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HOW BREASTFEEDING PROTECTS AND BENEFITS WOMEN: A NARRATIVE REVIEW

COMO A AMAMENTAÇÃO PROTEGE E BENEFICIA A MULHER: UMA REVISÃO NARRATIVA

CÓMO LA LACTANCIA MATERNA PROTEGE Y BENEFICIA A LAS MUJERES: UNA REVISIÓN NARRATIVA

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Abstract

Background: Breastfeeding is widely recognized for its multiple benefits for newborns, however, its positive effects on women's health have historically been underestimated both in scientific literature and in clinical practice. Objective: Identify the physical, emotional and social benefits that breastfeeding brings to women's health. Methodology: A bibliographic search was carried out in the PubMed and EBSCOhost databases between March and April 2025, using the descriptors "breastfeeding", "women's health", "disease prevention", "health benefits" and "lactation", combined using Boolean operators. Initially, 88 articles were identified. After applying the inclusion and exclusion criteria, 8 studies were selected for full reading and critical analysis. Results: They indicate that breastfeeding is associated with a significant reduction in the risk of breast and ovarian cancer improved cardiovascular health weight control in the puerperal period and a reduced risk of metabolic diseases. Psychological benefits have also been identified, such as the prevention of postpartum depression, the strengthening of the emotional bond with the newborn and greater emotional stability. Conclusion: Promoting breastfeeding not only benefits the baby but is also an effective maternal health promotion and prevention strategy. Recognizing and publicizing these benefits is essential for empowering women in their decision-making. promoting health equity and guiding public policies focused on women's well-being.

Keywords: Benefit-Risk Assessment; Breast Feeding; Disease Prevention; Lactation; Women's Health.

Resumo

Enquadramento: A amamentação é amplamente reconhecida pelos seus múltiplos benefícios para os recém-nascidos, no entanto, os seus efeitos positivos na saúde da mulher têm sido historicamente subestimados, tanto na literatura científica como na prática clínica. Obietivo: Identificar os benefícios físicos, emocionais e sociais que o aleitamento materno proporciona à saúde da mulher Metodologia: Foi realizada uma pesquisa bibliográfica nas bases de dados PubMed e EBSCOhost, entre março e abril de 2025, utilizando os descritores "breastfeeding". "women's health", "disease prevention", "health benefits" e "lactation", combinados através de operadores booleanos. Inicialmente, foram identificados 88 artigos. Após a aplicação dos critérios de inclusão e exclusão, foram selecionados 8 estudos para leitura. integral e análise crítica. Resultados: Indicam que a amamentação está associada a uma redução significativa do risco de cancro da mama e do ovário, melhoria da saúde cardiovascular, controlo do peso no período puerperal e diminuição do risco de doenças metabólicas. Foram ainda identificados benefícios psicológicos, como a prevenção da depressão pós--parto, o fortalecimento do vínculo afetivo com o recém-nascido e uma maior estabilidade emocional. Conclusão: Promover a amamentação não beneficia apenas o bebé, mas constitui também uma estratégia eficaz de promoção e prevenção em saúde materna. Reconhecer e divulgar estes benefícios é essencial para empoderar as mulheres nas suas decisões, promover a equidade em saúde e orientar políticas públicas centradas no bem-estar feminino.

Palavras-chave: Aleitamento Materno; Avaliação do Benefício-Risco; Lactação; Prevenção de Doenças; Saúde da Mulher.

