




BREASTFEEDING, SUPPLEMENTARY FEEDING AND FOOD AND NUTRITION SECURITY IN A BORDER REGION

Aline Renata Hirano¹ 
Maria Aparecida Baggio² 
Rosângela Aparecida Pimenta Ferrari³ 

ABSTRACT

Objective: to know how breastfeeding and complementary feeding relate to the food and nutritional security of children living in a border region.

Method: qualitative research with 12 mothers and 12 health professionals from Foz do Iguaçu, in the context of Primary Health Care. The data were collected between April and October 2019, through a semi-structured interview and submitted to Thematic Content Analysis.

Results: Three categories were identified: Breastfeeding and complementary feeding: the child's right to safe and adequate food; Breastfeeding and complementary feeding: from orientation to consumption; Breastfeeding, complementary feeding and the Triple Border context.

Conclusion: maternal milk and healthy complementary feeding contemplate food and nutritional security. Culture, financial condition, maternal work, added to the supply of inadequate food, compromise this process. It is believed that this study can foster actions and public policies aimed at the right to infant food in the region.

DESCRIPTORS: Maternal Milk; Complementary Food; Borderline; Primary Health Care; Food and Nutritional Security.

LA LACTANCIA MATERNA, LA ALIMENTACIÓN COMPLEMENTARIA Y LA SEGURIDAD ALIMENTARIA Y NUTRICIONAL EN UNA REGIÓN FRONTERIZA

RESUMEN:

Objetivo: conocer como la lactancia materna y alimentación complementaria se relacionan a seguridad alimentaria y nutricional de niños que residen en una región fronteriza. **Método:** investigación cualitativa con 12 madres y 12 profesionales de la salud de Foz do Iguaçu, en el contexto de la Atención Primaria de Salud. Los datos se recopilaban entre abril y octubre de 2019, mediante una entrevista semiestructurada y presentados para el Análisis Temático de Contenido. **Resultados:** se identificaron tres categorías: Lactancia materna y alimentación complementaria: el derecho del niño a una alimentación segura y apropiada; Lactancia materna y alimentación complementaria: de la orientación al consumo; Lactancia materna, alimentación complementaria y el contexto de la Triple Frontera. **Conclusión:** la leche materna y la alimentación complementaria saludable abarcan la seguridad alimentaria y nutricional. La cultura, la condición financiera, el trabajo materno, sumados al suministro de alimentos inadecuados, comprometen este proceso. Se cree que este estudio pueda fomentar acciones y políticas públicas orientadas al derecho a la alimentación infantil en la región.

DESCRIPTORES: Leche Humana; Alimentación Complementaria (Fenómenos Fisiológicos Nutricionales del Lactante); Frontera (Áreas Fronterizas); Atención Primaria de Salud; Seguridad Alimentaria y Nutricional.

¹Secretaria Municipal de Saúde de Foz do Iguaçu. Foz do Iguaçu, PR, Brasil.

²Universidade Estadual do Oeste do Paraná. Cascavel, PR, Brasil.

³Universidade Estadual de Londrina. Londrina, PR, Brasil.

INTRODUCTION

The food and nutrition security is a part of the 17 Millennium Development Goals (MDGs) of the 2030 Agenda, aiming global actions to fight against hunger and promote sustainable agriculture and improve nutrition of the whole population, specially the vulnerable such as children, through the access and availability of safe and nutritious food⁽¹⁾. Safe and proper feeding is the permanent and frequent access to food in quantity and quality, according to the necessities of each person, meeting the social, cultural and biological characteristics, besides being economically and environmentally sustainable⁽²⁾.

In Brazil, the ensurance to the right to Food and Nutrition Security (FNS) is ensured through public policies, among them: the National Policy of Food and Nutrition Security (NPFNS), the National Policy of Food and Nutrition (NSFN) and the National Policy to Children Care (NPCC)⁽³⁻⁵⁾.

The breastfeeding and supplementary health feeding (ACS), conditioned to the FNS, promotes health and reducing of risk to children. When it is not reached, Food and Nutrition Insecurity (FNI) is identified, characterized by the unsure and limited availability of health and proper food in acceptable social conditions⁽⁶⁾.

When the child is nursed exclusively to the breast or infant formula, it is recommended the introduction of supplementary feeding (SF) from the age of six months, with the supply of food that guarantee the nutritional support to its development⁽⁷⁾.

