

# The Negative Role of Formula Milk Advertisements in Media and its Consequences

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## ABSTRACT

Breast milk, produced by the mammary glands of lactating mothers, is the most cost-effective and nutritionally balanced source of nourishment for infants during their first six months. It contains the right amounts of proteins, fats, and carbohydrates for healthy growth and development, and it's also rich in antibodies, hormones, and immunoglobulins, which offer substantial protection against various infectious diseases. Over the past few decades, however, breast milk substitutes like infant formula have been industrially produced, but these are not only more costly than breast milk but also lack its quality and protective properties.

To address the inappropriate marketing of these substitutes and to encourage breastfeeding, the World Health Assembly (WHA) adopted an International Code in 1981. Despite this, infant formulas are widely advertised to consumers through different media outlets like newspapers, online platforms, and business websites. This aggressive marketing can shape cultural perceptions, making formula use seem more common and innovative, which can have negative implications. When these products are heavily promoted and used, it can lead to a decline in the nutritional and health status of infants, especially in low-income families. A 2003 study showed that ten million children worldwide die before their fifth birthday, but breastfeeding has the potential to save 1.3 million of those lives. The use of formula has been linked to a higher risk of premature deaths and hospitalizations in infants.

**Keywords:** *Formula milk advertisements, formula milk, neonates mortality.*

## INTRODUCTION

Babies' survival, well-being, physical growth and mental development are significantly impacted by their eating habits across the first three years of infancy. In 2002, the World Health Organization (WHO) and UNICEF launched the Global Strategy for Infant and Young Child Feeding to emphasize the crucial role of feeding practices in influencing infants' and young children's nutrition, growth, development, health, and survival [1]. This strategy advocates for exclusive breastfeeding for the first 6 months (180 days) of life, followed by continued breastfeeding up to at least 2 years or longer, supplemented with nutritionally appropriate and safe complementary foods. Breastfeeding is regarded as the optimal way to provide infants with the nutrients essential for their healthy growth and development [2]. Global statistics reveal that the rate of exclusive breastfeeding averages at about 45.7% [3]. However, the aggressive and inappropriate marketing of breast-milk substitutes and feeding bottles has impacted breastfeeding rates.

To address this, the World Health Assembly (WHA) adopted the International Code of Marketing of Breast-milk Substitutes in 1981. Yet, four decades later, companies often violate these rules, prioritizing commercial interests over infant and public health [4]. Despite this regulation, societies are still struggling to shield their infants and young children from the aggressive promotion of commercial milk formulas.

Breast milk is naturally produced by a woman's mammary glands after childbirth and serves as the perfect source of nutrition for newborns. Its protein, fat, and carbohydrate content are balanced in both quantity and quality, supporting the growth and cognitive development of infants and young children [5]. Moreover, breast milk contains a range of hormones and immunoglobulins that protect breastfed infants from infections and offer other health benefits, including an immunomodulatory impact on the cellular composition of breast milk in response to a breastfed child's infectious disease [6].

Infant formula is merely a diet and some baby formula delivery techniques put the infant in considerable danger of disease. Colostrum consumption, which is high in antibodies, should start as soon as possible after the delivery, especially in developing nations to boost immunity [7]. Consequently, while choosing what to provide for our newborns and babies, we ought to choose it based on the most accurate facts and verifiable evidence, guided entirely by what we believe is most suitable for the child and adults, and devoid of any financial motives, [8].