Resumen

Antecedentes: La lactancia materna es ampliamente reconocida por sus múltiples beneficios para los recién nacidos; sin embargo, sus efectos positivos sobre la salud de la mujer han sido históricamente infravalorados, tanto en la literatura científica como en la práctica clínica. Objetivo: Identificar los beneficios físicos, emocionales y sociales que la lactancia materna aporta a la salud de la mujer Metodología: Se realizó una búsqueda bibliográfica en las bases de datos PubMed y EBSCOhost entre marzo y abril de 2025, utilizando los descriptores "breastfeeding", "women's health", "disease prevention", "health benefits" y "lactation", combinados mediante operadores booleanos. Inicialmente se identificaron 88 artículos. Tras aplicar los criterios de inclusión y exclusión se seleccionaron 8 estudios para su lectura completa y análisis crítico. Resultados: Indican que la lactancia materna se asocia a una reducción significativa del riesgo de cáncer de mama y ovario, a una meiora de la salud cardiovascular, al control del peso en el periodo puerperal y a un menor riesgo de enfermedades metabólicas. También se han identificado beneficios psicológicos, como la prevención de la depresión posparto, el fortalecimiento del vínculo afectivo con el recién nacido y una mayor estabilidad emocional. Conclusión: Promover la lactancia materna no sólo beneficia al bebé, sino que también es una estrategia eficaz de promoción y prevención de la salud materna. Reconocer y divulgar estos beneficios es esencial para empoderar a las mujeres en su toma de decisiones, promover la equidad sanitaria y orientar las políticas públicas centradas en el bienestar de la mujer.

Descriptores: Evaluación Beneficio-Riesgo; Lactancia; Lactancia Materna; Prevención de Enfermedades; Salud de la Mujer.

Introduction

Breastfeeding is widely recognized for its positive effects on the health and development of newborns. The World Health Organization (WHO) recommends exclusive breastfeeding until six months of age and its continuation, with appropriate complementary feeding, until two years of age or beyond, due to the widely proven immunological, nutritional, and emotional benefits for the infant⁽¹⁾.

Traditionally, the approach to breastfeeding has focused on its benefits for the baby, relegating the positive impacts on women's health to the background. This gap is evident in both scientific research and public health campaigns, which rarely highlight the role of breastfeeding in promoting women's physical and psychological well-being⁽²⁾. In addition, many health professionals still underestimate the preventive role of breastfeeding in women's lives⁽³⁾.

In recent years, scientific literature has highlighted several benefits of breastfeeding for women's health, demonstrating that this natural practice contributes significantly to the prevention of chronic diseases, hormonal regulation, emotional balance, and postpartum recovery^(4,5). Breastfeeding is also associated with a reduction in common postpartum morbidities, such as uterine hemorrhage and anemia⁽⁶⁾.

In addition to the nutritional benefits for infants, breastfeeding provides physiological and functional advantages for women in the postpartum period. The practice is associated with a lower incidence of osteoporosis and fractures, especially among women who breastfeed for prolonged periods⁽⁵⁾. It also contributes to a return to pre-pregnancy weight through the mobilization of energy reserves accumulated during pregnancy⁽²⁾.

The protective role of breastfeeding in preventing chronic diseases has also been widely discussed. Studies point to a significant reduction in the risk of developing breast and ovarian cancer, type 2 diabetes, high blood pressure, and cardiovascular disease^(4,7). These positive effects go beyond the physical realm, extending to emotional well-being and the promotion of emotional bonds⁽⁸⁾.

From a psychological perspective, breastfeeding has been shown to reduce cortisol levels, contributing to a less anxious and more secure maternal experience⁽⁶⁾. This benefit is associated with hormonal regulation promoted by the release of oxytocin during lactation⁽⁴⁾. Skin-to-skin contact during breastfeeding further strengthens the mother-baby bond, amplifying the positive effects on maternal mental health⁽²⁾.

The relationship between breastfeeding and a lower risk of breast cancer has been well documented in the literature. Studies indicate that each additional 12 months of breastfeeding can reduce the risk by between 4% and $5\%^{(9)}$. This protection appears to be even greater in women with a family history of the disease⁽¹⁰⁾.

In terms of population, breastfeeding for one or two years per child can prevent thousands of breast cancer deaths annually⁽⁹⁾. Thus, breastfeeding should be understood not only as an act of childcare, but also as a powerful preventive health tool for women⁽³⁾.

Maternal cardiovascular health also benefits from breastfeeding. Women who breastfeed have a lower risk of developing cardiac events, such as heart attacks and strokes, especially when they continue breastfeeding for more than six months⁽¹¹⁾. The release of hormones with vasodilatory and anti-inflammatory properties during breastfeeding, such as oxytocin, has been identified as one of the mechanisms responsible for this protection⁽¹²⁾.

