



Submitted : 16 September, 2026

Accepted : 24 September, 2026

Published : 25 September, 2026

***Corresponding author:** Débora Fernandes Universidade Federal do Paraná (UFPR), Programa de Pós-Graduação em Engenharia de Alimentos (PPGEAL), CEP (81531-980), Curitiba, Paraná, Brasil, E-mail: debora.fernandes@uniarp.edu.br

Keywords: Complementary feeding; Pediatric nutrition; Nutritional counseling; Processed foods; Infant feeding practices; Early childhood development

Copyright License: © 2026 Costa JD, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

<https://www.foodscigroup.us>



Check for updates

Research Article

Complementary Feeding Practices and Nutritional Counseling: A Cross-Sectional Qualitative Study in Southern Brazil

Jéssica Dalla Costa¹, Cristine Vanz Borges¹ and Débora Fernandes Pinheiro^{2*}

¹Universidade Alto Vale do Rio do Peixe (UNIARP), Programa de Pós-Graduação em Desenvolvimento e Sociedade, CEP (89500-199), Caçador, Santa Catarina, Brasil

²Universidade Federal do Paraná (UFPR), Programa de Pós-Graduação em Engenharia de Alimentos (PPGEAL), CEP (81531-980), Curitiba, Paraná, Brasil

Abstract

Objective: To investigate how complementary feeding practices are implemented and to assess parents' awareness of the importance of professional nutritional monitoring during the complementary feeding period.

Materials and methods: A cross-sectional, qualitative study exploring feeding practices and sources of guidance used by parents during the introduction of solid foods. The study was conducted in Brazil within the *Mãe Caçadore* parenting group, located in the state of Santa Catarina, Brazil. A total of 97 individuals participated in the study. Among them, 51 parents or caregivers reported recent experiences related to complementary feeding. Key variables included: whether participants sought nutritional counseling during complementary feeding; sources of feeding guidance (pediatrician, family members, nutritionists); timing of solid food introduction; age at which processed foods were first offered; and parents' intentions regarding future feeding practices.

Results: The results showed that 78.8% of parents did not seek nutritional counseling during the complementary feeding phase. Among those who did receive guidance, 61.5% relied primarily on pediatricians, while all instances of consulting a nutritionist occurred only after complementary feeding had already begun. The main reasons for seeking nutritional advice were concerns about the child's weight and diet-related health conditions. Although the introduction of solid foods generally occurred in line with recommended guidelines, among participants who reported introducing processed and ultra-processed foods, the mean age at introduction was 5.96 ± 2.88 months. Many participants expressed a desire to adopt healthier feeding practices in the future.

Conclusion: Exclusive breastfeeding alone is no longer sufficient after six months of age, making complementary feeding essential to meet an infant's nutritional needs. This study shows that many parents lack timely access to professional nutritional guidance, often relying instead on pediatricians or family advice, which can lead to inadequate feeding practices. These findings highlight the need to strengthen the role of nutritionists and ensure that families receive accessible, evidence-based guidance to support healthy complementary feeding and prevent long-term nutrition-related health risks.

Introduction

Parents play a fundamental role in ensuring the health and development of their children, with nutrition being a key element, especially during the transition from exclusive breastfeeding to complementary feeding [1-3]. This phase

represents a critical milestone in child growth, with significant and lasting effects on health and well-being [4]. Adequate nutrition supports not only physical growth but also cognitive development, reinforcing the need for close nutritional monitoring from the earliest stages of life, starting in the intrauterine period, when metabolic programming begins and extends throughout childhood into adulthood [5,6].

Poor feeding practices during infancy are strongly associated with recurrent infections, nutrient deficiencies, and an increased risk of both undernutrition and overweight or obesity [7]. The human right to adequate food (HRAF) is recognized as universal and fundamental, ensuring that everyone has access to food that is sufficient in quantity and quality and adapted to each life stage, respecting individual health conditions, preferences, and restrictions [8,9].

