Analysis of advertisements of infant food commercialized in the city of Natal, Rio Grande do Norte, Brazil

Maria Giovana Binder Pagnoncelli, Almária Mariz Batista, Michelle Cristine Medeiros Da Silva, Ana Paula Marques Da Costa, Fábio Resende De Araújo, Marcela Pinheiro Marques, Cláudia M. De Quelhas Fidalgo, Maria Cleide Ribeiro Dantas de Carvalho*

Laboratory of Advertising Monitoring for Products Subject to Health Surveillance, Department of Pharmaceutics, Health Sciences Center, Federal University of Rio Grande do Norte

The advertising about maternal milk substitutes has been pointed as one of the factors responsible for the breastfeeding low rates. In this way, legal support was created to assure that the use of such products would not interfere on the healthy breastfeeding habit of the population. This study, developed between June 2006 and May 2008 in the city of Natal, state of Rio Grande do Norte, analyzed the food advertisements divulged under the validity of Law # 11.265/2006, which controls in Brazil the food commercialization and the publicity addressed to parents or keepers of nursling and children in the first childhood. 220 advertisements, being 141 of technical-scientific nature, and 79 for strictly commercial promotion, were collected and evaluated according to legal requirements. The results from this analysis showed that 100% of the advertisements of technical-scientific nature overstepped the clause V; 18.4% the clause IV and 14.2% the clauses I, II and III of article 19^th^ of Law # 11265/2006. In 42% of the advertisements strictly for commercial promotion, the mandatory information mentioned at clauses I and II of the article 5^th^ were not shown. In 8.7% of the advertisements containing such information, it was placed in an area that embarrased its identification and reading, due to used fonts size and/or color; similarly as occurred with the information required by article 19^th^, in the advertisements of technical-scientific nature.


INTRODUCTION

The breastfeeding is recognized as an important

mean for the protection of children physical and mental health, assuring them an adequate nutritional support, defense against several diseases, strengthening the affective and emotional link between the mother and her baby, between many other worthy effects. However, all of these important characteristics were not enough to change the reality found in Brazil respecting to breastfeeding act, once the early weaning still occurs.
The OMS recommends the practice of exclusive breastfeeding for six months, and the breastfeeding added to complementary foods up to two years of life, approximately (WHO, 1991, 2001). The practice of breastfeeding has saved the life of thousands of children all over the world, preventing diarrhea and acute respiratory infections (WHO, 1993). Victora et al. (1987) have demonstrated that as much exclusive maternal milk a child receives, as lower the risk to die by diarrhea and other infections. The use of maternal milk for premature and low weight newborns leads to higher levels of intelligence (Lucas et al., 1992) and visual acuity (Birch et al., 1993), besides to provide an important physical and psychological interaction between the mother and her baby (Harfouche, 1980).

In a metanalysis developed with data resulting from three continents, it was demonstrated that the risk for death by infectious disease is 5.8 times higher between nurslings weaned in the two first months of life, as compared to those who were breastfed. The protection decreased as the child grew up and, in the second year of life, the level of risk oscillated between 1.6 and 2.11 (WHO, 2000).

The benefits of exclusive breastfeeding have been demonstrated in studies for children living in developed countries (Ford; Labbok, 1993), being that in these countries, children feed with infant formulas have up to 5 more times hospitalizations than children breastfed (De Zoysa; Rea; Martins, 1991). Moreover, several studies have evidenced that when breastfeeding does not occur, the child could present several diseases, such as necrotizing enterocolitis (Lucas; Cole, 1990), diabetes (Karjalainen et al., 1992), allergies (Saarinen; Kajosaari, 1995), pneumonia (César et al., 1999) and diarrhea (Vieira G.; Silva; Vieira T., 2003).

The maternal milk has, along the time, demonstrated its superiority respecting to artificial feeding, however, the breastfeeding decline is a fact known all over the world, especially from the final of XIX century upward. The serials consequences of early weaning, especially in the developing countries, have lead to a world movement for the breastfeeding redemption, started in the decade of 70, up to 1981, when the World Health Assembly approved the ‘Code of Commercialization of Maternal Milk Substitutes’ aiming to protect the healthy practices related to nursling and young children feeding. Despite to be less compulsory than a treaty or convention, the Code is an international recommendation of public health, to regulate the marketing of maternal milk substitutes (Sokol, 1999).

