

Complementary feeding: A practice between two knowledges

La alimentación complementaria: Una práctica entre dos saberes

Yibby Forero T.^{a,b}, María José Acevedo R.^{a,c}, Jenny Alexandra Hernández M.^{a,d}, Gina Emely Morales S.^{a,d}

^aNational Institute of Health, Colombia

^bBacteriologist, Master of Science

^cAnthropologist

^dNutritionist

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Abstract

Introduction. The complementary feeding (CF) comprises a period in the life of the infant that starts with the introduction of foods other than breast-milk. It is determined by social and environmental factors which facilitate or limit the appropriate initiation of this practice, directly affecting the nutritional and health status of children. **Objective.** To identify barriers and facilities for the follow-up of nutritional recommendations regarding the early start of CF in children between 0 and 24 months of age belonging to a comprehensive early childhood care program. **Materials and methods.** Phenomenological, longitudinal, qualitative study in which 43 in-depth interviews and 11 focus-groups were carried out. Predefined categories were the context of the mother, representations and experiences of gestation, meanings and experiences of breastfeeding (BF), and CF. The analysis included the relationships between the units of meaning and predefined and emerging categories. **Results.** The CF is a social practice which is the result of medical and popular knowledge mixture, however, the degree of influence that the latter has on mothers is higher due to the degree of support that they have from their close circle, especially from mothers, grandmothers, and women of the family. The lack of conceptual and practical knowledge about exclusive breastfeeding (EBF) and CF prevents mothers from carrying out good practices. Most of them do not know clearly what is involved in the EBF, resulting in an early start of CF, or do not have objective criteria to assess their milk production. Despite having received specific training, CF started early in most cases, a fact in which close family influence was decisive. **Conclusions.** The CF experience is strongly influenced by sociocultural aspects not only of the mother but of her immediate circle, and the recommendations they received from health professionals are not enough to change their practices. Therefore, it is necessary to improve CF support interventions.

Keywords:

Practice;
Complementary feeding; Infants;
Breastfeeding

Introduction

Breastfeeding (BF) consists of feeding the infant with human milk and it is recommended to exclusively BF until six months of age, where foods that accompany breast milk should be introduced without replacing it since it is advisable to continue BF until 24 months of age and beyond^{1,2}. Complementary feeding (CF) and exclusive breastfeeding (EBF) are the most effective means to reduce child morbidity and mortality, therefore, the analysis of these practices should be addressed together, taking into account that in the practice there are some cultural aspects that may affect the compliance with the recommendation.

The CF should begin when the child is six months old² and not before since the infant does not have sufficient maturity and development of his/her organic systems³. The early introduction of CF can lead to problems such as the substitution of breast milk for less nutritious foods, the inability of the child to digest some foods, early exposure to pathogens, and food allergens, among many other problems⁴. According to the Pan American Health Organization (PAHO), after six months of age, the potential health benefits are higher than the potential risks^{4,5}.

There is evidence that adequate CF practices have resulted in a marked and rapid reduction in stunted growth, especially in the most vulnerable populations^{2,4,6}. On the other hand, it is estimated that the inadequate CF practices, especially the early initiation, cause 1.4 million deaths and 10% of the number of diseases among children younger than five years of age^{2,7,8}.

The WHO recommendations were implemented by Colombia in its Ten-Year Breastfeeding Plan 2010-2020 'A public imperative for the protection and adequate nutrition of children younger than two years'⁹. However, in Colombia the BF and CF prevalence do not comply with the international recommendations. According to the National Survey on the Nutritional Situation in Colombia (ENSIN 2010)¹⁰, the introduction of the CF started at the 2.7 months with liquids other than breast milk, and according to the 2015 survey¹¹, 63.9% of the children received foods other than breast milk before the age of six months.

On the other hand it has been recognized that human feeding is a complex phenomenon that is not only related to biological and nutritional facts of organisms and food, but it is also determined by social and cultural factors specific to the human species. Feeding is part of a family and cultural tradition, in which collective, symbolic, subjective, and material factors converge¹².

