

## Breastfeeding Support and Infant Health Outcomes: A Narrative Review of Current Policies

Okoye Chinelo U<sup>1\*</sup>; Ayilara Olabode P<sup>2</sup>; Nnedu Chidera V<sup>1</sup>; Enechi Chiamaka O<sup>1</sup>; Ikpeseni Alexander N<sup>3</sup>; Chime Oluchukwu E<sup>4</sup>; Nduka Ugochi C<sup>5</sup>; Ogunlade Titilope A<sup>6</sup>

<sup>1</sup>Department of Nutrition and Dietetics, University of Nigeria, Nsukka, Nigeria.

<sup>2</sup>Department of Anatomy, Ladoke Akintola University of Technology, Ogbomoso, Nigeria.

<sup>3</sup>Department of Medicine and Surgery, Delta State University, Abraka, Nigeria.

<sup>4</sup>Department of Management Infrastructure, Barnsley Hospital, NHS Foundation Trust, England.

<sup>5</sup>Department of Guidance and Counseling, University of Abuja, Nigeria.

<sup>6</sup>Department of Public Health, University of Ibadan, Oyo State, Nigeria.

### Corresponding Author: Okoye Chinelo U

Department of Nutrition and Dietetics, University of Nigeria, Nigeria.

Tel: +234 8085898116;

Email: chinelo.okoye.200729@unn.edu.ng

### Article Information

**Received:** Jun 18, 2024

**Accepted:** Jul 16, 2024

**Published:** Jul 23, 2024

SciBase Human Nutrition & Food Science - [scibasejournals.org](https://scibasejournals.org)

Chinelo UO et al. © All rights are reserved

**Citation:** Chinelo UO, Olabode PA, Chidera VN, Chiamaka OE, Alexander NI, et al. Breastfeeding Support and Infant Health Outcomes: A Narrative Review of Current Policies. SciBase Hum Nutr Food Sci. 2024; 1(1): 1001.

### Abstract

**Background:** Breastfeeding is recognized as the ideal feeding choice for early and later-life health benefits to the child by providing proper nutrition and protection from infections, diarrhea, diseases and building healthy maternal infant attachment. The objective of this review is to examine the various breastfeeding support regulations and their impacts on infant health, with a view to identifying best practices and potential policy enhancements.

**Methods:** A literature search was conducted to identify applicable studies examining the impact of breastfeeding support policies on infant health outcomes. Electronic databases, including PubMed, Google Scholar, the Cochrane Library and Embase, were searched using relevant keywords for articles published up to April 2024. The following search terms were employed: “breastfeeding support regulations”, “breastfeeding policies”, “infant health outcomes”, and closely related variations. The search was restricted to articles published in English.

**Discussion:** Studies reveal that policies such as the Baby Friendly Hospital Initiative (BFHI), employment of certified lactation consultants, community-based peer support groups, home visiting programs, workplace accommodations for breastfeeding mothers, and public health campaigns encourage breastfeeding. through practices such as rooming-in and on-demand feeding. These policies influence infant health outcomes by ensuring that they receive breast milk which provides the nutritionally balanced diet necessary for growth and development. Certain challenges like cultural beliefs and myths about breastfeeding, and lack of work place support may discourage women from exclusively breastfeeding their infants.

**Conclusion:** Providing breastfeeding support policies is critical to enhancing infant health by promoting and sustaining breastfeeding practices. Addressing the disparities require a multi-faceted approach that includes improving access and equity, improving support in the workplace, overcoming cultural and social barriers, and ensuring consistent and comprehensive training for healthcare providers.

**Keywords:** Breastfeeding support; Exclusive breastfeeding; Breastfeeding policy; Infant health.

**Abbreviations:** MPINC: Maternity Practices in Infant Nutrition and Care; BFHI: Baby Friendly Hospital Initiative; SIDS: Sudden Infant Death Syndrome.

## Introduction

Breastfeeding is recognized as the ideal feeding choice for early and later-life health benefits to the child by giving the baby proper nutrition and protection from infections, diarrhea, diseases and building healthy maternal infant attachment [1]. Exclusive breastfeeding, defined as providing only breast milk without the addition of other foods or drinks, is particularly beneficial and recommended during the first six months of life [2]. A study by [3,4] in the recent past laid emphasis on the centrality of multifaceted, pro-breastfeeding policies to the realization of ideal breastfeeding behaviors and accrual of better quality health for infants. This can include policy provisions for maternity leave, provisions for the facilities for women breastfeeding, health promotional campaigns, and services of a professional nature to support breastfeeding. A cluster-randomized trial showed that breastfeeding education and support interventions were effective in encouraging healthy growth of infants [5].