According to Almeida and Novak (2004), along all the epochs, the human being was induced to construct alternative paths to answer the demand of women that, per option or imposition, followed the trail of early weaning; which has varied from the centenary figure of wet-nurse until the emblematic “scientific vanguard” constructed by the marketing of the great companies that are modified milk manufacturers. The breastfeeding, besides to be biologically determined, is socio-culturally conditioned, being, therefore, an act impregnated of ideologies and determinants resulting from the concrete conditions of life. Besides, the reasons for the decline of breastfeeding are complex. The commercial promotion of certain products for children feeding and the medical practices not stimulating breastfeeding are some of the reasons related with the problem (Sokol, 1999).

Due to the commitment assumed by Brazil in the World Health Assembly (1981), of implantation of the International Code of Marketing of Maternal Milk Substitutes, it has arose the “Brazilian Norm of Commercialization of Food for Nurslings and Children of First Infancy, Nozzles, Pacifiers and Nursing Bottles” (Norma Brasileira de Comercialização de Alimentos para Lactentes e Crianças de 1ª Infância, Bicos, Chupetas e Mamadeiras – NBCAL), which joined the following legislation: the Ordinance # 2051, dated November 8th, 2001; the Resolution RDC # 222, dated August 5th, 2002 (Technical regulation for Commercial Promotion of Food for Nurslings and Children of First Infancy) and the Resolution RDC # 221, dated August 5th, 2002 (Technical regulation about Nozzles, Pacifiers and Nursing Bottles), whose objective was to assure to appropriate use of such products, avoiding interference in the habit of breastfeeding (Brasil, 2001; 2002a, 2002b).

Giving continuity to normalization process, in January of 2006 was published the Law # 11265 (Brasil, 2006) based on NBCAL, to regulate the commercialization of food for nursling and children of first infancy as well as products of pediatrics correlatives. Its publication reinforced even more the protection and promotion actions addressed to breastfeeding redemption, which is more evident taking into account it was a federal norm issued by the National Congress.

The actions for incentive of breastfeeding in Brasil are supported in three pillars: support, promotion and protection to the practice of exclusive breastfeeding up to the first 6 months of life, and complemented breastfeeding up to 2 years of age or older (Monteiro, 2006).

According to data from “Research of Prevalence of Breastfeeding in Brazilian Capitals and Federal District” (Pesquisa de Prevalência de Aleitamento Materno nas Capitais Brasileiras e no Distrito Federal – PPAM-CDF), the median duration, in days, of breastfeeding in Brazilian capitals varies from 64 days in Fortaleza (CE) to only 5 days in Cuiabá (MT). In Natal (RN), the median is of 25 days (Ministério da Saúde, 1999). As observed,
the Brazilian indexes are much lower than that professed by WHO (1991, 2001), which recommends 180 days of exclusive breastfeeding, and 180 to 730 days or more of non exclusive breastfeeding.

The role of advertising addressed as to outsider public as to healthcare professionals has been pointed as one of the important factors stimulating the early weaning, resulting in significant disservices to babies health, as well as to countries economy. Amorim (2005) reports the changes in children feeding in Brazil, from 1960 to 1988, by means of an analysis of commercial advertising linked to great circulation female magazines in the period. Marketing strategies have been utilized as to promote such products for general population, as to sensitize and convince the healthcare professionals that they could indicate and prescribe industrialized food for children from their own birth, with absolute safety.

Between the diverse causes of early weaning, especially in the industrialized regions, it is the simple presence and advertising influence of artificial food (modified infant milks or formulas, integral milk, besides flours, infant paps and cereals) and other products (nursling bottle, pacifiers) that could be used as substitutes for maternal milk and breastfeeding practice (Rea; Toma, 2000).

The advertising, between other communication strategies, is an important tool in the process of production outflow. It is able to influence and modify habits, irrespectively the motives leading to purchase (Sant' Anna, 2002).