Breast milk is widely acknowledged as the most complete source of nutrition for newborns, providing essential nutrients and immunological protection that support healthy growth and strengthen the mother-child bond [2,10]. In line with this, the World Health Organization (WHO) recommends exclusive breastfeeding for the first six months of life and continued breastfeeding alongside complementary feeding up to two years of age or beyond [11]. After six months, however, breast milk alone is no longer sufficient to meet the child's increasing nutritional and energy demands, making the introduction of complementary foods essential to ensure adequate intake of energy, protein, and micronutrients [12].

Evidence highlights the importance of nutritional monitoring during this transition. For example, Utami and Wanda (2019) [13] found that although caloric and macronutrient intake in infants fed with Baby-Led Weaning (BLW), Baby-Led Introduction to Solids (BLISS), or the traditional spoon-feeding method met general recommendations, iron and vitamin B12 intake were often insufficient. This demonstrates that, regardless of the method chosen, parents need professional guidance to ensure nutritional adequacy during complementary feeding.

In this context, the present study aimed to explore how complementary feeding is practiced by parents participating in the "Mãe Caçadorese" group, located in the municipality of Caçador, in the state of Santa Catarina, Brazil. Specifically, it sought to: (i) describe the sociodemographic profile of participating parents or caregivers; (ii) analyze the timing, types of foods offered, and consistency practices during complementary feeding; (iii) assess parents' knowledge and perceptions about the importance of nutritional monitoring; and (iv) identify potential gaps or barriers in parental adherence to nutritional recommendations during complementary feeding.

Materials and methods

Study design and ethical considerations

This was a cross-sectional study with a qualitative approach, conducted among parents or legal caregivers of children who had initiated complementary feeding. The study was conducted in accordance with the ethical principles of the Declaration of Helsinki and was approved by the Research Ethics Committee of Universidade Alto Vale do Rio do Peixe (UNIARP), Brazil (protocol no. 7.111.937/2024). All participants provided written informed consent before participation.

Study location and population

Participants were recruited in person through the Mãe Caçadorese Program, a municipal public health initiative

associated with the Brazilian Unified Health System (Sistema Único de Saúde – SUS), in Caçador, Santa Catarina, Brazil.

A total of 97 individuals proceeded to eligibility assessment. Forty-six individuals were excluded: 32 were pregnant with their first child, five declined participation, two were unable to provide relevant information about the complementary feeding practices of their child, and seven had children older than the predefined age limit. Thus, 51 parents or legal caregivers met the eligibility criteria and were included in the final analysis. Convenience sampling was used.

Eligible participants were parents or legal caregivers of children younger than 10 years who had already initiated complementary feeding. Individuals who were not parents or legal caregivers, whose children had not yet initiated complementary feeding, or who declined participation were excluded.

Development of data collection instrument

Because no previously validated questionnaire fully addressed the specific dimensions investigated in this study, a structured instrument was developed based on the scientific literature and the objectives of the research. The instrument addressed sociodemographic characteristics, complementary feeding practices, sources of nutritional guidance, introduction of different food groups, and perceptions regarding nutritional counseling.

The content of the instrument was reviewed by six experts, including two pediatricians, one nutrologist, and three nutritionists. The experts assessed the clarity, relevance, and appropriateness of the questions in relation to the study objectives. Based on their evaluations, the instrument was refined before data collection.

A pilot test was subsequently conducted with nutrition professionals to assess the clarity and comprehensibility of the questions and to identify potential difficulties in their interpretation. Adjustments were made before the final version of the instrument was applied.

Data collection

Data were collected through face-to-face interviews conducted by a trained researcher specializing in maternal and child health. The interviewer had no prior relationship with the participants. Interviews were conducted individually in a private setting to ensure confidentiality and minimize potential discomfort.

The structured instrument included questions regarding sociodemographic characteristics, breastfeeding history, the age at which complementary feeding was initiated, foods introduced during complementary feeding, sources of information or guidance, and access to nutritional counseling.

Questions concerning the sources of guidance allowed participants to select more than one response. Therefore, these categories were not mutually exclusive, and the corresponding percentages were calculated independently.

For questions concerning the age at which processed foods were introduced, participants who reported that such foods had not been offered were not included in the calculation of the mean age of introduction. The reported mean therefore represents only participants who provided a specific age at which these foods were introduced.