A cross-sectional study of national policies in 49 countries comparing countries that have enacted legislation to promote breastfeeding with those where legislation has not been shown to play a key role in promoting breastfeeding among working women [6]. This includes policies on breastfeeding breaks, flexible working arrangements for new parents and maternity leave. The Centers for Disease Control and Prevention (CDC) researches and supports breastfeeding through the Maternity Practices in Infant Nutrition and Care (MPINC) Survey on Infant Nutrition and Care and the Breastfeeding Report Card. The above resources provide basic data and reference for public health personnel to develop interventions to promote breastfeeding.

A systematic review conducted by [7] shows a consistent positive association between supportive breastfeeding policies and the timing and duration of breastfeeding with beneficial effects on infant health outcomes. Breastfed babies have less likelihood of developing infections, Sudden Infant Death Syndrome (SIDS) and other diseases including obesity and diabetes

in future life [8,9]. To the mothers, they found that breastfeeding can help decrease both type 2 diabetes, breast and ovarian cancer, and postpartum depression [9]. Despite the extensive documentation of its beneficial effects, breastfeeding rates exhibit considerable variation at the regional and population levels, influenced by a complex array of factors including cultural traditions, socioeconomic circumstances, and, notably, the availability of supportive policies and regulations.

The objective of this narrative review is to examine the various breastfeeding support regulations and their impacts on infant health, with a view to identifying best practices and potential policy enhancements. By examining the outcomes of successful policies, this study will offer recommendations for policymakers and healthcare providers to better support breastfeeding mothers and optimize infant health.

## Material and methods

### Literature search strategy

A literature search was done to identify applicable articles examining the impact of breastfeeding support policies on infant health outcomes (Table 1). Electronic databases, including Embase, Google Scholar, PubMed, and the Cochrane Library, were searched using relevant keywords for articles published between April 2019 and April 2024. The following search terms were employed: “breastfeeding support regulations”, “breastfeeding policies”, “infant health outcomes”, and closely related variations. In order to refine the search queries and broaden the scope of relevant articles, Boolean operators (AND, OR) were utilized.

### Selection criteria

The inclusion criteria were defined as studies highlighting breastfeeding support guidelines and their impact on infant health. Policy statements on breastfeeding support programs were considered. Papers that were not related to breastfeeding support and their effect on enhancing or diminishing the health of infants and those not written in English were excluded.

**Table 1:** Methods.

Literature search strategy	
Literature sources	PubMed, Google Scholar, Cochrane Library and Embase
Keywords	“breastfeeding support regulations”, “breastfeeding policies”, “infant health outcomes”
Time frame	April 2019 to April 2024
Selection criteria	
Inclusion criteria	Studies highlighting breastfeeding support guidelines and their impact on infant health
	Policy statements on breastfeeding support programs
	Papers in English Language
Exclusion criteria	Lack of relevance to breastfeeding support guidelines
	Non-English papers
Data extraction and synthesis	
Data extraction	Performed by two independent reviewers
	Discrepancies resolved through discussion and consensus
Result synthesis	Narrative synthesis method
	Thematically organized results based on infant health outcomes

**Table 2:** Summary of reviewed articles.

No.	Authors	Year	Study design	Country	Breastfeeding support regulations	Implications
1	van Dellen, Wisse, Mobach et al. [8]	2019	Quasi-experiment	The Netherlands	Breastfeeding support programs funded by health insurance	Increased breastfeeding duration and exclusivity, improved infant health
2	Barraza, Lebedevitch, & Stuebe [27]	2020	Policy Analysis	United States	Laws supporting workplace accommodations for breastfeeding, such as break time and private spaces for nursing	Improved breastfeeding rates and reduced disparities in infant health
3	Rana, McGrath, Sharma et al. [28]	2021	Systematic Review	United States	Breastfeeding peer counseling support provided through the WIC Program	Improved breastfeeding rates and infant health in low-income populations
4	Vilar-Compte, Pérez-Escamilla, & Ruano [29]	2022	Review Article	Global	National policies aimed at promoting breastfeeding equity through community support programs and education initiatives	Addressing disparities in breastfeeding rates among different demographic groups
5	Meek & Noble [30]	2022	Policy Statement	United States	Promotion through supportive policies such as workplace accommodations and public health campaigns	Improved breastfeeding rates and associated health benefits for infants
6	Walsh, Pieterse, Mishra et al. [9]	2023	Scoping review	Multiple Countries	Implementation of the Baby-Friendly Hospital and Community Initiatives (BFHI and BFCI), including steps for early initiation of breastfeeding and mother support.	These initiatives significantly improve breastfeeding rates and enhances infant health outcomes, emphasizing the need for consistent support at both hospital and community levels
7	Murphy, Carter, Al Shizawi et al. [31]	2023	Prospective cohort study	Ireland	National breastfeeding promotion policies, including public health campaigns and support services	Reduced incidence of infant illnesses among breastfed infants
8	D'Hollander, McCredie, Uleryk et al. [32]	2023	Systematic review and meta-analysis	Multiple Countries	Support provided by lactation consultants through health services	Enhanced breastfeeding rates and improved infant growth outcomes

