

# A Qualitative Study on Negative Emotions Triggered by Breastfeeding; Describing the Phenomenon of Breastfeeding/Nursing Aversion and Agitation in Breastfeeding Mothers

## Abstract

**Background:** Breastfeeding aversion and agitation (BAA) while breastfeeding is anecdotally known to occur in some women who breastfeed while pregnant or those who tandem feed a newborn and a toddler. However, it is a little-researched area and the paucity of published literature around BAA reveals a significant gap in the literature. **Materials and Methods:** This study presents the findings and responses of 694 women who filled in an anonymous survey questionnaire that collected data on their basic demographics and their experiences with breastfeeding. It uses thematic and inductive content analysis, with qualitative interpretive description to present the findings. **Results:** The findings of this study shed light on an experienced phenomenon of aversion and agitation whilst breastfeeding, which varies in form, severity, and duration. It is characterised by feelings of anger or rage, a skin crawling sensation and an urge to remove the suckling infant, but can also be feelings of agitation and irritability whilst the infant is latched. A number of mothers who experience aversion still continue to breastfeed, but have feelings of guilt and shame while also experiencing confusion around those feelings. **Conclusions:** BAA is a phenomenon that occurs in some women who breastfeed, whereby breastfeeding triggers negative emotions. The reason women experience it is not clearly known. Research is needed to understand its cause, triggers, and strategies to minimise the experience in breastfeeding mothers.

**Keywords:** Anger, breastfeeding, breastfeeding agitation, breastfeeding aversion, infant feeding, maternal health, nursing

## Introduction

Literature exists on aversions from women who choose not to breastfeed, or who try but have early cessation of breastfeeding. However, limited literature exists on feelings of aversion toward breastfeeding by women continuing to breastfeed, which is the main objective of this study. One study refers to breastfeeding aversion and agitation (BAA) as part of the negative embodied emotions that breastfeeding could trigger,<sup>[1]</sup> while another by Flower<sup>[2]</sup> mainly refers to agitation when tandem feeding (two or more infants) or feeding when pregnant, although the author notes it can potentially be experienced by any breastfeeding mother. Feelings of aversion toward breastfeeding is also quoted in distinction to Dysphoric-Milk Ejection Reflex, which is a condition that is categorised by distinctly dysphoric feelings ‘only during milk releases’<sup>[3]</sup> There are also blog posts and online articles on the phenomenon.

As advocates of breastfeeding and health campaigns raise awareness of the benefits and clear importance of breastfeeding in infant nutrition, there is often a picture painted of the happily ‘in love’ breastfeeding mother supported, in principle, by numerous studies showing the calming role of oxytocin.<sup>[4-6]</sup> In an effort to promote breastfeeding around the world, visual representations of the pro-breastfeeding messages and images are always of smiling mothers and babies. The everyday experience of a mother is often glossed over, so mothers are not prepared and even healthcare professionals may be seen to give unrealistic expectations of breastfeeding when assisting mothers.<sup>[7,8]</sup> Aversion and agitation whilst breastfeeding (BAA) seem to be unacknowledged challenges for mothers who breastfeed and healthcare professionals who support them. As such, the primary aim of this study is to explore the phenomenon of BAA in breastfeeding

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mothers by asking mothers to report their experience of it and discuss the possible reasons for it.

## Materials and Methods

This study presents data collected in 2015 through an anonymous survey questionnaire that asked *any* mother who was breastfeeding to answer 10 questions; the first 6 of which were demographics and characteristics, the next 2 asked if the participant was tandem feeding or if they were pregnant. Of the remaining 2, one asked if they experience or have experienced an aversion to breastfeeding or agitation whilst breastfeeding. The last question asked if they had done so, for them to 'please describe this experience/please state more about your breastfeeding journey'. The last question was designed to gather more detail about the nature of their experiences, and to reveal plausible avenues of further research. Quantitative data was gathered in the form of participant characteristics and demographic variables in order to identify possible groups of women who experienced BAA. The inclusion criteria were: ability to read and write English in order to read the participant information sheet, opt-in consent and fill out the questionnaire, and to be a mother who was breastfeeding. There was no scientifically justifiable reason to exclude mothers who experienced sexual abuse, were postnatally depressed, or women who were not tandem feeders or feeding while pregnant in this cursory study. A total of 694 women completed the questionnaire.

