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QUESTIONNAIRE TO ASSESS PARENTS' KNOWLEDGE ABOUT INFANT COMPLEMENTARY FEEDING: CONSTRUCTION AND VALIDITY

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ABSTRACT

Objective: to construct and validate a questionnaire to assess parents' knowledge about infant complementary feeding.
Method: this is a methodological study developed from March 2017 to May 2020 with a sample of experts (6) and parents/guardians of infants (374). It was based on the psychometric framework in which construction, content validity (content validity index), construct validity (factor analysis) and internal and structural consistency analysis (Cronbach's alpha) and reproducibility (intraclass correlation index) were carried out.
Results: the questionnaire obtained three versions until reaching its final version with 23 items distributed in two axes: introduction of complementary feeding; preparation and way of eating, reaching an overall CVI of 0.83 in the judges' analysis. Exploratory factor analysis proved to be adequate (Kaiser-Meyer-Olkim of 0.70 and Bartlett's test of sphericity with $p<0.001$). The final Cronbach's alpha of the 23-item scale was 0.79, demonstrating adequate internal consistency. The intraclass correlation index was 0.615, demonstrating good instrument reproducibility.
Conclusion: the questionnaire showed evidence of validity to assess parents' knowledge about infant complementary feeding.

DESCRIPTORS: Nursing. Parents. Infant. Validity study. Infant nutritional physiological phenomena.

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QUESTIONÁRIO PARA AVALIAR O CONHECIMENTO DOS PAIS SOBRE ALIMENTAÇÃO COMPLEMENTAR DO LACTENTE: CONSTRUÇÃO E VALIDAÇÃO

RESUMO

Objetivo: construir e validar um questionário para avaliar o conhecimento dos pais sobre alimentação complementar do lactente.
Método: estudo metodológico desenvolvido de março de 2017 a maio de 2020 com uma amostra de especialistas (6) e de pais/cuidadores de lactentes (374) baseado no referencial psicométrico em que se procederam a construção, a validação de conteúdo (índice de validação de conteúdo), a validação de construto (análise fatorial) e análise da consistência interna e estrutural (Alfa de Cronbach) e reprodutibilidade (índice de correlação intraclasse).
Resultados: o questionário obteve três versões até alcançar sua versão final com 23 itens distribuídos em dois eixos: introdução da alimentação complementar e preparo e forma de alimentar alcançando IVC global de 0,83 na análise dos juízes. A análise fatorial exploratória mostrou-se adequada (Kaiser- Meyer-Olkim de 0,70 e a esfericidade de Bartlett com p<0,001). O Alfa de Cronbach final da escala com 23 itens foi de 0,79, demonstrando consistência interna adequada. O índice de correlação intraclasse foi de 0,615 demonstrando boa reprodutibilidade do instrumento.
Conclusão: o questionário demostrou evidências de validade para avaliar o conhecimento dos pais de lactentes sobre alimentação complementar.

DESCRITORES: Enfermagem. Pais. Lactente. Estudo de validação. Alimentação complementar.

CUESTIONARIO PARA EVALUAR EL CONOCIMIENTO DE LOS PADRES SOBRE ALIMENTACIÓN COMPLEMENTARIA INFANTIL: CONSTRUCCIÓN Y VALIDACIÓN

RESUMEN

Objetivo: construir y validar un cuestionario para evaluar el conocimiento de los padres sobre la alimentación complementaria infantil.
Método: se trata de un estudio metodológico desarrollado desde marzo de 2017 hasta mayo de 2020o con una muestra de especialistas (6) y padres/cuidadores de lactantes (374). Se basó en el marco psicométrico en el que se realizó la construcción, validación de contenido (índice de validación de contenido), validación de constructo (análisis factorial) y análisis de consistencia interna y estructural (alfa de Cronbach) y reproducibilidad (índice de correlación intraclase).
Resultados: el cuestionario obtuvo tres versiones hasta llegar a su versión final con 23 ítems distribuidos en dos ejes: introducción de alimentación complementaria; preparación y forma de comer, alcanzando un CVI overall de 0,83 en el análisis de los jueces. El análisis factorial exploratorio demostró ser adecuado (Kaiser-Meyer-Olkim de 0,70 y esfericidad de Bartlett con p<0,001). El alfa de Cronbach final de la escala de 23 ítems fue de 0,79, demostrando una consistencia interna adecuada. El índice de correlación intraclase fue de 0,615, lo que demuestra una buena reproducibilidad del instrumento.
Conlusión: el cuestionario mostró evidencias de validez para evaluar el conocimiento de los padres de lactantes sobre alimentación complementaria.