All interviews were audio-recorded using a smartphone with the participants' permission. The recordings were subsequently transcribed verbatim, and the transcripts were reviewed for accuracy.

Qualitative data analysis

The qualitative data were analyzed using thematic content analysis. Two researchers independently reviewed the interview transcripts and performed the initial coding. Codes were generated inductively from recurring meanings, concepts, and patterns identified in the participants' responses. Related codes were subsequently grouped into broader categories and themes.

The researchers compared their coding and interpretations throughout the analytical process. Any discrepancies were discussed and resolved by consensus. The emerging themes were reviewed iteratively to ensure that they adequately represented the participants' responses and remained consistent with the study objectives.

Data collection and analysis continued until thematic saturation was reached, defined as the point at which no new relevant codes or categories emerged from the interviews.

Participants were identified using pseudonyms in the presentation of qualitative findings to preserve confidentiality.

Statistical analysis

Descriptive statistics were used to summarize the quantitative characteristics of the sample. Continuous variables were presented as means and standard deviations, while categorical variables were presented as absolute frequencies and percentages. For variables involving multiple responses, percentages were calculated independently and therefore were not expected to sum to 100%.

For the age of introduction of processed foods, only participants who reported an age of introduction were included in the calculation of the mean and standard deviation; responses indicating that the foods had not been offered were treated as not applicable to this calculation.

Results and discussion

A total of 51 participants were included in the final analysis, ranging in age from 16 to 43 years, as shown in Table 1. The vast majority were female (98.1%) and reported educational levels ranging from completion of the fifth grade of primary school to higher education. The number of children per mother ranged from 1 to 6, with a mean of 2.52 children per mother. The age at which participants gave birth to their first child ranged from 14 to 31 years, with a mean age of 19.65 years at the time of the first childbirth (Table 1).

Table 1: Sociodemographic Characteristics and Feeding Practices of the Sample.

Variable	Min - max	Mean $\pm$ SD
Current maternal age (years)	16 – 43	27.67 $\pm$ 6.25
Age at introduction of complementary feeding (months)	2 – 9	5.48 $\pm$ 1.32
Number of children per mother	1 – 6	2.52 $\pm$ 1.07
Years of education (years)	5 - $\leq$ 14	10.27 $\pm$ 2.83
Duration of breastfeeding (months)	0 - $\leq$ 24	7.63 $\pm$ 7.35
Age at introduction of processed foods (months)	5 – [not offered]	5.96 $\pm$ 2.88

Notes: SD: standard deviation; Min: minimum; Max: maximum. Mean $\pm$ SD for age at introduction of processed foods was calculated only among participants who reported introducing these foods. Responses indicating that such foods were "not offered" were excluded from the calculation.

Of the respondents, 21.2% (n = 11) reported seeking nutritional counseling. However, all those who consulted a nutritionist did so only after having already begun complementary feeding. No participant reported seeking nutritional guidance before starting the introduction of solid foods. Among the most common sources of guidance, participants were allowed to report more than one source of complementary feeding guidance; therefore, the percentages were not mutually exclusive and could exceed 100%. Pediatricians were reported as a source of guidance by 61.5% of participants, family members by 21.2%, and 32.7% reported relying on their own knowledge or initiative. These categories should therefore be interpreted independently rather than as mutually exclusive sources.

In the open-ended responses, several topics emerged related to breastfeeding, the timing and consistency of complementary feeding, and the introduction of processed foods.

Breastfeeding

There is no doubt that breastfeeding is the optimal food for the infant's first months of life. It provides complete nutrition and various health benefits for the baby, such as protecting the gastrointestinal and respiratory systems against infections, supporting healthy weight gain, being free of contamination, and strengthening the mother-child bond [14].

When asked if they practiced breastfeeding, some mothers' statements were notable:

"Only at the beginning, then it didn't work anymore. It wasn't even two weeks. I got uncomfortable and stopped." (Bromelia, 2023).

"No, he's been on infant formula since birth." (Ixora, 2023)

"Actually, until two months. He didn't want it anymore, and I didn't insist too much." (Cineraria, 2023).

"No. I couldn't. I did practically everything, but it didn't work out." (Chrysanthemum, 2023).