The intended purpose of the questionnaire was to see if breastfeeding women experienced aversion, and to gain qualitative information premised upon the symptomatic self-reported experiences of mothers as the basis of further research, rather than to seek definitive medical signs of BAA or a quantitative incidence of BAA. The survey was created using Survey Monkey, and was circulated internationally on social media (India, Iran, and America), including parenting groups, forums and on the Association of Breastfeeding Mothers forum (United Kingdom). There were 694 responses in 48 hours. As there is little academic research or literature on BAA in breastfeeding mothers, a rigid methodology and specific research questions in this study were not possible. This study seeks to establish whether or not there is the need for further research into this area, and appropriate research questions. Therefore, an exploratory approach has been undertaken in order to develop a basic understanding of BAA, and the possibility of further research. For the analysis of the results, thematic analysis is used. Qualitative interpretive description<sup>[9,10]</sup> is utilized in order to allow women to state what aversion means to them, and inductive content analysis<sup>[11]</sup> to present discussion of the findings. Quotes were selected that were sufficient to describe each category identified in the results data.

## Ethical considerations

As there was no recruitment of National Health Service patients, and it was circulated online internationally, this study did not require Health Research Authority approval in the UK. No intervention or procedure was conducted, no identifiable data was collected, and the study required opt-in consent (by participants' virtue of reading the participant information sheet online and choosing to fill in the forms of their own volition). The Participant Information Sheet was included at the introduction of the survey for informed consent where it was stated that quotes may be used for publication but that they would be anonymised as a pseudonym name would be used.

## Results

There was wide demographic representation of women who responded, as can be seen in Table 1. There was no discernible demographic pattern of a cohort of women who experienced BAA, rather there was representation from all ethnicities, ages, and marital and educational statuses. Of the responses, only 22% (151) were tandem feeding, and only around 11% (78) were pregnant [Table 2]. The rest of the respondents who replied 'Yes' to whether they experience aversion were breastfeeding a single infant and were not pregnant. A large proportion of around 70% (479) of all respondents stated they experienced BAA whilst breastfeeding. Whilst around one third (213) skipped the final open-ended question asking more about their experiences, two thirds (434) answered, and these responses were used for qualitative analysis. There were a number of similar descriptive accounts of BAA, with many common phrases used by mothers [Table 3], as well

**Table 1: Participant demographics (n=694)**

Demographics and Characteristics	n
Age of mother (years)	
18-24	39
25-34	424
35-44	221
45-54	4
55 and over	5
Skipped	1
Ethnicity	
English/Welsh/Scottish/Irish etc	515
Any other White background	125
White and Black Caribbean	6
White and Black African	4
White and Asian	17
Any other mixed background	15
Indian/Pakistani/Bangladeshi	39
Chinese/other Asian	9
Black/African/Caribbean other	5
Arab/Iranian/other	15

**Table 2: Participant characteristics (n=694)**

Demographics and characteristics	n
Are you tandem feeding? (i.e., a newborn and a toddler or 2 or more children?)	
Yes	151
No	536
Skipped	7
Are you pregnant?	
Yes	78
No	612
Skipped	4
Do you or have you experienced breastfeeding aversion?	
Yes	479
No	210
Skipped	5
If so, please describe experience	
Answered	481
Skipped	213

**Table 3: Summary of common phrases listed  
(no connection between columns)**

Descriptive	Frequency/duration
Anger and or Rage	When ovulating
Agitation or Irritability	Before or during menses
Skin crawling/itching sensation	Postnatal return of menstruation
Wanting to unlatch child	At night/only at night
Wanting to "throw child off"	When very tired/sleep deprived
Guilt and shame about feelings of BAA	Happened once
Confusion about feelings of BAA	Some Feeds
Wanting to maintain breastfeeding	Every feed (some even from birth)

as detailed comments about the duration of time BAA lasted and when it occurred. These have been set out below with some quotes, under the subheadings; ‘Description of the phenomenon’, ‘Frequency and duration’, ‘Severity’, ‘Pain’ and ‘Triggers’. As the responses were anonymised, a pseudonym name is given to each quote used in this study.