DESCRIPTORES: Enfermería. Padres. Lactante. Estudio de validación. Fenómenos fisiológicos nutricionales del lactante.

INTRODUCION

The Brazilian Ministry of Health (MoH) recommends that children be breastfed exclusively with breast milk until the sixth month of life. At the end of this period, the introduction of foods that complement breast milk begins, which is defined as complementary feeding, being an important moment of food transition, formation and consolidation of eating habits[1].

From six months onwards, feeding practice should be based on the adequacy of portions, food and texture diversity, safe food preparation, hygiene and responsiveness to food suggestions, respecting children's appetite[1]. However, it is quite common for mothers and/or guardians to raise doubts, difficulties, fears and anxiety about the food universe in the first years of life.

As parents are responsible fo establishing food standards and rules, it is pertinent to assess their knowledge, in order to guide educational practices aimed at infant feeding, considering that cultural, social, economic and psychosocial factors generate great impact on the establishment of children's eating habits[2].

In a search carried out in the SciELO, LILACS and PubMed databases on research aimed at instruments that contemplated parents' knowledge about food, it was observed that most of the existing ones mostly include different age groups from the questionnaire proposed in this study: Child Feeding Questionnaire (CFQ), for parents of children aged between three and six years[3], Previous Day Food Questionnaire (PDFQ) aimed at schoolchildren between six and eleven years[4] and Child Eating Behaviour Questionnaire (CEBQ) for parents of children between three and thirteen years[5]. More recently, an instrument for mothers of infants was developed in Colombia, but with emphasis on content on consumption and food preparation[6].

The questionnaire proposed in this study will make it possible to assess aspects related to parents' knowledge about complementary feeding, enabling better dialogue between health professionals in the most diverse scenarios with the target audience, and the formulation of strategies that bring positive results for a healthier food introduction, contributing to scientific evidence development for advancement of the theme.

For this reason, we sought to construct and validate a questionnaire to assess parents' knowledge about complementary infant feeding.

METHOD

This is a methodological study developed from March 2017 to May 2020, which used Psychometrics[7] as a theoretical framework, consisting of the following steps: bibliographic survey to identify guidelines for adequate complementary feeding, questionnaire item construction to assess parents' knowledge about complementary infant feeding (QPAC), instrument content and face validity by expert judges, pilot test and application with the target population to analyze internal consistency, construct validity and reproducibility.

Step 1 - Bibliographic survey and questionnaire item construction

First, two integrative reviews were carried out[8] to elucidate the construct to be worked on, which is parents' knowledge about complementary feeding. In addition to the reviews, the Guiding Principles for Complementary Feeding of the Breastfeed Child[9] and the Primary Care Report 23 of the Brazilian Ministry of Health were used as reference[1]. Twenty-one articles were thoroughly analyzed, six of them from the first review and 15 from the second review, which guided the construction of a questionnaire (version 1) composed of 44 items and which was sent to experts via e-mail.

Step 2 - Expert selection

For the content and face validity step, experts were selected through simple random sampling without replacement, using the child nutrition and infant descriptors in the "search" tab in the Brazilian National Council for Scientific and Technological Development (CNPq - *Conselho Nacional de Desenvolvimento Científico e Tecnológico*) database. Experts with a minimum score of six points were included in the sample according to adaptation of the Fehring scoring system[10], with the following criteria: having a PhD in health (3 points); having a master's degree in health (2 points); acting in theoretical and/or practical teaching at the level of graduation or residency in nursing in child health or primary care (2 points); having an article published in a journal indexed in the area of interest (child health, food and/or child nutrition) (1 point); having teaching experience in child health or nutrition subjects (1 point); having worked in care practice in primary care (child care)/pediatric follow-up outpatient clinic or child health (2 points); having guided a thesis, dissertation or monographs on the themes of the area of interest (child health, food and/or child nutrition) (0.5 point per orientation).

After applying the inclusion criterion, 22 judges were selected and invited to participate in the study. At the end, only six experts answered the invitation, composing the assessment corpus of the instrument content (four nurses and two nutritionists). For expert selection, the number from six to twenty is recommended in the validity process[7].

