

Perceptions of Caregivers of Children (6–36 months) on the Use of Commercially Produced Complementary Food in an Urban Poor Community in Manila, Philippines: A Qualitative Study

Samantha Faye D. Salazar, RND, Aileen R. de Juras, RND, PhD and Ann C. Cayetano, RND, MSc

Institute of Human Nutrition and Food, College of Human Ecology, University of the Philippines Los Baños, Laguna, Philippines

ABSTRACT

Background. The World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) recommend the use of complementary foods when children reach six months of age. Parents may opt for home-made or commercially available complementary foods. In recent years, there has been an increasing availability and utilization of commercially produced complementary foods (CPCF) in the Philippines. There is a growing concern that consumption of these food items among infants and young children may lead to poor nutritional outcomes.

Objective. This study aimed to identify the available complementary foods in selected supermarkets in an urban poor community and examine the perceptions of caregivers of children 6–36 months of age on the use of CPCF.

Methods. A community-based cross-sectional study was conducted in an urban poor village in the City of Manila. This study involved market research on the available CPCF in supermarket chains and a survey among primary caregivers of children on the use of CPCF. Data were gathered using a pre-tested questionnaire. Descriptive statistics were used in analyzing the data collected. For the qualitative responses of the participants, thematic analysis was employed.

Results. A total of 30 CPCF were sold in the urban poor community of Manila and consisted mostly of dry, powdered, and instant cereal starchy food (50.0%). More than half of these CPCF (56.7%) met the general nutritional thresholds. All the products included nutrition and composition claims; 36.7% had marketing claims, whereas 66.7% did not contain health claims. Among the 30 caregivers interviewed, only 2 (6.7%) were aware of CPCF and its importance. The majority of the caregivers (93.3%) have tried giving CPCF to children. The use of CPCF was due to varying reasons, including perceived healthiness, child preference, cost, and convenience.

Conclusion. Dry, powdered, and instant cereal or starchy foods were the most common CPCF in the urban poor community in Manila, Philippines. The available complementary foods in the supermarkets had inappropriate

nutritional quality to be marketed as suitable for older infants and young children. Furthermore, the use of CPCF was prevalent among caregivers of children aged 6–36 months in the selected community. Key factors considered by caregivers in providing CPCF to the children were product healthiness, food preferences, affordability, and convenience. Continuous nutrition promotion and education on proper infant and young child feeding tailored for parents, relatives, and caregivers is put forward.

Keywords: complementary feeding, infant food, urban poor setting



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Corresponding author: Aileen R. de Juras, RND, PhD
Institute of Human Nutrition and Food
College of Human Ecology
University of the Philippines Los Baños
Laguna, Philippines 4031
Email: ardejuras@up.edu.ph
ORCID: <https://orcid.org/0000-0001-5381-986X>

INTRODUCTION

Adequate nutrition plays a vital role in ensuring optimal growth and development in infancy and early childhood.¹ When children reach six months of age, their energy and nutrient requirements drastically change, and breast milk is no longer enough to exclusively support these transformations.² It is during this period that complementary feeding must be introduced.

The World Health Organization (WHO) recommends that infants six months of age receive complementary foods along with breast milk.³ Proper complementary feeding must be adequate in terms of amount, quality, consistency, and variety.⁴ These food items should also be sufficient in terms of energy, vitamins, and minerals in order to meet the growing nutritional requirements of the child. Although the WHO and the United Nations International Children's Emergency Fund (UNICEF) recommend the use of locally available ingredients and home-prepared foods, there are commercially produced complementary foods (CPCF) available in the market. CPCF pertains to all food and beverage products that are marketed for the consumption of children up to 36 months of age.⁵

The availability of CPCF has been increasing in low- and middle-income countries.⁶ In the Philippines, CPCF are mostly manufactured by international companies and imported and distributed by local sellers.⁷ These commercially available complementary foods are widely abundant and purchased in supermarkets located in urban communities of Manila.⁵ Consequently, there is growing concern that the consumption of these CPCF among infants and young children may lead to poor nutritional outcomes, which could undermine their growth and development. Frequent intake of the aforementioned products, which are usually energy-dense but deficient in nutrients, may displace the intake of other nutritious foods. Several studies have shown that children with excessive consumption of these commercially available food items were at risk of developing dental caries, obesity, and other non-communicable diseases.⁸⁻¹⁰ However, limited literature is available on the consumption of CPCF in the Philippines. Hence, this study investigated the availability of CPCF in an urban poor community in Manila, Philippines (quantitative component) and explored the perceptions of caregivers of children aged 6–36 months on the use of these products (qualitative component).