### Description of the phenomenon

Whilst some mothers wrote single words or short statements to describe their experience, such as Helen who wrote only ‘*anxiety, anger, irritation, creepy crawlies, nipple pain, can't stay still, want to run away, violent thoughts*’, others wrote much longer and detailed paragraphs.

**Anger/Rage:** Of the responses, the experiences of anger were one of the most frequent as can be read in Layla’s experience: “Awful anger, hated breastfeeding, uncomfortable sensation. Not sure why it happened, or when it started, but my son. [was] a few months old and I felt like this almost every time I breastfed him”.

**Agitation:** Some women would describe somewhat milder feelings and experiences that could be described as being agitated or irritated whilst breastfeeding, like Sara who wrote: “When my eldest son was almost 3, I wanted to wean him and I felt agitated, whenever I was feeding him.”

**Skin crawling/skin itching:** Many of the descriptions of BAA often used the exact phrases of ‘*skin itching*’ and ‘*skin crawling*’. A kind of neuralgia-like feeling was frequently described by mothers, like Hema: “When she nursed I felt like my skin was crawling to the point my toes were curling under, I was biting my nails/my fingers. I had to breathe deeply and mentally talk myself through it, so that I didn’t show my frustration to my baby girl. I hated it.”

**Wanting to unlatch child:** The descriptions of wanting to have the child off the mother were often repeated, Panteh’s experience reflects this urge, that it is swift in approaching and that it doesn’t dissipate: “It’s a sudden rush that makes me want to pull my son off immediately. Once it’s there, it stays through the whole feed and I end up having to take my son off as I can’t stand it any longer. Not sure how to describe the feeling but it is toe curling!” Despite this urge to remove their children, or feelings of anger, these mothers wrote they were still breastfeeding, often stating the age of the infant.

**Guilt and shame about the feelings of BAA:** Particular recurrent themes of distress and guilt about feelings of anger and BAA were frequently cited by mothers like Amvi who wrote: “aversion is really horrible, it takes away that loving feeling you have knowing that you are able to feed your child, it makes you want to stop it all together, and then it makes you feel guilty for feeling like this”.

Feelings of anger were often said to raise feelings of guilt and confusion, because the mother was unsure as to what to do about BAA, or why she was feeling anger toward her offspring while they were suckling at the breast. Anguish was often written about, as the mothers felt an ‘*internal conflict*’ of being angry at their child, and wanting to remove them, whilst simultaneously wanting to nurture and feed them, knowing that suckling at the breast is the best way to do that. Rosanna wrote:

“(It) first happened when he was just a couple of months old. I felt like I had been put in the middle of a storm, I had an energy inside me that made me feel like I wanted to scream or hit things. I was feeding at the time, I said to my fiancé “I feel like I don’t want him feeding!” But of course I felt awful for feeling like that. All I wanted was to hold and nourish him.”

Several mothers wrote about maintaining breastfeeding while experiencing BAA, and how they were still feeding their infant on demand like Inna who said that at ‘*27 months still feeding on demand, I get irritated when she*

is latched on', and Malika who wrote 'I was still demand feeding my 15 month old and I started having an aversion.

