

STEPS: STEPS to STEPS; Optimizing the Perfect Start for the Product of Reproductive Interventions



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Abstract

This Invited Narrative Review is a Treatise on a new Concept and Technicality captured as STEPS. The STEPS subsumes Strategies which are geared Towards Exclusive Breastfeeding-Optimal Infant and Young Child Feeding for Supporting Sustainable Survival of the Product of Reproductive Interventions. The emphasis is on Programmatic Conceptualizations, Innovations and Interventions disposed as Strategies for assuring the Sustainable Survival of the Product of Reproductive Interventions. Exclusive Breastfeeding is subsumed within the Optimal Infant and Young Child Feeding as part of the Child Survival Interventions disposed with the GOBIF^{3E}TH. Institute-based Interventions and Programme-based Interventions are ventilated to whet the appetite to stimulate further surfing of the Web and Published Literature. The Ten STEPS to Successful Breastfeeding are disposed in the STEPS to STEPS and to Make The Code Work reflected as Strategies for Optimizing the Product of Reproductive Interventions.

Keywords: Baby-Friendly Hospital Initiative; Exclusive Breastfeeding; GOBIF^{3E}TH; Optimal Infant and Young Child Feeding; Breastfeeding; STEPS

Abbreviations: EBF: Exclusive Breastfeeding; OIYCF: Optimal Infant and Young Child Feeding; WHO: World Health Organization; EIB: Early Initiation of Breastfeeding; CBF: Continued Breastfeeding; WHA: World Health Assembly; CSI: Child Survival Interventions; GMP: Growth Monitoring and Promotion; ORT: Oral Rehydration Therapy; EDP: Essential Drugs Programme; BFHI: Baby-Friendly Hospital Initiative; IFCI: Infant-Friendly Community Initiative; ECOCI: Expanded Continuum of Care Initiative; BEFI: Baby- and Environment-Friendly Initiative; NMADs: Non-Medical Academic Disciplines; BMECI: Basic Medical Education Curriculum Improvement; MSE: Medical Socioeconosophy; DRT: Development Ranking Tool; e-PGI: Eregie Performance Gap Index; BFHI: Baby-Friendly Hospital Initiative; EBM: Expressed Breast Milk; ADI: Adult Disease Induction

Introduction

The Product of Reproductive Interventions as an Outcome, is assured by judicious practise of Reproductive Medicine which covers prevention, diagnosis and management of Reproductive Issues concerning the anatomy, physiology, endocrinology, molecular biology and pathology of the male and female reproductive systems; it also covers choice of when and how children and their number are achieved including the prevention of pregnancy and achieving same when desired with attention to fertility and lactation [1-3]. This Author has conceptualized STEPS as an Intervention to optimize the Product of Reproductive Interventions. The Backronym STEPS is Strategies Towards EBF-

OIYCF for Protecting, Promoting and Supporting Sustainable Survival. Some of the STEPS are ventilated as Tantalizing Teasers to whet the appetite as a stimulation for further Conversational Surfing of the Web and Literature on Optimizing the Product of Reproductive Interventions.

STEPS to STEPS for the child

STEPS

The STEPS, as an Intervention, disposes with emphasis STRATEGIES which are geared towards Exclusive Breastfeeding (EBF) and Optimal Infant and Young Child Feeding (OIYCF) for the

Protection, Promotion and Supporting Sustainable Survival of the Product of Reproductive Interventions. Exclusive Breastfeeding is subsumed within Optimal Infant and Young Child Feeding. The World Health Organization (WHO) Recommendation [4,5] for OIYCF is disposed thus: Early Initiation of Breastfeeding (EIB) within the 1st Hour of Life, Exclusive Breastfeeding (EBF) for the first 6 months of Life, Introduction of Safe, Age-appropriate and Nutritious-Diverse Complementary Foods from 6 months with Continued Breastfeeding (CBF) until two years or beyond. Exclusive Breastfeeding represents the Perfect Start in human nutrition and contributes to the optimization of the Product of Reproductive Interventions.