Selected experts were invited to participate in the study. With agreement, an invitation letter was sent via e-mail explaining the study objective, experts' method and role in the research. The Informed Consent Form (ICF), instructions and the instrument were sent by e-mail to the researchers for content validity.

Step 3 - Face and content validity

To assess items, experts judged their consistency by observing the psychometric criteria: behavior, simplicity, clarity, relevance, accuracy, typicality and breadth, followed by a Likert-type scale with answers ranging from 1 to 5: 1. Inadequate; 2. Poorly adequate; 3. Partially adequate; 4. Adequate; and 5. Very adequate[11]. They also completed a sociodemographic data collection instrument, received guidance to answer the assessment instrument and the request for suggestions for items scored 1 and 2. The judges' maximum response time was 30 days.

Step 4 - Pilot test

After analysis and adjustments proposed by judges, the questionnaire included 34 items (version 2), which were assessed by 35 parents/guardians of infants in person as a form of pilot test for adjustments[7]. For this, a draw was carried out in one (1) Primary Health Care Unit (PHCU), and participants were divided into seven groups of five people on different days. They were sent to a reserved place, where the questionnaire presentation and reading took place. Participants completed a sociodemographic questionnaire and one related to assessment of clarity and relevance of items that could be self-administered or not. They were also asked about their difficulties in understanding the instrument items and whether it needed changes. After analysis by the target audience, the instrument consisted of 31 items (version 3), being applied to the external validity step.

Step 5 - Selection and application with the target population

For the validity, internal structure and reliability verification step, a sample of 374 parents was calculated using proportional stratified sampling or representative sampling, which aims to distribute

the sample proportionally to the strata size[8]. The Regional Health Coordination (REHCO) into which the city of Fortaleza is divided (six regional) were considered by strata. For each REHCO, a number of respondents was calculated, obtaining the total above. Parents or guardians of children between six months and two years of age, responsible for preparing the food or participating in the children's feeding process, were included. Minors who did not have constant contact with children were excluded.

In the case of invitation to participate for the target audience, it took place in person and by telephone, given the pandemic situation caused by COVID-19, with numbers made available by the Municipal Health Department of the city of Fortaleza. For those who agreed to participate in the research, the term was sent via a message application, and the agreement to participate in the research was sent by telephone recording.

The questionnaire application process occurred by telephone, carried out by three researchers, after being made available by the Municipal Health Department of the municipality of registration of individuals who had breastfed children. It was agreed that calls would take place in the morning (9 a.m. to 11 a.m.) and afternoon (3 p.m. to 5 p.m.) on weekdays, following the lists provided. All calls were recorded through the Automatic Call Recorder application (free of charge), in order to ensure security of the information collected if there was a need to review any information and as a way to obtain the response to the consent to participate in the research. For each name on the list, 3 contact attempts were made[12]. If there was no response, or the number did not exist, or was out of area, the contact was eliminated from collection. The mean time spent in the interviews was 60 minutes.

Children's guardians, who accepted to participate in the research, were informed about the objectives, as well as the guarantee of anonymity, the opportunity to refuse participation in the research or to withdraw whenever they wished, without any burden or damages, and that it would be recorded. The following instruments were used in this step: questionnaire composed of respondents' and children's sociodemographic data with 12 questions and version 3 of the questionnaire. The instruments were allocated in Google forms. Reproducibility was verified one week later with the amount of 20% of the external validity sample chosen by drawing lots of participants in the external validity step[7].

Step 6 - Analysis of construct validity, internal consistency and reproducibility

In the validity by specialists, the Content Validity Index (CVI) for each item and for the total set of these was calculated considering the answers 4 and 5 given by experts and the target audience. For this research, the item CVI (iCVI) was calculated, considering excellent items with CVI greater than or equal to 0.78, followed by the calculation of the total CVI (tCVI), adopting values ≥0.80 as adequate[13]. To analyze the construct structure, an exploratory factor analysis (EFA) was performed considering the Kaiser-Meyer-Olkim criterion (KMO ≥0.70) and Bartlett's test of sphericity ($p<0.001$), remaining in the questionnaire only items with coefficients >0.3[14].

Internal consistency was verified using Cronbach's alpha, a coefficient that can vary from 0 to 1, where zero indicates total absence of item internal consistency, and 1 indicates consistency of 100%. The acceptable values for this research are between 0.70 and 0.90. Reproducibility was assessed using the intraclass correlation coefficient, considering values between 0.5 and 0.75 as good[14]. The data obtained were arranged in Excel Microsoft Office for Windows and analyzed in the R statistical software.