Among the negative outcomes of early weaning and inadequate complementary feeding are impaired growth and reduced quality of life, with greater risk of obesity at any life

stage [15]. Some mothers managed to maintain breastfeeding for longer: “Yes. She’s seven months old now and still breastfeeding.” (Hibiscus, 2023).

Alsada et al. (2025) [16] highlighted that current guidelines recommend exclusive breastfeeding for the first six months, continuing alongside complementary feeding up to two years or more. This recommendation is based on the fact that breast milk alone provides all the nutrients infants need, supporting immune function, growth, and psychological development [3].

Breastfeeding offers many benefits for both mother and child, including lower risk of respiratory infections, otitis, diarrhea, and sudden infant death syndrome [17]. Longer breastfeeding duration is also associated with reduced risk of diabetes, overweight, and higher cognitive performance [18].

In this study, 42 mothers reported breastfeeding. The duration varied from one month or less to two years or more. However, only 18 mothers (34.6%) practiced exclusive breastfeeding up to six months, while two mothers reported exclusive breastfeeding but gave water or tea before six months. Ten mothers did not breastfeed at all. These findings align with PAHO (2018) [19], which reports the highest global exclusive breastfeeding rates in Latin America and the Caribbean, where about 38% of babies are exclusively breastfed—similar to the 34% found in this study.

First food offered

Parents were asked what the first food offered to their child was. The most frequently mentioned foods were banana and bean broth (each cited ten times), followed by vegetable soup (eight mentions) and potato (six mentions). The question yielded varied responses:

“Banana.” (Celosia, 2023)

“Yogurt.” (Agapanthus, 2023)

“Fermented milk drink.” (Heliconia, 2023)

“Plain cookie.” (Aster, 2023)

“Beans.” (Japanese Anemone, 2023)

Similar to Vieira et al. (2022) [20], fruits were the most common first food offered, followed by broths and soups. Primary healthcare professionals must guide parents on the correct way to introduce different food groups, ensuring meals include grains, tubers, legumes, animal protein, vegetables, and greens from the start [21].

Although there are no strict recommendations on the frequency of processed foods in infant diets, it is well-established that such products should be avoided in early childhood due to links with non-communicable diseases [22]. Complementary feeding should meet energy and nutrient needs while ensuring proper hygiene, cultural fit, affordability, and respect for the child’s taste preferences [23].

Complementary feeding

Complementary feeding is defined as providing liquids and other foods along with breast milk or infant formula to meet an infant’s nutritional requirements [2,10]. It may follow different approaches: traditional (WHO-recommended), Baby-Led Weaning (BLW), or BLISS (a BLW variation focused on minimizing choking risk and improving iron and calorie intake) [13]

Cultural, socioeconomic, and individual factors influence complementary feeding practices [3]. Signs of readiness must be observed, such as tongue reflex, chewing ability, head control, sitting unsupported, disappearance of tongue-thrust reflex, and gastrointestinal, renal, and taste maturity [24].

Despite recommendations, many parents introduce solids earlier than ideal. In the US, 31.9% start before four months—similar trends appear in the UK, Italy, and Australia, where initiatives aim to curb childhood obesity [25]. In this study, when asked at what age feeding began:

“About three months.” (Christmas Cactus, 2023)

“At two months.” (Lisianthus, 2023)

“At two months?” (Interviewer)

“I was going back to work, but then I didn’t. Still, at two months, he was already eating.” (Lisianthus, 2023)

Some participants delayed feeding: “Around nine months.” (Daisy, 2023); “She started with fruit at seven months.” (Gerbera, 2023). Delayed introduction may also be detrimental, as breast milk alone cannot fully meet energy needs after six months, risking micronutrient deficiencies and growth faltering [26].

Food consistency

Participants described food consistency practices:

“When I started with apple, I would grate it, and I’d mash banana for her — always without sugar. But my mother-in-law added sugar, so I’ll have to talk to her. I prefer something like avocado without sugar — she liked it. Once you start with sugar, they won’t want it plain anymore.” (Rose, 2023)

“I mash it and sometimes do it BLW style.” (Allamanda, 2023)

“I let her handle it herself.” (Dahlia, 2023)

“At first we gave it whole.” (Buttercup, 2023)

The first foods should be mashed, progressing gradually [24]. Vieira et al. (2022) [20] found that 60% used mashed textures, 22.9% purées, 14.3% liquids, and few practiced BLW. This study found similar trends but also noted whole foods being offered from the start.

