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Breastfeeding Has Positive Effects on Mental Health.

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Abstract.

When many expectant moms perceive pregnancy as a time of emotional well-being, for some people, this time can have a severe influence on their mental health. But it's not quite obvious how nursing and postpartum mental health are related. Clarifying this link is crucial because breastfeeding is strongly advised by numerous health organisations. This review tries to demonstrate how nursing affects postpartum women' mental health. A thorough computerised search was conducted using the Medline, CINAHL, and PubMed databases. This review evaluated and collected all studies done to establish breastfeeding's impact on mental health. Postpartum, mental health, and breastfeeding-related search phrases were employed. The association between lactating and the mother stress response is covered in the first section of this review on breastfeeding and postpartum depression (PPD). The duration of breastfeeding and its significance in reducing PPD symptoms are another factor that is covered. The discussion then moves to a greater emphasis on the psychological effects of nursing, particularly on modifications to the sleep-wake cycle and relationships between the mother and child. The study's conclusion highlights the risk early breastfeeding cessation poses to a mother's mental health by illustrating how prenatal and early-onset postpartum depression may cause early breastfeeding cessation. The significance of breastfeeding in lowering the prevalence and severity of maternal postpartum depression is made clear by this compilation of studies.

Keywords: breastfeeding duration, postpartum mental health, postpartum depression, mental health.

Introduction.

Breastfeeding has been proven to provide a variety of short- and long-term advantages for both the mother and the baby. Breastfeeding has been linked to protection from a number of chronic illnesses, according to studies. Breastfeeding mothers often have reduced obesity rates, which lowers the risk of hypertension, cardiovascular disease, hyperlipidemia, and even some forms of cancer[1] Mothers who breastfeed also have a psychoneuroimmunological advantage that lessens anxiety, which is probably related to the hormone prolactin. According to other research, nursing directly reduces the signs and symptoms of depression, and that effect is lost if breastfeeding is stopped too soon[2,3]. The World Health Organisation (WHO) and several other organisations advise women to start nursing their infants during the first hour of life and to do so exclusively

for the first six months. The WHO also advises women to breastfeed their children until they are two or older. Despite the fact that nursing has many health advantages and is strongly advised by top experts, breastfeeding rates are still low in most developed nations, with just 55.8% of newborns in the United States continuing breastfeeding at six months[4,5]. This considerable deviation in breastfeeding women compared to WHO standards has a number of plausible causes. The mental health of a woman both before and after giving birth has been researched as a potential influence in this case. Women's mental health illnesses including anxiety and mood disorders have been connected to the perinatal period (from pregnancy to the first year after delivery)[6]. Some women feel inferior if they decide not to breastfeed due to the widespread belief in society that "breast is best," which raises the risk of moms developing mental disorders [6]. According to earlier epidemiological research, at least 20% of pregnant women and new mothers experience perinatal depression [7] during these times. Clarifying the impact of breastfeeding on mother psychological health is the main goal of this review.

Lactation and the stress response:

Lactation and lowered cortisol levels, a marker of stress, are strongly correlated . In a research with 10 lactating and 10 non-lactating women, it was shown that lactating women had substantially lower plasma responses to exercise in terms of ACTH, cortisol, and glucose (p 0.001) . Additionally, nursing moms had lower baseline norepinephrine levels than non-breastfeeding women (p 0.05), indicating that these women's hormones implicated in the stress response are lowered[8]. Adrenocorticotropic hormone (ACTH) is significantly reduced during nursing, according to a large number of additional research examining breastfeeding sessions [8–10]. An individual's mental health is greatly influenced by ACTH and the glucocorticoid cortisol, especially via managing anxiety and sadness. The hypothalamus-pituitary-adrenal (HPA) axis, a stress pathway in the brain, is known to be activated by these two hormones [11]. The HPA axis may be stimulated and the stress response can be brought on by a variety of psychological stimuli. Cortisol release to the adrenal cortex is boosted by the HPA axis, which eventually results in an increase in anxiety. According to research, depression may be brought on by a rise in glucocorticoid hormone levels, which activate the HPA axis and generate depressive symptoms. The activation of this axis may also result in less self-efficacy and sleep. Breastfeeding has been found to lessen postpartum depression symptoms by limiting glucocorticoid release and HPA axis activation. Longer periods of skin-to-skin contact resulted in lower levels of mother cortisol, which in turn lessened the symptoms of postpartum depression and anxiety. Skin-to-skin contact has also been demonstrated to impact the length of maternal cortisol levels.