Frequency and duration: BAA happens once for some women, and more frequently for others. Joanna explains how she experiences it: "Mostly in the night. or when I am very tired. It makes me feel angry, or makes my skin crawl, or (I) feel nauseated. He is 16 months and I have only experienced aversion since he was 14 months. The frequency is perhaps once/twice per week." Whilst intermittent for some, it is ongoing for other mothers, occurring at every feed. A commonly reported experience was that BAA was experienced once, with the return of postnatal menstruation, several mothers connected their BAA to ovulating or their monthly menstruating cycle. They described it as contemporaneous with ovulation or menstruation, resolving each month as menstruation ends.

Severity: For some women, BAA is very intense, with feelings of repulsion, nausea, anger, rage, and resentment when the child is latched. Anya's experience represents this kind of BAA: "I have been breastfeeding for 1 year. Nearing the start of my cycle I experience aversions that are quite strong. During this time I have extreme agitation and sometimes want to hurt my baby. (I never have, but I can't help but wanting to smooch her face into me). I feel extreme guilt for feeling this way but I can't shake the feelings when they occur. I have never physically lashed out at her, but the feelings are so strong I have to unlatch and take a break for fear I may act on my feelings. When I'm not in times of aversion we have a very positive nursing relationship."

Anya's experiences are echoed through the responses in the survey, with many women having quite severe BAA.

Pain: Many mothers mentioned of experiencing pain in their breastfeeding journey, with tongue tie often cited as the cause, like in Selina's case: "I really really wanted to breastfeed my daughter but the reality was very hard. She was tongue tied which made it very painful for me in the first few weeks, even after it was sorted. I would dread every feed and there were a lot of tears. I am glad I put so much pressure on myself as I could have given up." 'Painful nipples' and 'uncomfortable latches' were frequently noted.

Triggers: Several mothers made mention of their child's physical behaviour being very irritating when they are latched, triggering their BAA, from 'fidgeting', 'wriggling', 'nipple tweaking' (of the opposite breast to that being suckled), and 'wandering hands'. Many also shared the sentiment that BAA was primarily triggered when tired: "It normally happens when I am very tired and when my son, fiddles with the nipple he is not being fed from. It makes me very angry and obviously (I) suppress the anger but then I feel tearful and guilty" said Julianne. Others felt uncomfortable about what they deemed excessive

physical contact, using the phrase of feeling 'touched out'. Breastfeeding during the day, and at night, on demand, would mean a lot of physical contact for some women.

## Discussion

### Signs and symptoms

Mothers who participated in the study reported feelings of anger and agitation while breastfeeding, and irritating skin sensations, but also the desire to continue. There were no differences in the description of feelings from the different groups of breastfeeding women (i.e., single, tandem, or breastfeeding while pregnant). The survey responses reveal a consistent cluster of associated symptoms according to the occurrence and frequency of phrases and statements shown in Table 3. Symptoms, diagnostically, are the subjective experience of the person, i.e., what the person is reporting, and are not to be confused with signs (or disease), which are medically testable.<sup>[12]</sup> Symptoms are qualitative in nature, and in this study there are many comparable symptoms reported by mothers that are not yet medically explainable. Women who are actively breastfeeding ought to be able to do so, all things being equal, without a great amount difficulty or urge to unlatch. They have decided to breastfeed, they have the will to do so, and they are lactating. So why do women experience these similar symptoms of BAA? What causes BAA? Is it physiological, or is it psychological, perhaps a part of postnatal depression? In short, medically unexplained symptoms matter.<sup>[13]</sup> Breastfeeding is often considered as improving attachment and the mother-child relationship, even with positive implications on mental health in some cases,<sup>[14]</sup> but what about when it is a source of friction, tension, discomfort, and emotional difficulty as it is for many of the mothers in this study? As BAA is widely unacknowledged, and there is little research conducted on the phenomenon, the plausible reasons for BAA that are proposed in the discussion below are theories drawn from related research in fields including lactation and parenting.