The objective of this work is to evaluate the legal adequacy of commercial promotion of food for nursling and children of first infancy developed in printed matters, and exposed in different places. The obtained results could reveal the profile of commercial promotion of products embraced by Law # 11265 (Brasil, 2006), in the city of Natal/RN, serving as a base for future supervision strategies as an attempt to prevent the abuses of noxious advertising, besides the implantation of more effective educative measures to sensitize the market and healthcare professionals respecting to current legislation, reinforcing the knowledge and information respecting the importance of accomplishment of pertinent legislation and its reflexes to prevent the early weaning.

METHODOLOGICAL PROCEDURES

The research was developed in the period of 2006 June to 2008 May, in the city of Natal/RN, where 220 advertisements were collected respecting the infant food embraced by Law # 11265 (Brasil, 2006), regulating the commercialization of food for nursling and children of first infancy.

The collection was developed in supermarkets, pharmacies, drugstores, medical and nutritional orientation consulting rooms. The visits to such places were developed once a month, occasion in which the advertisements catching was developed.

Twelve pharmacies and drugstores were selected, pertaining to different local and regional networks, in different central or peripheral neighborhoods of the city. Six consulting rooms of pediatrics and six of nutritional orientation have been monitored.

The collected advertisements were classified as technical-scientific or commercial promotion materials, distributed by pharmacies, drugstores and supermarkets, in which the products prices appeared. Then, the advertisements were evaluated respecting to presence or absence of requirements established at Law # 11265 (Brasil, 2006).

RESULTS AND DISCUSSION

A total of 220 advertisements were collected, being 141 (64.1%) of them of technical-scientific nature and 79 (35.9%) for strictly commercial promotion.

Technical-scientific materials

The Law # 11265 (Brasil, 2006) establishes that ‘technical-scientific material’ is all that one elaborated with proven information about products, or related to the ambit of nutrition and pediatrics knowledge and addressed to healthcare professionals.

The advertising of infant formulas for nurslings, follow-up infant formulas for nurslings and nutrient formulas for high risk newborns is not allowed for the outsider public, being allowed only its divulgence as technical-scientific or educative material for physicians and nutritionists, whom will participate in the process of divulgence of information about the nursling feeding.

Out of 220 collected advertisements, 141 (64.1%) were pieces with predominance of infant formulas for nurslings and follow-up infant formulas for nurslings, as shown at Figure 1.

The early weaning, as responsible for increase in the number of children hospitalizations and onset of diverse diseases, has been discussed all over the world. Between so many reasons for the breastfeeding decline, the commercial promotion of food destined to nursling and the lack of impelling from the medical class are two important factors to be considered. The advertising, as for outside public as for healthcare professionals, is one of the factors impelling the early weaning.
According to Goldemberg (1988), the deceptive advertising of maternal milk substitutes, presented to healthcare professionals, has induced physicians to believe that maternal milk would not be enough, requiring some kind of complementation; even in the situations in which hypogalactia is not diagnosed; taking them to prescribe such products, which passed to figure as elements of prophylaxis of infant innutrition.

Is a baby a consumer? With this title, the sociologist Rosana De Divitiis, coordinator of the International Baby Food Action Network (IBFAN) in Brazil, comments the advertising of infant products, including those of feeding, and their regulation with the promulgation of Law # 11265 (Brasil, 2006), questioning as follows:

Are they targets of industry advertising? Respecting to feeding, which one would be the better, safer, opportune and adequate one to a baby in the first infancy? […] if babies could choose, would they opt for the consumption appeals? […] Respecting to feeding, which one would be the better, safer, opportune and adequate one to a baby in the first infancy? It is to defend the infant consumer interests, that government has just signed a Law regulating the manufacturing and commercialization of food for nursling and children of the first infancy (Divitiis, 2006).

The worries with infant food and the problems caused by its wrong conduction have lead to a series of harmful consequences to future generations health. The impelling from advertising respecting to utilization of maternal milk substitutes has been motive of discomfort from many international organizations, which have engaged themselves in alert several countries authorities to look for legal mechanisms to defend children’s health, as is the case of International Code or Marketing of Breast Milk Substitutes and Law # 11265/2006, here in Brazil.