Despite robust scientific evidence, there is still a large gap in social perception regarding the positive effects of breastfeeding for women. Only 24% of adults in the United States recognize breastfeeding as a factor in reducing breast cancer, and even fewer associate it with the prevention of hypertension or diabetes⁽³⁾. This reveals the urgency for broader and more inclusive educational strategies that also value women as direct beneficiaries of breastfeeding⁽¹³⁾.

Broadening the view of breastfeeding beyond its benefits for infants is essential to strengthen public policies and health actions that truly consider women's needs and well-being⁽⁸⁾. This narrative review aims to gather and organize the main scientific findings on the benefits of breastfeeding for maternal health as a way

to encourage more equitable, conscious, and evidence-based practices $^{(7)}$.

This narrative review aimed to identify the physical, emotional, and social benefits that breastfeeding provides to women's health.

Methodology

To conduct the review, a literature search was performed in the PubMed and EBSCOhost (MEDLINE and CINAHL) databases. The search strategy used the descriptors "breastfeeding," "lactation," "women's health," "disease prevention," and "health benefits," combined with the Boolean operators 'AND' and "OR" to broaden the scope and specificity of the results.

Studies published in the last five years, written in English, Spanish, or Portuguese, with free access and full text available, were included. Eligible articles should directly address the effects of breastfeeding on women's health, including physical, metabolic, psychological, or social benefits.

Initially, 88 articles were identified. After applying the inclusion and exclusion criteria, 25 studies remained, of which 5 were discarded due to duplication. Next, the titles and abstracts were read, resulting in the exclusion of 12 articles for not meeting the objectives of the review.

Thus, eight articles were selected for full reading and critical analysis. The exclusion criteria considered studies that addressed exclusively the benefits of breastfeeding for the baby, those that dealt only with breastfeeding practices without association with maternal health, and publications with full text unavailable or in languages other than those previously defined.

Development

Breastfeeding has traditionally been promoted for its benefits to infant health; however, the most recent scientific evidence consistently shows that its protective effects also extend to maternal health, making it a practice of high preventive value throughout a woman's life cycle^(7,8,11). This narrative review integrates relevant findings from contemporary research addressing the physical, emotional, and social benefits of breastfeeding on women's health.

1. Public awareness and information barriers

Although scientific evidence on the positive effects of breastfeeding on women's health has increased in recent years, social perception remains focused almost exclusively on its benefits for infants⁽³⁾. This limited view not only restricts the recognition of breastfeeding as a preventive tool for chronic diseases in women, but also negatively affects its promotion and maintenance over time⁽¹³⁾. Consequently, many public health strategies, although well-intentioned, perpetuate a baby-centered approach, neglecting the overall health of women⁽⁸⁾.

One of the most relevant studies illustrating this gap was conducted in the United States, with more than 7,000 adults surveyed between 2018 and 2021. The results indicated that only 24% of the population recognized that breastfeeding reduces the risk of breast cancer, a mere 15% associated it with the prevention of hypertension, and only 16% with the prevention of type 2 diabetes⁽³⁾. These percentages did not improve between the two years, suggesting stagnation in the effective dissemination of maternal benefits⁽⁷⁾. On the other hand, recent research has shown that these information gaps tend to be more pronounced in certain population groups, such as men, older people, and individuals with lower levels of education, which reinforces existing inequalities in public health⁽⁸⁾.

This same lack of information is observed among pregnant women themselves. A study conducted by Iwuagwu et~al~(2024) with 451 nulliparous pregnant women revealed that only 50% knew that breastfeed-

ing is associated with a lower probability of developing breast cancer, while only 35% knew its role in preventing ovarian cancer. Similarly, only 27% associated it with a reduced risk of type 2 diabetes and 26% with improved cardiovascular health $^{(13)}$. These results reflect a significant information gap, even in contexts where more active health education would be expected, such as during prenatal care $^{(14)}$.

The most worrying aspect is that this lack of knowledge has direct consequences on women's decisions. Participants with a higher level of knowledge about maternal benefits showed a significantly higher intention to prolong breastfeeding for at least 12 months⁽¹³⁾. This positive relationship remained even after controlling for sociodemographic variables, reinforcing the importance of integrating specific content on maternal health into educational interventions⁽⁷⁾. In addition, recent studies have shown that the longer the cumulative duration of breastfeeding, the greater its benefits in reducing the risk of diseases such as cardiovascular disease and certain types of cancer⁽¹¹⁾.

