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Introduction of complementary feeding: analysis of practices and factors that influence parental decisions

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Abstract
The World Health Organization (WHO) recommends that mothers exclusively breastfeed their infant for the first six months to achieve optimal growth and development. In addition, children should receive nutritious complementary foods and continue to breastfeed until age two years or older. Several factors still greatly influence the introduction of complementary feeding (ICF). Thus, this research aimed to analyze whether parents perform the appropriate ICF for their children. This survey used a questionnaire prepared via Google Forms®, with 58 participants, 100% women with 28 years old on average. Exclusive breastfeeding (EBF) until the sixth month was reported by 51.7% of the interviewees. Based on feeding characteristics, 69% started introducing food at six months old. Regarding early ICF, infant formula was the most offered food (36.2%). Foods such as crackers, stuffed biscuits, sugar, fruit juice, and cow's milk were offered early to children younger than 24 months. The lack of information, the economic factor, time concerning work, and practicality were the factors that interfered with the introduction of food to children. The importance of professional nutritionists in raising awareness among parents is highlighted, transmitting confidence and aiming at an adequate introduction of complementary foods.

Keywords: Complementary feeding, breastfeeding, infant nutrition.

Graphical Abstract



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1. Introduction

The World Health Organization (WHO) recommends exclusive breastfeeding for up to six months of the child's life. Complementary food should be introduced from this period; therefore, any food ingested before six months is considered an early food introduction (WHO, 2009). According to the Food Guide for Brazilian Children under two years old, breast milk is unique, as it provides all the baby's nutritional needs in the first years of life, contains antibodies, and protects the child from possible infections. Moreover, when the child becomes ill, breastfeeding helps lower the disease's severity, preventing the beginning of other diseases in adulthood, such as asthma, diabetes, and obesity (Brasil, 2021).

Many studies have highlighted innumerable benefits of breastfeeding for infants, such as the lowered risk of otitis media, respiratory illness, gastroenteritis, necrotizing enterocolitis, sudden infant death syndrome, and hypertension. Moreover, breastfeeding significantly impacts women's health by reducing the risk of breast cancer, type 2 diabetes mellitus, and postpartum depression (Motee & Jeewon, 2014; Prell & Koletzko, 2016). Although breastfeeding has advantages for both mothers and their children, globally, breastfeeding rates are not optimal (Melo, Venancio, & Buccini, 2022). For instance, in 2020, only 44% of children were exclusively breastfed in the first six months of life, far below the global maternal, infant, and young child nutrition target to reach at least 70% EBF by 2030 (FAO, IFAD, UNICEF, WFP and WHO, 2020).

The development of the child's organism is only prepared to receive complimentary food from six months when the digestive system is mature enough to digest starch, protein, and fat. Therefore, providing complementary food before such age is harmful and may increase the child's risk of becoming ill and impair the absorption of nutrients in breast milk. Thus, it is unnecessary to offer fruits, baby food, and liquids such as water, tea, juice, and the like early (Brasil, 2021).

According to some studies, children who received food before the period recommended by the WHO were more susceptible to diseases such as malnutrition and obesity (Nascimento et al., 2016; Melo et al., 2021). In addition to the losses that are noticed in the short term, there are long-term consequences, *e.g.*, lower productivity, lower intellectual and social development, as well as poor school performance. On the other hand, Victora et al. (2015) report that breastfed individuals presented better results in cognitive tests, showing a correlation between breastfeeding and the development of intelligence.

After six months of age, the introduction of complementary foods is recommended, as breast milk does not meet all the baby's needs at this stage. In addition, many children are at risk of malnutrition during this period due to a lack of parental knowledge, as they are given food too early or too late, in small amounts, or infrequently (WHO, 2009). The Practical Update Guide of the Brazilian Society of Pediatrics mentions that the child can support the trunk and cervical spine at this stage. Furthermore, with motor development, the child can sit without support, and tongue and jaw movements are more suitable for chewing (Sociedade Brasileira de Pediatria, 2017).

Ardic et al. (2019) indicate that breastfeeding has a protective mechanism against increased morbid weight gain in childhood, and overweight can be avoided with breastfeeding for up to six months and adequate nutrition after this period. It is important to state that there are several factors why breastfeeding is extremely important in the fight against childhood obesity. Thus, identifying childhood feeding behaviors predisposing to obesity development is important to determine what factors can be modified and plan interventions (Gonsalez et al., 2017).