Better self-efficacy and interaction:

Additionally, studies demonstrate that nursing strengthens the psychological mechanisms that shield new moms against postpartum depression. Breastfeeding moms have higher levels of maternal self-efficacy, and this trait has a negative correlation with postpartum depression,

protecting the mental well-being of mothers. Breastfeeding mothers also reported that their children were less agitated during feedings and had greater confidence levels. Overall, postpartum depression symptoms were less severe among moms who had greater levels of nursing self-efficacy[14,15,16]. It has been demonstrated that feeding habits have an impact on mother-infant bonding, with breastfeeding moms showing a stronger attachment to their children than non-breastfeeding mothers. In reality, several studies have demonstrated that when the mother is sad or not nursing, this mother-infant relationship is severely decreased. Infants who are breastfed exhibit much higher physical contact and vocalizations towards the mother, which has been shown to be important in the formation of mother-infant bonding. These happy baby replies assist the mother in feeling less depressed. In the first four days after delivery, the mother-baby bond is positively impacted by the newborn touching the mother's nipple, according to research, which also changes the mother's neuroendocrine function [17,18,19,20]

Breastfeeding and sleep.

The sleep and waking cycles of both the mother and the child are affected by breastfeeding. The mother's exhaustion is lessened by these modifications, which may even shield her from depressive symptoms. A research that looked at postpartum women's sleeping habits just after delivery discovered that nursing mothers slept on average 2.6 hours longer than mothers who bottle-fed. When compared to moms who took formula at night, women who exclusively nursed experienced considerably more nocturnal sleep at one month postpartum, according to a longitudinal study of first-time mothers. This study found that women who supplemented with formula at night lost almost three times as much sleep as mothers who solely breastfed. From the final month of pregnancy to the first month after delivery, Figure Figure1 shows the difference in total nighttime sleep between moms who exclusively breastfeed and mothers who use bottles [23]. Figure Figure1 shows how the overall amount of sleep for moms who decided not to exclusively breastfeed fell dramatically.