As future nurses specializing in maternal and obstetric health, we consider it a priority to empower women with clear, accessible, and evidence-based information, especially during sensitive stages such as pregnancy and the postpartum period⁽¹²⁾. However, most institutional and community campaigns continue to focus their messages on the benefits for the baby, without properly highlighting the value of breastfeeding for women's health⁽⁸⁾.

This invisibility is not only unfair, but also counterproductive, as it prevents many women from perceiving breastfeeding as an investment in their own health. Countries with more active policies to promote breastfeeding, such as Australia, have achieved better breastfeeding rates and a lower burden of preventable diseases, in contrast to countries such as the United Kingdom, where low recognition of these benefits is associated with higher rates of diseases such as breast cancer⁽¹⁰⁾. Health education, therefore, must be accompanied by multisectoral actions involving health institutions, educational establishments, the media, and work environments⁽¹⁴⁾.

The inclusion of a more comprehensive approach to the effects of breastfeeding would improve not only the design of information campaigns but also the follow-up provided by health services⁽⁸⁾. Recognizing breastfeeding as a preventive strategy for women's health is essential to moving toward a truly comprehensive model of care⁽⁷⁾.

2. Cardiovascular protection

One of the most consistent pieces of evidence in recent scientific literature on the benefits of breastfeeding for maternal health relates to its protective role against cardiovascular disease. Data indicate that breastfeeding is associated with a lower incidence of events such as coronary heart disease, stroke, and cardiovascular mortality⁽¹¹⁾. This relationship has been highlighted in large-scale studies, which lends statistical robustness to the conclusions⁽⁷⁾.

One of the most comprehensive systematic reviews conducted to date analyzed data from more than 1,192,000 women with obstetric histories. About 82% of these women had breastfed at some point, and after a median follow-up of more than ten years, an 11% reduction in the overall risk of cardiovascular disease was identified among those who breastfed, in addition to a 14% reduction in coronary heart disease, 12% in strokes, and 17% in cardiovascular mortality⁽¹¹⁾. This review included studies from different regions of the world, which reinforces its applicability to different populations⁽⁸⁾.

The protective effect is most evident in the first few years after childbirth, especially during the first year, when the mother's body is still undergoing intense physiological adjustments. This phenomenon has also been analyzed from a metabolic point of view, given that breastfeeding promotes organic recovery, including the regulation of the endocrine and cardio-vascular systems⁽⁷⁾. It has also been observed that the cardiovascular benefits associated with breastfeeding tend to stabilize between 12 and 48 months of cumulative duration⁽¹²⁾.

The physiological mechanisms proposed to explain these effects include the mobilization of visceral fat, the regulation of lipid and glucose levels, and improved insulin sensitivity. These functions are partially mediated by hormones such as oxytocin, which participates in milk ejection and has anti-inflammatory, vasodilatory, and cardioprotective properties⁽⁸⁾. Prolactin, in turn, plays a role in regulating vascular tone and may influence blood pressure control⁽¹²⁾.

The relationship between breastfeeding and cardiovascular health also follows a response pattern. For every additional six months of breastfeeding per child, there is an estimated 4% reduction in the risk of coronary heart disease and a 3% reduction in the risk of stroke⁽¹¹⁾. These data support the promotion of prolonged breastfeeding not only as a nutritional practice, but as a concrete tool for the prevention of chronic diseases⁽⁷⁾.

Although most studies focus on women of reproductive age, it has also been observed that cardio-vascular benefits persist after menopause. In women who have previously breastfed, lower arterial stiffness and improved endothelial function have been observed, reinforcing the hypothesis that breastfeeding may have lasting vasoprotective effects⁽¹¹⁾. This finding is consistent with research conducted in Asia, where lower rates of hypertension were reported in women who breastfed for at least 12 months⁽¹⁴⁾.

In addition to physiological mechanisms, the educational component plays a key role. Generalized ignorance about the cardiovascular benefits of breastfeeding can affect women's motivation to continue this practice, especially if they do not perceive themselves as direct beneficiaries⁽¹³⁾. For this reason, integrating this information into prenatal education programs is essential to reinforce adherence⁽³⁾.