This study was approved by the Research Ethics Committee in compliance with Resolution 466/12 of the Brazilian National Health Council. Participation was voluntary, with clarification of all the research steps regarding their objectives, risks and benefits. All of them registered the ICF, receiving a copy of it by e-mail, mobile messaging app or, when possible, in person.

RESULTS

Step 1 - Bibliographic survey and questionnaire item construction

The theoretical basis for constructing the items was based on an extensive review of national and international publications and on solidified references in the health area, divided into two reviews for this study. Review one answered the following question: what is parents' knowledge about complementary feeding? On the other hand, review two aimed to elucidate the main recommendations on complementary infant feeding. Both reviews followed the steps: guiding question elaboration, search or sampling in literature, data collection, critical analysis of included studies, discussion of results, and integrative review presentation[8].

In the integrative review, 1.014 articles were found, 91 of which were analyzed and six were selected. The integrative review two, found 956 articles, being analyzed 101 and selected at the end 15.

These promoted the design of definitions of parents' knowledge about complementary feeding, resulting in the formulation of latent trait and its dimensionality: interaction of breastfeeding duration and age of introduction of complementary foods, responsive feeding, safe food preparation and storage, and frequency and quantity of meals and food consistency. After the reviews, 44 items that composed the questionnaire were elaborated, which was initially divided into a brief introduction, the items and a small glossary with terms that might not be known to the target audience. For each item, there were three response options: disagree, partially agree and agree. The constitutive definitions for obtaining the construct of parents' knowledge about complementary feeding were based on the concepts contained in the Guiding Principles for Complementary Feeding of the Breastfeed Child [9], described in Figure 1:

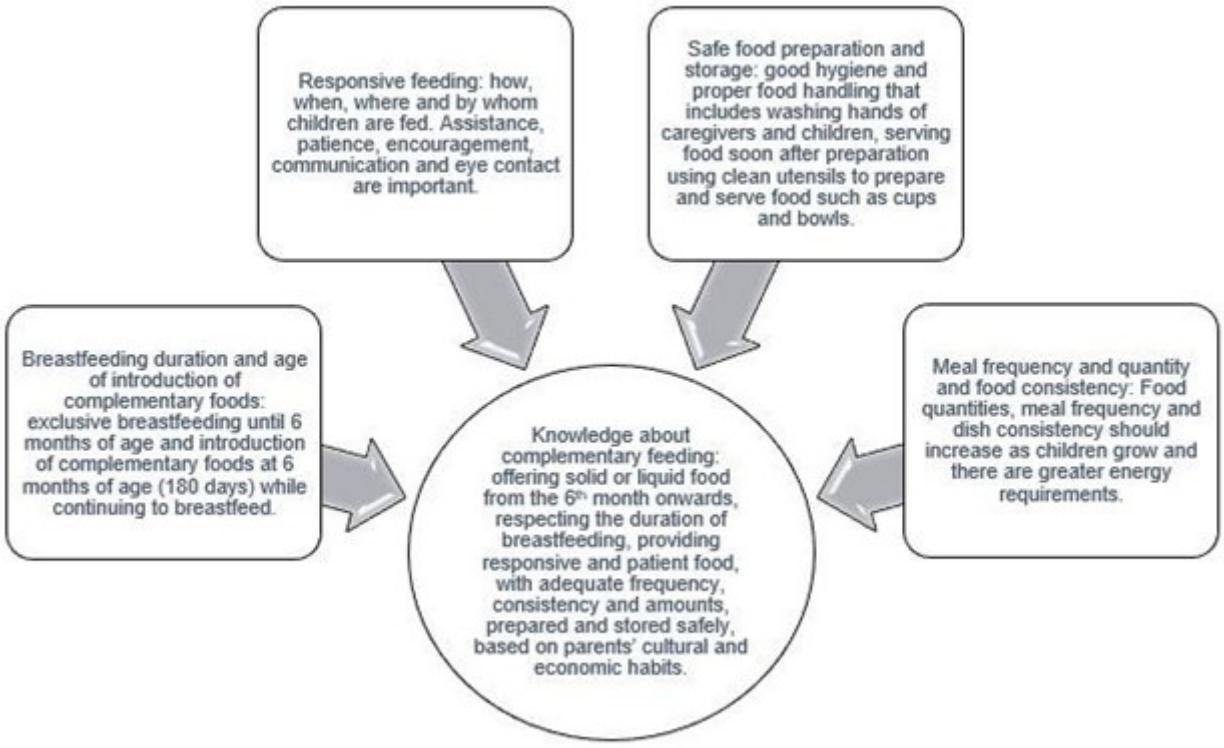

Figure 1 - Constitutive definitions adopted for parents' knowledge about complementary feeding. Fortaleza, CE, Brazil, 2017.