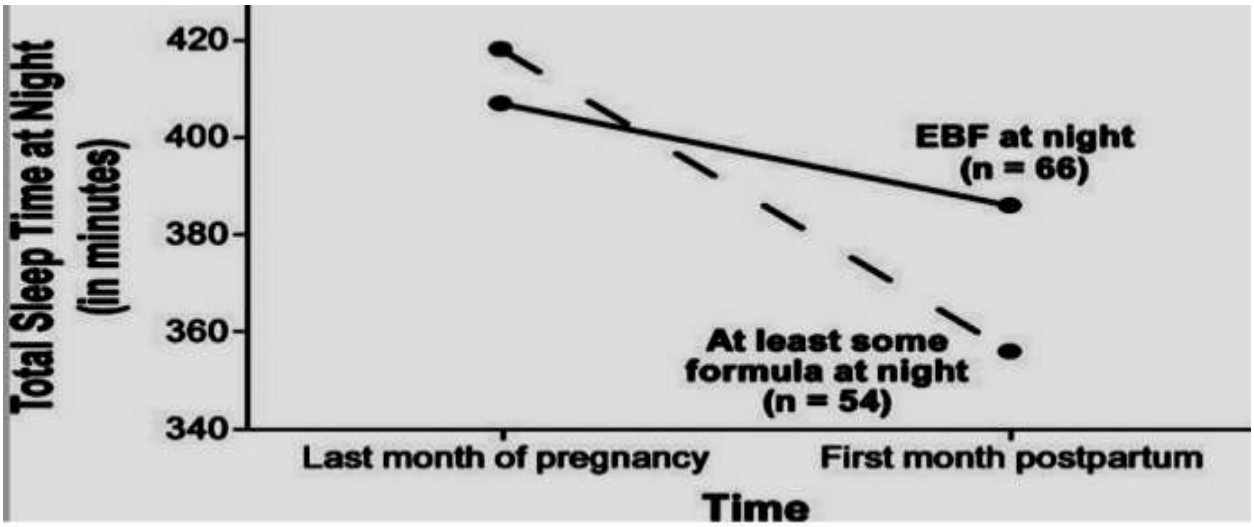

Figure 1. Total sleep time at night over time and by feeding group.

A mother's physical and emotional health might be significantly impacted by getting less sleep at night, which raises the possibility that she will have postpartum depression. Sleep is necessary for the mother's milk production, according to a comparative research, since there may be a connection between prolactin levels and deep sleep. The study found that slow-wave sleep periods lasted much longer among nursing mothers. [23,24]. This supports the assumption that sleep is essential for healthy breastfeeding and is thought to occur because nursing moms have higher levels of prolactin in their blood. Similar findings from a different research support this notion. Better sleep efficiency was less likely to postpone the start of lactogenesis, according to the study, which supports the idea that getting enough sleep is essential for breastfeeding. This connection between sleep and prolactin levels in the blood highlights the significance of sleep for both the mother's mental health and her ability to nurse successfully.

Early cessation of breastfeeding.

The start and length of breastfeeding play a significant role in preventing postpartum depression. According to research, postnatal depression is linked to a shorter length of nursing whereas prenatal depression is linked to a late start to breastfeeding [26]. Early breastfeeding is linked to a lower incidence of postpartum depression, according to a Taiwanese study. In a smaller research published in 2014, postpartum depression ratings significantly decreased in mothers who continued exclusive nursing for more than three months [3]. The same study found that women who hated nursing were more likely to have postpartum depression two months after giving birth [27]. While nursing seems to lower the likelihood of postpartum depression, researchers have also shown that depression may lead to an early end to breastfeeding. This suggests that there is a bidirectional association between breastfeeding and postpartum depression. The analysis of 83 women in a prospective cohort research revealed a high correlation between postpartum depression (PPD) and early breastfeeding cessation. According to a different longitudinal cohort research, early breastfeeding cessation was associated with a rise in PPD and was substantially connected with prepartum levels of anxiety and sadness. Additional research has looked at the average amount of time that mothers nurse their babies, both with and without postpartum depression. According to a research, breastfeeding lasted an average of 39 weeks for women without depression and 26 weeks for those with early-onset depression. This striking difference demonstrates a considerable correlation between sadness and the early end of breastfeeding [30]. Depression can sometimes prevent moms from stopping breastfeeding. But depressed moms who try to breastfeed frequently report having problems and not being happy with the procedure, which worsens the PPD effects[31]. The ability to breastfeed can be significantly impacted by psychological problems including stress, melancholy, and anxiety, but biology and environmental factors also play a significant effect. The capacity of a woman to breastfeed might be impacted by a variety of health issues. Diabetes, polycystic ovarian syndrome, and thyroid conditions can all affect hormone levels, upsetting the harmony required for breastfeeding [32,33]. Mastectomies and other breast operations may alter