The available evidence strongly supports the need to include these benefits in breastfeeding promotion strategies. Health teams, especially nurses, should highlight its preventive potential in the context of perinatal education, making breastfeeding visible as an effective intervention against one of the main causes of female morbidity⁽⁸⁾. At the structural level, public policies should recognize breastfeeding as an essential component of women's cardiovascular health throughout their life cycle⁽¹⁰⁾.

3. Cancer benefits: protection against cancer

One of the most significant benefits of breastfeeding for maternal health is the prevention of cancer⁽⁷⁾. The most recent evidence has shown that breastfeeding significantly reduces the risk of developing certain types of cancer in women, namely breast cancer and ovarian cancer⁽¹⁰⁾. Despite these findings, public awareness of these benefits remains limited, which may negatively influence women's decisions regarding breastfeeding⁽³⁾.

One of the most well-documented protective effects of breastfeeding is the reduced risk of breast cancer⁽¹⁰⁾. For every 12 months of breastfeeding, the risk decreases by about 4.3%, with an additional 7% reduction for each birth⁽⁷⁾. This protection applies not only to the most common types of breast cancer, but also to more aggressive forms, such as triple-negative breast cancer, with a risk reduction of around 20%⁽¹³⁾. In women with BRCA1 gene mutations, breastfeeding can reduce the risk of this type of cancer by between 22% and 50%, making it a high-impact preventive measure⁽³⁾.

The biological mechanisms that explain this protection include decreased levels of circulating estrogen⁽¹⁰⁾, greater cellular differentiation of breast tissue induced by breastfeeding⁽⁷⁾, and a reduction in the number of ovulatory cycles⁽³⁾. In addition, breast involution that occurs after weaning facilitates the elimination of cells with mutagenic potential⁽¹³⁾, thus reinforcing the role of breastfeeding as a protective factor against cancer⁽¹⁰⁾.

Breastfeeding has also been associated with a lower incidence of ovarian cancer⁽¹³⁾. This association is mainly due to the suppression of ovulation during breastfeeding⁽⁷⁾, which reduces the repeated exposure of the ovarian epithelium to damage that can lead to cancerous mutations⁽³⁾. The longer the duration of breastfeeding, the greater the protective effect observed⁽¹⁰⁾.

Despite this evidence, awareness of the cancer benefits of breastfeeding remains insufficient $^{(13)}$. In a national survey conducted in the United States, only 24% of adults believed that breastfeeding reduces the risk of breast cancer $^{(3)}$. This information gap is also evident among pregnant women, of whom only 50% were aware of this benefit $^{(7)}$, and less than 35% were aware of its protective effect against ovarian cancer $^{(10)}$.

This information gap has significant implications⁽³⁾. Women with greater knowledge about the benefits of breastfeeding for their own health show a stronger intention to breastfeed⁽¹³⁾ and plan to do so for at least 12 months, in line with the recommendations of international health organizations⁽⁷⁾.

Therefore, it is essential that strategies to promote breastfeeding include clear and accessible information about its benefits in cancer prevention⁽¹³⁾. Prenatal counseling should emphasize these aspects⁽³⁾, especially for women with risk factors such as a family history of cancer or predisposing genetic mutations⁽¹⁰⁾. The implementation of well-structured educational campaigns may not only increase breastfeeding rates⁽⁷⁾ but also contribute to reducing the burden of cancer in the female population⁽¹³⁾.

4. Postpartum recovery and bone health

Breastfeeding not only benefits women's overall well-being but also contributes directly to their physiological recovery after childbirth, facilitating key processes such as uterine involution and the prevention of postpartum hemorrhage⁽⁷⁾. This effect is largely due to the release of oxytocin induced by infant suckling—a hormone responsible for uterine contractions that help restore the size of the uterus and reduce bleeding⁽⁸⁾. This hormonal activation also has positive implications for the regulation of vascular tone, promoting a safer recovery of the reproductive system⁽¹²⁾.