Step 2 - Expert selection

The professionals who participated in the content validity were six (four nurses and two nutritionists), all women, aged between 32 and 60 years, mean 43 years and mean training time of 13.83 years, working in teaching (66.7%) (all with a PhD degree) with experience in the theme of complementary feeding and validity studies (100%). Only one (16.7%) professional did not participate in research groups focused on child health. The judges' mean score was 8.75 points.

Step 3 - Face and content validity

In the first assessment, the overall CVI (version 1) was 0.75. The judges considered revising some points: importance of the family in food and clarity in the information to be passed on.

The judges requested a review of some points such as: encouraging the practice of breastfeeding and the practice of complementary feeding involving the presence of the family (judge 1, 3 and 4), technical terms and approach to aspects of children's oral hygiene (judge 2 and 6) and review of questions about age of food introduction (judge 5). Thus, an item was added: "*A criança deve fazer suas refeições com a família*".

When assess the instrument items, questions 9,13,14,15,16,19,24,25, 26 and 27 obtained CVI lower than 0.69 in assessment, being eliminated from the instrument. The other questions were reformulated, in order to provide a better understanding for readers, with simpler terms and all with affirmative sentences, being referred again for consideration, and obtained a overall CVI of 0.83 according to the psychometric criteria presented to them, thus originating a version 2, which was used in the pilot test step.

Step 4 - Pilot test

The version of the questionnaire after exclusions and corrections suggested by judges (version 2) consisted of 34 items and was applied to verify clarity, simplicity, relevance and calibration. The respondents' mean age was 29.1 years, all women and from Fortaleza, Ceará. Regarding the time of study, most had completed high school (76.8%) and were working (94.5%).

After the pilot test, items 1 and 2 were condensed, as well as items 14 and 17 of the second version of the questionnaire. Items 3, 12 and 20 were eliminated, as they were not clear to the respondents, thus obtaining the version for application in the target population, which consisted of 31 items (version 3).

Step 5 - Selection and application with the target population

Version 3 of the questionnaire was applied to a sample of 374 parents/guardians, where the female gender was predominant (91.2%), the mean age was 30.7 years, with more than half of the sample having 8 years of education or more (63.3%). Paid activity (51.3%) with income of up to two monthly minimum wages (70.1%) was prevalent.

Step 6 - Analysis of construct validity, internal consistency and reproducibility

Assuring the adequacy for factor analysis, the calculation of the KMO measure obtained a coefficient of 0.70, exceeding the minimum value of 0.6 indicated [14]. Bartlett's test of sphericity[14] reached statistical significance ($p<0.001$), producing a principal component explaining 54.5% of the total variance of data through polychoric matrix exploration.

In the EFA process, eight questions (2,3,4,6,7,14,15, 23) were excluded from the instrument, as they presented factor loadings < 0.3. After excluding the items mentioned, we proceeded to the analysis of internal consistency, using Cronbach's alpha, which reached the value of 0.794 considered

satisfactory. It was preferred to analyze the items in this order, for other future validity processes, as there is no significant differentiation[14]. The questionnaire had 23 items in its final version and three response options for each: disagree, partially agree and agree, divided into two axes. It can be presented in oral or written form, and can be self-completed or completed by the researcher/applicator (Chart 1).

Chart 1 - Questionnaire for Assessment of Parents' Knowledge about Complementary Feeding of the Infant.