Considering this, and that Colombia does not comply with the recommendations despite the multiple interventions that have been implemented, the objective of this study was to identify barriers and facilities for

the follow-up of the nutritional recommendations regarding the early initiation of CF in children between 0 and 24 months of age in a population belonging to a comprehensive early childhood care program in the city of Bogotá, in order to contribute to this knowledge allowing a reorientation of food and nutritional intervention strategies to take it into account the sociocultural reality where the mothers and/or people responsible for feeding children are immersed.

Subjects and Method

Phenomenological and longitudinal study based on the experience of pregnant and nursing women, which allowed to approach to their perceptions of the CF and to identify aspects that facilitate or hinder an adequate practice according to the recommendations. This qualitative method was used with the purpose of searching for units of meanings by explaining the structure of the lived experiences^{13,14}.

The participants in this study were 43 women from their third gestation trimester until their children reached 24 months of age, beneficiaries of a comprehensive early childhood care program in the city of Bogotá. They were selected through a convenience sample¹³ taking into account criteria such as being beneficiaries of the program, having agreed to participate in the study, and in the case of nursing women, having had a full-term pregnancy and have had a healthy baby.

The sample size was determined through an inductive process which ended once it reached the *theoretical saturation*¹³, which means when it is not possible to find new information in terms of new units of meaning in the research. The saturation was reached after 43 interviews.

Table 1 shows that the average age of the mothers was 24 years, with a 6.4 standard deviation, 26% were younger than 18 years. 76.5% had secondary education and 2% had no schooling at all. 65.2% of the mothers belonged to the second socioeconomic stratum, and 91% were insured by the social security health system.

The main activity for women was household tasks (64.3%), working (17.5%) or studying (14.9%). 50% of the women younger than 18 spent part of their time studying (Table 1).

53.9% of the mothers were married or in a consensual union, the rest were single or divorced (Table 1). 42.9% of the participants considered their current partner as the head of the household and 79.1% indicated that their current partner was the father of the child. The average number of people per household was 5.5, where in addition to the nucleus composed by the mother, father, and child, lived in the same house with other relatives, mainly the grandparents of the

child, siblings, uncles, and cousins. It worked as a support network in relation to economic matters and in home and care tasks¹⁵.

The data collection techniques used were the in-depth interview¹⁶ and focus groups¹⁷, which were performed at home of the participants and at places assigned by the program. The participants were called during 2016 and 2017 at six different periods: during the third trimester of pregnancy, after the birth of the child, at six, 12, 18, and 24 months of age. The team of professionals in charge of the collection, codification, and analysis of the information was made up of anthropologists and trained sociologist with experience in the implementation of qualitative methodologies headed by the lead researcher. Following the contribution of the grounded theory and the phenomenological health studies the codification was performed based on previously established analysis categories, according to the investigation purposes and with emerging categories among the narratives and perception of the parti-

cipants. This codification type and analysis were performed through an individual approach of each member of the investigation team on the emerging and the previously proposed analysis categories, therefore their relevance and theoretical saturation could be verified. This exercise was the result of a qualitative methodological triangulation^{18,19} between the two used information sources, the interviews, and focal groups, and the contrast between emerging and previously established categories (Table 2).

In order to guarantee the anonymity of the participants, each one was assigned a code composed of the initials of the researcher, followed by the district code for each of the localities of the city of Bogotá, the initials of the data collection technique, and finally the code assigned by the investigation team for each participant.

The information was collected and recorded on audio after the sign of the informed consent. It was transcribed and subsequently systematized through a codification process that included the identification of the first work codes, as well as the emerging categories and then the process of category saturation was verified and the information analyzed^{13, 17,20}. The analysis was performed inductively without forcing data into the previously established categories.

The use of reliable data collection techniques, strict procedures, and controls in order to guarantee the quality of the findings³¹ ensured the scientific rigor of the study, its credibility, fidelity, confirmability, and transferability¹³. The findings were shared with eight participants in order to confirm that the study results reflected their experiences. Similarly, the authors recorded every step of the research and analysis process²² (Figure 1).