The WHO recommends starting with mashed foods, not blended, and introducing textures gradually to support chewing and sensory development [21]. However, blending and offering whole foods too early were common here.

Processed foods and ultra-processed foods

The questionnaire used a broad question concerning the introduction of processed foods and included a list of commercially prepared and industrialized food products. For the present analysis, the terminology was revised to distinguish processed foods from ultra-processed foods according to the NOVA classification whenever the classification of an individual food item was unambiguous. Therefore, the term “processed and ultra-processed foods” is used when referring collectively to the foods investigated by the questionnaire, whereas “ultra-processed foods” is used specifically for items classified within this category according to NOVA.

Parents were asked: *At what age did you introduce processed foods?*

“From six months on. I gave her a processed dairy snack.” (Iris, 2023)

“At five months.” (Perpetua, 2023)

Despite recommendations against early processed food consumption [27], many children consumed these products: *“After one year, I couldn’t hold back because relatives started giving it.”* (Snapdragon, 2023); *“We gave her cookies and instant cereal; sometimes she also gets a bit of cake.”* (Amaryllis, 2023)

When asked about a list of processed foods (gelatin, cookies, commercial baby food, pastries, soft drinks, artificial juices, instant cereals, chocolate milk drinks, cake, candy, honey):

“All of them before one year old. The only thing I avoided was soft drinks because of colic.” (Bougainvillea, 2023)

“All of them, except pastries.” (Tulip, 2023)

“She’s lactose intolerant, so not much. But at about one year she started having chocolate-flavored milk drink.” (Cosmos, 2023)

Some parents were more careful: *“We never gave those things, even to the older kids. We don’t buy that stuff. This baby won’t eat that either. We know that’s where diseases start. We leave them in the car at the market so they don’t see it and want everything.”* (Bleeding Heart, 2023)

Balanced diets rich in minimally processed foods ensure healthy growth [28]. Early exposure to processed foods shapes unhealthy habits lasting into adulthood [1].

Value of nutrition counseling

When asked if professional nutrition follow-up is important:

“I don’t think so. We know enough and family helps.” (Dipladenia, 2023)

“Now that he’s three, maybe. He eats one day, not the next. But for complementary feeding, I didn’t think it was needed.” (Hyacinth, 2023)

“As a baby, not so much. Later in life, maybe.” (Portulaca, 2023)

“Indifferent to me. Maybe.” (Anthurium, 2023)

“I think yes — to check what she eats and her weight; she’s a bit underweight.” (Calendula, 2023)

“If the child is healthy, I don’t think it’s necessary.” (Waxflower, 2023)

“Yes, because she’s already a bit chubby.” (Daffodil, 2023)

“Yes, because I have doubts about what to give, how, and about allergies.” (Pansy, 2023)

“Yes, because he learned what he could eat. I didn’t know, and he had allergies. The nutritionist helped. Also, we need to weigh him for Bolsa Família.” (Daisy Fleabane, 2023)

“Yes. I work with kids and know nutrition is vital, especially for disorders like autism, ADHD, ODD, dyslexia.” (Orchid, 2023)

“When they’re learning to eat, you don’t always know what they can have. It’s better to have guidance from someone who really knows.” (Clivia, 2023)

Families shape children’s habits. Educating them from the first years is essential to expand taste, textures, and healthy choices.

It is important to acknowledge some limitations of this study. Although the instrument did not undergo formal psychometric validation, which represents a limitation, its design was supported by rigorous methodological procedures, including an extensive literature review, expert panel content validation, and a pilot test to ensure clarity, relevance, and appropriateness for the study’s objectives. All data were self-reported by parents or caregivers, which may have introduced recall bias or social desirability bias, especially regarding the timing, type, and consistency of foods offered. Furthermore, the qualitative approach and the specific local context of the participants may limit the generalizability of these findings to other regions or populations. Future research should include larger and more diverse samples, combine self-reports with medical or nutrition records, and consider direct observation methods to enhance the validity and reliability of the results.