In 2013, revenues from breast milk replacements totalled USD 40 billion worldwide. Most nations with lower or middle incomes have revenue increases of over 10% every year, whereas wealthy nations experience an almost flat increase. Breast milk alternatives are promoted both to individual consumer's *via* media coverage and newspapers as well as through medical professionals, and hospitals *via* enticements, freebies, and discounts. Breast milk substitutes are marketed in a coordinated manner across various digital platforms,

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Received: August 19, 2023; Revised: October 25, 2023; Accepted: November 24, 2023

DOI: <https://doi.org/10.37184/lnjpc.2707-3521.6.20>

including social media, manufacturer websites, online retailers, mobile apps, and online digital advertising [9]. These promotional campaigns negatively impact cultural perceptions by presenting the use of these supplements as common, advanced, and even equal to or better than breastfeeding. Whenever alternatives to breast milk are given away for cheap in medical premises, pushed by healthcare professionals, and used in pregnancy tests, there is undeniable proof of the harmful effect of formula milk, [10]. A study from 2003 found that ten million infants died worldwide before reaching their fifth birthday. It is estimated that inadequate breastfeeding is responsible for 800,000 child deaths each year. According to a review, preterm infants should be given breast milk to lower the risk of diseases like necrotizing enterocolitis and sepsis, which are associated with hospital use of fortifiers and formula milk [11].

When mothers can't provide breast milk, feeding with formula milk is considered necessary [12]. This alternative seeks to replicate the characteristics, composition, and bioavailability of breast milk, with some evidence suggesting that FM can promote growth [13].

### THE DIFFERENT TYPES OF BABY FORMULA

Breast milk is viewed as the optimal and sole source of nutrition needed for infants up to 4 or 6 months old, after which they can start eating soft solid foods. Beyond just providing nourishment, breast milk contains additional biological components crucial for developing a baby's intestinal function, immune system, and brain development.

Despite the strong endorsement of breastfeeding, it isn't always feasible, suitable, or sufficient on its own. Using formula is linked to a greater risk of premature death and hospitalization among infants.

From 2003 and 2008, the overall number of Filipino baby formula consumers increased by 6%. This increase is thought to be a consequence of strong formula sector advertising.

#### Infant Formula

Infant formula is a dried milk powder designed to substitute for or supplement breast milk during a baby's first 12 months. It is engineered to mimic breast milk as closely as possible and aims to provide all the necessary nutrients for a baby, including proteins, carbohydrates, fats, minerals, and vitamins.

Infant formula is an industrially produced alternative to meet the dietary needs of infants and is intended for use until they are 12 months old. The three primary types of infant formula are:

**Cow's milk-based formula:** Made from cow's milk with added vegetable oils, vitamins, minerals, and iron, suitable for most healthy full-term infants.

**Lactose-free formula:** Formulated for babies who cannot digest lactose, the sugar found in cow's milk.

**Soy-based formula:** Made from soy protein with added vegetable oils and sweeteners like sucrose or corn syrup, intended for infants who cannot tolerate or are allergic to lactose or cow's milk proteins, or who have galactosemia, a condition that prevents the digestion of galactose, a sugar found in breast milk and cow's milk.

**Protein hydrolysate formula** contains proteins that have been broken down (hydrolyzed) and is used for infants who are intolerant or allergic to both cow's milk and soy-based formulas.

Specialized formulas are also available for infants with specific health concerns:

**Reflux formulas:** Pre-thickened with rice starch, used for babies with reflux who aren't gaining weight properly.

**Formulas with added calories and minerals:** Designed for premature and low birth-weight infants.

The primary protein source in most infant formulas is cow's milk. To support an infant's growth, these formulas also contain fats derived from vegetable oils.

### DIFFERENCES BETWEEN FORMULA AND BREAST MILK

One key distinction between formula and breast milk is that breast milk's nutritional content evolves to meet a baby's changing needs, while formula remains consistent [14]. Breast milk generally contains less protein than formula. Selecting a formula with lower protein content can reduce the likelihood of a baby becoming overweight or obese later in life.

There are many reasons why formula might be necessary for feeding a baby. Not all women can breastfeed: some may not produce enough milk to meet their baby's requirements, while others may have health conditions or be taking medication that prohibits breastfeeding. Some mothers might not always be with their baby, such as when they return to work. Additionally, adoptive and foster parents often do not have the option to breastfeed.