the structure of the mammary gland, making it more difficult for mothers to produce milk. Due to elevated progesterone, a hormone stored in adipose tissue that prevents lactogenesis, obesity and diabetes also significantly contribute to the suppression of breastfeeding [33,34]. Due to reduced prolactin concentrations, women with diabetes are more likely to undergo delayed lactogenesis [34]. Obese women typically have more adipose tissue between their breast ducts than normal-weight women, which might hinder the appropriate flow of milk. Many women can decide to stop breastfeeding for personal reasons in addition to these health issues. A survey of 250 women was utilised in a Hong Kong research to determine why first-time moms decided not to breastfeed [36]. The findings revealed a range of individual, cultural, societal, and environmental elements that affected the decision to breastfeed.Table1 get into detail about the many individual circumstances that affect a person's decision to breastfeed. The bond between the mother and the child was overwhelmingly cited by the women as one of the most significant personal variables that affected their decision to breastfeed . Additionally, 174 women had the opinion that nursing helps them feel important, highlighting the function of breastfeeding in boosting self-efficacy. The mother's knowledge and attitude towards nursing as well as the presence or absence of the husband's support were two important variables that affected feeding [36].

Table .1 For first-time moms, the most important personal variables affecting breastfeeding.

Factors	Agree, n (%)	Neither, n (%	Disagree, n (%)
1. I would feel embarrassed if someone saw me breastfeeding	161 (70)	15 (6.5)	54 (23.5)
2. Breastfeeding is inconvenient	127 (55.2)	21 (9.1)	82 (35.7)
3. Breastfeeding makes me feel run down	112 (48.7)	47 (20.4)	71 (30.9)
4. If I knew more about breastfeeding, I would breastfeed	154 (67)	22 (9.6)	54 (23.4)
5. I am not producing good quality milk	28 (12.2)	69 (30)	133 (57.8)
6. Breastfeeding is economical	199 (86.6)	6 (2.6)	25 (10.9)

7. Breastfeeding is enjoyable	62 (26.9)	75 (32.6)	93 (40.5)
8. Breastfeeding makes the baby closer to me	221 (96.1)	4 (1.7)	5 (2.1)
9. Breastfeeding makes me feel important	175 (76)	26 (11.3)	29 (12.6)
10. Insufficient breast milk is a barrier to breastfeeding	156 (67.9 }	32 (13.9)	42 (18.2)
11. I do not think I know enough about breastfeeding	154 (66.9)	36 (15.7)	40 (17.4)
12. Breastfeeding is difficult	83 (36)	46 (20)	101 (43.9)
13. Breastfeeding makes my breasts sag	74 (32.1)	80 (34.8)	76 (33.1)
14. The physical pain and discomfort associated with breastfeeding have discouraged my decision to breastfeed	81 (35.2)	34 (14.8)	115 (50)

According to a self-reporting research carried out in Arkansas, many women decide not to breastfeed due to a lack of support [37]. This can be due to the hospital not instructing the woman how to breastfeed or domestic support-related issues [38,39]. According to Table Table11, 67% of the surveyed mothers did not breastfeed because they lacked the necessary knowledge [36]. Numerous studies identify inadequate processes and policies as the main factor contributing to reduced breastfeeding rates, and demand more individualised help inside the hospital.

Conclusions.

The extensive literature review provides a summary of the pertinent research looking at how breastfeeding affects the mental health of mothers. Studies constantly demonstrate that breastfeeding has a wealth of advantages for both the mother and the child. Exclusive nursing boosts a mother's self-efficacy and guards against postpartum depressive symptoms. Breastfeeding may shield the mother and child from a variety of chronic illnesses. Additionally, nursing improves the mother-child bond and lessens maternal tiredness by encouraging a healthy sleep-wake cycle. These advantages highlight how crucial breastfeeding is to protecting the mother's mental health. The main take away from this review is the benefits that effective breastfeeding has on the mother's psychological wellbeing. Second, early detection of depression will enable moms to seek assistance and maybe postpone the end of nursing. The existing support systems also require improvement. The absence of individualised care, training, and support for women seeking to breastfeed was emphasised in several papers included in this study. Theoretically, addressing these issues could encourage more breastfeeding among moms and reduce the occurrence of postpartum depression.

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