Questionário para Avaliação do Conhecimento dos Pais sobre Alimentação Complementar do Lactente **Marque: (1) discordo / (02) concordo parcialmente/ (3) concordo**		
Introdução da alimentação complementar	1. Deve-se manter o aleitamento materno para a criança até os dois anos ou mais mesmo após a introdução de novos alimentos.	1 2 3
	2. Deve-se dar o leite de peito se a criança estiver doente, pois, o mesmo, tem vitaminas que ajudam na cura da doença.	1 2 3
	3. Deve-se alimentar a criança com alimentos saudáveis, de fácil acesso e preparo.	1 2 3
	4. Deve-se dar frutas e verduras a criança ainda no primeiro ano de vida.	1 2 3
	5. Deve-se dar alimentos com pouco açúcar e sal, ou sem nenhum destes para as crianças menores de 2 anos.	1 2 3
	6. Deve-se dar lanches a criança antes da hora do almoço ou jantar se esta referir fome.	1 2 3
	7. Não devem ser dados as crianças menores de 2 anos: açúcar, café, enlatados, frituras, refrigerantes, balas, salgadinhos, doces, sal demais e alimentos como miojo e temperos prontos.	1 2 3
	8. Não se deve oferecer alimentos comprados prontos (sopas, sucos) a criança.	1 2 3
	9. Deve-se preparar um alimento novo de várias formas até que a criança o aceite.	1 2 3
Preparo do alimento e forma de alimentar	10. Não se deve passar no liquidificador ou peneira o que a criança irá comer.	1 2 3
	11. A comida da criança deve ser oferecida em pequenos pedaços.	1 2 3
	12. A partir de 1 ano de idade deve-se dar a criança a mesma refeição da família, desde que a comida tenha pouco sal e não seja gordurosa.	1 2 3
	13. A partir dos seis meses a criança deve receber complementação de vitaminas e ferro.	1 2 3
	14. A criança deve fazer suas refeições junto a família.	1 2 3
	15. Deve-se demonstrar paciência e respeito quando alimentar a criança.	1 2 3
	16. Deve-se encorajar a criança a comer com sua própria mão.	1 2 3
	17. Deve-se preparar os alimentos da criança no início da introdução alimentar separados da refeição da família.	1 2 3
	18. Deve-se deixar os alimentos de molho em água limpa misturada com água sanitária e depois lavar com bastante água limpa, antes de cozinhá-los.	1 2 3
	19. Sempre deve-se lavar as mãos da criança antes das refeições, mesmo que ela não vá pegar o alimento.	1 2 3
	20. Não se deve oferecer o que sobrou de uma refeição para a criança ou guardar para o outro dia.	1 2 3
	21. Deve-se encorajar e ofertar os alimentos da criança utilizando copo, prato e talheres desde o início da introdução alimentar.	1 2 3
	22. Não se deve utilizar a mamadeira para oferecer líquidos a criança.	1 2 3
	23. Os objetos para preparar o alimento da criança devem ser bem lavados, enxutos e guardados em local limpo e serem de uso apenas da criança.	1 2 3
	Observações:	

Finally, the test-retest was performed with 74 respondents randomly chosen from the sample to assess reproducibility and reliability. As a significance level for the test, p lower than 0.05 was adopted through the intraclass correlation coefficient (ICC) to demonstrate the pairing of responses obtained at two different times: day zero and 30 days after application. There was agreement between the test and retest answers, evidencing that the questionnaire presented reliability in relation to what they propose to measure with an ICC of 0.615 considered satisfactory[14].

DISCUSSION

The QPAC represents an unprecedented and valid tool, which can help to identify parents' knowledge about complementary feeding, as well as direct an adequate assessment by a nurse.

It is relevant to enable prescriptions and evaluations for those responsible for feeding children, because the feeding process involves biological, social, cultural, economic and religious aspects, which makes more evident the need for guidance from parents, family members and guardians, models of habits and attitudes for children, especially in the first 24 months[15].

In the construction of integrative reviews, it was observed that the process of introducing food is something complex that requires communication and availability from both parents and health professionals, so that both follow a path within the real needs of children and family conditions[16].

The results of the questionnaire analysis by judges and the target population showed that the instrument needed to be reformulated in terms of item simplicity and clarity. Therefore, suggestions related to item restructuring, exclusion and inclusion were met so that they were understandable to all strata of the audience to which it will be used[17–18].

Items 14 and 17 of version 2 of QPAC did not present simplicity and clarity, which involved the importance of practicing food with children's parents and guardians[19]. Thus, underwent adaptation for better understanding, as in the case of item 14 where the connective "*com*" was changed to "*junto*" to convey the idea of the presence of the family. In item 17, there were changes regarding the wording instead of "é importante que os alimentos nos primeiros meses de introdução alimentar sejam preparados exclusivamente para a criança" to "*deve-se preparar os alimentos da criança no início da introdução alimentar separados da refeição da família*", enabling the reading and understanding of items[20], corroborating the prerogatives in force at the time of its construction[1].