Introduction of Age-appropriate and Nutritious Diverse Complementary Foods augments the impact of Exclusive Breastfeeding. It is, indeed, a desired and recommended strategy to practise Continued Breastfeeding (CBF) up to 3 years as disposed in the 2016 WHO Guidance/ World Health Assembly (WHA) Resolution 69.9 of 2016 with details disposed in the Document: Ending the Inappropriate Promotion of Foods for Infants and Young Children [6]. The Three 2023 Lancet Breastfeeding Series Papers [7-9] suggest that the Infant and Young Child Feeding Ecosystem has been Negatively Altered with uncomplimentary and disturbing data viz: Less than 50% of children are fed according to WHO Recommendations [4,5], Less than 50% of babies are breastfed within the 1st Hour of Life, 45% receive formula within the first 6 months of Life and One-third of children prematurely stopped Breastfeeding. It is imperative that, as disposed by this Author, another Strategy is Addressing the Optimal Infant and Young Child Feeding Ecosystem [10] to Optimize the Product of Reproductive Interventions.

GOBIF³E²TH as a Strategy

Serving as UNICEF Nigeria Consultant in 1996, this Author conceptualized and developed the Acronym GOBIF³E²TH [11], as a STRATEGY, to capture the Child Survival Interventions (CSI) [12,13] for the 1996 World Breastfeeding Week Celebrations in Nigeria. The GOBIF³E²TH disposes the following: Growth Monitoring and Promotion (GMP), Oral Rehydration Therapy (ORT), Breastfeeding (EBF-OFB), Immunization, Family Planning, Female Education, Food Supplementation, Environmental Sanitation, Essential Drugs Programme (EDP), Treatment of Common Childhood Illnesses and Health Education [11-13]. These Child Survival Interventions constitute STRATEGIES to Optimize the Product of Reproductive Interventions. However, there is reportedly a dichotomy between the Knowledge and Practise of the Child Survival Interventions with a remarkable proportion Knowledgeable while a bothersome low proportion practised the Interventions [14].

Institute-based Interventions and Programme-based Interventions as Strategies

This Author has conceptualized, developed and implemented, with others in the Institute of Child Health, University of Benin, Benin City, Nigeria, several Institute-based Interventions

[11,15,16] as Strategies for Optimizing the Product of Reproductive Interventions vide infra:

- 1)** Community-based Interventions for Child Health (COBICH)
 - a.** Expanded Programme of Early Child Care Health Education and Development (EPECCHED)
 - b.** Programme of Integrated Community Child Health Interventions in Nigeria (PICCHIN)
 - c.** Household Integrated Interventions for Child Survival (HIICS)
- 2)** Public Enlightenment and Mobilization Programme (PEMP)
 - a.** Code Awareness and Breastfeeding Action Network (CABAN)
 - b.** Infectious Disease Control Action Network (IDCAN)
 - c.** Integrated Child Survival Action Network (ICSAN)
 - d.** Fathers Empowerment and Mobilization Action Network (FEMAN)
 - e.** Perinatal Action Network for Newborn (PANN)
 - f.** Child Health Awareness and Mobilization Programme (CHAMP)

The Institute-based Interventions were imaginatively and innovatively conceptualized and developed to actualize the Institute-Founding Objectives. Also, other Programme-based Interventions include Strategies which are again disposed vide infra:

- 1.** Infant-Friendly Community Initiative (IFCI) 1996: Transformed the Baby-Friendly Hospital Initiative (BFHI) from Baby and Hospital to Infant and Community as UNICEF Nigeria Consultant and for 1996 WBW Celebration.
- 2.** GOBIF³E²TH 1996: Developed as UNICEF Nigeria Consultant, to capture the Child Survival Interventions (CSI) [12,13] and disposed Breastfeeding as the Mother of ALL Child Survival Interventions and for 1996 WBW Celebration.
- 3.** Baby- and Environment-Friendly Initiative (BEFI) 1997: Developed, as UNICEF Nigeria Consultant, to highlight Breastfeeding as an Eco-Friendly Natural Feeding Intervention and relevant to Climate Change Crisis and for 1997 WBW Celebration.
- 4.** INAGOSICI Phenomenon 1998: Developed, as UNICEF Nigeria Consultant, disposing INdustry And GOVERNment Similar In Code Implementation [11,15,17] to highlight Industry-Government Dyad (Ind-Gov Dyad) for the Programmatic Targeting of the Ind-Gov Dyad for productive Code Implementation to Make The Code Work for OIYCF and Child Survival, Health, Nutrition, Growth, Protection and Development.

5. Pre-FOAD Hypothesis 2009: Developed to situate Exclusive Breastfeeding as the Starting Locus for a Transgenerational Model for the Prevention of Adult Disease induction (ADI) to assure Optimal Productive Work from Optimal Reproductive Work [15].

6. TEA Triad 2009: Developed to dispose Eco-Friendly Research Output amplifying that Technology to Ecology, not an Apology; as a Case-in-Point: Breastfeeding is driven as a Low-cost High-impact Intervention [15].

7. Expanded Continuum of Care Initiative (ECOCI) 2009: Developed to optimize the Continuum of Care for Antenatal/ Prenatal-Foetal-Newborn-IYC-Older Child-Adolescent-Adult [15,18].

8. Code Players 2010: Disposed the 5 Groups at the 1979 UNMIYCF related to their Code Commitment re: Pro-Code (UN Bodies and NGOs; Committed!), Anti-Code (Ind-Gov Dyad; Not Strictly Committed!) and Toti-Code (Experts/ Professionals; Totipotent Commitment (From Totipotent Stem Cells!) mirroring He who Pays the Piper Dictates the Tune; Experts as Pipers are conflicted by Industry Sponsorship/ Funding (The Payment).

9. Eregie Performance Gap Index (e-PGI) 2014: Developed as a Development Ranking Tool (DRT) [19] for Nations to drive Optimal Resource Utilization for Sustainable Development and has nexus with STEPS and Child Health and Survival.

10. Medical Socioeconosophy (MSE) 2014: Developed for Basic Medical Education Curriculum Improvement (BMECI) with Interdisciplinarity and inclusion of Non-Medical Academic Disciplines (NMADs) for More Robust Rounded Doctors compliant with Collaborative Multidisciplinary Productive Work [20].

These Institute-based Interventions and Programme-based Interventions were disposed in a previous Communication [16] and represent some Strategies within the STEPS for Optimizing the Product of Reproductive Interventions! The conceptualized and developed STEPS also include the Strategies of the STEPS to Successful Breastfeeding: Ten STEPS to Successful Breastfeeding 1989 [21] and Ten STEPS to Successful Breastfeeding 2018 [22]; this disposes the STEPS to STEPS *vide infra*.

STEPS to STEPS as Strategies

In 1989, the Joint WHO/ UNICEF Statement on Protecting, Promoting and Supporting Breastfeeding and the Role of Maternity Facilities offering Services to Mothers and Children disposed the Ten STEPS to Successful Breatfeeding [21]! The Ten STEPS to Successful Breastfeeding enunciated in 1989 were the Foundational and Operational Basis of the Baby-Friendly Hospital Initiative (BFHI) and are disposed *vide infra*:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.

2. Train all health care staff in the skills necessary to implement this policy.

3. Inform all pregnant women about the benefits and management of breastfeeding.

4. Help mothers initiate breastfeeding within a half-hour of birth.

5. Show mothers how to breastfeed and how to maintain lactation, even if they should be separated from their infants.

6. Give newborn infants no food or drink other than breast milk unless medically indicated.

7. Practice rooming-in - allow mothers and infants to remain together - 24 hours a day.

8. Encourage breastfeeding on demand.

9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.