MATERIALS AND METHODS

Study Design

This community-based research comprised two sub-studies. The first sub-study involved market research on the available CPCF in selected supermarket chains in an urban poor community in the City of Manila, while the second was a survey among primary caregivers of children on the use of CPCF (Figure 1). The quantitative component of this research

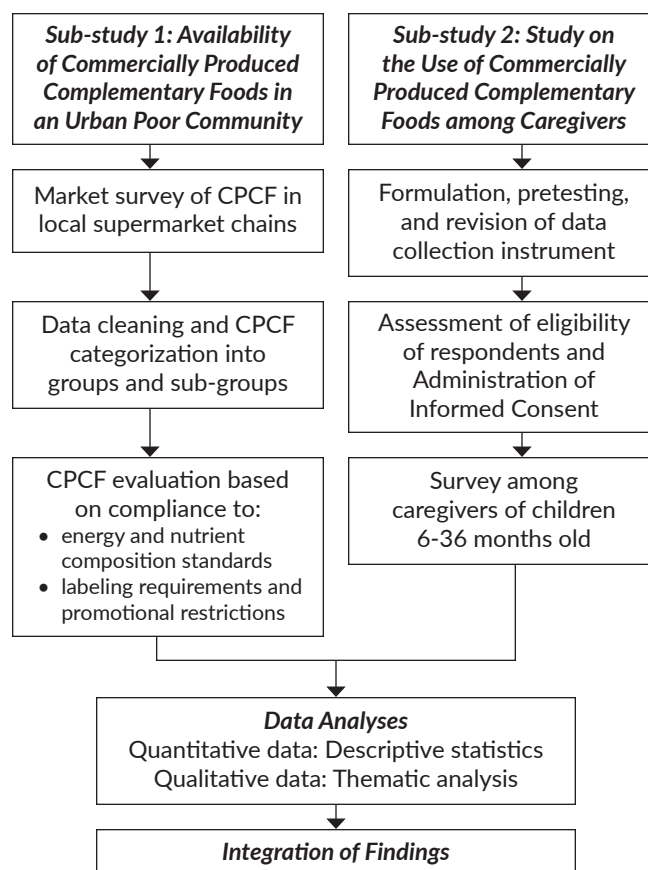


Figure 1. Data collection process.

followed a cross-sectional design to capture the caregivers' and households' characteristics. The qualitative component, on the other hand, was guided by an interpretivist paradigm, which emphasizes that individuals construct perceptions based on their experiences and interpretations of a phenomenon.¹¹ This approach was well-suited to explore the caregivers' insights regarding the nutritional care provided to their children.

Study Population

The community was selected due to its disproportionate burden of malnutrition and high exposure to commercially available complementary food through markets and supermarkets. According to the barangay's Operation Timbang Plus report, many under-five children were affected by undernutrition. Noteworthy, among the 137 barangays in the district, the community had the highest prevalence of overnutrition among 0–59-month-old children at the time of the study. Parallel to this complex nutrition landscape, numerous large chain supermarkets characterize the local food environment.

Data Collection

The market research was conducted via informal visits to three supermarkets located in the study locale. A sample of each kind of CPCF available from these supermarkets was

purchased to gather product information. The information from the products was encoded in Microsoft Excel (version 2019) and cross-referenced with the findings of the “Landscape Study on Complementary Feeding and the Role of Commercially Produced Complementary Foods in Young Children’s Diets” done by Access to Nutrition Initiative in 2021.⁷ Data cleaning and analysis were performed to assess if the products satisfied the CPCF definition.⁷ The products were then classified into four major categories namely, (1) dry, powdered and instant cereal or starchy foods, (2) soft, wet, spoonable ready-to-eat foods, (3) meals with chunky pieces, and (4) dry finger foods and snacks and their subcategories based on the WHO Europe Nutrient Profile Model (NPM) for commercially available complementary foods for infants under the age of 36 months.¹² Each product’s nutrient content was recorded and evaluated in comparison to the NPM’s nutrition criteria: the product does not contain added sugars or sweeteners, the sodium content of the product is within recommended limits, and the fat content is within recommended thresholds.¹² After which, the aspects of product promotion were compared with the International Code of Marketing of Breastmilk Substitutes and WHO guidance on ending the inappropriate promotion of foods for infants and young children.^{13,14} Marketing messages examined were adapted from the previous study of the Access to Nutrition Initiative.⁷