Considering that the introduction of complementary feeding (ICF) encompasses sociocultural and economic conditions, beliefs, as well as diverse knowledge, the present study aims to analyze the practices and factors that influence ICF in children under two years old.

2. Methodology

This applied research had an exploratory objective and quantitative approach with non-probabilistic samples and was carried out in 2022. An online questionnaire prepared via Google Forms® was used and applied on social networks for mothers and fathers, with the following inclusion criteria: only the child's mother or father, aged between 18 and 50 years old, living in Brazil. The research was approved by the Human Research Ethics Committee of Cesumar University (Maringá, PR, Brazil) under opinion n° 5.446.903 and Certificate of Presentation of Ethical Appreciation (CAAE) number 58900222.5.0000.5539. In this context, those responsible for the children signed and agreed with

the Free, Prior, and Informed Consent (FPIC) for participation.

For data collection, the form was applied in two parts: the first included sociodemographic data, such as name, education, age, city of residence, and family income; the second obtained information about the child and introduction of complementary feed (ICF), such as the child's current age, exclusive breastfeeding (EBF) up to six months, when the ICF began, whether there was an early introduction of some foods, as well as factors and practices carried out in this phase. The results were entered in Microsoft® Office Excel and gathered in tables, figures, and a percentage in the data analysis.

3. Results and Discussion

Fifty-eight parents residing in Brazil voluntarily participated in this study through an online questionnaire. **Table 1** shows the main sociodemographic characteristics: 100% of the participants were women, with a mean age of 28 years, and 45% had completed higher education, with a monthly family income ranging from 1 to 3 minimum wages representing 50% of the participants.

Table 1 Parents' social characteristics in the research about the introduction of complementary feed (n = 58).

Characteristics	n	Pf (%)
Participant's gender		
Woman	58	100%
Man	0	-
Education		
Complete primary education	0	-
incomplete primary education	1	1.7%
Complete high school	14	24.1%
Incomplete high school	2	3.4%
Complete Higher Education	26	44.8%
Incomplete Higher Education	15	25.9%
Illiterate	0	-
Family income		
≤ 1 Minimum wage	3	5.2%
1-3 Minimum wages	29	50%
> 4 Minimum wages	26	44.8%

n = number of mothers. Pf = percentage frequency.

Based on the feeding characteristics in **Table 2**, it is possible to observe that exclusive breastfeeding (EBF) until the sixth month was reported by 51.7% of the interviewees. On the other hand, 69% of the children started introducing food at six months of age, and only 2% with less than four months. Regarding early food introduction, infant formula was the most offered food, 36.2%, followed by fruit, with 24.1%.

Table 2 Children's feeding characteristics in the first six months of life in the research about the introduction of complementary feed (n = 58).

Food Characteristics	n	Pf (%)
Beginning of food introduction		
Less than 4 months	1	1.7%
Four months	4	6.9%
Five months	10	17.2%
Six months	40	69%
Exclusive breastfeeding for up to six months		
Yes	30	51.7%
No	28	48.3%
Food offered before six months		
Fruit juice	1	1.7%
Fruit	14	24.1%
Meat	1	1.7%
Eggs	1	1.7%
Biscuit or biscuit stuffed	0	-
Sugar	0	-
Cow milk	3	5.1%
infant formula	21	36.2%
Refrigerator	0	-
Chocolate milk	0	-
Coffee	0	-
Rice	1	1.7%
Bean	3	5.1%
Bread	0	-
vegetable porridge	7	12%
Tea	1	1.7%
Water	1	1.7%

n = number of mothers. Pf = percentage frequency.

Table 3 shows the main foods offered to children between 6 months to 12 months. It was verified that 98.3% ate fruit, 94.8% beans, 89.7% rice, 84.5% meat, 82.8% vegetable porridge, 79.3% eggs, and 55.2% bread. In addition, it was observed that 50% of the children were offered fruit juice.

Table 3 Food offered to children between 6 and 12 months in the research about the introduction of complementary feed (n = 58).

Food Characteristics	n	Pf (%)
Food offered from 6 to 12 months		
Fruit juice	29	50%
Fruit	57	98.3%
Meat	49	84.5%
Eggs	46	79.3%
Biscuit or biscuit stuffed	10	17.2%
Sugar	8	13.8
Cow milk	12	20.7%
infant formula	27	46.6%
Refrigerator	4	6.9%
Chocolate milk	5	8.6%
Coffee	7	12.1%
Rice	52	89.7%
Bean	55	94.8%
Bread	32	55.2%
vegetable porridge	48	82.8%

n = number of mothers. Pf = percentage frequency.