Despite these limitations, the present findings contribute to a better understanding of complementary feeding practices and reinforce the need for accurate and accessible nutritional guidance for families, aiming to promote healthy eating habits from the earliest stages of life.

Conclusion

After the child’s sixth month of life, exclusive breastfeeding alone is no longer sufficient to meet all of the infant’s nutritional needs. Therefore, the introduction of complementary feeding becomes essential. However, this process is still surrounded by many uncertainties and misconceptions on the part of parents and caregivers.

The findings of this study showed that most parents did not seek nutritional counseling during the complementary feeding period. In many cases, parents also expressed a desire to make healthier choices in future pregnancies or feeding practices.

The primary source of guidance reported was the pediatrician, and in all cases where nutritional counseling was sought, this occurred only after complementary feeding had already begun.

These results highlight the crucial role of nutrition professionals, who have the technical knowledge and skills to guide parents appropriately during this phase. Despite clear recommendations from health authorities and researchers emphasizing the need to build healthy eating habits from early childhood, there remains a lack of deeper investigation into the reasons why families do not always follow this guidance.

It is therefore essential that future multidisciplinary studies seek to better understand the factors that influence infant feeding behaviors in the Brazilian context. Such evidence is necessary to design effective actions and educational programs that are culturally and socially appropriate, aiming to promote lasting improvements in feeding practices and contribute to children's health and well-being in the long term.

Funding

No grants or other financial support.

Authors' contribution

Author 1: Conceptualization, Investigation, Writing – Original Draft, Visualization.

Author 2: Conceptualization, Writing – Review & Editing.

Author 3: Conceptualization, Writing – Review & Editing, Supervision. All authors contributed to the article and approved the submitted version.

Disclosure of interest

The authors declare that they have no competing interests.