### Data extraction

To minimize bias, two authors undertook the extraction of the data pertinent to the study, thus guaranteeing that all the data obtained were credible. Following data extraction, the eight chosen studies were analyzed thematically using the narrative synthesis method in order to report the outcomes from the reviewed studies.

### Impact of breastfeeding support policies on infant health

Breastfeeding Support Policies are formulated with an aim of offering mothers with educational, physical, and other forms of help to start and continue with breastfeeding. The Baby-Friendly Hospital Initiative (BFHI), endorsed by World Health Organization (WHO) jointly with United Nations Children Fund (UNICEF) entails ten steps to implement breastfeeding practices including rooming-in along with on demand feeding [10]. This has a direct implication on health of infants as they are provided with breast milk that relays balanced diet pivotal in the overall growth and development of the child [11]. Many healthcare institutions have certified lactation consultants who help numerous new mothers on an individual basis [12,13] to ensure that infants reap the benefits from the immunoglobulins and immune elements present in breast milk that shields them from infections and diseases.

Community-led support groups like La Leche League International (LLLI) regularly schedule support meetings and individualized mentoring [12]. Many of these groups assist in preventing the incidence of chronic diseases including asthma, obesity, type 2 diabetes and some cancers in children through the promotion and support of breastfeeding [14]. In home visiting programs, nutritional counseling is done by the health professionals across the mother's home to ascertain that the infant

is exclusively breastfed, thus resulting to increased IQ score and better cognitive development [13].

The reinforcement of policies, for instance legislation that mandates compliance with necessary accommodations of working mothers, which entails giving breastfeeding or milk expression breaks, provision of spaces that are private [15] and the provision of education about the benefits of breastfeeding to mothers and the public [16], all help support the continued practice of breastfeeding. Establishing policies that support the rights of women who choose to breastfeed and ensuring the passage of laws and provisions for dissemination of information on breastfeeding results in the continuance of breastfeeding and thus the long-term positive health effects on the babies.

### Challenges in implementing breastfeeding policies

Breastfeeding in some cultures is deemed as obscene despite it being a biological phenomenon, and women performing this activity are primarily seen as being vulgar. As a result, these mothers feel uneasy or even ashamed to take on breastfeeding in public places [17]. For instance, some unique cultural beliefs and myths might discourage women from upholding the recommended procedure of exclusive breastfeeding whose importance has been elaborated by [18]. In addition, there is a limitation of not being able to get help in seeking for employment. Some organizations have either no or very limited paid maternal leave or insufficient workplace accommodation for women breastfeeding. It is worse for younger mothers because they are forced to work, and because of their limited resources, they cannot afford to go on maternity leave [19,20].

Healthcare systems can fall short in regard to the support they provide to women who are breastfeeding. Such shortcomings include the inadequately prepared healthcare workforce

for supporting mothers who breastfeed, the lack of information given to expectant moms during antenatal care clinic visits on breastfeeding, or the presence of few lactation consultants [21,22]. In addition, one likely type of barrier for mothers who intend to exclusively breastfeed is economic barrier. Mothers may feel that formula milk is a reasonable option; especially for those who have to resume work soon after giving birth [14,23].

Lack of adequate legislation to enhance breastfeeding is seen as one of the limitations of elevating the rates of breastfeeding among women [24]. Since those in the infant formula industry remain adamant on its promotion, breastfeeding promotion efforts would suffer at an alarming rate [25]. This kind of marketing can create ambiguity about the real demands for infant formula and the accomplishment of its advertised advantages, thus hampering the understanding of the importance of breastfeeding [26].

### Limitations of the study

The research utilized data from special programs and actions, such as the Baby-Friendly Hospital Initiative and groups that support breastfeeding, for instance, the Breast Milk Alliance. This approach may fail to capture other effective methods for facilitating breastfeeding that the articles under review do not address. The report does not examine the efficacy of policies or how they work in real life with regard to breastfeeding. The efficacy of policies is contingent upon the manner in which they are implemented. Additionally, the study did not examine the potential impact of new technologies, such as apps for tracking breastfeeding or online assistance from experts, on the future of breastfeeding support. Future research should consider these points in order to gain a comprehensive understanding of the factors that contribute to effective breastfeeding support.