The data also revealed that between 12 and 24 months, sugar consumption (cakes, chocolate, filled cookies, candies, chocolate) represented 70.7%. When asked if breastfeeding was offered until two years of age, only 35.8% answered yes, 64.2% did not continue with breastfeeding, and 8.62% chose not to answer. When asked how they obtained information about food introduction, 67.2% of

respondents were advised by a physician, and only 17.2% sought follow-up with a nutritionist (**Fig. 1**).

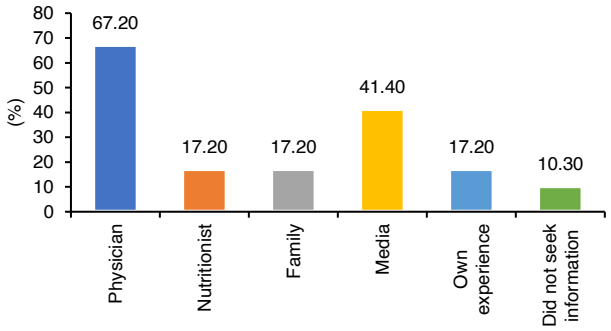


Fig. 1 Factors influencing children's food introduction (n = 58) regarding the following question: "Where did you look for information about your child's diet?"

The main factors that influenced inadequate ICF were grandparents and relatives who offered food without parental consent, with 29.3%; parents who offered food to the child "not feeling like it," 22.4% (n = 13); on the other hand, 25.8% of the mothers offered foods recommended by the child's doctor or nutritionist (**Table 4**).

Table 4 Factors influencing children's food introduction (n = 58).

Characteristics	n	Pf (%)
Factors influencing the child not to have a healthy diet until the age of two		
Economic factor	5	8.6%
Grandparents and relatives offered food without parental consent	17	29.3%
Lack of information	5	8.6%
Option for parents to offer some foods so that the child "does not feel like it"	13	22.4%
Only foods recommended by the child's doctor or nutritionist were offered	15	25.8%

n = number of mothers. Pf = percentage frequency.

In this study, it was observed that more than half of the participants started introducing complementary foods at six months in their children. However, 25.8% (n = 15) of mothers started introducing food early. Exclusive breastfeeding is recommended up to six months, from the first hour of life, because before six months, the offer of other foods can be highly harmful, and with that, increase the risk of the child becoming ill, possibly impairing the absorption of important nutrients present in breast milk, for example, iron and zinc (Brasil, 2021).

A study carried out in Brasília (DF, Brazil) on the practices of introducing food with 44 mothers showed similar results. In addition, 61% of the children studied started introducing food in the sixth month of life, and 32% started between the fourth and fifth months (Siqueira et al., 2021).

Studies indicate that ICF often occurs at an early age (Bernardi et al., 2009), and this may often be associated with beliefs that permeate the child's diet and with a possible difficulty in understanding or even assimilating the guidelines provided by health professionals to parents, causing them to forget the guidelines or prefer not to follow them (Escarce et al., 2013). Toloni et al. (2011), Toloni et al. (2014), and Melo et al. (2021) reported that most of the children evaluated received food in addition to breast milk before six months of age, which is considered early food introduction (WHO, 2021).

According to Elias et al. (2021), early food introduction can be influenced by different factors, such as economics, education, the mother's age, and availability of time with the baby, with early weaning being one of the factors directly related to this fact. In the present study, it was possible to observe that 94.8% of the mothers had completed high school or higher education. Thus, the level of education was not a determinant that influenced inadequate ICF.

Of the interviewees in this survey, 17.2% of the mothers preferred to follow their child's diet independently, and 10.3% did not seek adequate information. In this way, it is possible to consider that the lack of information or believing that one is doing it correctly, without the help of a specialized professional in the area, can influence the child's health in the short and long term (Schincaglia et al., 2015).

A study carried out in Dourados (MS, Brazil) found that the greatest difficulties encountered in the introduction of the complementary feed process were associated with access to information, as well as other social determinants, such as double working hours and low economic status (Vergara et al., 2022).

According to Passanha, Cervato-Mancuso & Silva (2010), the most common consequences of early weaning can lead to pathologies, infections, and food allergies, in addition to an increase in the mortality rate due to malnutrition in the first years of the child's life. Breast milk has other components that act in defense of the baby's body, such as immunoglobulins, anti-inflammatory and immune-stimulating factors, and decreases the incidence or severity of diarrhea, botulism, necrotizing enterocolitis, allergies, infectious and respiratory diseases, including autoimmune.