References

1. Knowledge, attitude, and practice among mothers toward breastfeeding and complementary feeding in community health setting, Malaysia. *Heliyon*. 2024 Nov 15;10(21):e39746. Available from: <https://doi.org/10.1016/j.heliyon.2024.e39746>
2. Raymundo GP, Souza dos Santos C, da Rosa SV, Werneck RI, Gasparello GG, Perotta M, et al. Influences in food selection during complementary feeding in breastfeeding infants: a systematic review and metasynthesis of qualitative studies. *Appetite*. 2024 Nov 1;202:107626. Available from: <https://doi.org/10.1016/j.appet.2024.107626>
3. Salviano AF, Guedes BM, Carioca AAF, Venancio SI, Buccini G, Lourenço BH. Positive changes in breastfeeding and complementary feeding indicators in Brazil are associated with favorable nurturing care environments. *Public Health*. 2024 Oct 1;235:33-41. Available from: <https://doi.org/10.1016/j.puhe.2024.06.030>
4. Wallace TC, Rohloff P, Jimenez EY, Proaño GV, Montenegro-Bethancourt G, McCabe GP, et al. Academy of Nutrition and Dietetics Nutrition Research Network: the Saqmolo' Project rationale and study protocol for a randomized controlled trial examining the influence of daily complementary feeding of eggs on infant development and growth in Guatemala. *J Acad Nutr Diet*. 2022 Feb 1;122(2):432-444. Available from: <https://doi.org/10.1016/j.jand.2021.03.015>
5. Li Y, Zhu L, Wei J, Wu C, Zhao Z, Norbäck D, et al. Intrauterine and early postnatal exposures to submicron particulate matter and childhood allergic rhinitis: a multicity cross-sectional study in China. *Environ Res*. 2024 Apr 15;247:118165. Available from: <https://doi.org/10.1016/j.envres.2024.118165>
6. Kong QY, Kong JY, Chua MC, Jayagobi PA, Han WM, Ong C. An alternative fortification strategy to optimize growth in preterm infants during a period of human milk fortifier shortage. *Early Hum Dev*. 2025 May 1;204:106240. Available from: <https://doi.org/10.1016/j.earlhumdev.2025.106240>
7. Randunu RS, Huber LA, Brunton JA, Bertolo RF. Intrauterine growth-restricted female Yucatan miniature pig neonates fed parenteral nutrition exhibit early catch-up growth leading to obesity and ectopic fat deposition in adulthood. *J Nutr [Internet]*. 2025 May 27 [cited 2025 Jun 29]. Available from: <https://www.sciencedirect.com/science/article/pii/S0022316625003141>
8. Ayala A, Meier BM. A human rights approach to the health implications of food and nutrition insecurity. *Public Health Rev*. 2017 Mar 9;38:10. Available from: <https://doi.org/10.1186/s40985-017-0056-5>
9. The human right to adequate food in Brazil: a multidisciplinary approach. *Curr Nutr Food Sci*. 2023 Jan 1;19(1):43-48.
10. de Siqueira CD, Borges L, Dal Mora T, Saleh NA, Alves ES, Wopereis S, et al. Early postnatal effects of maternal obesity on breast milk composition and breastfeeding outcomes. *Clin Nutr ESPEN*. 2025 Feb 1;65:365-374. Available from: <https://doi.org/10.1016/j.clnesp.2024.11.036>
11. World Health Organization. Exclusively breastfeed for 6 months [Internet]. 2025. Available from: <https://www.emro.who.int/nutrition/breastfeeding/exclusively-breastfeed-for-6-months.html>
12. Channell Doig A, Moses L, Jasczynski M, Marin Gutierrez FX, Bae K, Zeyala S, et al. "She deserves the best. So how can I feed her the best?" Complementary food introduction practices among young mothers with a history of child maltreatment. *J Pediatr Nurs*. 2025 Jan 1;80:147-153. Available from: <https://doi.org/10.1016/j.pedn.2024.11.022>
13. Utami AF, Wanda D. Is the baby-led weaning approach an effective choice for introducing first foods? A literature review. *Enferm Clin*. 2019 Sep 1;29:87-95.
14. Ware JL, Li R, Chen A, Nelson JM, Kmet JM, Parks SE, et al. Associations between breastfeeding and post-perinatal infant deaths in the U.S. *Am J Prev Med*. 2023 Nov 1;65(5):763-774. Available from: <https://doi.org/10.1016/j.amepre.2023.05.015>
15. Jiang Y, Hu J, Chen F, Liu B, Wei M, Xia W, et al. Comprehensive systematic review and meta-analysis of risk factors for childhood obesity in China and future intervention strategies. *Lancet Reg Health West Pac*. 2025 May 1;58:101553. Available from: <https://doi.org/10.1016/j.lanwpc.2025.101553>
16. Alsada F, Sebastian T, Alzayer Z, Alabbas H, Alhaddad N, Shahin HA, et al. Determinants of infants and young children feeding practices among mothers living in Saudi Arabia: a cross-sectional study. *BMC Public Health*. 2025 Jan 30;25:388. Available from: <https://doi.org/10.1186/s12889-025-21606-w>
17. Srivastava S, Shankar Mishra P, Sinha D, Kumar P. Population attributable risk for breastfeeding practices on diarrhea and acute respiratory infections among children aged 0-23 months in India - what we know and we do not know? *Child Youth Serv Rev*. 2020 Dec 1;119:105531.
18. Yi Q, Sun W, Hou L, Hao J, Bai H, Li S, et al. Lactation duration and the risk of type 2 diabetes mellitus in parous women: a perspective on socioeconomic status disparity. *J Adv Res [Internet]*. 2025 Feb 7 [cited 2025 Jun 29]. Available from: <https://www.sciencedirect.com/science/article/pii/S2090123225000797>
19. Pan American Health Organization. O aleitamento materno nos primeiros anos de vida salvaria mais de 820 mil crianças menores de cinco anos em todo o mundo [Internet]. 2019. Available from: <https://www.paho.org/pt/noticias/1-8-2018-aleitamento-materno-nos-primeiros-anos-vida-salvaria-mais-820-mil-criancas>