In Australia, all infant formulas must meet strict nutritional and hygiene standards. Most formulas are derived from dried cow's milk with added vitamins, minerals, and vegetable oils. Regular cow's milk isn't suitable for babies' digestion unless it has been modified for easier digestion and nutrient absorption.

There are three main types of infant formulas:

**Milk-Based Formulas:** These are made from cow's milk with added vegetable oils, iron, vitamins, and minerals.

**Soy-Based Formulas:** These are made from soybeans with added vegetable oils and nutrients.

**Specialty Formulas:** These are typically made from cow's milk but have been 'predigested,' meaning the protein content has been reduced or removed, making them suitable for babies with milk intolerance or cow's milk allergies. There are also hypoallergenic formulas. Specialty formulas may be used for babies with food allergies, digestive issues, or cultural and religious reasons.

#### **Additional Types Of Formulas Include:**

**Stage 1 Or Starter Formulas:** Suitable for babies up to 6 months, with Stage 2 or follow-on formulas recommended afterward, often containing more iron. However, there's no substantial advantage in switching to these later-stage formulas.

**Anti-Reflux (AR) Formulas:** These contain thickeners to help reduce reflux by keeping the milk in the baby's stomach.

**Formulas With Added Compounds:** Some manufacturers add prebiotics, probiotics, or other substances to simulate breast milk, but this does not guarantee that the baby's body can absorb these compounds like it would from breast milk [15].

#### **When Selecting A Formula, Consider These Tips:**

The cost of a formula does not necessarily indicate its quality. Terms like "Superior" or "Gold" are marketing language.

Check the label for the correct ratio of formula scoops to water to estimate how long a tin will last.

Choose a formula with a lower protein concentration, as mentioned earlier.

Hydrolyzed formulas, with cow's milk proteins broken down into smaller particles, are often recommended for babies who are sensitive or allergic to cow's milk-based formulas.

Concerning a variety of motives, media commercials for infant formula have drawn criticism. Though it is important to recognize that powdered milk may serve as beneficial for babies who are unable to breastfeed due to illness or suffer from additional medical problems, the damaging function of artificial milk commercials resides in their capacity to discredit lactation while having a detrimental effect on the general welfare.

Infant formula, also known as baby formula, baby milk, or infant milk, is an ultra-processed product developed and marketed for feeding infants and babies under 12 months of age. It is typically prepared for bottle-feeding or cup-feeding by mixing powder with water or using a pre-made liquid form.

### **PERSONAL EXPERIENCE**

As a nurse, I have worked for five years in different public sector hospitals in Khyber Pakhtunkhwa. All my experience is in the critical care area. For three years

I worked in the general intensive care unit (ICU), while I worked in the neonatal ICU for two years, where I observed that many mothers did not breastfeed their babies and they were depending instead on the feeder, bottle or other formula milk. The general masses were not aware of the benefits of breastfeeding and the negative effects of formula milk on the infant's health. This is so alarming that the mothers themselves came and demanded formula milk for their babies without knowing the consequences of it on their babies' health. Besides this, the media is advertising formula milk everywhere in print and electronic media and the general people are blindly following it throwing their babies' lives in danger.

When I first saw it, I was shocked by the practices that were used for breastfeeding in the ward. I was also concerned about how this formula milk is destroying our innocent lives. I also felt ashamed that the doctors themselves were prescribing this formula milk. However, the doctors know very well the benefits of breastfeeding and the consequences of formula milk. Pharmaceutical companies are also involved in the advertisement and spreading of the benefits of formula milk. I am also hopeful that the KP government has passed an act called the Khyber Pakhtunkhwa Protection of Breastfeeding and Child Nutrition Act, 2015. In this act, they have passed some laws which will protect and promote breastfeeding.