Table I demonstrates the evaluation of divulged advertisements in technical-scientific materials referring to infant food for nursling, analyzed according to legal requirements.

As observed at Table I, in 14.2% of advertisements it was omitted the mandatory information required at clause I, establishing that advertising should make explicit the benefits and precedence of breastfeeding.

Numberless works have demonstrated exhaustively the benefits of breastfeeding for both, the maternal-infant health and between pregnancies spacing. According to World Health Organization (WHO), the breastfeeding practice, currently, saves the life of 6 million of children every year, preventing diarrhea and acute respiratory infections and being responsible for about one third of the fertility decreasing observed in the last decades (Saadeh, 1993).

Also in 14.2% of advertisements, it was verified the absence of orientation about the adequate feeding for pregnant women and wet nurses, emphasizing the preparation for breastfeeding starting and maintenance, which should be maintained for up to two years or more (clause II).

The feeding has a relevant role for the health of individuals, mainly in the life stages characterized by an increase in the demand for energy and nutrients, such as pregnancy or during breastfeeding. In this period, both an intense and peculiar process of tissue formation as well as important organic transformations, occur during a short period of time (Guthrie; Picciano, 1995; King; Weinginer, 1991). From which the necessity of pregnant women and

### TABLE I – Evaluation of advertisements collected in technical-scientific and educative materials, in the period of 2006 June to 2008 May, in the city of Natal/RN

<table>
<thead>
<tr>
<th>INFORMATION REQUIRED BY ARTICLE 19TH OF LAW # 11.265/2006</th>
<th>PRESENT</th>
<th>ABSENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause I</td>
<td>121</td>
<td>85.8</td>
</tr>
<tr>
<td>Clause II</td>
<td>121</td>
<td>85.8</td>
</tr>
<tr>
<td>Clause III</td>
<td>121</td>
<td>85.8</td>
</tr>
<tr>
<td>Clause IV</td>
<td>115</td>
<td>81.6</td>
</tr>
<tr>
<td>Clause V</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
wet nurses, to have a healthy and adequate feeding compensating the nutritional wastage during the periods of pregnancy and breastfeeding.

The difficulties faced by mothers at breastfeeding starting have been responsible for many cases of early weaning. The healthcare professionals can, positively or negatively, influence the breastfeeding starting and its maintenance. Particularly, the nurses and obstetricians during the prenatal period, and the pediatricians and nursing team during the neonatal period, can encourage the breastfeeding and give support to mothers, helping them to early start and acquire self-confidence in their capacity to breastfeed (Patton et al., 1996; Winikoff; Baer, 1980).

According to Lamounier (2003), as the pacifiers as the nozzles could be noxious to babies health due to infections transmission potential, decrease in the time spent sucking breast, and interference in the breastfeeding leading to early weaning.

Other type of irregularity found in 18.4% of advertisements is refereed to clause IV of article 19	extsuperscript{th}, which determines that advertising pieces should bring information respecting the economic implications of the option for food used to substitute maternal milk, besides the disservices caused to nursling health by the unnecessary or inadequate use of such artificial food.

Araújo et al. (2004) have verified that complementary feeding for mothers or wet nurses costs, as an average, 8.7% of minimum wage; and approximately 35% of minimum wage is spent in the baby feeding with infant formulas and 11% with type C cow’s milk. The results indicate that it is cheaper and more effective to assure the breastfeeding of destitute wet nurses, to have a healthy and adequate feeding complementation of destitute wet nurses in order to promote the breastfeeding, than provide formulas or artificial milks favoring the early weaning.

According to Barbosa et al. (2007), from the calculation of percent cost respecting to breastfeeding plus complementary feeding, the use of infant formula represents a cost 3.3 times higher and the use of cow’s milk a cost 1.7 times higher, than the cost value of breastfeeding, demonstrating so that the recommendation of infant formula utilization could not be adopted by the major part of Brazilian population, due to their revenue limitations.

As observed at Table I, all analyzed advertisements were not in accordance with clause V of article 19	extsuperscript{th}, once the information respecting the relevance of development of educative and cultural habits reinforcing the utilization of food constitutive of familial diet were omitted.