10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

With further revisions and modifications, the Revised Ten STEPS to Successful Breastfeeding [22] were released in 2018 to capture the STEPS to STEPS and are also disposed *vide infra*.

Critical management procedures

1a. Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions.

1b. Have a written infant feeding policy that is routinely communicated to staff and parents.

1c. Establish ongoing monitoring and data-management systems.

2. Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.

Key clinical practices

3. Discuss the importance and management of breastfeeding with pregnant women and their families.

4. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth.

5. Support mothers to initiate and maintain breastfeeding and manage common difficulties.

6. Do not provide breast-fed newborns with any food or fluids other than breast milk, unless medically indicated.

7. Enable mothers and their infants to remain together and to practice rooming-in 24 hours a day.

8. Support mothers to recognize and respond to their infants cues for feeding.

9. Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.

10. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

Herewith some Critical Comments on the 2018 Revised Ten STEPS to Successful Breastfeeding [22]:

Step 1a: This is uniquely disposed as the very first Step, albeit a Sub-Step, in the 2018 Revised Ten STEPS to Successful Breastfeeding and amplifies the eminent locus of the Determinant Role of Implementation of, and Compliance with, the International Code of Marketing of Breastmilk Substitutes and ALL Relevant Subsequent WHA Resolutions. This is a STRATEGY in the STEPS.

Step 1c: For Data Governance Principles, while reportedly Failing to Plan is Planning to Fail, also Planning with the Wrong Numbers is Equally Planning to Fail! This undergirds the Determinant Role and Importance of Data; Monitoring and Evaluation is the soul of generating Current, Valid, Reproducible and Reliable Data! This amplifies the relevance and importance of this Introduction into the 2018 Revised Ten STEPS to Successful Breastfeeding.

Step 9: The Step 9 of the 1989 Ten STEPS to Successful Breastfeeding [21] is: Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants. This is intended to avoid Nipple Confusion [23] among others and enhance Breastfeeding Practices, Reduced Difficulties and Improved Rates. The Step 9 of the 2018 Revised Ten STEPS to Successful Breastfeeding [22] is: Counsel mothers on the use and risks of feeding bottles, teats and pacifiers. This Author considers this Revised Step 9 a Major Programmatic Misstep [24] in Optimal Infant and Young Child Feeding Ecosystem. The Use of Feeding Bottles and Teats impacts on the Breastfeeding/ Suckling-Bottle-Feeding/ Sucking Dichotomy with compromised Suckling and negative outcomes re: Breastfeeding Rates and Difficulties [25-27].

There are reportedly several Epigenetic Imprints related to the Breastfeeding/ Suckling-Bottle-Feeding/ Sucking Dichotomy as Breastfeeding is reportedly a Complex Biological System and Process and distinctly different from Bottle-Feeding concerning Nutrigenomics, Nutrigenetics and Nutritional Epigenetics [28,29]! There are reportedly documented effects of Breastfeeding protecting against Malocclusion which Bottle-Feeding possibly contributes to [30,31]. Also, with these facts, there is increasing Digital Marketing of Feeding Bottles and Teats

with Unsubstantiated Health and Nutrition Claims suggesting that they now SIMULATE the unique Galactokinetic Mechanics and Galactopoeitic Determinants of Breastfeeding [10,23,32].

STEPS to STEPS and Impact

In a Tantalizing Teaser, the impact of the Ten STEPS to Successful Breastfeeding [21,22], as STEPS to STEPS impact, will be disposed to whet the appetite and invite further Exploratory and Critical Conversational Surfing of the Literature.

