ABSTRACT
Supplemented feeding is defined as the period in which other foods or liquids are offered in addition to breast milk. Therefore any food given to the infant, other than breast milk during this period is called complementary food. The objective of the study was to describe the mother’s knowledge regarding nourishment of infants over six months. This is an exploratory and descriptive study with a qualitative approach, with 30 mothers of infants at a Health Center in Ceilândia - Distrito Federal. The data was collected through a semi-structured interview, and the analysis was carried out through thematic analysis. It was found that mothers are not offering food according to the recommendation of Brazilian Health Ministry. They consider they offered healthy diet, which diverges from their reports.

Keywords: Infant Food; Child Nutrition; Child Health.

RESUMO
A alimentação complementar é definida como o período em que outros alimentos ou líquidos são oferecidos em adição ao leite materno. Qualquer alimento oferecido ao lactente durante esse período, além do leite materno, é chamado de alimento complementar. O objetivo do estudo foi descrever o conhecimento das mães sobre a alimentação de lactentes a partir dos seis meses de vida. Trata-se de um estudo exploratório e descritivo, com abordagem qualitativa, realizado com 30 mães de lactentes de um centro de saúde de Ceilândia, Distrito Federal. Os dados foram obtidos por meio de uma entrevista semiestruturada e a análise realizada por meio da análise temática. Constatou-se que as mães não estão oferecendo os alimentos de acordo com o que é recomendado pelo Ministério da Saúde. Elas acreditam oferecer uma alimentação saudável, o que se encontra em desacordo com os próprios relatos.

Palavras-chave: Alimentos Infantis; Nutrição da Criança; Saúde da Criança.

RESUMEN
El periodo en que se ofrecen otros alimentos o líquidos además de la leche materna se conoce como de alimentación complementaria. Cualquier otro alimento ofrecido al lactante durante ese periodo se llama alimento complementario. El objetivo de este estudio fue describir el conocimiento de las madres sobre la alimentación de lactantes a partir de los seis meses de vida. Se trata de un estudio exploratorio descriptivo de enfoque cualitativo realizado con 30 madres de lactantes de un Centro de Salud de Ceilândia - Distrito Federal. La recogida de datos se llevó a cabo en entrevistas semiestructuradas y su análisis se realizó según el análisis temático. Se ha podido constatar que las madres no están ofreciendo los alimentos como lo recomienda el Ministerio de Salud. Creen que ofrecen alimentación saludable pero los propios informes lo contradicen.

Palabras clave: Alimentos Infantiles; Nutrición del Niño; Salud del Niño.
INTRODUCTION

The World Health Organization and the Ministry of Health recommend exclusive breastfeeding for the first six months of life of the newborn and complementary breastfeeding after that period, until two years old or more.1,2

Only 35% of children are exclusively breastfed during the first four months of life worldwide. The inclusion of complementary feeding has been introduced too soon, or too late, and food quality has been predominantly inadequate and insecure.3

Therefore, the best period for the introduction of complementary foods is the sixth month of life, because before this period the mother’s milk can meet the nutritional needs of the child. Also, in the sixth month, the main reflexes appear in children, so an effective complementary feeding occurs. In this phase, the reflexes for swallowing are already developed, such as the lingual reflex. It is also seen the excitement before the food in the child; he can already support the head, facilitating feeding with the use of the spoon. Finally, the first teeth appear, which facilitate chewing.4

The nurse plays a fundamental role in the care of the child and the woman, from the beginning of the uterine life, when the nurse assists during the prenatal consultations. At this point, it is possible to guide families about feeding, to detect abnormalities through maternal physical examination, and based on this, to adopt behaviors to optimize the growth and development of the child.5

Eating habits are shaped by genetic and environmental influences. These influences and eating behaviors by people are challenges for health professionals. The flavors experienced in the first months of life can influence the individual’s food preferences because when food becomes familiar, the preference for it continues throughout life.6

Considering that most of the time the mothers take care of their children, it is important to check what knowledge they have about the foods the child should consume in each period of their growth.