The necessity to inform the population respecting the importance of maintenance of a balanced and healthy feeding should always be considered by physicians and nutritionists, once this type of attitude has been pointed as a preventive measure against the development of chronic and degenerative diseases in the adult life. The noxious feeding habits are associated to diverse harms to health, obesity between them, whose indexes have grown in the last decades, as a result of the increase in consumption of high caloric foods and the decrease in physical activity (Almeida; Nascimento; Qualoti, 2002).


Sichieri et al. (2000) have presented suggestions for the definition of alimentary guides for the Brazilian population, excepting children. The establishment of such guides is based on the recognition that an optimal health level depends on nutrition. With the increase of obesity and diseases associated to obesity in Brazil, it is necessary to combine orientations for the reduction of still existing nutritional deficiencies with orientations aiming the prevention of chronic and non transmissible diseases.

According to Ramos and Stein (2000), the nutrition of a population does not depend only on the access to an adequate feeding, but, above all, on the education and culture of this population. The alimentary behavior of a child is determined by the interaction of this child with food, by his/her anatomical-physiological development and by emotional, psychological, social-economic and cultural factors. However, the more marked influence in the formation of alimentary habits is product of the child interaction with his/her own mother or the person responsible for his/her feeding (Euclydes, 2000).

The § 1	extsuperscript{st} of article 19	extsuperscript{th} determines that technical-scientific and educative materials should not contain images or texts, including those of health professional and authorities, recommending or inducing the use of pacifiers, nozzles and nursing bottles or the use of other foods substituting the maternal milk. In the evaluate advertisements, only 1.4% have transgressed this legal device.

It was observed also that all information required at clauses of article 19	extsuperscript{th}, because not cautiously specified by Law, was many times incomplete or presenting double sense, embarrassing so its comprehension. Besides, in all advertisements of technical-scientific nature, the information required at clauses of article 19	extsuperscript{th} was not presented in adequate places in the piece, so embarrassing a lot its identification in the advertisement, besides to forbid or hamper its visual reading, once the utilized fonts were too small and printed in inadequate color, on a ground with little contrast (as, for instance, white letters on mild blue ground).
The absence of clauses regulating these items at Law # 11265 (Brasil, 2006) could be an enabler for strategies aiming the omission of important data, which should be easily detected by the consumer.

In case of medications, the RDC # 102 (Brasil, 2000) yet demonstrates more stringent standards respecting to advertisements format, publicized messages and promotional and other practices, whatever the forms or means for their divulgence; establishing then a rigorous detail in the presentation of mandatory warnings, involving items such as: fonts type, size, color and intensification for different kinds of printed matters (posters, magazines, panels, newspapers), besides those for radio and television advertising. This type of detailing enables as the classification of irregularities committed in the elaboration of advertisements as their repression and supervision by competent authorities.

**Commercial promotion**

According to Law # 11265, “commercial promotion is the conjunction of informative and persuasive activities from the companies responsible for manufacturing or handling, distribution and commercialization, with the purpose to induce the acquisition or sale of a given product” (Brasil, 2006)

Out of 79 advertisements captured in pharmacies, drugstores and supermarkets, the main products divulged were fluid milks, powder milks, modified milks and similar items of plant origin (Figure 2).

The Law # 11265 (Brasil, 2006) establishes at article 5th, clause I, that the commercial promotion of follow-up infant formulas for children of first infancy, fluid milks, powder milks, modified milks and similar items of plant origin should include, in mandatory character, the visual or auditory intensification concerning the mean of divulgence: “The Ministry of Health informs: breastfeeding avoids infections and allergies and is recommended up to 2 (two) year of age or more”.

The clause II of article 5th of the same Law affirms that transition foods and foods based on cereals indicated for nursling or children of first infancy, as well as other food based on milk or not, when commercialized or whatever form presented as appropriate for the feeding of nursling and children of first infancy should include the following warning: “The Ministry of Health informs: after the 6 (six) months of age, continue breastfeeding your baby and offer also new food to him”.