### Who experiences BAA and why?

There was no specific ethnic or age group of women who experience aversion. Accounts of BAA are similar in women breastfeeding only one infant, with those nursing two or more, or pregnant and breastfeeding. However, there are perhaps more straightforward reasons why women who breastfeed while pregnant might experience difficulty or uncomfortable sensations. Women can have extremely sensitive nipples when pregnant,<sup>[15]</sup> and are experiencing a mass of hormonal and other extraordinary physical changes in their bodies.<sup>[16]</sup> As lactation itself 'represents the greatest postnatal energetic expenditure for human and non-human female primates',<sup>[17]</sup> coupled with the changes in pregnancy, these factors may account for symptoms of anger or agitation that would assist both the biological and emotional urge to either stop or limit breastfeeding.



BAA may well be both physiological as well as psychological, especially for women who find nursing uncomfortable or have nipple pain, as a study showed that lactating women who were experiencing nipple pain were also experiencing 'high levels of emotional distress'.<sup>[18]</sup> Many mothers commented in this study that breastfeeding was painful, and they had nipple soreness due to poor latch, babies with tongue tie, and because of pregnancy. Having to constantly engage in any activity that causes you pain or is uncomfortable can certainly be a contributing factor to being agitated or angry. However, this explanation would not account for the women who link BAA to the return of their postnatal menstruation or monthly menstrual cycles, or for those that experience BAA when very tired and run down. From a biological viewpoint, it is plausible that it is nature's way of encouraging weaning due to insufficient nutrients or hormonal imbalances, given their important role in lactation.<sup>[19]</sup>

Hormonal adjustments the female body undergoes when menstruating are known to have an effect on some women, or cause pre- or post-menstrual tension.<sup>[20]</sup> Milk composition and production also vary greatly along the lactating journey of a mother, to suit the suckling infant's needs, and this is partly regulated by hormones. The volume of milk produced constantly changes, and concentrations of lactose, protein and macronutrients, including magnesium, potassium, and calcium vary as well.<sup>[21]</sup> Nutritional requirements for a mother, therefore, also greatly increase when lactating, so if a mother is not eating or sleeping well, and her body is feeling the strain, from a physiological point of view she is likely to have feelings of BAA to try to reduce or stop breastfeeding.

### Feeding older infants and feeding on demand

Many responses from women in the study indicated they were still breastfeeding, despite BAA, and often 'on demand' with toddlers and older infants. This dynamic may be a contributing factor to BAA if the mother is not able to comfortably offer feeds, or if the infant is persistent with wanting the breast. Current studies show that hormones in breast milk can affect different areas of infant growth, with permanent effects on physiological processes,<sup>[22]</sup> it is understood that they can play a role in an individual's predispositions to behaviours, such as aggression and impulsions.<sup>[23]</sup> Breast milk in mammals is shown to have an impact on brain development, as well as the potential to affect infant behaviour and the development of behavioural dispositions.<sup>[24]</sup> Especially of interest to this study would be the role and pathways of glucocorticoids, which is the hormone cortisol in humans, as it has been shown to affect the temperament of babies,<sup>[25]</sup> especially those with exposure to elevated levels in breast milk.<sup>[26]</sup> It is plausible that BAA in mothers has some foundation in this hormonal pathway, and it is exacerbated by both her behaviour, the response of the infant who breastfeeds, and the physical

discomfort when breastfeeding due to latch. With this in mind, it is reasonable to posit that mothers who experience BAA may have higher levels of cortisol *whilst* breastfeeding than mothers who do not.

Britton found that mothers who breastfeed can show greater sensitivity in interaction with their young, and this early sensitivity has been used as an 'independent predictor of any and exclusive breastfeeding during the first year'.<sup>[27]</sup> This behavioural response of sensitivity could be a reason for the sustained 'feeding on demand' exhibited with some of the mothers and infants in this study. If a mother feeds on demand, this increases the duration of breastfeeding as well as amount of physical contact. With age, the child's dependency on the milk for survival decreases, and if the dynamic of responsive breastfeeding stays intact, this could cause tension and frustration, and increase the incidence of BAA. BAA appears to be both a complex and sensitive phenomenon for women who experience it, and must make breastfeeding very difficult and stressful.