Having a meal with the family is important for parents and children, because at this moment preferences and eating and nutrition habits are built, given that parents are providers, applicators and role models, particularly during early childhood, food consumption and other periods of life[21]. Meals eaten in the family are associated with a healthier diet and lower body mass index in children and adolescents[22].

Thus, after judges' adjustments, the overall CVI of the instrument (version 3) reached the value of 0.83, demonstrating its adequacy, similar to those found in the CFQ (0.94)[3], PDFQ (0.96)[4], CEBQ (0.82)[5] and *Instrumento para la Evaluación de Conocimientos Maternos o del Cuidador, sobre Alimentación Complementaria* (0.80)[6].

The importance of making measuring instruments as a constitutive element of clinical practice, health assessment and research is emphasized here. However, to be useful and appropriate to present robust and valid results they must be properly developed and demonstrate good metric qualities, given that they are created to act in decisions about care, treatment and/or interventions and in the formulation of health programs and public policies[23].

From this perspective, in continuity, when assessing the target population's knowledge, it was evidenced that there is knowledge about the ideal age to introduce new foods and to continue breastfeeding. It is known that this subject is present and socialized, including in Brazilian public policies, but there is still a rate below breastfeeding until two years of age[24].

The mean of exclusive breastfeeding (EBF) was 5 months, and continuation until 24 months occurred in 44.4% of the population of 3,125 mother-child dyads who were followed at birth, at 15 and 36 months[25]. The Brazilian National Study of Infant Food and Nutrition (ENANI - *Estudo Nacional de Alimentação e Nutrição Infantil*), conducted in 2019, identified a prevalence of EBF in children under 6 months of 45.8% in Brazil and a mean duration of 3 months to 5 months[26--29]. EBF is important for children's health in early childhood, providing protection against diseases and improvement in brain development[1,29].

In the Southeast, the mean in a study carried out was 5 months, and continuity until 24 months occurred in 44.4% of the population of 3,125 mother-child dyads who were followed at birth, at 15 and 36 months[30]. The proportion of mothers who are unaware of basic teachings about infant feeding is still high, which may lead to a reduction in the time of EBF, an increase in the rates of inappropriate introduction of food and beverages, and early weaning[31].

Consequently, early weaning favors the use of bottles and teats, which impair the development of orofacial muscles, children's teething and oral hygiene, in addition to a greater propensity for choking and food selectivity. It is important that children have their oral cavity sanitized from the beginning of breastfeeding until the introduction of food, to avoid affections of the oral mucosa such as decay and fungi. A diet rich in sugars and ultra-processed foods is also detrimental to oral hygiene[32].

Using tools that integrate parental food knowledge, such as active games and materials that cover topics that are relevant and of interest to parents is one of the best ways to provide parents with a basis for healthy living practices[33].

The judges and the target population were essential in the questionnaire analysis, contributing with suggestions of great value in the process of its construction[34]. The items listed in this final version show characteristics capable of identifying parents' knowledge about infant complementary feeding.

Its use can influence the health promotion of our children, making it possible to outline strategies according to knowledge deficiencies identified during application by health professionals and facilitating the detection of fields of knowledge that need greater attention, enabling care according to the individualities of this family, contributing to the practice of evidence-based nursing, as well as research related to a subject as relevant as food.

CONCLUSION

The strategies developed for constructing the QPAC allowed the identification, elaboration and validity of items able to define parents' knowledge about complementary feeding. Factor analysis demonstrated construct validity, revealing the QPAC capable of evaluating what is proposed, with adequate internal consistency and good reproducibility in its final version with 23 items.

Based on the responses obtained and their assessment, it will be possible to develop better strategies to promote a healthy diet for children, and that are in accordance with the reality and conditions of each person, family and community, seeking to prevent obesity and malnutrition in early childhood and that will last throughout adult life.

As a limitation, the difficulty in obtaining the data for the research execution is mentioned, given that not all Primary Health Care Units have a computerized system and that the constructed and validated questionnaire needs to go through the clinical validity process in the future, so that it is actually integrated into professional practice, which makes it necessary to continue this research, with a view to improving its content and structure.

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NOTES

ORIGIN OF THE ARTICLE

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CONTRIBUTION OF AUTHORITY

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CONFLICT OF INTEREST

There is no conflict of interest.

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