Figure 3 demonstrates the evaluation of commercial promotions respecting to presence of mandatory information required by legislation.

Out of the advertisements presenting the mandatory information, 80.4% explained the speech in a way different from that determined by legislation, once they have utilized the word “warns” instead of “informs” as determined by Law.

The RDC # 222 of NBCAL brings at items 4.2.1 and 4.2.2 the phrase “The Ministry of Health warns” (Brasil, 2002b, emphasis from us). The Law 11265 (Brasil, 2006) utilizes the word informs instead of warns at items I and II of article 5th. Although such alteration has not changed the recommendation structure, it looks to have softened it a little.

The Law # 11265 (Brasil, 2006) has given larger visibility and consistence to the subject of protection and promotion to breastfeeding, besides to condense this subject into a single legal title. The devices of Ordinance MS # 2051 (Brasil, 2001) and Resolutions RDC # 221 (Brasil, 2002a) and RDC # 222 (Brasil, 2002b), which were conflicting with the disposed at Law # 11265 (Brasil, 2006), were automatically revoked by the latter. However, the companies continued subjected to requisites, obligations and conditions of NBCAL, provided they do not contradict the Law # 11265 (Brasil, 2006), once, by the principle
of legality, the infralegal norms could not contradict the devices from a Law.

It was observed also that 8.7% of mandatorily present information was wrongly placed in sites embarrassing their identification and reading, repeating so the problems related to type, size and color of fonts, which were previously detected in the advertisements divulged in technical-scientific nature materials.

The warnings required by legislation have the purpose to stimulate the breastfeeding to beyond the six months of age. Although after this age, children effectively require other foods to complement their feeding, the maternal milk could be an important source of nutrients after the child first year of life (Heinig, 1993; Prentice, 1991). In some populations, the human milk contributes for one to two thirds of energy intake at the end of the first year of life, and continues to be an important fat, Vitamin A, calcium and riboflavin source in the second year of life (Prentice; Paul, 1990).

Several works demonstrated it is not necessary to complement maternal milk with water and/or teas in the first 6 months of life, including even the dry and warm days (Almroth; Bidinger, 1990; Ashraf et al., 1993; Brown et al., 1986; Goldberg; Adams, 1983; Sachdev et al., 1991). Because of that, the WHO recommends the exclusive breastfeeding for 6 months and the maintenance of breastfeeding, but added by complementary foods up to 2 years of life or more (WHO, 1991, 2001). These recommendations are based on current knowledge about the advantages of exclusive breastfeeding and disadvantages of early introduction of foods that are different from human milk (WHO, 1997).

CONCLUSIONS

The profile revealed by the herein developed analysis of advertisements of infant foods embraced by Law # 11265 (Brasil, 2006), has demonstrated that 100% of advertisements divulged in technical-scientific materials infringed the clause V; 18.4% the clause IV and 14.2% the clauses I, II and III of article 19th.

In the case of strictly commercial promotions, 42% did not divulge the mandatory warnings mentioned at clauses I and II of article 5th. It was also observed that out of 80.4% of advertisements containing such warnings, these were appearing with speeches different from that required by legislation. It was equally observed that such speeches were placed in sites not appropriate for their identification and reading, repeating so the problems related to type, size and color of fonts, which were also detected in the advertisements divulged in technical-scientific materials.

The irregularities found in the advertisements, including those addressed to healthcare professionals, have demonstrated that the efforts expended in this sector, in order to restrain the abuses of defective advertising, have not been sufficient yet to heal the excesses committed by the marketing sector of respective manufacturer companies.

Besides, it is necessary a deeper detailing and regulation in some items of Law # 11265 (Brasil, 2006), as the one related to speeches standardization for all mandatory information mentioned at clauses of article 19th, or the one related to fonts size, type and color in the mandatory warnings and information and their allocation in the advertisement piece. It is important to obstruct the palming and loss of this information in the divulgence of all products embraced by this norm, reinforcing so the recommendations resulting from numberless studies demonstrating the importance of breastfeeding and the riskiness of utilization of artificial feeding in the infant nourishment.

REFERENCES


Received for publication on 07th august 2008
Accepted for publication on 16th november 2008