From Breastfeeding to Bottles

Nestlé Infant Formula Debate and its Aftermath

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Introduction

Prior to the early twentieth century, women had only two choices for how to feed their infants: they could breastfeed their infants themselves, or they could seek out a "wet nurse." In the 1920s, a third option was introduced in developed nations—infant formula, a manufactured alternative to breast milk. Depending on its audience, this alternative was seen as a lifesaving option, a modern way to feed a child or a shameful health risk.

The differing reactions to infant formula are an excellent illustration of the conflicting ways in which people view infant health. Societal and cultural beliefs about sickness, or "meaning-centered beliefs," inform the way people react to health and disease. For example, Anne Fadiman's book *The Spirit Catches You and You Fall Down* relates a Hmong cultural belief that when someone has a seizure, it represents the soul leaving the body.[1] Meaning-centered beliefs influence every country and every culture. Moreover, they hold persuasive marketing power, a fact that Nestlé, a transnational corporation based in Vevey, Switzerland, demonstrated when it introduced infant formula to the Western world.

The Health Benefits of Breastfeeding

Nearly 100 years after infant formula was first introduced, research now suggests that the health benefits of breast milk are numerous. Breastfeeding decreases the risk of infants developing allergies, diarrhea, ear infections, cancer, obesity and diabetes.[2] This understanding of breast milk as the healthiest choice for infants is relatively new. There were no such studies available in the 1920s, when infant formula was first introduced to women in developed nations.

Breast milk acts as a catalyst for brain and neurological development and improves hearing.[3] Additionally, breast milk contains whey and casein, proteins with which infants are not born but that are known to prevent intestinal infections, to which infants are especially vulnerable; intestinal infections are the leading cause of death among infants in developing nations.[4,5]

Infant formula is manufactured as a substitute for breast milk, but it differs biochemically from human milk. The proteins that formula contains can produce allergic reactions including rashes, vomiting and diarrhea, even when the formula is distributed correctly and mixed with a clean water source. Furthermore, although manufacturers of infant formula have become adept at matching the ingredients and proportions of many of the proteins and mineral levels in breast milk, infant formula cannot perfectly emulate the health advantages that breast milk provides. One such advantage of breast milk is that it contains antibodies that cross from the mother's immune system into the baby. Dr. Mark Groeshek, a pediatrician at Kaiser Permanente in Centennial, Colorado, stated, "I don't think anybody has figured out how to pull antibodies into formula."[6] "For us to think that in 40 years we can duplicate what has happened in four million years of human development is very arrogant," says Dr. Gerald Gaull, a pediatrics professor at Mt. Sinai School of Medicine in New York.[5] It has been proven again and again that the proportions of each carbohydrate, protein and nutrient in breast milk are more easily digestible than those in infant formula.[4] Even as scientists become more adept at synthesizing infant formula, manufactured milk simply will not measure up to the health benefits of breast milk.

Authoritative sources such as the World Health Organization (WHO) and the American Academy of Pediatrics (AAP) have recommended breastfeeding as the best feeding option for infants. The WHO recommends that mothers should exclusively breastfeed for the first six months of life, at which point they can partner breast milk with formula if they so choose.[7] The AAP suggests mothers breastfeed for a period of two years.[3] It is generally agreed by authoritative sources that healthy women can and should exclusively breastfeed their infants for at least the first four to six months of the infant's life.[5]

The Market Shift From Developed Countries to Developing Countries

In the 1920s, 90% of women breastfed their children. After the introduction of infant formula, this statistic changed; by 1946, only 38% of women were breastfeeding. After World War II, the number of infants increased during the post-war "Baby Boom," as did the number of women using formula in developed countries. This rise in the use of infant formula can be attributed both to the legitimacy gained by infant formula

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as a safe alternative to breast milk and to the increasing number of women in the work force who needed easier methods to feed their children. With the end of the "Baby Boom" at the beginning of the 1960s, however, sales of formula began to decline in industrialized nations because of declining birth rates. As a result, manufacturers of baby formula began to promote their products in less developed countries with untapped markets and increasing population growth.[8] In this strategy, Nestlé was the poster child of the infant formula industry: it is estimated that Nestlé alone marketed and produced up to 50% of infant formula worldwide.[9] Currently, Nestlé shares the industry with three other leading formula brands—Abbott Laboratories, Mead Johnson, and Danone—which produce 20% of the infant formula worldwide but hold 57.6% of the market share.[9]

Marketing Strategies: Tapping into and/or Forming Meaning-Centered Beliefs

Infant formula gained a foothold in developed nations because of marketing schemes that portrayed breastfeeding as modern. Several factors, such as a cultural shift, accompanying language, sexual taboos and science-as-new-religion gave Nestlé and other infant formula manufacturers precisely the right climate in which to grow.