Scientific evidence also points to a possible link between breastfeeding and long-term bone health. Although calcium is mobilized from the mother's bones during lactation, this phenomenon tends to be temporary and is subsequently compensated for by greater efficiency in intestinal calcium absorption⁽⁷⁾. As long as women maintain a diet rich in calcium and vitamin D, bone density may even increase after weaning⁽⁸⁾.

Longitudinal studies suggest that this physiological adaptation may have a protective effect against postmenopausal osteoporosis, although this effect depends on factors such as the duration of breastfeeding and the woman's nutritional status⁽¹¹⁾. Hormonal modulation during this period also plays an important role: during lactation, estrogen levels decrease, which may initially accelerate bone loss, but after breastfeeding ends, there is a significant recovery in bone mass⁽⁷⁾.

On the other hand, breastfeeding affects female body composition, since the high energy expenditure associated with milk production facilitates the mobilization of fat accumulated during pregnancy, especially in the abdominal area⁽⁸⁾. This process promotes weight loss in the postpartum period and improves metabolic parameters such as insulin resistance and lipid profile—factors directly related to better bone health⁽¹⁴⁾.

In addition, oxytocin not only acts on the uterus, but also has anti-inflammatory and vasodilatory properties, which contribute to more efficient tissue regeneration after childbirth⁽¹²⁾. This hormone has also been associated with psychological benefits, such as reduced anxiety and stress—factors that directly influence pain perception and the emotional experience of recovery⁽¹³⁾. Thus, the combination of physical and emotional well-being makes breastfeeding a comprehensive postnatal strategy⁽³⁾.

However, lack of awareness of these effects among women remains a significant barrier. Less than 30% of pregnant women surveyed in the United States knew that breastfeeding could reduce systemic inflammation or promote uterine recovery⁽¹³⁾. This information gap limits informed decision-making and can lead to early cessation of breastfeeding, especially when women

experience fatigue or difficulties in the postpartum $period^{(3)}$.

In summary, the benefits of breastfeeding on postpartum recovery and bone health represent a crucial opportunity to promote women's overall health. These effects are based on physiological, hormonal, and metabolic mechanisms, which should be actively integrated into prenatal education and clinical follow-up⁽⁸⁾. Investing in effective lactation support can translate into a better quality of life in the long term and a reduction in the chronic risks associated with the postnatal period⁽⁷⁾.

5. Mental and emotional health

In addition to its biological function, breastfeeding plays a key role in women's emotional well-being during the postpartum period. Several studies show that breastfeeding has a direct positive impact on maternal mental health. One of the most significant effects is the reduction in the risk of postpartum depression, associated with the release of oxytocin during suckling—a hormone that promotes relaxation, reduces anxiety, and strengthens the emotional bond⁽⁸⁾. This hormonal effect can also influence emotional balance, especially in times of high psychological and physical stress⁽¹²⁾.

Another protective mechanism is the reduction in cortisol levels, which contributes to better stress regulation and a more effective emotional response to the challenges of the postpartum period⁽¹¹⁾. This endocrine response acts as a natural modulator of emotions, allowing many mothers to face intensive care for newborns with greater serenity⁽¹⁴⁾. This effect becomes even more relevant in contexts of psychosocial stress or lack of family support.

It has also been observed that breastfeeding women tend to have better sleep quality, even with frequent nighttime awakenings. The hormones associated with breastfeeding—such as prolactin and oxytocin—have a sedative effect, promoting deeper and more restful sleep⁽¹³⁾. This not only contributes to physical recovery, but also reduces the risk of persistent fatigue and improves overall mood⁽³⁾.

With regard to the mother-baby bond, breastfeeding plays a central role in building secure attachment. Skin-to-skin contact, eye contact, and emotional interaction during breastfeeding strengthen maternal empathy and sensitivity to the baby's needs⁽¹⁰⁾. This process reinforces positive perceptions of the maternal role and satisfaction with the parenting experience⁽⁸⁾.

In addition, breastfeeding has been associated with higher maternal self-esteem. Women who breastfeed tend to feel more confident and competent in their ability to care for and nurture their children, which translates into a more positive emotional experience, especially in situations of vulnerability or early motherhood⁽⁷⁾. This perception of efficacy and personal value acts as an important protective factor against depressive or anxious states⁽³⁾.