Given this, the following guiding question emerged: “what is the knowledge that mothers have regarding the complementary feeding of their children?”. This study aimed to evaluate the knowledge of mothers about infant feeding to answer this question.

METHOD

This is an exploratory and descriptive study, with a qualitative approach. It was performed at a health center (HC) in Ceilândia, in the Federal District. This research was developed after approval by the Research Ethics Committee of the State Department of Health of the Federal District, under the number CAAE 33895514.9.0000.5553. All the participants signed the Free and Informed Consent Form (TCLE), in which they were informed about the measures to ensure anonymity and confidentiality about the origin of the data obtained. This study obeyed the norms of research with human beings, according to Resolution 466/2012 of the National Health Council.7

To select the participants, the inclusion criteria were established: mothers with infants in complementary feeding and follow-up in the HC of the study. The exclusion criteria were mothers with newborns who had congenital malformation related to feeding; using food supplementation or the infant was accompanied by another person in the unit for consultation other than the mother.

Data collection was performed between November 2014 and March 2015. Mothers were approached during screening before the growth and development (GD) consultation. After this initial contact, they were referred to an office to read the TCLE and to take doubts about the research.

Before the information was collected, the semi-structured instrument organized by the researchers was previously tested with ten mothers, at the same collection site, as a way of analyzing the mothers’ understanding of the questions. The instrument contained the following questions: “What does your child usually eat?”, “Do you consider your child’s food healthy?”, “How do you wash the food offered to him?”, “What do you think about past information in the growth and development consultations on food?”. The interviews were recorded for the purpose of absorbing the information provided in an extended way. Participants previously authorized the recording of interviews, which lasted an average of 20 minutes. The inclusion of the participants occurred until the data was saturated and, as the participants were interviewed, the transcription of the speeches occurred until there were no new ideas added, to the point of new codification. Then, the grouping of information about the major doubts that permeated the theme of complementary feeding was carried out. Participants were identified with the letter “M,” followed by a cardinal number as a way of maintaining their anonymity.

For the analysis of the data, the thematic content analysis proposed by Minayo was used, which unfolds in the pre-analysis stages, including floating reading and the formulation of hypotheses and objectives. The exploration of material was through categorization through meaningful expressions, and treatment of the results obtained.8

Four categories emerged from the analysis after the grouping of information: “look, when he wakes up I give,” “then everything is in agreement,” “with soap and water” and “at the moment for me is the essential.”

RESULTS

Thirty mothers aged between 14 and 42 years old participated in the study, and the predominant age group was between 25 and 30 years old (36.6%). The children were between
six and 11 months old. Most of them (89.9%) were married, with a high school diploma (69.9%).

The categories emerging from the analysis explain a phenomenon and the articulation between them allowed the construction of a narrative that expresses the experience of the care in the feeding of the infant.

**Category 1:**
**“Look, when he wakes up I give…”**

This category emerged from reports about what foods are offered to the child during the day. Preference was given to milk formulas as a substitute for breast milk.

 [...] he has not breastfed since he was two months old... but just in case he does not have fruit, then I make a Mucilon®, a little thing to give him, because he has already gotten used to it... (M6).

 [...] then I give him Mucilon® ... (M3).

 [...] the bottle for breakfast, right, milk powder and Mucilon® ... (M28).

The introduction of other foods occurred with the inclusion of powdered and farinaceous milk in the form of porridge, being the preference of the mothers interviewed for this type of food.

 [...] in the morning he eats porridge ... (M21).

 [...] sometimes a porridge ... (M11).

 [...] look, when he wakes up I give him the same bottle of milk, I give Nestogeno® ... (M23).

One aspect observed was the use of the blender to leave the food doughier. This procedure contributes to the reduction of the energy density of the meal, compromising the nutritional status of the child, which can lead to a deficit in weight gain.

 [...] then at lunch I make a variety, sometimes I add beets, pumpkins, potatoes, and carrots, and then I beat it to get it softer... (M26).