Delivery-room Practices impacted positively on Breastfeeding Rates in Sweden [33]. The 72 infants who were naked and in contact with their mothers within the first 2 hours of birth reportedly made crawling movements after 20 minutes and were suckling after 50 minutes compared to 72 infants who were separated from their mothers with the conclusion that Delivery-room Practice increased the success of 1st Breastfeeds. Training on Baby-Friendly Hospital Initiative (BFHI) in 8 Hospitals in Italy reportedly involved 571 Health workers and 2669 Mother-Infant Pairs with increased Breastfeeding Rates at Discharge with determinant 4 Factors: 1st Feed within 1 Hour, Rooming-in, No Pacifier and Instruction on Expressed Breastmilk (EBM) [34]. A Review of 200 Medical Records from 1995 to 1998 concerning the Full Implementation of the BFHI Policy in the Boston Medical Centre, USA reportedly resulted in increased Breastfeeding Rates [35]. A Systematic Review [36] of 58 Studies on Maternity and Newborn Care in 2016 reported that the Implementation of the Ten STEPS to Successful Breastfeeding substantially improved Breastfeeding Rates and adherence to the Ten STEPS resulted in: Early Initiation of Breastfeeding immediately after birth, Exclusive Breastfeeding and Total Duration of Breastfeeding. The Report from Indonesia disposed the Economic and Social Return on Investment with the fact that, for every \$1 invested on Implementation of the 2018 Revised Ten STEPS to Successful Breastfeeding, there is reportedly \$49 Benefit on Breastfeeding Rates and Maternal and Child Health Outcomes [37].

The Code and Making The Code Work as Strategies

The STEPS to STEPS cannot be successfully implemented without recourse to the strict Implementation of the International Code of Marketing of Breastmilk Substitutes adopted in 1981 by the World Health Assembly (WHA) Resolution 34.22 [38]. This was the outcome of a significantly weakened Draft Code which emanated from the 1979 United Nations Meeting on Infant and Young Child Feeding (1979 UNMIYCF) [39]. Considering that the 1981 Adopted Code was a significantly revised and weakened Document, its Provisions were to be implemented as the MINIMUM and in ENTIRETY; no place for Cafeteria Code Implementation [10,16]. With the Implementation of the 1981 Adopted Code, and to achieve the True Aim, Spirit and Intendment of the Original Robust Draft Code, there have been several Relevant Subsequent WHA Resolutions which have the same Legal and Statutory

Parity with the Provisions of the 1981 Adopted Code. For Programmatic Exactitude and Expedience, The Code NOW refers to the 1981 Adopted Code read and implemented in conjunction with ALL Relevant Subsequent WHA Resolutions. A remarkable development is the adoption of 2016 WHA Resolution 69.9/ WHO Guidance on Ending the Inappropriate Promotion of Foods for Infants and Young Children [6]. This particularly addresses the Monstrosity of the persisting Conflicts of Interest (COIs) in the Infant and Young Child Feeding Ecosystem providing specifically for the Prohibition of Sponsorship of Healthcare Professionals/ Associations and their Meetings/ Scientific Conferences to Make The Code Work. To Make The Code Work is yet another Strategy in the STEPS and is also the thrust of the STEPS to STEPS.

Conclusion

This Invited Narrative Review has disposed STEPS as a coalescence of some possible Interventions which are operationalized as Strategies Towards EBF-OIYCF to Protect, Promote and Support Sustainable Survival of the Product of Reproductive Interventions. Reproductive Interventions result in having the Product of Reproduction and STEPS as an Intervention, is assuring the optimization of their Survival on a Sustainable basis. The particular importance of the Ten STEPS to Successful Breastfeeding is captured as Strategies in the STEPS to STEPS discourse. The determinant role of Making The Code Work as a Strategy is also disposed in the STEPS.

