully understood, hormonal changes are thought to play an important role. The onset of lactation triggers the release of oxytocin, and increased oxytocin causes a dramatic decrease in cortisol levels. In addition, increased oxytocin release triggers the brain's mesocorticolimbic reward system, which

significantly increases the pleasure of breastfeeding. Dopamine is the most likely cause of dysphoria (Heise & Wiessinger, 2011). The fluctuation in dopamine levels at the start of breastfeeding causes the woman to experience sudden feelings of unhappiness and other negative emotions. These imbalances in dopamine levels can lead to worsening emotional fluctuations and discomfort in women (Heise & Wiessinger, 2011; ABA, 2022; Liu et al., 2023). One case study showed that the use of a minimal dose of bupropion, a dopamine reuptake inhibitor, reduced DMER within one day and almost completely eliminated it within five days. However, bupropion was discontinued because of its side effects and the woman's DMER symptoms returned. In the same study, *Rhodiola rosea*, or golden root, which acts as a dopamine reuptake inhibitor, was used to reduce symptoms and the woman's symptoms decreased (Heise & Wiessinger, 2011).

Although there is no definitive method for treating DMER, there are several approaches that are thought to be effective. In this regard, Deif et al. (2021) suggested skin-to-skin contact and massage to increase oxytocin as a treatment and coping method, mindfulness to enable women to stay in the moment by focusing on their breathing and treating themselves with compassion, regulation of environmental factors to create an environment that increases oxytocin secretion, personal care and nutrition. Ureño et al (2018) highlighted in their study that methods such as lifestyle changes, education, diagnosis, awareness of symptoms and aromatherapy can be effective in coping with DMER. In addition to these methods, the researchers stated in their article that it is important to raise awareness among obstetricians and health professionals working in these areas (Ureño et al., 2018). In another study, Ureño et al. (2019) highlighted that placenta capsules and vitamin B supplementation may also be effective in reducing symptoms. Heise and Wiessinger (2011) found that education and counselling for women experiencing DMER would increase their awareness and make it easier for them to cope. It has also been suggested that communication with other women experiencing DMER, distraction, music and aromatherapy may also be effective (Heise & Wiessinger, 2011). Liu et al. presented a case study of 2 women experiencing DMER symptoms. In one of the cases, the woman experiencing DMER received counselling. As a result of the counselling, it was observed that the symptoms decreased and disappeared. It was noted that the woman continued to breastfeed for 18 months (Liu et al., 2023).

### Dysphoric Milk Release Reflex and Midwifery Care

Breastfeeding has many benefits for maternal and infant health. However, DMER symptoms can cause women to feel lonely and stressed and to stop breastfeeding (Cox, 2010; Deif et al., 2021). This can have a negative impact on maternal and newborn health. In order to increase breastfeeding rates, early identification of barriers to breastfeeding is important (Heise & Wiessinger, 2011). Due to low knowledge and awareness of DMER, women and health professionals may confuse DMER with depression and the perception of insufficient milk, or may not be able to identify it (Deif et al., 2021). This situation leads to the main obstacle to breastfeeding being overlooked, negatively affecting the process (Ureño et al., 2018).

The importance of midwives, who play an active role in every stage of a woman's life, in increasing breastfeeding rates is undeniable (Işık & Arça, 2019). It is important for midwives to be aware of the barriers to breastfeeding in order to provide effective counselling. There is a need to increase the level of knowledge of midwives about DMER, which is one of the reasons for early cessation of breastfeeding (Zychlinsky et al., 2025). Firstly, it is important for midwives to be aware that DMER is a condition experienced by breastfeeding women during lactation and to understand its pathophysiology. It is important that they know the symptoms, frequency and duration of DMER and inform women about it (Heise & Wiessinger, 2011).

Although the epidemiological characteristics of DMER are not fully understood, it is thought to affect a significant proportion of breastfeeding women. It has been stated that this condition may be more common, especially in women who experience intense negative emotions during breastfeeding (Ureño et al., 2018). There is still a lack of research into the diagnosis, management and treatment of DMER. Therefore, individualised advice is needed when caring for women with DMER symptoms. Methods that provide relief to the woman and positively affect her breastfeeding experience should be identified and supported (Liu et al., 2023).

It is essential that specific training programmes are developed to ensure that midwives understand the symptoms and management strategies of DMER. This training should take place at university level as well as in-service training. In addition, specific guidelines for breastfeeding counselling can be developed to raise awareness of DMER. DMER not only negatively affects the breastfeeding process, but may also increase the risk of postpartum depression by affecting women's emotional well-being (Zychlinsky et al., 2025). Therefore, early identification of DMER may have long-term beneficial effects for both mother and infant. Effective management of DMER

requires a multidisciplinary approach. While midwives support the breastfeeding process, psychologists and psychiatrists can develop strategies to strengthen the emotional well-being of mothers (Frawley et al., 2023). This kind of collaboration is essential both to increase breastfeeding rates and to protect the mental health of mothers.

In conclusion, there is a great need to increase knowledge about the management of DMER, both to ensure that mothers continue to breastfeed in a healthy way and to ensure that health professionals can make the right interventions. Raising awareness and increasing training in this area will be an important step in the fight against DMER.

### Conclusion and Recommendations

In conclusion, DMER is a condition that involves emotional and physical disturbances during the breastfeeding process. Although the condition is not fully understood, it is thought to be under the influence of hormonal changes. DMER is a condition in which women associate breastfeeding with anxiety and discomfort and therefore find it a negative experience. This may even lead them to stop breastfeeding. Making it easier for women to manage the process and relieving their symptoms is important for breastfeeding to continue. Health professionals, especially midwives, need to be informed and supported in this regard. Further research could help us better understand the causes of this condition and develop better approaches to treating or managing it. At the same time, improving health professionals' knowledge of how to recognise and manage DMER could help to provide better support for women experiencing the condition.

#### Ethics Committee Approval:

Ethics committee approval is not required for this study.

**Peer-review:** Externally peer-reviewed.

**Author Contributions:** Concept-AİG, NKÖ; Design- AİG, NKÖ; Supervision- AİG, NKÖ; Resources-AİG, NKÖ; Literature Search- AİG, NKÖ; Writing Manuscript- AİG, NKÖ; Critical Review- AİG, NKÖ.

**Conflict of Interest:** The authors have no conflicts of interest to declare.

**Financial Disclosure:** The authors declared that this study has received no financial support.

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