Finally, some studies suggest that the emotional benefits of breastfeeding may extend beyond the postpartum period. It has been pointed out that the experience of breastfeeding leaves a lasting hormonal and emotional mark, which can contribute to greater mood stability in later stages of life⁽¹⁴⁾. This evidence broadens the understanding of breastfeeding not only as a nutritional or immunological practice, but also as a transformative psychosocial experience for women's mental health.

6. Metabolic health: mixed results

The relationship between breastfeeding and women's metabolic health has been attracting growing interest in recent years, especially with regard to metabolic syndrome and its components, such as abdominal obesity, dyslipidemia, and insulin resistance⁽⁸⁾. During the postpartum period, breastfeeding has been observed to stimulate the mobilization of lipid reserves accumulated during pregnancy, thus contributing to the restoration of maternal energy balance⁽⁷⁾. This mobilization is associated with improved insulin sensitivity and reduced triglycerides, which favors the prevention of metabolic diseases⁽¹¹⁾.

However, some results are less conclusive regarding long-term effects. In a study of more than 14,000 postmenopausal Korean women, a higher prevalence of metabolic syndrome was initially observed among those who had breastfed. However, after adjusting for age, body mass index, lifestyle habits, and educational level, this association was no longer statistically significant, suggesting that the effect of breastfeeding may not be autonomous in older women⁽¹⁴⁾. These data point to the importance of considering aging and social determinants of health as variables that modulate the metabolic benefits of breastfeeding⁽⁸⁾.

However, in earlier stages of the reproductive cycle, the benefits appear to be more consistent. Exclusive breastfeeding for more than six months is associated with less visceral fat accumulation and better blood glucose regulation, especially in women with a history of gestational diabetes⁽⁷⁾. This positive effect tends to diminish over time since the last birth, supporting the hypothesis of a dose-response relationship dependent on the stage of the life cycle⁽¹¹⁾.

Hormonal mechanisms also play a key role. Hormones present in breast milk, such as leptin and adiponectin, are involved in regulating appetite, energy balance, and insulin function, influencing not only the baby but also maternal physiology⁽⁸⁾. In addition, breastfeeding contributes to the reduction of low-grade chronic inflammation, a key process in the etiology of metabolic syndrome and cardiovascular disease⁽¹¹⁾.

Despite these findings, social awareness of the metabolic benefits of breastfeeding remains limited. Only 16% of adults in a study conducted in the United States recognized its role in preventing type 2 diabetes⁽³⁾. Similarly, only 27% of pregnant women surveyed were aware of this benefit, reflecting a worrying disconnect between scientific evidence and public perception⁽¹³⁾. This gap may affect motivation to initiate or continue breastfeeding, especially among women who do not recognize direct benefits to their own health⁽³⁾.

Current research also has methodological limitations. Many studies are retrospective in nature and rely on mothers' recollections, which can introduce bias⁽⁷⁾. In addition, metabolic diseases have a multifactorial etiology, making it difficult to establish causal

relationships without considering genetic, social, and behavioral factors $^{(14)}$.

Therefore, it is necessary to promote multicenter longitudinal studies that analyze the impact of breast-feeding on maternal metabolic health over time and throughout the life cycle⁽¹¹⁾. This type of research will provide a clearer understanding of the contexts in which breastfeeding acts as a protective factor and how to integrate this data into practical recommendations adapted to different cultural realities⁽¹³⁾.

7. Social and public health implications

Breastfeeding goes beyond individual physiological benefits, playing a strategic role in public health and public policies aimed at women's well-being. Recent studies show that women who breastfeed have a significantly lower demand for health services due to a lower incidence of diseases such as hypertension, type 2 diabetes, and gynecological cancers, which translates into a lower burden on health systems⁽⁷⁾. Similarly, the reduced need for medication and cancer treatments, such as chemotherapy, results in lower hospital costs and public health expenditure⁽¹⁴⁾.

From a socioeconomic perspective, breastfeeding also has a positive impact. The fact that breast milk is always available, free, sterile, and requires no preparation makes mothers' routines easier and allows for significant savings in the family budget and in the purchase of artificial formulas⁽⁸⁾. This characteristic is especially relevant in contexts of social vulnerability, where breastfeeding may be the main source of safe nutrition for both the baby and the woman⁽¹³⁾.