In the current study, 20.7% of the mothers offered cow's milk before the child was 12 months old. This type of milk can increase the risk of developing

diseases and allergies in childhood, in addition to causing lesions in the immature intestine of the infant (Passanha, Cervato-Mancuso & Silva, 2010).

With the early introduction of cow's milk, the newborn's body is more susceptible to hypersensitivity reactions, associated with a higher incidence of cow's milk protein and other allergies (Ribeiro et al., 2022). In addition, between 12 and 24 months, 70.7% of the mothers offered sugary foods such as cookies, sandwich cookies, cake, chocolate milk, candies, and chocolate. This was considered a worrying result once the WHO and Ministry of Health guidelines recommend ingesting sugar only after two years because it harms the child's health and sleep and increases the risk of overweight, obesity, diabetes, and cavities (Brasil, 2021).

In Porto Alegre (RS, Brazil), a study was carried out with infants hospitalized (n = 300) in a tertiary hospital from March 2012 to July 2013. The survey demonstrated that 79% of children under two years had consumed ultra-processed foods, and 56.5% had already received this type of food before six months of life. The foods most offered to children before the age of two were: crackers (65.7%), gelatin (62.3%), and petit Swiss cheese (58.3%). The authors concluded that older maternal age was related to a greater introduction to these foods (Giesta et al., 2019).

Ultra-processed and high-sugar foods are included early in infants' first experiences with food. However, these should not be part of the eating routine, as they may be associated with overweight, the appearance of food allergies and anemia, and negatively interfering with the child's appetite, as they compete with more nutritious foods. Furthermore, in this approach, it is necessary to consider the innate preference for the sweet taste; providing foods rich in sugar can increase the chances of rejection of natural foods (Alcântara & Almeida, 2020).

As seen in **Table 4**, only 25.8% of the mothers followed the medical or nutritional recommendations, a relatively low number concerning the interviewed public. Still, 29.3% reported that the child's diet was influenced by grandparents and relatives who offered food without parental consent.

The lack of information, economic factors, time in relation to work, practicality, and family bond with the child were some practices and factors observed in this research. According to Siqueira et al. (2021), the lack of information in many families generates several errors or insecurity in ICF, which can affect the child's health in the short and long term. Implementing actions regarding the promotion of breastfeeding and the introduction of infant food is crucial, which depends on public health policies and the parents' search for information regarding the subject's importance.

Moura et al. (2022) report that policies and actions developed within the Brazilian Unified Health System (SUS) to promote recommended breastfeeding and complementary feeding practices include the National Policy of Food and Nutrition (PNAN) and the National Policy on Integral Attention to the Health of the Child (PNAISC). Under the PNAISC, some actions are included, such as the Baby-Friendly Hospital Initiative, the Brazilian Marketing Code for Food, Nipples, Pacifiers, and Bottles for Infants and Young Children (NBCAL), the Action to Support Working Women Who Breastfeed, the National Day of Human Milk Donation, and the Food Guide for Brazilian Children Under Two Years Old. This guide is available online, and parents can access it. In addition**,** the guide corresponds to the characteristics of each region, providing recipes with typical foods from each place and exposing important information about Exclusive breastfeeding (EBF) and ICF. However, following up with a health professional from birth is important to clarify the parents' main doubts.

4. Conclusion

This survey revealed that foods such as biscuits, stuffed biscuits, sugar, fruit juice, and cow's milk were offered early to six-month-old children, which may influence the child's development, nutritional status, and general health in the future. Therefore, guidance to parents on the risks of these foods at this stage is very important. In addition, several factors were found to influence the practices of introducing complementary feed. However, many parents prefer to follow their own opinions and beliefs at this stage, choosing not to follow the appropriate recommendations. Therefore, it highlights the importance of the nutritionist in raising awareness, transmitting confidence, aiming at positive results with breastfeeding, and, consequently, an adequate introduction of complementary foods. In this way, health professionals must be attentive to practices to adapt actions to promote the subject, providing parents with opportunities to acquire knowledge and skills about infant feeding.

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Authors' Contributions

I.C.R.: Data Curation; Investigation; Writing - Original Draft. V.C.I.: Conceptualization; Data Curation; Writing - Review & Editing. All authors read and approved the final manuscript.

Availability of data and materials

Data are available upon request from the corresponding author.

Ethics approval and consent to participate.