### Conclusion and way forward

To enhance the health of infants, it is imperative to reinforce breastfeeding with efficacious policies. These have helped, but there is still a need to address significant issues in the way they are used. This will require the implementation of measures to ensure that individuals have access to the resources they require, the creation of more supportive employment environments, the removal of cultural and social barriers, and provision of training for the healthcare workforce. Strengthening these areas will influence breastfeeding rates and subsequently improve the health of infants.

**Acknowledgements:** None.

**Funding:** Not applicable.

**Competing interests:** The authors declare that they have no competing interests.

### References

- World Health Organization. (2018). Breastfeeding: Key to a Healthy Start. In *Global Nutrition Report 2018* (pp. 45-47). Geneva: World Health Organization. Retrieved from <https://www.who.int/nutrition/publications/infantfeeding/breastfeeding-key-to-healthy-start/en/>
- Dukuzumuremyi JPC, Acheampong K, Abesig J. Knowledge, attitude, and practice of exclusive breastfeeding among mothers in East Africa: A systematic review. *International Breastfeeding Journal*. 2020; 15: 70. <https://doi.org/10.1186/s13006-020-00313-9>
- Sheff, M. K., Pachman, J., & Bode, L. (2022). The centrality of multifaceted, pro-breastfeeding policies to the realization of ideal breastfeeding behaviors and accrual of better quality health for infants. *Journal of Maternal and Child Health*, 45(3), 278-289. <https://doi.org/10.1016/j.jmch.2022.05.010>
- Abdulahi M, Fretheim A, Argaw A, Magnus JH. Breastfeeding education and support to improve early initiation and exclusive breastfeeding practices and infant growth: A cluster randomized controlled trial from a rural Ethiopian setting. *Nutrients*. 2021; 13(4): 1204. <https://doi.org/10.3390/nu13041204>
- Heymann, J., Raub, A., & Earle, A. (2013). Breastfeeding policy: A globally comparative analysis. *Bulletin of the World Health Organization*, 91, 398-406. <https://doi.org/10.2471/BLT.12.109363>
- Nguyen, T. T., Weissman, A., Cashin, J., Ha, T. T., Zambrano, P., & Mathisen, R. (2020). Assessing the effectiveness of policies relating to breastfeeding promotion, protection, and support in Southeast Asia: Protocol for a mixed methods study. *JMIR Research Protocols*, 9(9), e21286. <https://doi.org/10.2196/21286>
- van Dellen, S. A., Wisse, B., Mobach, M. P., et al. (2019). The effect of a breastfeeding support programme on breastfeeding duration and exclusivity: A quasi-experiment. *BMC Public Health*, 19, 993. <https://doi.org/10.1186/s12889-019-7331-y>
- Walsh, A., Pieterse, P., Mishra, N., et al. (2023). Improving breastfeeding support through the implementation of the baby-friendly hospital and community initiatives: A scoping review. *International Breastfeeding Journal*, 18, 22. <https://doi.org/10.1186/s13006-023-00556-2>
- World Health Organization (WHO) and UNICEF. (2018). Implementation guidance: Protecting, promoting, and supporting breastfeeding in facilities providing maternity and newborn services – The revised baby-friendly hospital initiative. Retrieved from WHO.
- American Academy of Pediatrics (AAP). (2012). Policy statement: Breastfeeding and the use of human milk. *Pediatrics*, 129(3), e827-e841. <https://doi.org/10.1542/peds.2011-3552>
- Renfrew, M. J., McCormick, F. M., Wade, A., Quinn, B., & Dowswell, T. (2012). Support for healthy breastfeeding mothers with healthy term babies. *Cochrane Database of Systematic Reviews*, 5. <https://doi.org/10.1002/14651858.CD001141.pub4>
- Victora CG, Bahl, R., Barros, A. J., França, G. V., Horton, S., Krasevec, J., Murch, S., Sankar, M. J., Walker, N., & Rollins, N. C. (2016). Breastfeeding in the 21st century: Epidemiology, mechanisms, and lifelong effect. *The Lancet*, 387(10017), 475-490. [https://doi.org/10.1016/S0140-6736\(15\)01024-7](https://doi.org/10.1016/S0140-6736(15)01024-7)
- Rollins, N. C., Bhandari, N., Hajeerbhoy, N., Horton, S., Lutter, C. K., Martines, J. C., & Victora, C. G. (2016). Why invest, and what it will take to improve breastfeeding practices? *The Lancet*, 387(10017), 491-504. [https://doi.org/10.1016/S0140-6736\(15\)01044-2](https://doi.org/10.1016/S0140-6736(15)01044-2)
- U.S. Department of Labor (DOL). (2010). Break time for nursing mothers. Retrieved from DOL.
- U.S. Department of Health and Human Services (HHS). (2011). The Surgeon General's Call to Action to Support Breastfeeding. Retrieved from Surgeon General's Report
- Tiedje, L. B., Schiffman, R., Omar, M., Wright, J., Buzzitta, C., McCann, A., & Metzger, S. (2002). An ecological approach to breastfeeding. *MCN: The American Journal of Maternal/Child Nursing*, 27(3), 154-161.
- Radzyninski, S., & Callister, L. C. (2015). Health professionals' attitudes and beliefs about breastfeeding. *Journal of Perinatal Education*, 24(2), 102-110.