Research suggests that the shift from breastfeeding to bottle-feeding, especially in the 1930s, demonstrated a larger cultural trend in U.S. society.[10] This shift took place during a period when mothers and health practitioners alike saw infant formula as a clean, quick and convenient solution to the "problem" of breastfeeding. Also, aggressive advertising by formula industries at the time undoubtedly contributed to the decline in numbers of women breastfeeding.[10]

There are tightly held Western cultural taboos about breastfeeding in public that stem from the idea that because the female breast is an erogenous area, it cannot serve a dual purpose as a sexual object and as a means to nourish an infant—at least not a means that can be viewed publicly. Van Esterik rightly points out that it is far more controversial to take out a breast in public than a bottle.[11] There may be a shared belief that breasts, because of their sexual nature, are something to be ashamed of, whereas a bottle does not carry this sexual label.

> As good as scientists get at synthesizing infant formula, manufactured milk simply does not measure up to the health benefits of breastfeeding.

Another commonality among the people of many industrialized nations is strong faith in the power of science. A 1938 article in *Parents Magazine* stated, "Doctors, teachers, nutritionists and research workers are daily proving that not mother love alone, but mother love in combination with the best that science has to offer in all fields of childcare is needed." Alongside this article were advertisements from Nestlé and other infant formula companies, illustrating how these companies were using the appeal of scientific research to promote infant formula.[3]

Many of Nestlé's and other infant formula companies' marketing strategies have included meaning-centered approaches to promote infant formula in both developing and developed nations. In medical anthropology, meaning-centered approaches are the ways in which people interpret their health and well-being based on their cultural framework. As a result, there were areas where Nestlé's marketing was less successful because their Western meaning-centered approach to why formula was useful was at odds with the native culture's customs. For example, part of Nestlé's argument for infant formula was that it would be vital for women who needed to go back to work after having babies and could not breastfeed their babies at work. This was not the case in Mali, where breastfeeding babies in public is not a cultural taboo. Katherine Dettwyler, a professor at the Department of Anthropology at Texas A&M University, discusses breastfeeding practices in her ethnographic research paper entitled, "More Than Nutrition: Breastfeeding in Urban Mali." She notes that it is quite common in Mali to breastfeed in the work place, whether a woman sells goods at the market, is a schoolteacher or is even a nurse.[12] Therefore, the presupposition that women needed to switch to formula when maternity leave ended was not valid in Mali, and Nestlé was not as successful there. From 1982-1983, an ethnographic study of 136 infants was conducted in Farimabougou, Mali. Results of that study showed that 89% of infants breastfed exclusively for the first six months of life. The remaining 11% used formula as a supplement to breast milk. According to Dettweyler, this is an unusually high rate of breast feeding for developing nations. In Niger, a country that borders Mali, only 1% of infants exclusively breastfeed for the first six months of life.[13] Dettweyler argues that regardless of economic factors, Mali is a unique country whose cultural values were the largest influence on women's choice to breastfeed.[12]

Economic issues have also undoubtedly played a role in women's decision to breastfeed in Mali, especially considering that for most families in Mali, formula costs a third of the family's monthly income. In Farimabougou, even for families who could afford it, infant formula was not considered an important expense and people would rather spend their extra money on clothing, school or medical fees.[12]

The third and perhaps most potent reason why substituting infant formula for breast milk may be difficult is the view that breastfeeding is a process, or a series of actions, rather than a product. Van Esterik underscores this approach by arguing that it would be much more difficult to sell alternatives to breast milk in places that view breastfeeding as a process, because a product would be incomparable to the process of breastfeeding.[11] Dettwyler comments that breastfeeding not only deeply bonds a mother and her child, but the very act of breastfeeding creates community among women, a shared activity that connects them. She claims, "Only breastfeeding creates maternal kinship."[12]