The research was performed in accordance with the health research studies regulations established in the Helsinki's Declaration (1975 and reviewed in 1983)²³ and took into account the Scientific, Technical, and Administrative Guidelines for Health Research established in the Resolution No 008430 of 19939 in Colombia²⁴, which defined it as research with minimum risk. No one was forced to participate in the study if they did not want to and could leave at any time. The study had the approval of the Ethics Committee of the National Health Institute (NHI) of Colombia.

Results

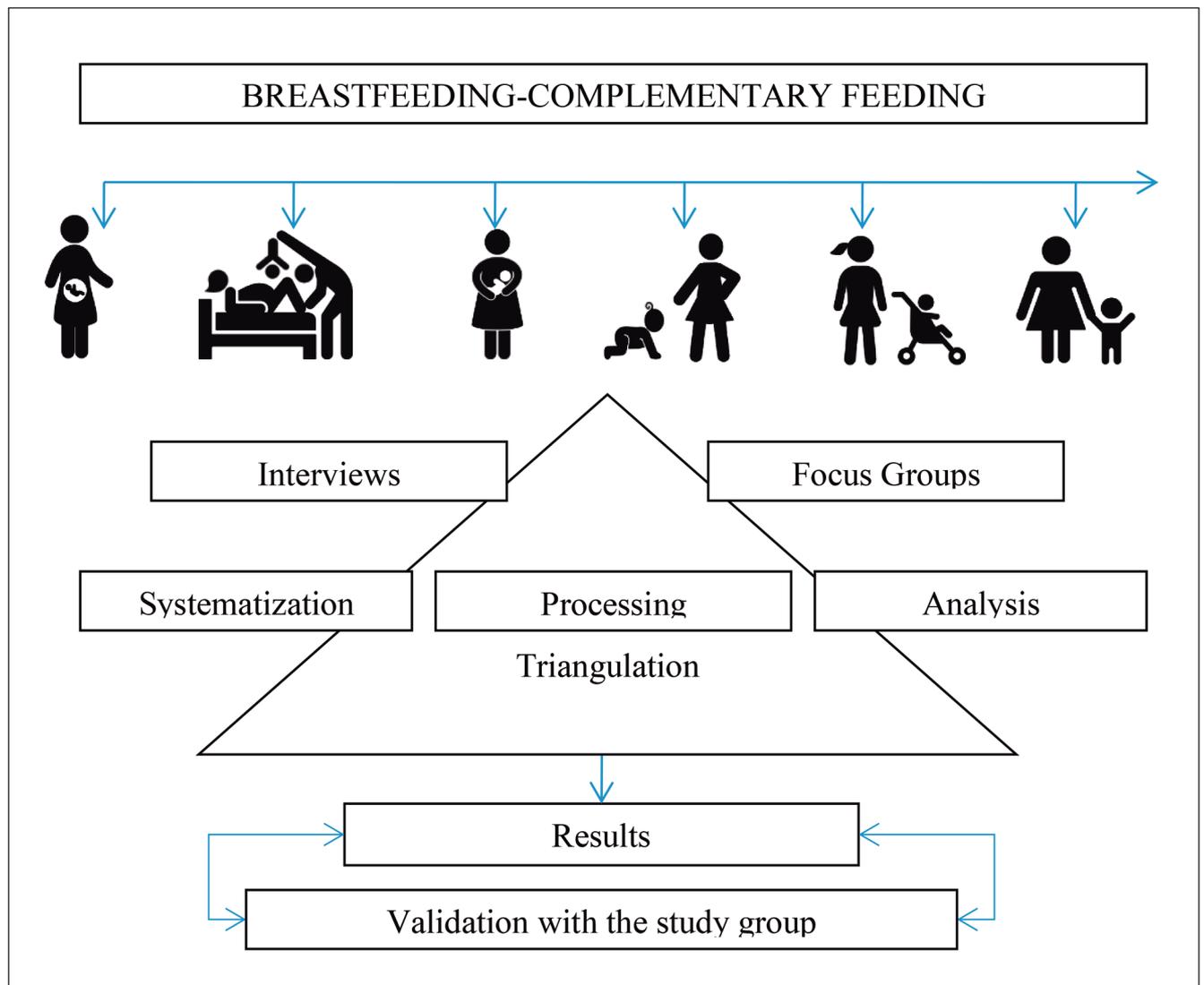
The results address the predefined categories (table 2) and are expressed sequentially from the third gestation trimester until the child reaches 24 months of age, and include textual quotes from the participants.