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References

1. Murphy A. Why Study Reproductive Medicine? <https://www.healthcarestudies.com/articles/why-study-reproductive-medicine>. Accessed 24th May 2023
2. National Library of Medicine. Reproductive Medicine. https://www.ncbi.nlm.nih.gov/books/NBK518787/#_nbk518787_pubdet. Accessed 24th May 2023
3. Nusinovich Y. Reproductive Medicine. *Science* 2023; 380:148-149
4. World Health Organization. Infant and young child feeding. World Health Organization. Geneva. 2021
5. UNICEF. Infant and young child feeding. UNICEF. New York. 2021
6. World Health Organization. Guidance on ending the inappropriate promotion of foods for infants and young children. World Health Organization. Geneva. 2016
7. Perez-Escamilla R, Tomori C, Hernandez-Cordero S et al. Breastfeeding: crucially important, but increasingly challenged in a market-driven world. *Lancet* 2023; 401:472-485
8. Rollins N, Piwoz E, Baker P et al. Marketing of commercial milk formula: a system to capture parents, communities, science and policy. *Lancet* 2023; 401:486-502
9. Baker P, Smith J, Garde A et al. The political economy of infant and young child feeding: confronting corporate power, overcoming structural barriers, and accelerating progress. *Lancet* 2023; 401:503-524
10. Eregie C.O. Addressing the Optimal Infant and Young Child Feeding Ecosystem to improve the Status of the Outcome of Reproductive Interventions; No 'Breastmilk Substitutes'. *Global Journal of Reproductive Medicine* 2023; 10 (2):555784. DOI: 10.19080/GJORM.2023.10.555784
11. Eregie C.O. ADULT DISEASE INDUCTION AND LIFE COURSE EVENTS: SOME PERSPECTIVES FROM A RESOURCE-COMPROMISED ECONOMY. *Forum on Public Policy* 2008; Vol 2008 No1:1-19 (Spring 2008 Issue; https://www.forumonpublicpolicy.co.uk/_files/ugd/553e83_5e85064fedfc43479fc1cc59bf22c77d.pdf).
12. Health Think. Child Survival Strategies: Addressing under-5 Mortality in Nigeria. <https://healththink.org/child-survival-strategies-addressing-under-5-mortality-in-nigeria/> Accessed 31st August 2023
13. Wikipedia. Child Survival Revolution. https://en.m.wikipedia.org/wiki/Child_survival_revolution Accessed 31st August 2023
14. Edet IV, Effiong JH, Udoh IA et.al. Knowledge and practice of child survival strategies among mothers attending postnatal clinic in Itu, a sub-urban area of South Nigeria. *Int J Health Sci Res.* 2020; 10(1):1-8.
15. Eregie C. O. Programming the END from before the BEGINNING: Juxtaposing TECHNOLOGY with the TEA Triad, University of Benin Press. December 2009. 106th Inaugural Lecture, University of Benin, Nigeria.
16. Eregie C.O. Enabling the 'Breastfeeding-Work Dyad' and Understanding the Contextual Pentad of Productive Work, Reproductive Work, Reproductive Health, Reproductive Rights and Reproductive Politics: The Tantalizing Microcosmic Perspectives Encapsulated with Some Imaginatively Innovative Interventions. *Gynecol Reprod Health.* 2023; 7(5): 1-16.
17. Eregie C.O. Making the Code Work for Optimal Infant and Young Child Feeding: Rekindling the 'Health Professional Associations-Industry Funding Conversation' and the 'INAGOSICI Phenomenon'. <https://www.bmj.com/content/364/bmj.l544/rr> of 14th February 2019
18. Mitchell E. What is the Continuum of Care? <https://blog.eoscu.com/blog/what-is-the-continuum-of-care> Accessed 30th August 2023
19. Eregie C.O. EREGIE PERFORMANCE GAP INDEX (e-PGI): AN INNOVATIVE COMPUTED MULTI-DOMAIN TOOL FOR DEVELOPMENT RANKING OF NATIONS BASED ON RESOURCE UTILIZATION FOR SUSTAINABLE DEVELOPMENT. *Forum on Public Policy* 2014; [https://www.thefreelibrary.com/Eregie+performance+gap+index+\(e-PGI\)%3A+an+innovative+computed...-a0497796492](https://www.thefreelibrary.com/Eregie+performance+gap+index+(e-PGI)%3A+an+innovative+computed...-a0497796492)
20. Eregie C.O. More Talk on the 'Health Professional Associations-Industry Funding'; Conflicts of Interest are better avoided: A Proactive Role for 'Medical Socioeconomics'. <https://www.bmj.com/content/365/bmj.l2093/rr-3> of 22nd May 2019
21. UNICEF Innocenti Research Centre. 1990 - 2005 CELEBRATING THE INNOCENTI DECLARATION ON THE PROTECTION, PROMOTION AND SUPPORT OF BREASTFEEDING. Past Achievements, Present Challenges and the Way Forward for Infant and Young Child Feeding. <https://acrobat.adobe.com/id/urn:aaid:sc:EU:1edcad0d-8f02-4f33-bec8-47842247d406> Accessed 17th October 2023
22. World Health Organization. Ten Steps to Successful Breastfeeding. <https://www.who.int/teams/nutrition-and-food-safety/food-and-nutrition-actions-in-health-systems/ten-steps-to-successful-breastfeeding> Accessed 17th October 2023