Breastfeeding has a lot of benefits for the baby as well as for the mother. Breast milk contains all the requirements that the baby needs. Breastfeeding is very beneficial for the growth and development of babies. Breastfeeding also prevents the baby from infections and other illnesses by boosting the immune system. Research shows that the prevalence of obesity is reduced among breastfed newborns and women who nurse. Diabetes, overweight, cardiac disease, high blood pressure, cholesterol levels, and various forms of cancer are all lowered by lactation [16]. According to a study, the prevalence of stunted growth in Pakistan is nearly 50% [17]. This is a very alarming figure and an eye-opener for the government. Media is the mainstream which is playing its negative role in advertising the benefits of formula milk and promoting it. However, the media have the platform to promote breastfeeding and its benefits and advertise it. Some doctors and pharmaceutical companies are also involved in promoting formula milk. Only breastfeeding is linked to high baby protection and good growth. The significance of breastfeeding is often overlooked. Maternal ignorance and poor nursing practices strip newborns of the fundamental right to mother's milk. Effective nursing practices can improve the well-being of kids in underdeveloped nations that have a high infant mortality rate and stunted growth, such as Pakistan, [18]. A study was conducted in Pakistan to know the enabling factors and the barriers to breastfeeding. The results showed that Insufficient knowledge and social norms of pre-lacteal feeds, inadequate mother's milk generation, mother's malnutrition, women's livelihood

as fieldworkers, the lesser time between deliveries, insufficient knowledge regarding the proper method of breast-feeding, infant and maternal diseases, inappropriate breastfeed, and influencing by relatives were all obstacles to EBF. Numerous enablers have been discovered, including parental assistance, optimal mother nutrition, mother knowledge, and neighbourhood cooperation [19].

The negative role of formula milk advertisements in media has been widely discussed and debated by health experts and organizations. These advertisements often promote the use of formula milk as a substitute for breast milk, which is the recommended and optimal source of nutrition for infants.

### THE CONSEQUENCES OF THESE ADVERTISEMENTS

**Misleading Parents:** Formula milk advertisements often create a false impression that formula milk is equivalent or even superior to breast milk. This can mislead parents who may not be aware of the benefits of breast milk and the risks associated with formula milk.

**Reduced Breastfeeding Rates:** Formula milk advertisements can lead to a reduction in breastfeeding rates, as some parents may choose to use formula milk instead of breast milk based on the information provided in the advertisements. This can have long-term negative effects on infant health and development.

**Increased Risk of Infections:** Formula milk is not a sterile product, and improper preparation and storage can increase the risk of infections, especially in areas where clean water and sanitation are not readily available. Formula milk advertisements may not adequately highlight this risk.

**Financial Burden:** Formula milk can be expensive, and the cost can be a burden for families with limited financial resources. The use of baby formula puts infants in danger of disease and death. In the United States, researchers have revealed a substantial financial burden, medical expenses, and career absenteeism linked with formula use [20]. Formula milk advertisements may create pressure on parents to use formula milk, even if it is not affordable for them.

**Marketing Tactics:** Formula milk companies often use aggressive marketing tactics to promote their products, including sponsoring events and providing free samples to healthcare professionals. This can create conflicts of interest and influence the advice given to parents.

### ACTION PLAN

To address these consequences, it is important to regulate formula milk advertisements to ensure that they are accurate and not misleading, and to promote the benefits of breastfeeding as the optimal source of nutrition for infants. Several nations have imposed laws

on the advertising and marketing of baby formula goods to mitigate the detrimental impact of milk substitute commercials. These rules are intended to encourage lactation as the most common method of feeding babies and to guarantee that all infant formula commercials are accurate without being deceptive.

Health professionals should also be educated about the risks associated with formula milk and encouraged to provide accurate and unbiased information to parents. The government should also have some checks and balances on media advertisements so that they are appropriate and beneficial for the public.

### CONFLICT OF INTEREST

The author declare no conflict of interest.

### ACKNOWLEDGEMENTS

Declared none.

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