Table 1. Sociodemographical features

Variable	Percentage Value (%)			
	≤ 18	19-34	≥ 35	Total
Age Groups by Year	26	67	7	100
Etnia				
Afrodescendant	3.7	4.5	11.8	4.8
Indigenous	0.9	2.6	2.9	2.2
Without ethnicity	95.4	92.9	85.3	93.13
Socioeconomic level				
1	21.1	19.2	14.7	20
2	68.8	64.3	55.9	65.2
3	9.2	16.6	29.4	15.8
Marital Status				
Married or consensual union	4.4	66.6	58.8	53.9
Single	8.9	31.7	38.2	45.2
Divorcee	0	0.3	2.9	0.4
Widow	0	0.6	0	0.4
Education grade				
None	0	0	2.9	2
Primary	2.2	5.6	14.7	5.6
Secondary	95.5	71.9	61.8	75.8
Higher education (Technician, technologist, professional)	2.2	19.5	20.6	16.6
Afiliation with social security in health				
Subsidized	48.9	48.8	38.2	48.1
Contributory	44.4	41.4	52.9	42.9
Not registered	6.7	9.8	8.8	9
Main activity				
Job	4.4	20.1	26.5	17.5
Household activities	41.1	69.5	73.5	64.3
Study	48.9	7.7	0	14.9
Without activity	5.6	2.7	0	3.2

Table 2. Categories and questions focus group guidelines and interviews

Characteristics of mother's context	We inquired about age, marital status, family structure, educational level, and socioeconomic status
Representations and experiences facing pregnancy	We investigated the representations and experiences of the participants of the gestation, experienced changes, positive or negative aspects perceived, health situation during pregnancy, attendance at prenatal check-ups, psychoprophylactic courses, and/or emergency service
Meanings and experiences of breastfeeding and complementary feeding	We searched for perceptions and knowledge about breastfeeding and complementary feeding, access to information on breastfeeding and complementary feeding during and after pregnancy, sources of information on breastfeeding and complementary feeding, reasons to breastfeed or stop breastfeeding, social networks of support, family environment/breastfeeding/complementary feeding, work/breastfeeding/complementary feeding, facilities and difficulties felt in relation to breastfeeding/complementary feeding, representations of food, use and access to the health system, and breastfeeding support groups

**Figure 1.** Information management.

56.7% of the women were first-time mothers, and although 58.4% of the pregnancies were not planned, especially for those younger than 18 years, 90% of them stated that they wanted the child later. Until the second month of age, 93% of the children were under the care of their mothers, the rest were under the care of their grandmothers or others. The participants were planning to resume their pre-pregnancy activities once their children were six months old. None of the participants had maternity leave since their economic activities were informal.

All deliveries were performed in a hospital, 60% of the cases were natural deliveries and 67% of the mothers had immediate skin-to-skin contact with their children. Only 20% of the women had complications, such as high blood pressure, dilation problems, fetal distress or bleeding, and a small number required hospitalization after delivery.

68.8% of newborns received BF during the first hour of life and those participants who did not so reported reasons such as the lack of medical advice or support and weakness. 71.9% received counseling in BF after the birth, mainly from their Health Care Providers (HCP) in breastfeeding techniques. For the participants the immediate support that they received in the healthcare institution was essential while breastfeeding.

The participants had the intentions to start the CF after the children were six months old, however, they did not care much about the fact of introducing foods like water, formula, and juices before this age. Many did not know how and when to start the CF, and few believed they would breastfeed for less than six months.