It is estimated that the promotion of breastfeeding and of the SHF might prevent, respectively, 13% and 6% of death among children in countries where children mortality is high⁽⁸⁾. In Brazil, the coefficient of the children mortality is referred to the first semester of 2018 was 15,1 cases to 1000 born alive (BA). In the state of Paraná and the municipality of Foz do Iguaçu, place of the study, at the same period, presented, respectively, 10,9 and 13 cases to 1000 BA. Although these rates might be seen as low, according to the World Health Organization (WHO), they are still above the goal set by the same organization, which the rate would be lower than 10 cases to 1000 BA⁽⁹⁻¹⁰⁾.

Foz do Iguaçu-PR is a part of the Triple Border, composed by Brazil, Argentina and Paraguay. In a border region, the territorial limits might enable the separation and segregation and at the same time the coexisting possibility of integration among people, with the social and cultural influence in the B and SHF aspects⁽¹¹⁻¹³⁾.

As shown, the study has the objective of knowing how the breastfeeding and supplementary feeding is related to the food and nutrition security to children in a border region.

METHOD

Qualitative research of the project "Rede Mãe Paranaense in the perspective of the user: the pre-natal, deliver, puerperium and of the child care". Criteria of inclusion were created: the mother of a child between eight and twenty four months of age, that had been ou still is being breastfed, in SF or in realization of childcare in the Primary Health Care (PHC); To be a professional at the PHC (doctors, nurses and nutritionists) acting at the Basic Healthcare Unities (BHU), in the childcare for more than a year or involved in the B and SF. Both with interest and availability to participate of the reasearch. Exclusion criteria: being younger than 18 years old and no domain of portuguese, not being able to comprehend and answer the interview.

12 mothers participated of the study, seven brazilian and fiver foreigners resident in Brazil (paraguayan, chilean, venezuelan, haitian, peruvian) and 12 workers of the PHX: two doctors, two nutritionists and eight nurses.

The research was carried out at the PHC, in 10 BHU of the five sanitary districts of the municipality Foz do Iguacu-PR, located at Triple Border, shared with paraguay and Argentina. The BHU were chosed with intention to contemplate those that had childcare to children of foreigners families and braziliaian (brazilian living in Paraguay).

The data were collected from march to october of 2019, through individual interviews, semistructured and taped, with the duration of 50 minutes in average. The questions intended to contemplate biological, social and cultural aspects of the breastfeeding and supplementary feeding process, in order to relate to the FNS and to the context expirienced at the border. The collection was ended by the phenomenon of data saturation, that is not related to the quantity of interviews, but in the depth of the informations obtained that enable the explanation of the studied phenomenon⁽¹⁴⁾.

The data wera analyzed through thematic analysis of the content. In the pre-analysis, a strenuous reading and organization of data was done; in the exploratin of the material, the meaning unities were identified, giving origin to the categories and subcategories; in the treatment of the obtained data and interpretation, carried out from the organization of the categories, the data were interpreted according to the established goals⁽¹⁵⁾.

The anonymity was ensured by the letter "M", to the mothers, and "Me" to the doctors and the initials of the rest of the professions, followed by the number of the order of the interviews [N1, N1, M1 (mother), Me1 (doctor,)]. The research was approved by the *Comitê de Ética em Pesquisa com Seres Humanos da Universidade Estadual de Londrina* under the number 2.053.304.

RESULTS

Three categories form the results and report, regarding the B and SF, about the child's right to safe and proper food, to professional orientation to the practice of the mothers, as well as the aspects of the Triple Border region.

Breastfeeding and supplementary feeding: child's right to safe and proper food

Among the participant workers, doctors and nurses presented no knowledge or superficial knowledge regarding what is considered and safe and proper food to the FNS of the child.

[...] I'm not sure. It is a question to the nutritionist. (N2)

[...] I don't know. I would like to have that information. (Me1)

However, these workers, as well as the other participants, affirmed that the B with the SHF has numerous benefits, associated with its composition, to the access possibility (even in adverse financial conditions) and to the connection mother-baby, that result in a better immunity, cognitive, neuropsychomotor and respiratory development. Besides that, it prevents the lack or the excess of weight. These positive aspects reach out to the school and work performance in the future.