The following limitations are noted for this study; without any previous research into BAA in mothers, determination of specific exclusion criteria for participants was not possible to include, and as such it is difficult to come to definitive conclusions about the responses of the mothers, and consequently about BAA. A further study is needed to include the screening of participants for previous sexual abuse history,<sup>[28]</sup> of postnatal depression,<sup>[29]</sup> and an assessment of the infant feeding such as tongue tie is required now to assert a specific cohort that BAA occurs in, and if this would change the results of the study or whether BAA is separate from postnatal illness of unwanted negative intrusive thoughts.<sup>[30]</sup> However, there is such little published research in this area. This study offers a small, but important, platform for both the exploration and clarification of BAA.

### Conclusion

The responses from mothers in the questionnaire indicate, at least in description, that the phenomenon of BAA in breastfeeding women exists, with varying severity and duration, amongst a wide demographic group. Phrases such as being '*touched out*', or having a '*skin crawling*', '*itchy*' sensation, coupled with anger or agitation and a need to have the infant '*unlatched*' and '*far away*' could be said to represent a general descriptive understanding of what the phenomenon is. The severity of sensations or discomfort, and feelings of anger or agitation can vary from mild to severe. The onset and duration of BAA can also vary, and is different from women to women.

To conduct research that was able to establish the prevalence, severity, frequency, and onset of BAA in more detail, as well as to identify what helps, either anecdotally or scientifically, would be of great use to the field of lactation for healthcare professionals, breastfeeding peer

supporters, mothers who breastfeed, and particularly for mothers who intend to breastfeed.

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### Conflicts of interest

There are no conflicts of interest.