Regarding the initiation of the CF, the mothers received advice from female relatives, mainly their mothers, mother-in-law, sisters, grandmothers, and sisters-in-law, who recommended that they start the practice before the children were six months old. *"My mother told me to give him bean broth that would help his stomach"* (SR01EN03130). In contrast, the recommendations from health professionals, such as general practitioners, pediatricians, nurses, and nutritionists usually indicated that it was best to maintain the EBF until the sixth month of age, and therefore start the CF at this age. However, the mothers did not receive any indications on how and why to follow these recommendations or any information on the consequences of early CF initiation. *"I started feeding him food after six months because let's say... the pediatrician said so"* (SR05EN05).

The milk formula was considered as supplementary food: *"What happens is that my milk doesn't feed them well, that's why I'm reinforcing it with S26®, that is, it's like watery milk"* (CG08EN011601). Drinks such as water, juices, and milk formula were not perceived

as food since they were not solid, therefore they were considered not to interfere with the EBF.

The traditional knowledge was a major influence on the participants; the recommendations from their relatives were more welcomed than those from physicians and/or other health professionals. The internet was an important information source in topics related to the CF, especially for younger participants, while older participants preferred to be informed through workshops and training. *"I followed my aunt's recommendations, also especially as I have read on the internet, I also have a book where I've read about the CF and there are also recipes (...) I haven't consulted with the pediatrician, because, the truth is we haven't gone, and I know it is a fight"* (JV02EN440).

The expected total breastfeeding (TBF) matched with what happened in practice, since those women who said that they intended to breastfeed their children still did so when they were six months old. However, the EBF prevalence was lower compared with the expectation that they had during the pregnancy period. Among the reasons why mothers stopped breastfeeding their children and therefore started with the CF was the perception of low milk production, problems in breasts and nipples, child or maternal illness, and rejection from the child.

69% of the children in the study had eaten something other than breast milk at the second month of life, which was consumed by more than half of them between the two and six months of age. The main reasons for the mothers to offer formula to their children were the perception they were still hungry, the feeling of low breast milk production, the fact that they had to leave them under the care of another person, and that they considered that formula is better than other food, including breast milk. *"I feed him milk powder as a supplementary food, so I can't feed him a dish of dry food, then I have the option of the bottle"* (AH10EN902). 57% of the mothers used a bottle to feed their children with foods other than breast milk, mainly formula, and in many cases, it was presented as a substitute of breast milk, since they feed them with it as frequent as they breastfed.

The CF was characterized by the early incorporation of liquids and semisolids, such as water, natural fruit juices (passion fruit, apple, pear, mango, tangerine, pitaya, orange, plum), fruit or vegetable water (lettuce apple, celery, tomato, among others), and infusions (anise, cinnamon, chamomile, mint). The reasons for fluids initiation were mostly related to the mother's perception of thirst and constipation.

The initiation of feeds with semisolids was varied, not all mothers started at six months, most of them started in the fifth month. The participants emphasized the influence of female relatives, who advised them to start it early *"to get the baby used to it"* (JV12EN0103).

Discussion

The beginning of the CF depends on socioeconomic, cultural, biological, psychosocial, and other factors, thus the age of feeding the first food to the infant significantly varies from one population to another²⁵. Occasionally, the socioeconomic conditions may produce the early introduction of CF, which is mainly the case in the most disadvantaged socioeconomic groups, since if the mother has to work outdoors and has to quit the EBF, she has to rely on the CF in order to cover the dietary needs of the infant. Therefore, more than half of the children in this study received CF before reaching six months, coinciding with the results of other authors who indicated that the age of quitting EBF is earlier in families with a lower income²⁶.