There are other strong cultural ties to breastfeeding in Mali, including beliefs that breast milk is healthier for the baby, will make the baby stronger and will create a bond between the person who is breastfeeding and the breastfed infant. This tie exists even if the person breastfeeding is not the biological mother of the baby, and stems from the belief that blood is passed through breast milk. This belief of shared blood creates the belief that a child and the breast feeder become related once breast milk has been shared.[14] Dettwyler concludes that although government promotion of breastfeeding and financial reasons contribute to breastfeeding being the overwhelmingly dominant practice in urban Mali, these are not the primary motivators. Stronger than both of these factors are the traditional beliefs about the nutritional and cultural significance of breastfeeding. "A woman in Farimabougou who decides not to breastfeed is, in effect, deciding not to be related to her children."[14] This case study illustrates why Nestlé's marketing was unsuccessful in Mali—because of the power of a strongly held belief.

In other developing nations, however, Nestlé was able to take advantage of people's cultural beliefs about breast milk. Populations in northeast Brazil, east Bhutan and Zimbabwe all accept the idea that breastfeeding while pregnant could damage the infant and that engaging in intercourse during the months a mother is breastfeeding produces dirty milk.[11] In these regions, Nestlé didn't have to convince anybody or use marketing schemes. Instead, Nestlé and other companies benefited from those existing societal beliefs by providing an alternative—a classic example of how a meaning-centered approach to understanding cultural values helped the infant formula market.

The Ecological Argument

The ecological argument of the infant formula controversy contends that practices in the United States cannot be applied to Third World countries, where resources and contexts are invariably different.[3] In the early 1970s, health officials voiced such an argument about the use of infant formula in Third World nations.

The argument was startlingly simple: infant formula requires the use of water. The water supply in many cities, towns and villages of Third World nations was polluted. Therefore, mothers were feeding their infants contaminated formula. To compound the problem, mothers had to use the same polluted water to wash out the baby bottles. The health ramifications were serious and widespread: polluted water caused intestinal problems and diarrhea in infants, which led to dehydration and death. Bad bottle hygiene caused diarrheal diseases and gastroenteritis.[15] Another factor that made infant formula harmful in Third World countries was over-dilution. Many mothers chose to feed their babies infant formula exclusively instead of breastfeeding. However, the mothers were illiterate and unable to read the package directions to determine the correct amount of water to add to the formula. As a result, the mothers diluted the formula so much that infants did not receive the nutrients they needed to thrive. Additionally, because infant formula was expensive, some mothers tried to "stretch" the formula to make it last longer—effectively diluting it more and unintentionally depriving infants of nutrients. These two factors led to widespread infant malnutrition throughout developing nations.[8]

Also, the physical climate of a region affects the type of bacteria found in formulas. Bacteria become more virulent in tropical climates and are much more likely to contaminate formula than in cooler climates.[3] Formula contaminated with shigella, salmonella and staphylococcus bacteria caused high rates of diarrhea and other diseases in infants throughout the Third World.[16]

The resulting statistics are heartbreaking. According to the August 2009 World Health Organization Factsheet, diarrheal diseases kill 1.5 million children per year.[17] Although steps have been taken to reduce the prevalence of infant formula in developing nations, it is clear that bad practices with formula, such as preparing it with contaminated water, can lead to serious health consequences. The report states that the risk of mortality increases for infants who are either partially breastfed or who are not breastfed at all. Furthermore, the WHO directly states that exclusive breastfeeding practices "could save annually the lives of 1.5 million children under five years of age."[18]

Nestlé's Argument and Actions

These negative effects of formula surfaced when the report The Baby Killer was released in 1974, written by Mike Muller and a nonprofit London activist organization called "War on Want." The article discussed many controversial practices of Nestlé, including promoting infant formulas in communities with high rates of illiteracy and unclean drinking water. It also accused Nestlé of deceiving people by having its employees dress in white suits, as if they were health professionals.[9]

Following the release of The Baby Killer report, Nestlé filed a libel suit against the publisher. Although Nestlé's intended result was to stop the battle from the beginning, the lawsuit ended up having the opposite effect. It increased publicity and media attention for an article that was not popularized until the lawsuit brought it into the spotlight. Although Nestlé won the lawsuit, the company was stigmatized and became the focal point of much controversy.