The research was approved by the Human Research Ethics Committee of Cesumar University (Maringá, PR) under opinion n° 5.446.903 and Certificate of Presentation of Ethical Appreciation (CAAE) number 58900222.5.0000.5539. In this context, those responsible for the children signed and agreed with the Free and Informed Consent Term (TCLE) for participation.

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Competing interests

The authors declare that they have no competing interests.

References

Alcântara, K. R., & Almeida, G. S. (2020). Alimentos ultraprocessados com altos teores de açúcar nos hábitos alimentares de lactentes. Monografia (Bacharelado em Nutrição) Faculdade de Ciências da Educação e Saúde, Centro Universitário de Brasília, Brasília. 24 p.

Ardic, C., Usta, O., Omar, E., Yıldız, C., & Memis, E. (2019). Efectos de las prácticas alimentarias durante la lactancia y de las características maternas en la obesidad infantil. *Archivos Argentinos de Pediatria*, *117*(1), 26–33. https://doi.org/10.5546/aap.2019.26

Bernardi, J. L. D., Jordão, R. E., & Barros Filho, A. A. (2009). Alimentação complementar de lactentes em uma cidade desenvolvida no contexto de um país em desenvolvimento. *Revista Panamericana de Salud Pública*, *26*(5), 405–411. https://doi.org/10.1590/S1020-49892009001100004

Brasil. (2021). Ministério da Saúde. Secretaria de Atenção Primaria à Saúde. Departamento de Promoção da Saúde. *Guia alimentar para crianças brasileiras menores de 2 anos*. Ministério da Saúde. Brasília. 265 p.

Elias, B. C., Damiani, B. K., Ramos, C. C. L., & Silveira, J. M. (2021). Consequências do desmame precoce e seus fatores determinantes. Artigo científico (Graduação em Nutrição) – UNISOCIESC. RUNA - Repositório Universitário da Ânima. Available at: <https://repositorio.animaeducacao.com.br/handle/ANIMA/20478>. Accessed on 10 May 2023.

Escarce, A. G., Araújo, N. G. de, Friche, A. A. de L., & Motta, A. R. (2013). Influência da orientação sobre aleitamento materno no comportamento das usuárias de um hospital universitário. *Revista CEFAC*, *15*(6), 1570–1582. https://doi.org/10.1590/S1516-18462013000600020

FAO, IFAD, UNICEF, WFP, & WHO. (2020). The State of Food Security and Nutrition in the World 2020: *Transforming Food Systems for Affordable Healthy Diets*. FAO, Rome. 320 p. https://doi.org/10.4060/ca9692en

Giesta, J. M., Zoche, E., Corrêa, R. da S., & Bosa, V. L. (2019). Associated factors with early introduction of ultra-processed foods in feeding of children under two years old. *Ciência e Saúde Coletiva*, *24*(7), 2387–2397. https://doi.org/10.1590/1413-81232018247.24162017

Gonsalez, P. S., Retondario, A., Bricarello, L. P., González-Chica, D. A., Silva, D. A. S., & Vasconcelos, F. de A. G. de. (2017). Exclusive breastfeeding, complementary feeding and association with body fat excess among schoolchildren in Florianópolis, Santa Catarina, Brazil. *Revista Brasileira de Saúde Materno Infantil*, *17*(1), 115–125. https://doi.org/10.1590/1806-93042017000100007

Melo, D., Venancio, S., & Buccini, G. (2022). Brazilian strategy for breastfeeding and complementary feeding promotion: A program impact pathway analysis. *International Journal of Environmental Research and Public Health*, *19*(16). https://doi.org/10.3390/ijerph19169839

Melo, N. K. L. de, Antonio, R. S. do C., Passos, L. S. F., & Furlan, R. M. M. M. (2021). Aspectos influenciadores da introdução alimentar infantil. *Distúrbios da Comunicação*, *33*(1), 14–24. https://doi.org/10.23925/2176-2724.2021v33i1p14-24

Moura, A. S., Gubert, M. B., Venancio, S. I., & Buccini, G. (2022). Implementation of the strategy for breastfeeding and complementary feeding in the Federal District in Brazil. *International Journal of Environmental Research and Public Health*, *19*(9). https://doi.org/10.3390/ijerph19095003

Motee, A., & Jeewon, R. (2014). Importance of exclusive breast feeding and complementary feeding among infants. *Current Research in Nutrition and Food Science*, *2*(2), 56–72. https://doi.org/10.12944/CRNFSJ.2.2.02