The low education level of the participants is reflected in the informal work relationship, which requires little qualification and means low income, a fact that would partially indicate that large families live in the same home due to economic reasons, which would also explain the great influence that female relatives have in the nutrition of children. For the participants the advice of their mother or grandmother was more truthful than those given by health professionals, mainly because they found support, continuous accompaniment, and explanations based on experiences in their families. It is important to note that in Colombia, until the middle last century, the rural population was 60% of the total population²⁷. Most of the mothers and grandmothers of the participants come from the countryside and base their advice validity on their experience, as they raised their children away from biomedical knowledge. It should also be considered that the gestation as a matter of central public health concern is a relatively recent issue, since it is part of the new prenatal care model of the WHO⁸, thus the amount of contacts that the mother has to have with the health professionals throughout pregnancy increases from four to eight, in order to detect and manage potential problems. This model gains relevance in the light of the WHO data, which indicate the complications during the pregnancy and childbirth are the leading cause of death and disability of women in childbearing age in developing countries due to causes which most of the time can be avoided²⁹.

There is evidence that indicates that the early start of CF is related to a low education level of the parents³⁰, which can explain why many of the participants stayed home until their children were six months old and did not exclusively breastfeed them, and why they decided to buy formula despite its high cost.

Studies show that the prenatal education contributes to the extension of the EBF and the adequate start of the CF,^{31, 32, 33} since the higher education level and

the higher the chances of attending workshops and training, the higher the chances of compliance with the recommendations. However, according to the findings of this research this was not enough. Although most participants reported having received some training in EBF and CF, almost none followed the recommendations. Most of them were not clear on how to use them and why they should use them. This means an educational challenge for the different health professionals who must begin their permanent accompaniment of the mother and child from the gestation up to 24 months of age.

Matching other authors, in this study no woman indicated disadvantages of the milk formula²⁶, instead, it was positively valued in most cases, which is probably associated with the advertising of breast milk substitutes and the high lack of knowledge about the benefits of the BF for the mother and her child, a reason that could explain why most of the mothers do not consider the option of expressing and storing their own milk and decided to buy formula to feed their child.

Although many mothers reported having problems in breasts and nipples, none had major complications such as mastitis and abscesses, which would explain the cessation of EBF and the consequent start of the CF. In this sense, the physiological barriers were not the main reason why EBF and CF recommendations were not followed^{34, 35, 36}.

According to the results of this study, the CF is a social practice that results from the mixture of medical and popular knowledge, however, the degree of influence that the latter has on mothers is higher, mainly because of the degree of closeness and the accompaniment that they have from their close circle, especially from their mothers, grandmothers, and female relatives³⁷.

The lack of conceptual and practical knowledge about EBF and CF among mothers prevents them from performing good practices³³. Most of them do not know what the exclusivity of BF implies, which leads to an early beginning of the CF or do not have objective criteria to evaluate the milk production. The inadequate EBF leads to a bad CF practice, therefore, it is necessary to strengthen the EBF support programs and the CF considering the context of the mothers and their knowledge. The constant support from health professionals is necessary to provide mothers with the tools to face different barriers that arise throughout the CF process^{34, 38, 39, 40}.

It is essential to inform the close circle of the mother and society in general thus they can be a support for the EBF and therefore the CF since they are social practices that are directly or indirectly influenced by everyone.

Throughout the study, there was a tension bet-

ween the medical and popular knowledge, therefore an approach of both pieces of knowledge is essential for them to recognize each other, and the mothers can take the best of both in order to work for the nutritional well-being of their children, thus generating a positive impact on the public health of the country thanks to free and informed CF practices.

The revealed results of this study correspond to the reality of a specific group of women who share similar sociodemographic characteristics, thus their conclusions offer a partial view of the issue. However, it allows seeing the point of view of these mothers regarding the way in which they experience the CF with their children.

Ethical Responsibilities

Human Beings and animals protection: Disclosure the authors state that the procedures were followed according to the Declaration of Helsinki and the World Medical Association regarding human experimentation developed for the medical community.

Data confidentiality: The authors state that they have

followed the protocols of their Center and Local regulations on the publication of patient data.

Rights to privacy and informed consent: The authors have obtained the informed consent of the patients and/or subjects referred to in the article. This document is in the possession of the correspondence author.

Conflicts of Interest

Authors declare no conflict of interest regarding the present study.