 [...] there, when it is the meat, we shred it a lot, and we smash it, mix it in the blender... (M8).

Although this practice is still common, it is worth mentioning that in this study there was a prevalence of mothers who were aware of the correct way to offer food about consistency.

 [...] no, when I make the potato, the carrot, these things, I always knead it very well, too, because in the lecture the nurse said that it was not good to beat it in the blender or anything, you know, I always smash it, and I also do not like anything mix in the blender, right ... (M6).

 [...] I put a spoonful of rice, then I put it, I do not like to give potatoes, I already put the rice, then I put sweet potatoes, right, I put sweet potatoes, carrots, cooking and smashing it for him since we cannot mix it in the blender, right? ... (M13).

The mother is the mediator between the food and the child and the bond established at that moment is important because it allows for greater maternal involvement. It can be observed that the mother interferes in the way the food is offered to the child.

Firstly, he is not eating breakfast, because I wake up late I give him only a snack, just the potato (M12).

The mother effectively bridges the gap between food and the child. It is necessary to establish a mature and active position in the process of offering food to the child. The failures inherent to this process occur due to unpreparedness and unsolved doubts.

**Category 2:**
**“[…] Then everything is in agreement”**

When asked if they considered healthy the food offered to the child, most of the mothers said yes, as verified by the following statements:

 I think so ... so he is eating everything right, I am giving the ferrous sulfate, so it is all okay with each other (M2).

 It is healthy, a little more, because I gave him all, right? [...] (M4).

 [...] I think it is healthy (M10).

 I do not know; I think it is, for me it is (M13).

 I think it is healthy (M14).

The concept of healthy food is sometimes confused with what is considered adequate, which is reflected in the case of the predominance of one type of food over the other or the one that is easier to prepare at the moment. For some interviewees, food is healthy because it has mostly vegetables.
 [...] vegetables and fruit I give of everything of that kind, he does not eat, for example, it is ... he only eats natural, what is healthier than natural? (M3).

So, I think it is healthy right, I know the vegetables vary, there is the fruit (M17).

Sometimes the group of fruits and vegetables is considered by mothers the most important in food, leading to an erroneous conception of what is healthy or what is most appropriate.

It is normal, she eats a lot, at least lunch, food, and fruit which is most important she eats well ... (M26).

The preparation time for food is an important point in the preparation of food so that the longer time for preparation is reflected in its best quality.

It could be more if I had more time, of course, to prepare everything, it would be much more, if I had only him to take care, because I did not stop, I continued, I went to college with him since 15 days, I started feeding him with four months, I talked to the pediatrician, he said no, I can start with banana... (M8).

Another factor observed on the concept of healthy eating was the interpretation that healthy food is expensive when in fact, there should be the adequate administration of those that are available in the season and should be consumed promptly.

 [...] I think yes, it is healthy, yes, the food that he eats, and we cannot give much because we cannot give him any healthier food for him (M22).

Category 3: “With soap and water.”

Hygiene is a major factor in feeding, especially for infants. When asked about how to clean the food – such as foliage, vegetables – there was a predominance of reports about the use of soap and water.

With soap and water (M1, M7, M23, M29).

 [...] I like to put soap sponge on everything, in everything I like to wash (M6).

I wash with soap and a brush, then I wipe it out and put it in the fridge (M10).

Fruits, vegetables, and legumes are eaten raw and/or peeled should be washed with running water, by rubbing their surface thoroughly to remove any dirt. The leaves should be washed one by one.

I use detergent and sponge in the greens, and I do not wash the banana, now when it is for these things, I use the sponge well, and well rinsed (M25).

Water and soap, I like to wash everything with a sponge (M27).

Soap and water and I sponge everything before putting it in the wardrobe (M28).

Proper guidance on the hygienic practice of the various foods that are offered is still needed. Also, some hygienic practices need to be revised to better fit food hygiene.