20. Vieira AB, Zanardo VPS, Zemolin GP, Sturmer J. Introdução alimentar em crianças de 06 a 24 meses em um município do oeste catarinense. *Rev Perspectiva*. 2022 May 27;46(173):145-157. Available from: <https://ojs.uericer.edu.br/index.php/perspectiva/article/view/200>
21. World Health Organization. WHO guideline for complementary feeding of infants and young children 6-23 months of age [Internet]. 2023. Available from: <https://iris.who.int/bitstream/handle/10665/373358/9789240081864-eng.pdf>
22. Mwesigwa CL, Naidoo S. Consumption frequency of ultra-processed foods and beverages among 6- to 36-month-olds in Kampala, Uganda. *Matern Child Nutr*. 2024 Sep 6;21(1):e13724. Available from: <https://doi.org/10.1111/mcn.13724>
23. Tura DC, Belachew T, Tamiru D, Abate KH. Optimization of dabi teff-field pea-based energy- and protein-dense novel complementary food with improved sensory acceptability using D-optimal mixture design. *Heliyon*. 2023 Aug 1;9(8):e19029. Available from: <https://doi.org/10.1016/j.heliyon.2023.e19029>
24. Guenetxea-Gorostiza J, Rada Fernández de Jáuregui D, Apraiz-Sánchez I, Mazquiarán-Bergera L, Urkia-Susin I, Maiz E, et al. Nutrient intake and fruit and vegetable offering in baby-led weaning compared with parent-led weaning in healthy 6- to 13-month-old infants: a systematic review and meta-analysis. *Nutrition*. 2025 Sep 1;137:112812. Available from: <https://doi.org/10.1016/j.nut.2025.112812>
25. Thompson KL, Conklin JL, Thoyre S. Parental decision-making around introducing complementary foods: an integrative review. *J Fam Nurs*. 2023 Nov;29(4):348-367. Available from: <https://doi.org/10.1177/10748407231156914>
26. Saran R, Kasar J, Jha M, Sahu JK, Babu SS, Mutreja A. Building blocks of life: improving nutrition and health outcomes through fortification and breastfeeding in the first 1000 days of a child's life. *Front Nutr [Internet]*. 2025 Mar 3 [cited 2025 Jun 29];12. Available from: <https://www.frontiersin.org/journals/nutrition/articles/10.3389/fnut.2025.1517247/full>
27. Popkin BM, Barquera S, Corvalan C, Hofman KJ, Monteiro C, Ng SW, et al. Toward unified and impactful policies for reducing ultra-processed food consumption and promoting healthier eating globally. *Lancet Diabetes Endocrinol*. 2021 Jul;9(7):462-470. Available from: [https://doi.org/10.1016/s2213-8587\(21\)00078-4](https://doi.org/10.1016/s2213-8587(21)00078-4)
28. Pinheiro DF, Maciel GM, Lima NP, Lima NF, Ribeiro IS, Haminiuk CWI. Impact of fruit consumption on gut microbiota: benefits, contaminants, and implications for human health. *Trends Food Sci Technol*. 2024 Dec 1;154:104785. Available from: https://www.researchgate.net/publication/385755300_Impact_of_Fruit_Consumption_on_Gut_Microbiota_Benefits_Contaminants_and_Implications_for_Human_Health
29. Nascimento ER do, Pinheiro DF, Kosak JM, Rosa PA da, Schmitt V. Hábitos alimentares de crianças: análise da influência parental. *Rev Bras Obes Nutr Emagrecimento*. 2023 Dec 28;17(111):675-686.

Discover a bigger Impact and Visibility of your article publication with Peertechz Publications

Highlights

- ❖ Signatory publisher of ORCID
- ❖ Signatory Publisher of DORA (San Francisco Declaration on Research Assessment)
- ❖ Articles archived in worlds' renowned service providers such as Portico, CNKI, AGRIS, TDNet, Base (Bielefeld University Library), CrossRef, Scilit, J-Gate etc.
- ❖ Journals indexed in ICMJE, SHERPA/ROMEO, Google Scholar etc.
- ❖ OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting)
- ❖ Dedicated Editorial Board for every journal
- ❖ Accurate and rapid peer-review process
- ❖ Increased citations of published articles through promotions
- ❖ Reduced timeline for article publication

Submit your articles and experience a new surge in publication services

<https://www.peertechzpublications.org/submission>

Peertechz journals wishes everlasting success in your every endeavours.