Despite these benefits, social perception of the positive effects of breastfeeding on women's health remains limited. Only a minority of the population identifies breastfeeding as a protective factor against breast cancer or type 2 diabetes, reflecting a worrying information gap⁽³⁾. This lack of knowledge has a direct impact on exclusive breastfeeding rates, which remain below the recommended levels, even in countries with well-structured public policies, such as Brazil⁽⁹⁾.

Given this scenario, there is an urgent need to strengthen health awareness and education campaigns that integrate not only the benefits for the baby, but also the positive effects for the mother. Measures such as including this topic in birth plans, training health professionals on the maternal benefits of breastfeeding, and expanding institutional support—for example, by creating breastfeeding rooms in workplaces—are strategies that promote equity and female empowerment⁽²⁾.

Internationally, organizations such as the WHO and UNICEF (United Nations Children's Fund) advocate breastfeeding as a central practice in reproductive health and maternal well-being policies. Programs such as the Baby-Friendly Hospital Initiative promote respectful and educational hospital environments that support mothers from birth⁽¹⁾. In Brazil, initiatives such as the National Breastfeeding Incentive Program have led to important advances, although challenges remain in implementing them equitably and continuously⁽⁵⁾.

Finally, it is essential to understand that breast-feeding should not be viewed solely as a personal choice, but as a social right that requires structural, emotional, and educational conditions for its full exercise⁽¹³⁾. Promoting breastfeeding implies recognizing its value for public health, gender equity, and reproductive justice—fundamental pillars of a truly woman-centered model of care⁽⁸⁾. These principles can only be realized with the active commitment of public policies, health institutions, and professional teams⁽⁷⁾. In this context, the role of obstetric nurses is essential, not only in promotion and education, but also in creating spaces of care where every woman can experience breastfeeding in an informed, free, and respected manner⁽²⁾.

Final considerations

The analysis carried out throughout this narrative review allowed us to recognize that breastfeeding is not only a fundamental tool for the health and development of newborns, but also a powerful strategy for promoting and preventing maternal health. Although most institutional discourse and public health campaigns continue to focus their messages on child welfare, current scientific evidence clearly demonstra-

tes that women also obtain substantial benefits from breastfeeding.

The studies analyzed consistently show that breast-feeding contributes to reducing the risk of chronic diseases in women, such as breast and ovarian cancer, cardiovascular disease, metabolic syndrome, and type 2 diabetes. It is also associated with better postpartum recovery, greater emotional stability, lower risk of depression, and strengthening the emotional bond with the newborn. All of this reinforces the value of breastfeeding as a holistic experience with a positive impact on women's physical, emotional, hormonal, and social health.

However, significant gaps remain in public perception and access to this information. Many women are unaware of the benefits that breastfeeding can bring them, which limits their ability to make informed decisions and reduces the likelihood of initiating or maintaining this practice for the recommended duration. This lack of information may be related to a historically baby-centered approach, which has rendered mothers invisible as active subjects of health, rights, and knowledge.

As future nurses specializing in maternal and obstetric health, we firmly believe that our role should not be limited to clinical care but should also extend to education and emotional support. Promoting a broader view of breastfeeding means recognizing women as active protagonists of their own health, respecting their needs, their rhythms, and their context. It is also essential to create care, work, and social environments that respect and encourage this practice, from a perspective of informed freedom rather than imposition.

We firmly believe that promoting breastfeeding should be a shared responsibility between public policy, healthcare systems, educational institutions, and the media. The active participation of midwives in this process is essential to transforming realities, empowering women, and generating sustainable change.

Breastfeeding is, first and foremost, a natural act that we share with other mammals, a biological function vital to the survival of the species. However, in humans, this practice transcends instinct: it is also an act of love, bonding, and deeply human care. At the same time, it is a health strategy supported by the most solid scientific knowledge, a right that must be guaranteed, and a fundamental pillar in building maternal and child well-being. When women are listened to, informed, and accompanied with respect, breastfeeding becomes a free, fulfilling, and transformative experience.

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