Category 4: ”[...] AT THE MOMENT, IT IS THE ESSENTIAL THING FOR ME.”

When questioned if the information received in the DG consultations were sufficient to carry out food-related care adequately, the respondents had a positive response.

I understand well what they say, and I do not doubt it (M1).

So, at the moment for me is the essential (M9).

I think they are enough, I learn a lot, I always ask, and he takes the doubt I have (M12).

It is important to identify in the mother’s language her understanding of the information received since only the offer of information does not guarantee the quality of the message transmitted. The communication constitutes a reference of fundamental support for mothers. It is necessary to have adequacy on the receiver of the information if there is acceptability about what is spoken. When this process does not occur, the professional should seek other forms of convincing, always seeking the best benefit of the child.

I think it is missing, I do not even know if it is missing, I am going to get more for myself, I am giving more because she had a problem, and then they made a lot of confusion in my head, so my way I find it easier, because they can
talk, they can, they cannot, and they do, and soon they think you are not even doing what they told you, just like juice, the nutritionist said she could not give it, I thought I could (M24).

Dissatisfaction about the time of the consultations was observed because the reduced period limits the checking of doubts related to caring. The information needs to be clear; all doubts need to be drawn.

Not always, some are weak; the consultations are very fast, other times it is like this, you see that the information that they give so, that I already knew, and that is not what I came to look for, in fact sometimes it is weak (M6).

**DISCUSSION**

The feeding process represents the maintenance and establishment of care provided by the mother to the infant. Precisely for this reason, the establishment of bonds between professionals and caregivers needs to be well consolidated, so the information provided on the subject reaches the proposed objectives. Through this relationship, it will be possible to observe that the foods offered are or not adequate to the age range of the infants.

Culturally, the replacement of breast with whole cow’s milk with thickener and sugar is one of the foods considered to be most important for the health of the child. Another study found that 25% of the mothers intended to introduce cow’s milk during the first year of life of the child. This same result was found in a study that verified the intention of puerperal mothers to breastfeed and the prospects of introduction of milk during the first year of life of the child. This same result was found in a study that verified the intention of puerperal mothers to breastfeed and the prospects of introduction of complementary foods in the first year of life.

Research that analyzed feeding practices in the first two years of life revealed that mothers knew that they should exclusively breastfeed until six months old. When they thought about offering other foods, they disregarded the maintenance of breast milk, giving way to other foods. When they started these other foods, they did it through bottle or bottle porridge, preferring to replace milk with milk formulas.

A study carried out in Zambia found that only 30.1% of the mothers breastfed exclusively until six months, even though 94.8% of those interviewed said that the child would not need anything other than breast milk in the first three months of life.

Breastfeeding has the benefit of fostering self-control for the child, who will feed on the internal stimulus of hunger and satiety. This does not occur in the milk composition, which is uniform and sometimes leads to high food intake, predisposing to obesity.

A study carried out in Australia accused that health units need to carry out interventions to address the misconceptions that mothers have about infant feeding. Adherence to the new guidelines on infant feeding by mothers would contribute to the introduction of complementary feeding only after six months old.

At six months, the child no longer has the protrusion reflex of the tongue, facilitating the ingestion of semisolid food. When the child is seated, his neck has more firmness, and this facilitates the supply of food with a spoon. The recommendation is that the food supply is slow and gradual, as both the spoon and the tastes are new to the child. At this stage, she will begin to distinguish between the textures, the flavors and the use of the blender are contraindicated. Such processing may discourage chewing.

The supply of highly energetic foods with low nutritional value, associated with the abandonment of breast milk in early life, leads to a compromise in the growth and development of the child. It can also decrease immune protection and trigger allergic processes as well as bring nutritional disorders.

Healthy eating is one that meets the demands of the body. It should be varied, including several food groups to offer different nutrients (cereals, fruits, vegetables, meats, dairy products and beans). It should also be balanced, with care in the quantity of each food offered. Also, it should be sufficient, that is, in quantities that meet the needs of each child.