The second sub-study was conducted among the primary caregivers of children aged 6–36 months living in a selected community in the City of Manila. A primary caregiver pertains to individuals who mainly provide direct care to the child throughout the day. Using the complete enumeration approach, all eligible respondents identified from the barangay’s most recent Operation Timbang Plus report were invited to participate, yielding 34 potential respondents. Inclusion criteria were: (1) both the caregiver and child have been residing in the community for at least 6 months, (2) the child must be 6 to 36 months of age at the study commencement, and (3) the child has no severe illness or congenital or physical malformation that could inhibit feeding. Four caregivers declined participation, resulting in a final study sample of 30 respondents. The final sample exceeded the recommended 15–20 participants for thematic analysis, indicating that the data set was sufficient to capture the range of caregivers’ perceptions.⁵

This study adapted the semi-structured survey questionnaire from Sharma and colleagues to enhance relevance to the Philippine context.¹⁵ Adaptations included contextualizing terminologies and food items to reflect locally available CPCF in an urban poor setting. The questionnaire was translated from English to Filipino using the forward-and back-translation process, with discrepancies resolved through consensus among the authors. Furthermore, the data collection instrument was pretested to confirm its validity. Pretesting was conducted with a small group of caregivers who were not included in the study to assess clarity and

cultural appropriateness. Minor revisions were made to refine clarity and sequencing of the questions.

Face-to-face interviews were conducted with each caregiver to examine their perceptions of the use of CPCF and collect data on their socio-demographic characteristics, including sex, age, religion, relationship to the child, civil status, highest educational attainment, employment status, and household size. To add, the caregivers’ current feeding practices, awareness and use of CPCF, and reasons for feeding specific types of complementary foods to their children were gathered using open-ended questions and probes to elicit detailed answers. Photos of CPCF identified from the first sub-study were shown to the caregivers during the data collection to serve as guides. The interviews were carried out in private settings to ensure comfort and confidentiality, with each session lasting approximately 40–50 minutes. Audio recording of responses and taking of field notes were employed to capture non-verbal cues and contextual information.

Data Analysis

Descriptive statistics were used in analyzing the data collected. Categorical variables were reported as counts and frequencies. For the qualitative responses, all the answers were manually encoded in Microsoft Excel (version 2019) based on the questions in the survey instrument. All interviews were transcribed verbatim in Filipino, checked for accuracy, and anonymized with unique codes. The narratives were analyzed using thematic analysis guided by Braun and Clarke’s (2006) six-phase framework.¹⁶ Thematic analysis was selected for its suitability in identifying, organizing, and interpreting patterns of meaning within the respondents’ answers, as well as its alignment with the study objective of facilitating an in-depth understanding of the caregivers’ perceptions of CPCF use. The first and second authors independently conducted open coding, followed by iterative discussions to group codes into themes and resolve discrepancies. In cases where consensus could not be reached, the third author served as an independent arbiter. Data verification involved repeated crosschecking of themes against original transcripts. Thematic saturation was also assessed during analysis and was considered achieved when no new themes emerged. Representative quotations, including supportive and contrastive perspectives of the respondents, were selected to illustrate each theme based on their relevance, frequency, and clarity.

To warrant validity and trustworthiness, the study applied Yardley’s principles of quality, a framework widely used in qualitative health research.¹⁷ Sensitivity to context, commitment and rigor, transparency and coherence, and impact and importance were addressed through culturally grounded data collection, systematic analysis, and clear documentation of procedures. Likewise, reflexivity was maintained by acknowledging the authors’ training and experience in nutrition and public health and the absence of prior relationship with the respondents.