[...] receiving nutrients that she needs, it is receiving affection that she also needs when she is scared. When she cried [...] I was giving her milk and it seemed to calm her down, I felt like I was delivering something that was for her wellbeing. (M6)

[...] breastfeeding, correct complementary feeding will influence her [child] health in general, since she was a child, in studies, in adulthood, at work and [...] it will spend less resources on the healthcare system [...]. (N1)

[...] the issue of breastfeeding is so important, not only for neuropsychomotor development [...] also to cognition, the child becomes more intelligent. (E2)

[...] it has fewer complications, mainly respiratory. [...]. (N2)

[...] avoid future pathologies, [...] obesity, [...] low weight. (E1)

The chest allowed him to eat, as we had no recourse, this was the only thing we had to feed him. (M12)

The return to the work activity of the mothers enabled the early weaning and the SF insatisfactory, mainly when done before the six months of the life of the child and with no milking.

The doctor said he got a little skinny [...]. I started to work [...], then there are times he cannot eat [...] Go back to work was difficult. (M3)

The work is the main reason for anticipating the withdrawal of [maternal] milk [...]. (E6)

Very few mothers do this milking practice. (N1)

In the opinion of professionals, having another source of milk for children, through the Programa Leite das Crianças (PLC), can encourage early weaning. On the other hand, if when receiving milk from PLC, if the mother continues with the B, this can increment the feeding routine of the family and the food security of the child.

[...] they [mothers] believe it is good, because if you already have this milk, then at six months it is better to take it from the breast and already give the "government milk". (N1)

[...] the child didn't even drink the milk because he was still breastfeeding, but then he helped his other brothers and sisters and his family [...] so that he could buy other food. (E1)

Breastfeeding and complementary feeding: from consumption orientation

Professionals contraindicate the addition of sugar to food and the supply of industrialized products to children. However, the offer of these products is common and is related to the belief in relation to the child's weight, price, practicality, palatability of these products and also negligence or family habit:

[...] instead of buying an artificial juice, you can offer a fruit. [...] it is a time that one does not want to spend at that moment with the child [...]. It's for carelessness, carelessness. (E4)

All of them [bottles] with his little drops of sugar. Weekend he takes a little soda, the chocolate, the yogurt, the fermented milk. (M2)

[...] the nonsense is very easy, very accessible, very cheap [...]. (Me2)

It was identified the feeding monotony in the child's routine, whose occurrence is associated with financial difficulty, lack of knowledge of the mother, family habit, practicality and child selectivity.

[...] we say: "[...] you need to put even a little bit, it doesn't need to be an expensive meat [...]". But sometimes she doesn't have it [...] she will give what will kill the hunger. (E3)

[...] It is not always that we can buy [fruits and vegetables]. And meat is also the most difficult. (M3)

[...] they take easier things [...], they always want to give the same thing. (E6)

[...] she has very, very similar food every day [...] maybe she doesn't have enough nutrients to develop well [...]. (M6)

Among the actions taken to ensure the right to safe and adequate food for children, the professionals provided guidance on the benefits of B to the mothers since prenatal and reiterated in child care consultations as well as in home visits; already the mothers prioritized spending on healthy food for their child over other consumptions.

I believe that the function is to make this propaganda [...], the benefit of breastfeeding [...] We work in prenatal, childcare, visits. (E6)

[...] I prioritize before the clothes, before I go to the mall, right? So, I prioritize first what I will spend on fruit, vegetables, meat, milk, when it comes to doing math, first is food. (M12)

Breastfeeding, complementary feeding and the context of the Triple Border

As for the Paraguayan mothers or brasiguayan (Brazilians who live in Paraguay), it was possible to notice a tendency to early weaning as well as the previous introduction of food, probably conditions related to the culture and financial condition of the parents.

It is that there in Paraguay it is the custom to take the child out of the breast very early [...]. (M4)

[...] they [Paraguayans and brasiguayans] want to start giving food very early too. (E7)

Mothers who live in Brazil and work in Paraguay (border with Brazil) also present difficulties in maintaining breastfeeding, a priori linked to distance.