A study that evaluated the impact of updating health professionals on the “Ten Steps of Healthy Eating in Children Under Two Years Old” and verified the practices in children with six and 12 months old demonstrated a positive impact on the prevalence of infants who received fruits, meat, and liver at an adequate frequency.

The premise that vegetables and fruits are the most important foods comes from the fact that these types of foods are sources of vitamins, minerals, and fiber. Usually, these foods are not well accepted by young children, who have a preference for sweeter foods. When the child initially refuses the food, it should be offered again at later times to facilitate its acceptance. It should be offered in eight to 10 repetitions, at different times. The fruit must be offered smashed.

Work or other occupation has been observed as a facilitator for weaning and breastfeeding time. Mothers who do not work outside the home are more willing to breastfeed. As work has become attributed to the daily life of women, this has led to the early introduction of foods other than breast milk.

Lack of hygiene in food preparation or poor conservation are causes of diarrhea in young children. Foods prepared well in advance of the meal, left out of the refrigerator, on the table or the stove can spoil and cause food discomfort.

It is necessary that the professionals assisting these children to establish a dialogue with the mothers, so they feel comfortable to ask their questions and have access to the real needs and doubts of the mothers. From care, viable alternatives to the reported problems can be found as well as to fill the gaps in maternal knowledge.
A descriptive study that aimed to evaluate the satisfaction of mothers of children under two years old regarding the care provided at basic health units concluded that the nurse is the professional who uses the child’s booklet for monitoring. It also indicated that the health care of the children was evaluated as regular and the performance of the professionals as good or acceptable.19

Differently, other research has shown that records related to growth and development performed by nurses in children younger than two years were inadequately performed and failed. The information gap makes it unfeasible to identify risk situations and plan actions aimed at child care.20

There is concern about what the doctor asks and advises regarding food since the information received is extremely relevant to the guidelines passed on in the consultation, this communication sine qua non for a good food process. The information provided in a model in which only the doubts mentioned by the mothers are debated are accepted without question. The lack of information has also been recorded as it relates to the foods that can be offered and those that are not by the age. The study revealed that most mothers had the experience of feeding their family or life in feeding their children. It is essential to broaden the view to a broader scenario to meet the needs of infant food health, - historical, social and family - which will require analysis beyond clinical and basic needs. The orientation of people should be based on dialogue, in a horizontal relationship, seeking the construction of knowledge, recovery, and protection of health.5

Communication is a basic strategy of humanization. It consists of perceiving each person as a unique individual with their specific needs, facilitating interaction through open dialogue. It is important to remember that communication involves verbal and non-verbal language, that is, it goes beyond just words, it also implies gestures, facial expressions, body movements, the distance between people. These strategies need to be adopted as a way of meeting the needs of families and their particularities.21

CONCLUSION

The results of this research allowed us to infer that there is a persistent relationship between the mothers and the health professionals in the study unit. This verticalization promotes a hierarchy of knowledge with a focus on scientific information rather than an accessible and easily interpreted language. The information should be targeted to the target audience for which it is intended. Therefore, the difficult relationship between professionals and patients is perpetuated, hindering to adapt strategies for changing habits and behaviors, and adopting practices based on evidence.

This study presented an understanding that the professional has a fundamental role in guiding the child’s diet. Mothers have confidence in the information they convey. However, the guidelines should be appropriate to the needs and understanding of mothers and must cover the various dimensions of food, from its preparation to its administration. Also, possible problems that may arise in this process, as well as ways of adapting to the child’s refusal should be addressed.

The results obtained can contribute to the direction of educational activities and health promotion aimed at the mother-child dyad, observing their family and social environment. The process of empowerment and well-being of the patients are unambiguous activities of the health professionals, especially the nurses.

One of the limitations of this study was related to the lack of comparison between the information offered by doctors and nurses that alternate in the child’s care in growth and development. Often, the approach taken by the researchers occurred before medical consultations, hindering the mothers to evaluate the information provided by health professionals.

REFERENCES


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