### References

- Watkinson M, Murray C, Simpson J. Maternal experiences of embodied emotional sensations during breast feeding: An Interpretative Phenomenological Analysis. *Midwifery* 2016;36:53-60.
- Flower H, O'Mara P. *Adventures in Tandem Nursing: Breastfeeding During Pregnancy and Beyond*. Schaumburg Ill: La Leche League International; 2003. p. 327.
- Heise AM, Wiessinger D. Dysphoric milk ejection reflex: A case report. *Int Breastfeed J* 2011;6:6.
- Moberg KU. *The Oxytocin Factor: Tapping The Hormone Of Calm, Love, And Healing*. Da Capo Press; 2003. p. 226.
- Strathearn L, Fonagy P, Amico J, Montague PR. Adult Attachment Predicts Maternal Brain and Oxytocin Response to Infant Cues. *Neuropsychopharmacology* 2009;34:2655-66.
- Stuebe AM, Grewen K, Meltzer-Brody S. Association Between Maternal Mood and Oxytocin Response to Breastfeeding. *J Womens Health* 2013;22:352-61.
- Fox R, McMullen S, Newburn M. UK women's experiences of breastfeeding and additional breastfeeding support: A qualitative study of Baby Café services. *BMC Pregnancy Childbirth* 2015;15:147.
- Hauck Y, Irurita V. Incompatible Expectations: The Dilemma of Breastfeeding Mothers. *Health Care Women Int* 2003;24:62-78.
- Thorne S. *Interpretive description*. Walnut Creek, CA: Left Coast Press; 2008.
- Thorne S. Interpretive Description [Internet]. Available from: [https://www.researchgate.net/profile/Sally\\_Thorne/publication/14116082\\_Interpretive\\_description\\_a\\_noncategorical\\_qualitative\\_alternative\\_for\\_developing\\_nursing\\_knowledge/links/0c96051b8a6fc61a8d000000.pdf](https://www.researchgate.net/profile/Sally_Thorne/publication/14116082_Interpretive_description_a_noncategorical_qualitative_alternative_for_developing_nursing_knowledge/links/0c96051b8a6fc61a8d000000.pdf) [Last accessed on 2016 Jun 3].
- Elo S, Kyngas H. The qualitative content analysis process. *J Adv Nurs* 2008;62:107-15.
- Stone J, Carson A, Sharpe M. Functional symptoms and signs in neurology: Assessment and diagnosis. *J Neurol Neurosurg Psychiatry* 2005;76:i2-12.
- Carson AJ, Ringbauer B, Stone J, McKenzie L, Warlow C, Sharpe M. Do medically unexplained symptoms matter? A prospective cohort study of 300 new referrals to neurology outpatient clinics. *J Neurol Neurosurg Psychiatry* 2000;68:207-10.
- Gribble KD. Mental health, attachment and breastfeeding: Implications for adopted children and their mothers. *Int Breastfeeding J* 2006;1:5.
- Yu JH, Kim MJ, Cho H, Liu HJ, Han SJ, Ahn TG. Breast diseases during pregnancy and lactation. *Obstet Gynecol Sci* 2013;56:143-59.
- Neville MC, Anderson SM, McManaman JL, Badger TM, Bunik M, Contractor N, *et al*. Lactation and Neonatal Nutrition: Defining and Refining the Critical Questions. *J Mammary Gland Biol Neoplasia* 2012;17:167-88.
- Hinde K. Richer milk for sons but more milk for daughters: Sex-biased investment during lactation varies with maternal life history in rhesus macaques. *Am J Hum Biol* 2009;21:512-9.
- Amir LH, Dennerstein L, Garland SM, Fisher J, Farish SJ. Psychological aspects of nipple pain in lactating women. *J Psychosom Obstet Gynaecol* 1996;17:53-8.
- Picciano MF. Pregnancy and Lactation: Physiological Adjustments, Nutritional Requirements and the Role of Dietary Supplements. *J Nutr* 2003;133:1997S-2002S.
- Ussher JM, Perz J. PMS as a process of negotiation: Women's experience and management of premenstrual distress. *Psychol Health* 2013;28:909-27.
- Neville MC, Morton J. Physiology and Endocrine Changes Underlying Human Lactogenesis II. *J Nutr* 2001;131:3005S-8S.
- Miller DJ, Wiley AA, Chen JC, Bagnell CA, Bartol FF. Nursing for 48 hours from birth supports porcine uterine gland development and endometrial cell compartment-specific gene expression. *Biol Reprod* 2013;88:4.
- Hinde K, Skibieli AL, Foster AB, Rosso LD, Mendoza SP, Capitanio JP. Cortisol in mother's milk across lactation reflects maternal life history and predicts infant temperament. *Behav Ecol* 2014;26:269-81.
- Hinde K, Capitanio JP. Lactational programming? Mother's milk energy predicts infant behavior and temperament in rhesus macaques (*Macaca mulatta*). *Am J Primatol* 2010;72:522-9.
- Grey KR, Davis EP, Sandman CA, Glynn LM. Human milk cortisol is associated with infant temperament. *Psychoneuroendocrinology* 2013;38:1178-85.
- Glynn LM, Davis EP, Schetter CD, Chicx-Demet A, Hobel CJ, Sandman CA. Postnatal maternal cortisol levels predict temperament in healthy breastfed infants. *Early Hum Dev* 2007;83:675-81.
- Britton JR, Britton HL, Gronwaldt V. Breastfeeding, Sensitivity, and Attachment. *Pediatr* 2006;118:e1436-43.
- Coles J. Qualitative Study of Breastfeeding After Childhood Sexual Assault. *J Hum Lact* 2009;25:317-24.
- Borra C, Iacovou M, Sevilla A. New Evidence on Breastfeeding and Postpartum Depression: The Importance of Understanding Women's Intentions. *Matern Child Health J* 2014;19:897-907.
- Kleiman K, Wenzel A. *Dropping the Baby and Other Scary Thoughts: Breaking the Cycle of Unwanted Thoughts in Motherhood*. New York, NY: Routledge; 2010. p. 272.