[...] they have this difficulty, because they work in Paraguay. They don't have this possibility of going out for half an hour to breastfeed [...] because we know the difficulty of coming from there to here. (E7)

The dialogue, understanding and respect of health professionals to the different cultures present themselves as guides to the care of Brazilian or foreign mothers - as well as all users - regarding the practice of breastfeeding and complementary feeding.

He [workers] must be open to other cultures [...] when listening, without despising that information and [...] trying to pass on the correct orientation. (E5)

DISCUSSION

In order to the right to safe and adequate infant food to be protected by PHC, the continued education of its professionals in the legal and technical aspects of the FNS is recommended, as well as the management with the users through the promotion of food and nutrition actions⁽¹⁶⁾.

The benefits of the B and SHF to the child's biopsychosocial development corroborate with the literature⁽¹⁷⁻²¹⁾. However, despite the intrinsic responsibility of the family and health professionals to ensure the right to these benefits for the child, better living and working conditions are required, such as jobs that favor the maintenance of the B by mothers, access to the SHF and professionals with qualification and action engaged with FNS⁽¹⁶⁾.

The B stands out as one of the main means against IAN for not spending money,

being nutritionally complete, and meeting the individual needs of each child in an equitable manner. However, lower rates of breastfeeding are influenced by paternal absence, exposure to cigarettes, more than three children, low maternal schooling, and the mother working outside the home⁽²²⁾. As confirmed in this study.

The mother working outside the home has an association with early weaning, which can represent 26 times less chance of maintaining exclusive breastfeeding (EB) when compared to not working⁽²³⁾. In view of this, six months maternity leave is essential for the offer of the B, as recommended by the HM and the WHO^(7,24). However, this study shows a discrepancy between the recommendation of these bodies and the right of mothers to leave, which does not contemplate the EB period.

One possibility to keep the working mother breastfeeding is the milking, encouraged by the HM⁽⁷⁾. However, the pain of withdrawing milk, judging the quantity milked to be insufficient, not having adequate time and place to perform the procedure and store the milk, and also feeling embarrassed in front of other colleagues, can impair the adherence of women⁽²⁵⁾. In addition, the data shows disbelief of PHC professionals to encourage the practice.

When weaning and milking is not possible, the most suitable option for the child is the infant formula. Due to the cost of this product, cow's milk tends to be the choice of many families. In this sense, the state government, in order to ensure the infant FNS, established the PLC, aimed at children from six to thirty-six months, who have per capita family income below half minimum wage⁽²⁶⁾. However, there is a need to restructure this program so that the receipt of this milk does not become a substitute for the B or the infant formula, when this is necessary⁽²⁷⁾.

Another recurring factor to IAN is the supply of ultra-processed products to children. In this study, it is linked to family income, weaning and early food introduction, in addition to practicality and palatability. Despite the orientation of the professionals regarding the non offer, the adherence of the parents does not always happen. This alerts about the importance of the attentive look by the professional and of health education actions in order to promote EB and the introduction of SF in an adequate way⁽¹⁹⁾.

About the food monotony of the child, it is important the contact with food varieties during childhood, associated with the link between taste, smell, color and texture of food, from a daily construction mediated by the family and guided by the health professionals of the PHC⁽⁷⁾.

Different experiences of breastfeeding related to the same nationality, such as Paraguayan mothers, possibly relate to the reality of each mother, since breastfeeding is influenced by several factors (some already mentioned in this study), in addition to the culture^(23,28). In view of this, cultural competence should be a requirement to be achieved by the entire health team, substantially in a border region, and can be developed through continuous training. Through reflection, discussion and practice, a service based on respect, dialogue and communication can be consolidated⁽²⁹⁾ and the needs of mothers, respecting their cultural knowledge.

Being the FNS one of the MNGs of the 2030 Agenda⁽¹⁾ and the child and the immigrant to be among the most vulnerable public to the FNI⁽³⁰⁾, This study demonstrates the importance of thinking of B and SF as the right of the child in a border region, which must be guaranteed, in addition to the choices of the family or the guidance of professionals. There is a need for both to be able to exercise such duties, which is not always a reality. However, regardless of this situation, the public policy guidelines presented must be known and followed according to the possibilities, claiming the public management, through social control, for it to be fulfilled.

This research presented as limitations to the fact that the interviewed mothers were accompanied by their children, with the need to pay attention to the demands of the child,

which may have interfered in the depth of the information provided.