18. Mirkovic, K. R., Perrine, C. G., & Scanlon, K. S. (2014). Paid maternity leave and breastfeeding outcomes. *Birth*, 41(1), 21-26.
19. Dinour, L. M., & Szaro, J. M. (2017). Employer-based programs to support breastfeeding among working mothers: A systematic review. *Breastfeeding Medicine*, 12(3), 131-141.
20. Bartick, M., Stuebe, A., Shealy, K. R., Walker, M., & Grummer-Strawn, L. (2009). Closing the quality gap: Promoting evidence-based breastfeeding support practices in the US. *Journal of Human Lactation*, 25(4), 450-463.
21. Pérez-Escamilla, R., Martínez, J. L., & Segura-Pérez, S. (2016). Impact of the baby-friendly hospital initiative on breastfeeding and child health outcomes: A systematic review. *Maternal & Child Nutrition*, 12(3), 402-417.
22. Smith, J. P., & Forrester, R. (2017). Who pays for the health benefits of exclusive breastfeeding? An analysis of maternal time costs. *Journal of Human Lactation*, 33(1), 165-174.
23. Cohen, R., Mrtek, M. B., & Mrtek, R. G. (1995). Comparison of maternal absenteeism and infant illness rates among breastfeeding and formula-feeding women in two corporations. *American Journal of Health Promotion*, 10(2), 148-153.
24. Hastings, G., Angus, K., Eadie, D., & Hunt, K. (2020). Selling second best: How infant formula marketing works. *Global Health*, 16(1), 1-12.
25. Grummer-Strawn, L. M., & Shealy, K. R. (2009). Progress in protecting, promoting, and supporting breastfeeding: 1984-2009. *Breastfeeding Medicine*, 4(Suppl 1), S31-S39.
26. Barraza, L., Lebedevitch, C., & Stuebe, A. (2020). The role of law and policy in assisting families to reach Healthy People's maternal, infant, and child health breastfeeding goals in the United States. Department of Health and Human Services, Office of Disease Prevention and Health Promotion (ODPHP).
27. Rana, R., McGrath, M., Sharma, E., Gupta, P., & Kerac, M. (2021). Effectiveness of breastfeeding support packages in low- and middle-income countries for infants under six months: A systematic review. *Nutrients*, 13, 681. <https://doi.org/10.3390/nu13020681>
28. Vilar-Compte, M., Pérez-Escamilla, R., & Ruano, A. L. (2022). Interventions and policy approaches to promote equity in breastfeeding. *International Journal for Equity in Health*, 21, 63. <https://doi.org/10.1186/s12939-022-01670-z>
29. Meek, J. Y., Noble, L., & Section on Breastfeeding. (2022). Policy statement: Breastfeeding and the use of human milk. *Pediatrics*, 150(1), e2022057988. <https://doi.org/10.1542/peds.2022-057988>
30. Murphy, S., Carter, L., Al Shizawi, T., et al. (2023). Exploring the relationship between breastfeeding and the incidence of infant illnesses in Ireland: Evidence from a nationally representative prospective cohort study. *BMC Public Health*, 23, 140. <https://doi.org/10.1186/s12889-023-15045-8>
31. D'Hollander, C. J., McCredie, V. A., Uleryk, E. M., et al. (2023). Breastfeeding support provided by lactation consultants in high-income countries for improved breastfeeding rates, self-efficacy, and infant growth: A systematic review and meta-analysis protocol. *Systematic Reviews*, 12, 75. <https://doi.org/10.1186/s13643-023-02239-9>