Nascimento, V. G., da Silva, J. P. C., Ferreira, P. C., Bertoli, C. J., & Leone, C. (2016). Maternal breastfeeding, early introduction of non-breast milk, and excess weight in preschoolers. *Revista Paulista de Pediatria (English Edition)*, *34*(4), 454–459. https://doi.org/10.1016/j.rppede.2016.05.002

Passanha, A., Cervato-Mancuso, A. M., & Silva, M. E. M. P. e. (2010). Elementos protetores do leite materno na prevenção de doenças gastrintestinais e respiratórias. *Journal of Human Growth and Development*, *20*(2), 351. https://doi.org/10.7322/jhgd.19972

Ribeiro, A. A., Burtet, A. L., Marsura, A. M., Souza, D. C., Ferreira, J. P. R. B., Nahime, M. C. R., Nogueira, M. F. A., & Souza, D. M. (2022). O desmame precoce como causa da alergia à proteína do leite de vaca: uma revisão / Early weaning as a cause of cow's milk protein allergy: a review. *Brazilian Journal of Development*, *8*(4), 25502–25508. https://doi.org/10.34117/bjdv8n4-187

Prell, C., & Koletzko, B. (2016). Breastfeeding and complementary feeding. Recommendations on infant nutrition. *Deutsches Ärzteblatt International*, *113*(26), 435–445. https://doi.org/10.3238/arztebl.2016.0435

Schincaglia, R. M., Oliveira, A. C. de, Sousa, L. M. de, & Martins, K. A. (2015). Práticas alimentares e fatores associados à introdução precoce da alimentação complementar entre crianças menores de seis meses na região noroeste de Goiânia. *Epidemiologia e Serviços de Saúde*, *24*(3), 465–474. https://doi.org/10.5123/s1679-49742015000300012

Sociedade Brasileira de Pediatria (2017). Departamento Científico de Nutrologia. A alimentação complementar e o método BLW (Baby-Led Weaning). *Guia Prático de Atualização, 3*. Sociedade Brasileira de Pediatria. Available at: <https://www.sbp.com.br/fileadmin/user_upload/19491c-GP_-_AlimCompl_-_Metodo_BLW.pdf> Accessed on 26 May 2023.

Siqueira, A. I., Silva, C. A. da, Rocha, J. L. O., Silva, B. N. da, Paz, R. de C. da, Rezende, A. J. de, & Fortes, R. C. (2021). Análise das práticas de introdução alimentar de mães residentes em Brasília - Distrito Federal / Analysis of feeding introduction practices of mothers from Brasilia - District Federal. *Brazilian Journal of Development*, *7*(8), 85105–85120. https://doi.org/10.34117/bjdv7n8-630

Toloni, M. H. de A., Longo-Silva, G., Goulart, R. M. M., & Taddei, J. A. de A. C. (2011). Introdução de alimentos industrializados e de alimentos de uso tradicional na dieta de crianças de creches públicas no município de São Paulo. *Revista de Nutrição*, *24*(1), 61–70. https://doi.org/10.1590/S1415-52732011000100006

Toloni, M. H. de A., Longo-Silva, G., Konstantyner, T., & Taddei, J. A. de A. C. (2014). Consumo de alimentos industrializados por lactentes matriculados em creches. *Revista Paulista de Pediatria*, *32*(1), 37–43. https://doi.org/10.1590/S0103-05822014000100007

Vergara, M. de S., Rodrigues, F. S., Brito, G. T., Da Silva, C. C. G., Eleutério, A. E. S., & E Queiroz, A. P. D. de G. (2022). Introdução à alimentação complementar em lactentes na Estratégia Saúde da Família Piratininga / Introduction to complementary feeding in infants at Piratininga Family Health Strategy. *Brazilian Journal of Development*, *8*(2), 12043–12051. https://doi.org/10.34117/bjdv8n2-239

Victora, C. G., Horta, B. L., de Mola, C. L., Quevedo, L., Pinheiro, R. T., Gigante, D. P., Gonçalves, H., & Barros, F. C. (2015). Association between breastfeeding and intelligence, educational attainment, and income at 30 years of age: A prospective birth cohort study from Brazil. *The Lancet Global Health*, *3*(4), e199–e205. https://doi.org/10.1016/S2214-109X(15)70002-1

World Health Organization - WHO. (2021). Infant and young child nutrition. World Health Organization. Geneva. Available at <https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding>. Accessed on 10 May 2023.

World Health Organization - WHO. (2009). Infant and young child feeding: model chapter for textbooks for medical students and allied health professionals. World Health Organization. Geneva. 99 p.

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