CONCLUDING REMARKS

The B and SHF have been confirmed as important for the SAN warranty. However, the financial condition of the families, followed by the return to work before 6 months (with consequent early weaning), the offer of ultra-processed products to children, the lack of variety in the children's food routine, among others, compromise their guarantee.

Regarding the border region, the results express peculiarities, such as the cultural influence on weaning or early introduction of food, the working woman who stops breastfeeding due to the difficulty of moving between borders, and also the health professional's work with mothers of different nationalities in PHC.

Ações realizadas pelos profissionais de saúde e mães, priorizando a alimentação da criança e os benefícios do B e da SHF, são exemplos consolidados para garantir a FNS infantil. Soma-se a isso a importância do respeito e diálogo no atendimento às crianças estrangeiras e brasiguaias quanto às orientações referentes à alimentação adequada a esse público, potencializada pelo fato dela e do imigrante serem um grupo de risco à ocorrência de FNI.

It is indicated the expansion of studies and the integration of public policies across borders from the reality and demands of this public to ensure the right to breastfeeding and SHF, with the participation of managers, professionals, mothers / families. In this sense, this study can foster actions and public policies focused on the border region.

ACKNOWLEDGEMENTS

3. Study with funding: Universal call/CNPq 01/2016 - Faixa A. Process n. 407508/2016-

REFERENCES

1. Organização das Nações Unidas Brasil. Objetivos de desenvolvimento sustentável. [Internet]. 2016 [accessed 08 out 2019]. Available from: <https://nacoesunidas.org/pos2015/>.
2. Brasil. Lei n. 11.346, de 15 de setembro de 2006. Cria o Sistema Nacional de Segurança Alimentar e Nutricional. SISAN com vistas em assegurar o direito humano à alimentação adequada e dá outras providências. Diário Oficial da União, [Internet]. 18 set 2006 [accessed 08 out 2019]. Available from: <http://www4.planalto.gov.br/consea/conferencia/documentos/lei-de-seguranca-alimentar-e-nutricional>.
3. Ministério da Saúde (BR). Decreto n. 7.272, de 25 de agosto de 2010: regulamenta a Lei n. 11.346, de 15 de setembro de 2006, a qual institui a Política Nacional de Segurança Alimentar e Nutricional - PNSAN, estabelece os parâmetros para a elaboração do Plano Nacional de Segurança Alimentar e Nutricional, e dá outras providências. Diário Oficial da União, [Internet]. 26 ago 2010 [accessed 08 out 2010]. Available from: http://www.planalto.gov.br/ccivil_03/_Ato2007-2010/2010/Decreto/D7272.htm.
4. Ministério da Saúde (BR). Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Política