Table 1. Characteristics of Commercially Produced Complementary Foods according to WHO NPM Categories and Nutrition Criteria

Category/Sub-category	n (%)	Nutrition criteria			
		No added sugars/ sweeteners, n (%)	Appropriate sodium levels, n (%)	Appropriate fat level, n (%)	All nutrition criteria and relevant nutritional thresholds, n (%)
<i>Dry, powdered and instant cereal/starchy food</i>	15 (50.0)	8 (53.3)	7 (46.7)	15 (100.0)	8 (26.7)
<i>Soft-wet, spoonable ready-to-eat foods</i>	10 (33.3)	9 (30.0)	10 (33.3)	10 (33.3)	9 (30.0)
Dairy soft-wet spoonable, ready-to-eat foods	1 (3.3)	0 (0.0)	1 (10.0)	1 (10.0)	0 (0.0)
Fruit puree with or without the addition of vegetables, cereals, or milk	5 (16.7)	5 (16.7)	5 (16.7)	5 (16.7)	5 (16.7)
Vegetable only puree	2 (6.7)	2 (6.7)	2 (6.7)	2 (6.7)	2 (6.7)
Pureed vegetables and cereals	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Pureed meal with cheese (but not meat or fish) in the name	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Pureed meal with meat or fish mentioned as first food in product name	2 (6.7)	2 (6.7)	2 (6.7)	2 (6.7)	2 (6.7)
Purees with only meat, fish, or cheese in the name of the product	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
<i>Meals with chunky pieces</i>	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Meat, fish or cheese-based meal with chunky pieces	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Vegetable-based meal with chunky pieces	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
<i>Dry finger foods and snacks</i>	5 (16.7)	1 (3.3)	4 (13.3)	5 (16.7)	0 (0.0)
Confectionery, sweet spreads, and fruit chews	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Fruit (fresh or dry whole fruit pieces)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other snacks and finger foods	5 (16.7)	1 (3.3)	4 (13.3)	5 (16.7)	0 (0.0)
Total	30 (100.0)	18 (60.0)	21 (70.0)	30 (100.0)	17 (56.7)

Ethical Considerations

This research adhered to the ethical standards of the World Medical Association Declaration of Helsinki on Scientific Research with Humans and complied with all relevant city and barangay policies. Respondents gave their written consent before the start of the interviews. The informed consent form explicitly underscored the voluntary nature of participation, minimal associated risk, absence of direct benefits, and the right to withdraw at any stage without consequence. To safeguard confidentiality and data security, respondents' identifiers were removed, data were stored in password-protected files, and access was restricted to the research team. Interviews were conducted in private settings in full compliance with the Data Privacy Act of 2012.

RESULTS

Characteristics of Commercially Produced Complementary Foods Available in Supermarkets

A total of 30 different CPCF, including flavor variations of the same product, were available and sold in the supermarkets of the urban poor community in Manila. Based on the predetermined food categories in the WHO Europe NPM, there were a total of 15 (50.0%) products classified as dry, powdered, and instant cereal or starchy foods, 10 (33.3%) soft-wet spoonable ready-to-eat foods, and 5 (16.7%) dry finger food and snacks (Table 1). Among the soft-wet,

spoonable ready-to-eat foods, five were fruit puree with or without the addition of vegetables, cereals, or milk, two were vegetable-only puree, two were pureed meals with meat or fish mentioned first in the food product name, and one was dairy soft-wet spoonable, ready-to-eat food. All the dry finger food and snacks fell under the other snacks and finger foods sub-category. Remarkably, there was no CPCF classified as meals with chunky pieces.

Nutrient information was present on all the product labels. Approximately half (56.7%) of the CPCF met the three general nutritional thresholds and were of appropriate nutritional quality to be marketed as suitable for older infants and young children. In terms of the product categories, only 26.7% of the dry powdered and instant cereal or starchy food and 30.0% of the soft, wet spoonable ready-to-eat foods complied with all the nutrition criteria and relevant nutritional thresholds. It is notable that none of the other snacks and finger foods met the recommendations.

All the products include nutrition and composition claims, although 66.7% and 36.7% did not contain health claims and marketing claims, respectively (Table 2). Statements on nutritional properties were present in all products. The most common messages were connected to the absence of added sugar (70.0%). Alternatively, "contributing to energy-yielding metabolism" (33.3%) and "strengthening of the immune system" (33.3%) were the most frequently noted statements pertaining to health. Information on marketing

Table 2. Claims and Messages Included in Commercially Produced Complementary Foods