Directly following the lawsuit, in 1977, Infant Formula Action Committee (INFACT) organized a boycott of Nestlé products in the United States, and it then spread to Europe, Canada, Australia and New Zealand. The boycott and debates inspired the creation of the International Code for the Marketing of Breast-Milk Substitutes,[10] which was adopted by the World Health Assembly in 1981. This code included a written statement, to be distributed with formula, with information about the benefits of breastfeeding, the difficulty of re-starting breastfeeding once it is stopped and the disadvantages of using even partial bottle-feeding. In addition, there was a directive to supply infant formula only to local physicians, rather than to mothers.[17] Three years later, in 1984, Nestlé began to comply with the International Code.[3]

The ramifications of this debate changed some practices in Third World countries. These changes included a tighter grip on the distribution of infant formula samples to health professionals, halting advertising if not approved by local health officials and the disruption of direct contact between company representatives and mothers, which was seen as aggressive advertising.[15] Nestlé's marketing changes in developing nations have been significant due to the International Code, but the International Baby Food Action Network began to monitor compliance with the code and in 1997 issued a report titled "Cracking the Code," which stated that Nestlé, along with other infant formula companies, continued to break the rules and find loop-holes.[3]

Joanna Moorhead discusses one of these loopholes in her 2007 article in *The Guardian* about infant formulas and the issues they have caused in Bangladesh, both in the economy and in community health. She writes, "According to Save the Children's report, infant mortality in Bangladesh alone could be cut by almost a third—saving the lives of 314 children every day—if breastfeeding rates were improved."[19] According to Moorhead, this lack of breastfeeding is due to the efforts of Nestlé and other formula companies to promote their products by not directly selling to mothers, but rather to health officials, having marketers show up every couple of weeks with brochures and notepads that contain instructions on using infant formulas. This type of behavior is not in direct compliance with the WHO code, yet the strategy continues.

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The Aftermath of Nestlé: Where They Are Now

Nestlé states that it has lowered the cost of formula to better serve developing countries. It believes that it has implemented more responsible policies and has learned from the inappropriate marketing conducted in the 1970s.[20] Worldwide, Nestlé's infant formula sales declined by 40% in 1981 and then fell another 27% in 1992.[20] In recent years, however, the company purchased both the Gerber baby food brand in 2007 and the Pfizer's infant nutrition business in 2012.[21] Their message over the last few decades has changed tremendously, and now many Nestlé workers or executives refer to themselves as almost charity "do-gooders," with the slogan 'Good Food, Good Life.'

The infant formula battle has not ended on either side. Action groups such as Baby Milk Action are still concerned about the infant formula industry's distribution of free samples, which seems to be in strict violation of the World Health Assembly code. Although less discussed, the Nestlé Boycott still continues today. Furthermore, activists want the power to monitor infant formula's influences in developing nations more carefully, particularly the distribution of infant formula samples to clinics and mothers. Baby Milk Action cites that Nestlé has continued to break the International Code of Marketing Breast-Milk Substitutes time and time again with no repercussions.[22]

Although Nestlé arguably faced problems in terms of marketing products in aggressive ways and imposing or delegitimizing cultural beliefs, these were relatively minor—and surmountable—compared to the backlash they later faced because of the ecological argument. Nestlé had no right to promote a product in places where it would be impossible or unlikely to prepare it correctly. Infant formula, although relatively safe when all the right steps are followed, should not be promoted so heavily in regions where adequate resources

are not available. Van Esterik states the Nestlé controversy unveiled a larger issue at hand—how the globalization of products may have unknown and undesirable effects. Poverty raises the risk factor of infant formula being used improperly, as women in developing nations may not necessarily have access to clean water, unlike their counterparts in developed nations.[19] This is a perfect example of the globalization of a product gone awry.

Nestlé's mass marketing of infant formula is just one example of the harmful effects of globalization. Moreover, these global issues illustrate why one cannot apply an "industrial" model of marketing and distribution to Third World countries. Even if meaning-centered beliefs were parallel among all nations, the lack of resources and ecological differences are too deep to be healed with the band-aid of lowering the price of formula so that it is more affordable, especially in developing nations. Responsible corporate policy should strive not only to understand the way a client thinks, but also to appreciate social, political and environmental factors that surround clients and the potential risks that globalization could cause in a world filled with social and environmental inequality.

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