- Nacional de Alimentação e Nutrição. Brasília: Ministério da Saúde; 2013 [accessed 01 mar 2018]. Available from: http://bvsmms.saude.gov.br/bvs/publicacoes/politica_nacional_alimentacao_nutricao.pdf.
5. Ministério da Saúde. Portaria nº 1.130, de 5 de agosto de 2015. Institui a Política Nacional de Saúde da Criança (PNAISC) no âmbito do Sistema Único de Saúde (SUS). Brasília, DF: Ministério da Saúde, 2015 [accessed 21 jun 2018]. Available from: http://bvsmms.saude.gov.br/bvs/saudelegis/gm/2015/prt1130_05_08_2015.html.
6. Starr MC, Fisher K, Thompson K, Thurber-Smith K, Hingorani S. A pilot investigation of food insecurity among children seen in an outpatient pediatric nephrology clinic. Preventive Medicine Reports [Internet]. 2018 [accessed 10 dez 2018]; 10. Available from: <https://doi.org/10.1016/j.pmedr.2018.02.019>.
7. Ministério da Saúde (BR). Secretaria de Atenção Primária à Saúde. Departamento de Promoção da Saúde. Dez passos para uma alimentação saudável: guia alimentar para crianças brasileiras menores de dois anos: um guia para o profissional da saúde na atenção básica. Brasília: Ministério da Saúde; 2019 [accessed 10 nov 2019]. Available from: http://189.28.128.100/dab/docs/portaldab/publicacoes/guia_da_crianca_2019.pdf.
8. Jones G, Steketee RW, Black RE, Bhutta ZA, Morris SS. How many child deaths can we prevent this year? The Lancet [Internet]. 2003 [accessed 10 jun 2018]; 362(9377). Available from: [https://doi.org/10.1016/S0140-6736\(03\)13811-1](https://doi.org/10.1016/S0140-6736(03)13811-1).
9. World Health Organization (WHO). World health statistics 2018: monitoring health for the SDGs, sustainable development goals. Geneva: WHO; 2018 [accessed 01 dez 2018]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/272596/9789241565585-eng.pdf?ua=1&ua=1>.
10. Secretaria de Estado da Saúde do Paraná (SESA). Superintendência de Vigilância em Saúde – SVS. Centro de Epidemiologia – CEPI. Divisão de Informações Epidemiológicas –DVIEP. Mortalidade infantil. 2018. [accessed 02 nov 2018]. Available from: http://www.saude.pr.gov.br/arquivos/File/Mortalida_Materna_e_Infantil_18_07_2018.pdf.
11. Ferrari, M. As noções de fronteira em geografia. Revista Perspectiva Geográfica [Internet]. 2014 [accessed 10 dez 2018]; 9(10). Available from: <http://e-revista.unioeste.br/index.php/pgeografica/article/view/10161>.
12. Silva ML da, Tourinho HLZ. Território, territorialidade e fronteira: o problema dos limites municipais e seus desdobramentos em Belém/PA. Urbe. Rev. Bras. Gest. Urbana [Internet]. 2016 [accessed 10 jun 2018]; 9(1). Available from: <https://doi.org/10.1590/2175-3369.009.001.ao09>.
13. Ruiz-Holguin R. Breastfeeding: a view from the border. Breastfeeding Medicine [Internet]. 2016 [accessed 02 jan 2020]; 11(8). Available from: <https://doi.org/10.1089/bfm.2016.0109>.
14. Minayo MC de S. Amostragem e saturação em pesquisa qualitativa: consensos e controvérsias. Revista Pesquisa Qualitativa [Internet]. 2017 [accessed 01 mar 2019]; 5(7). Available from: <https://editora.sepq.org.br/index.php/rpq/article/view/82/59>.
15. Minayo MC de S (Org.). Pesquisa social: teoria, método e criatividade. 34. ed. rev. atual. Petrópolis: Vozes; 2015.
16. Botelho FC, França Junior I. Como a atenção primária à saúde pode fortalecer a alimentação adequada enquanto direito na América Latina? Rev Panam Salud Publica [Internet]. 2018 [accessed 10 jan 2020]; 42. Available from: <https://doi.org/10.26633/RPSP.2018.159>.
17. Victora CG, Bahl R, Barros AJD, França GVA, Horton S, Krasevec J, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. The Lancet [Internet]. 2016 [accessed 01 abr 2020]; 387(10017). Available from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(15\)01024-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)01024-7/fulltext).
18. Simon VGN, Souza JMP de, Souza SB de. Aleitamento materno, alimentação complementar, sobrepeso e obesidade em pré-escolares. Rev. Saúde Pública [Internet]. 2009 [accessed 09 dez 2019];

43(1). Available from: <https://doi.org/10.1590/S0034-89102009000100008>.

19. Giesta JM, Zoche E, Corrêa R da S, Bosa VL. Fatores associados à introdução precoce de alimentos ultraprocessados na alimentação de crianças menores de dois anos. *Ciênc. saúde coletiva* [Internet]. 2019 [accessed 10 jun 2020]; 24(7). Available from: <https://doi.org/10.1590/1413-81232018247.24162017>.

20. Krol KM, Grossmann T. Psychological effects of breastfeeding on children and mothers. *Bundesgesundheitsbl Gesundheitsforschung Gesundheitsschutz* [Internet]. 2018 [accessed 02 nov 2019]; 61(8). Available from: <https://doi.org/10.1007/s00103-018-2769-0>.

21. Rollins NC, Bhandari N, Hajeebhoy N, Horton S, Lutter CK, Martines JC, et al. Why invest, and what it will take to improve breastfeeding practices? *The Lancet* [Internet]. 2016 [accessed 01 nov 2019]; 387(10017). Available from: [https://doi.org/10.1016/S0140-6736\(15\)01044-2](https://doi.org/10.1016/S0140-6736(15)01044-2).