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References

1. Organización Mundial de la Salud. Indicadores para evaluar las prácticas de alimentación del lactante y del niño pequeño. Parte 1. Definiciones. Geneva; 2008:127. http://apps.who.int/iris/bitstream/10665/44156/1/9789243596662_spa.pdf, última visita 23-02-2018.
2. Organización Mundial de la Salud. La alimentación del lactante y el niño pequeño: Capítulo modelo para libros de textos dirigidos a estudiantes de medicina y otras ciencias de la salud [Internet]. Washington; 2010. http://apps.who.int/iris/bitstream/10665/44310/1/9789275330944_spa.pdf, última visita 02-03-2018.
3. Pantoja-Mendoza I, Meléndez G, Guevara-Cruz M, Serralde-Zúñiga A. Review of complementary feeding practices in Mexican children. *Nutr Hosp*. 2015;31 (2).
4. Panjwani A, Heidkamp R. Complementary feeding interventions have a small but significant impact on linear and ponderal growth of children in low-and middle-income countries: A systematic review and meta-analysis. *The Journal of nutrition*. 2017;147(11): 2169S-2178S.
5. Organización Panamericana de la Salud. Alimentación y Nutrición del niño pequeño: Memoria de la Reunión Subregional de los Países de Sudamérica. Lima; 2008. [https://www.unicef.org/lac/Reunion_Sudamericana_de_Alimentacion_y_Nutricion_del_Nino_Pequeno\(2\).pdf](https://www.unicef.org/lac/Reunion_Sudamericana_de_Alimentacion_y_Nutricion_del_Nino_Pequeno(2).pdf), última visita 26-01-2018.
6. Avula R, Frongillo E, Arabi M, Sharma S, Schultink W. Enhancements to Nutrition Program in Indian Integrated Child Development Services Increased Growth and Energy Intake of Children. *Journal of Nutrition*. 2011; 141(4): 680-684.
7. Fondo de las Naciones Unidas para la Infancia (UNICEF). Programming Guide: Infant and Young Child Feeding. Nueva York; 2012. https://www.unicef.org/nutrition/files/Final_IYCF_programming_guide_June_2012.pdf, última visita 19-01-2018.
8. Bhutta Z, Ahmed T, Black R, et al. What Works? Interventions for maternal and child undernutrition and survival. *Lancet*. 2008; 371(9610): 417-40.
9. Ministerio de Salud y Protección Social. Plan Decenal de Lactancia Materna 2010-2020. Colombia; 2010.
10. Instituto Colombiano de Bienestar Familiar. Encuesta Nacional de Situación Nutricional en Colombia 2010(ENSIN). 2010.
11. Instituto Colombiano de Bienestar Familiar. Encuesta Nacional de Situación Nutricional en Colombia 2015 (ENSIN). 2015.
12. De Garine I. Antropología de la alimentación: entre Naturaleza y Cultura. En: Alimentación y Cultura. Actas del Congreso Internacional. 1998; 1: 13-34.
13. Streubert H, Carpenter D. Qualitative Research in Nursing: Advancing the Humanistic Imperative. 5a ed. Lippincott Williams & Wilkins; 2010. 1-496 p.
14. Creswell J. Qualitative inquiry and research design: choosing among five approaches. 2a ed. Sage Publication; 2012. 1-448 p.
15. Puyana Y. La familia extensa: una estrategia local ante crisis sociales y económicas. *Trab. soc*. 2004; 6: 77-86.
16. Guess G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. *Field Methods*. 2006;18(1):59-82.
17. Morgan D. Qualitative Research Methods: Focus groups as qualitative research. 2ª ed. Sage Publications; 1997. 1-80 p.
18. Coffey A, Atkinson P. Encontrar el sentido a los datos cualitativos. 1ª ed. Editorial Universidad de Antioquia; 2003. 1-249 p.
19. Turner P, Tuerner S. Triangulation in