23. Harris N. What is Nipple Confusion in Babies? <https://www.parents.com/baby/feeding/bottlefeeding/what-is-nipple-confusion-in-babies/> 2021 Accessed 29th May 2023
24. Eregie C.O. A Major Programmatic Misstep In The 2018 Revised Ten Steps To Successful Breastfeeding. <https://www.bmj.com/content/363/bmj.k5146/rr-7> of 16th January 2019
25. Van Esterik P. Beyond the breast-bottle controversy. Rutgers University Press, New Brunswick, NJ1989
26. Andrews B. Sucking versus Suckling and Mouth Development. <https://www.thespeechdynamic.com/mouth-development/> 2017 Accessed 29th May 2023
27. Narbutyte I, Narbutyte A, Linkeviciene L. Relationship between breastfeeding, bottle-feeding and development of malocclusion. *Stomatogija* 2013; 15:67-72
28. Genna CW. Epigenetics, Methylation, and Breastfeeding. *Clinical Lactation* 2018; 9:144-147
29. Briollais L, Rustand D, Allard C et al. DNA methylation mediates the association between breastfeeding and early-life growth trajectories. *Clinical Epigenetics* 2021; 13:<https://doi.org/10.1186/s13148-021-01209-z>. Accessed 24th May 2023
30. Peres KG, Cascaes AM, Nascimento GG, Victora CG. Effects of breastfeeding on malocclusion: a systematic review and meta-analysis. *Acta Paediatrica* 2015; 104:54-61
31. Abate A, Cavaghetto D, Fama A, Maspero C, Farronato G. Relationship between breastfeeding and malocclusion: A Systematic Review of the Literature. *Nutrients* 2020; 12:3688
32. Harris N. The Most Lifelike Bottles for Breastfed Babies. <https://www.parents.com/baby/breastfeeding/the-best-bottles-for-breastfed-babies/#> 2021 Accessed 29th May 2023
33. Lighard R, Alade MO. Effect of delivery room routines on success of first breast-feed. *Lancet* 1990; 336:1105-1107
34. Cattaneo A, Buzzetti R. Effect on rates of breast feeding of training for the baby friendly hospital initiative. *BMJ* 2001; 323:1358-1362
35. Philipp BL, Merewood A, Miller LW et al. Baby-friendly hospital initiative improves breastfeeding initiation rates in a US hospital setting. *Pediatrics* 2021; 108:677-681.
36. Pérez-Escamilla R, Martinez JL, Segura-Pérez S. Impact of the Baby-friendly Hospital Initiative on breastfeeding and child health outcomes: a systematic review. *Matern Child Nutr* 2016; 12:402-417
37. Pramono AY, Desborough JL, Smith JP · Bourke S. The Social Value of Implementing the Ten Steps to Successful Breastfeeding in an Indonesian Hospital: A Case Study. *Yale J Biol Med.* 2021;94(3):429-458
38. World Health Organization. International Code of Marketing of Breast-milk Substitutes. World Health Organization. Geneva. 1981
39. World Health Organization. Joint WHO/UNICEF Meeting on infant and young child feeding. Geneva. World Health Organization. 1979



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