22. Venu I, Heveul M van den, Wong JP, Borkhoff CM, Moodie RG, Ford-Jones EL, et al. The breastfeeding paradox: relevance for household food insecurity. *Pediatrics & Child Health* [Internet]. 2017 [accessed 10 out 2019]; 22(4). Available from: <https://doi.org/10.1093/pch/pxx067>.

23. Tadesse F, Alemayehu Y, Shine S, Asresahegn H, Tadesse T. Exclusive breastfeeding and maternal employment among mothers of infants from three to five months old in the Fafan zone, Somali regional state of Ethiopia: a comparative cross-sectional study. *BMC Public Health* [Internet]. 2019 [accessed 10 jan 2020]; 19(1015). Available from: <https://doi.org/10.1186/s12889-019-7345-5>.

24. World Health Organization (WHO). Guideline: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services. Geneva: WHO; 2017 [accessed 20 jan 2020]. Available from: <https://www.who.int/nutrition/publications/guidelines/breastfeeding-facilities-maternity-newborn/en/>.

25. Ismail TAT, Sulaiman Z, Jalil R, Muda WMW, Man NNN. Breast milk expression among formally employed women in urban and rural Malaysia: a qualitative study. *Int Breastfeed J.* [Internet]. 2012 [accessed 10 nov 2019]; 7(11). Available from: <https://10.1186/1746-4358-7-11>.

26. Paraná. Decreto n. 3000 de 07 dezembro de 2015: regulamenta o Programa Leite das Crianças, instituído pela Lei n. 16.385, de 25 de janeiro de 2010, Curitiba, PR [accessed 02 nov 2019]. Available from: <http://www.leitedascricancas.pr.gov.br/modules/conteudo/conteudo.php?conteudo=18>.

27. Saldan PC, Venancio SI, Saldiva SRDM, Vieira DG, Mello DF de. Consumo de leites em menores de um ano de idade e variáveis associadas ao consumo de leite não materno. *Rev. paul. Pediatr.* [Internet]. 2017 [accessed 08 dez 2019]; 35(4). Available from: <https://doi.org/10.1590/1984-0462/2017;35;4;00004>.

28. Scott A, Shreve M, Ayers B, McElfish PA. Breast-feeding perceptions, beliefs and experiences of Marshallese migrants: an exploratory study. *Public Health Nutr* [Internet]. 2016 [accessed 01 nov 2019]; 19(16). Available from: <https://doi.org/10.1017/S1368980016001221>.

29. Kaihlanen AM, Hietapakka L, Heponiemi T. Increasing cultural awareness: qualitative study of nurses' perceptions about cultural competence training. *BMC Nurs* [Internet]. 2019 [accessed 10 jan 2020]; 18(38). Available from: <https://doi.org/10.1186/s12912-019-0363-x>.

30. Guerra LD da S, Cervato-Mancuso AM, Bezerra ACD. Alimentação: um direito humano em disputa - focos temáticos para compreensão e atuação em segurança alimentar e nutricional. *Ciênc. saúde coletiva* [Internet]. 2019 [accessed 10 jan 2020]; 24(9). Available from: <https://doi.org/10.1590/1413-81232018249.20302017>.

HOW TO REFERENCE THIS ARTICLE:

Hirano AR, Baggio MA, Ferrari RAP. Breastfeeding, supplementary feeding and food and nutrition security in a border region. Cogitare enferm. [Internet]. 2021 [accessed "insert day, month and year"]; 26. Available from: <http://dx.doi.org/10.5380/ce.v26i0.72739>.

*Article extracted from the master's dissertation "Amamentação e alimentação complementar de crianças em região de fronteira e sua interface com a segurança alimentar e nutricional". Universidade Estadual do Oeste do Paraná, 2020.

Received: 08/04/2020

Approved: 14/09/2020

Associate editor: Tatiane Herreira Trigueiro

Corresponding author:

Aline Renata Hirano

Universidade Estadual do Oeste do Paraná – Foz do Iguaçu, PR, Brasil

E-mail: alinerenatahirano@gmail.com

Role of Authors:

Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - ARH, MAB

Drafting the work or revising it critically for important intellectual content - ARH, MAB

Final approval of the version to be published - ARH, MAB, RAPF

Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - ARH



Copyright © 2021 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 article is properly cited.