- Practice. Virtual Reality - Mediated Presence: Virtual Reality, Mixed Environments and Social Networks, Part 1. Guest Editors: Spagnolli A., Lombard M. & Gamberini L. 2009;13(3):171-81.
20. Tate J. Qualitative Secondary Analysis: A Case Exemplar. *Journal of Pediatric Health Care*. 2017;32(3):208-312.
 21. Miles M, Huberman A. *Qualitative Data Analysis: an expanded sourcebook*. 2ª ed. Sage Publications; 1994. 1-352 p.
 22. Erazo M. Rigor científico en las prácticas de investigación cualitativa. *Ciencia, docencia y tecnología*. 2011; 42: 107-36.
 23. Lucchini C, Márquez F, Rivera M. "Yo quiero amamantar a mi hijo": Develando la experiencia de mujeres que enfrentaron dificultades en su proceso de lactancia. *Revista chilena de pediatría*. 2017;88(5):622-8.
 24. World Medical Assembly. Declaration of Helsinki. Geneva, Switzerland: World Health Organization; 1964, 1975, 1983.
 25. Ministerio de Salud. Resolución 008430. Por la cual se establecen las normas científicas, técnicas y administrativas para la investigación en salud. Colombia; 1993.
 26. Contreras J. Alimentación y cultura. Necesidades, usos y costumbres. Editorial Alfaomega. 2002; 1-384.
 27. Díaz M, Ruzafa M, Ares S, et al. Motivaciones y barreras percibidas por las mujeres españolas en relación a la lactancia materna. *Rev Esp Salud Pública*. 2016;90:1-18.
 28. Palacios M, Safford F. Historia de Colombia País fragmentado sociedad dividida. Ediciones Uniandes; 2012: 1-144.
 29. Organización Mundial de la Salud. Nuevo modelo de control prenatal de la OMS. 2003; http://apps.who.int/iris/bitstream/10665/42692/1/WHO_RHR_01.30_spa.pdf, última visita 03_03_2018.
 30. Ministerio de salud y protección social. Garantizar la atención segura de la gestante y el recién nacido. Paquetes instruccionales, Guía técnica "buenas prácticas para la seguridad del paciente en la atención en salud". Versión 2.0:1-116.
 31. Ke J, Ouyang Y, Redding S. Family-Centered Breastfeeding Education to Promote Primiparas exclusive Breastfeeding in China. *Journal of Human Lactation*. 2018;34(2):365-78.
 32. Aragón M, Cubillas I, Torres A. Maternidad en la adolescencia y lactancia. *Revista Enfermería Docente*. 2015;2(104): 49-54.
 33. Martínez P, Martín E, Macarro D, Martínez E, Manrique J. Educación prenatal e inicio de la lactancia materna: Revisión de la literatura. *Enferm Univ*. 2017;14(1):54-66.
 34. Borre Y, Cortina C, González G. Lactancia materna exclusiva: ¿la conocen las madres realmente? *Rev Cuid*. 2014;5(2):723-30.
 35. Lucchini C, Márquez F, Rivera M. "Yo quiero amamantar a mi hijo": Develando la experiencia de mujeres que enfrentaron dificultades en su proceso de lactancia. *Rev Chil Pediatr*. 2017;88(5):622-8.
 36. Narges A, Phibbs S, Cheryl B. Reasons for Stopping Exclusive Breastfeeding Between Three and Six Months: A Qualitative Study. *Journal of Pediatric Nursing*; 39: 37-43.
 37. Niño L. Caracterización de la lactancia materna y factores asociados en Puerto Carreño, Colombia. *Revista de Salud Pública*. 2014;16(4):560-71.
 38. Becerra F, Rocha L, Fonseca D, Bermúdez L. El entorno familiar y social de la madre como factor que promueve o dificulta la lactancia materna. *Rev Fac Med*. 2015; 63(2):217-27.
 39. Forero Y, Rodríguez S, Isaacs M, Hernández J. La lactancia materna desde la perspectiva de madres adolescentes de Bogotá. *Rev Biomed*. 2013; 33(4):554-63.
 40. Bolton T, Chow T, Benton P, Olson B. Characteristics associated with longer breastfeeding duration: an analysis of a peer counseling support program. *J Hum Lact*. 2009; 25:18-27.