Items	n	%
Nutrition claims*		
No added sugar/low in sugar	21	70.0
Contains vitamins and minerals	18	60.0
No artificial colors	16	53.3
No preservatives added	11	36.7
Unsalted/no added salt/no salt	7	23.3
Organic	3	10.0
No flavors added	2	6.7
Health claims*		
Contributes to energy-yielding metabolism	10	33.3
Strengthens immune system	10	33.3
Supports self-feeding	4	13.3
Supports growth and development	1	3.3
Perfect for developing taste buds	1	3.3
Marketing claims*		
Taste and quality	13	43.3
Ideals on optimum feeding	13	43.3
Texture	11	36.7
Convenience or lifestyle	6	20.0
Presence of message that products not marketed as suitable for infants under 6 months of age	30	100.0
Presence of message on importance of continued breastfeeding	20	66.7

*Multiple answers

conveyed was on taste and quality (43.3%), ideals on optimum feeding (43.3%), texture (36.7%), and convenience (20.0%). Furthermore, all products were marketed for consumption by infants of six months of age or older. However, only 66.7% included a message on the importance of continued breastfeeding along with complementary feeding for children two years old and above.

Twenty percent (20%) of the soft-wet spoonable ready-to-eat foods did not follow the recommendation of listing the name of the largest ingredient first. In the same manner, none of the products with water in the ingredients list state the percentage of water weight. Aside from the labeling criteria mentioned above, it is also relevant to examine the availability of statements discouraging sucking from spouts. Out of the 30 products, 16.7% of ready-to-eat pureed foods were sold in packs with a spout. Nevertheless, none of them contained a statement that discourages caregivers from feeding infants and young children directly via spout. Considering the visual aspects of labelling and packaging, 83.3% of the products contained pictures of ingredients, while 60.0% and 16.7% used cartoon images and photos of infants and young children, respectively.

Perceptions on the Use of Commercially Produced Complementary Food

A total of 30 caregivers were included in this study and were mostly (73.3%) parents of children 6–36 months

old (Table 3). The majority (96.7%) were female, and 50.0% belonged to the 18 to 25 age range. The participants predominantly belong to the Catholic religion (90.0%), are not married (83.3%), have finished high school (43.3%), are unemployed (63.3%), and reside in households with seven or more members (53.3%).

In terms of the children's profile, most were male (67.6%) and belonged to the 13 to 24 months age group (48.6%) (Table 3). The current feeding practices of caregivers showed that a little more than half (53.3%) gave breastmilk substitutes with food, 30.0% practiced breastfeeding with complementary feeding, 13.3% were on a regular diet, and 3.3% were breastfed only. Only two out of 30 respondents (6.7%) were aware of CPCF and its importance. Despite the low awareness of commercially available complementary foods, 28 participants (93.3%) already tried at least one type of CPCF, and the dry, powdered, and instant cereal starchy food category was commonly consumed (80.0%). These food items were fed to the children once to thrice a day.

Four (4) themes were developed from the narratives of the caregivers on their perceptions in using CPCF, namely, product's healthiness, child preference, cost, and convenience.

The caregivers perceived CPCF as unhealthy. Locally and home-prepared food is better for children since it is natural and free from chemicals: *"Aside from it being practical, I know it is nutritious because the food I prepare is made of fresh vegetables and has no added chemicals."* (CUN007) Caregivers were wary of the ingredients and processes involved in producing the commercial snack foods: *"I don't like my child to get used to commercial products because you're not sure how it is prepared. Local home-prepared food is cleaner, and you know the ingredients used."* (SOL002) CPCF was also regarded as lacking in nutritional content: *"Local home-prepared foods are healthier than commercially produced complementary foods."* (RAY003) In contrast, one caregiver shared that *"I think they will not sell the product if it is not healthy. I trust the brand, and check the back of the packaging for more information about the product."* (FER009) The possible health consequences of consuming these products were also reported: *"My child has not eaten commercial food yet because we noticed that in our family, children who ate this type of product did not develop speech immediately and became moody. Then, they always looked for it and became picky eaters. It seems like every day that's all they want to eat. They don't want vegetables anymore because it isn't sweet."* (AQU004)

The caregivers were motivated by the child's food preferences. The child's liking for the commercial snack was based on the reactions and cues to different foods: *"When he likes the food, he eats it uninterrupted. He doesn't spit it out. He eats well and he eats a lot."* (BAZ020) *"When I give him a spoonful, he eats it immediately. When he doesn't like it, he spits it out. He gets angry when it takes me a while to feed him. When he finishes it, he cries and asks for more."* (GAR015) Some caregivers also conveyed that children demand these foods: *"When he's not able to eat it, he cries. He looks for it too."* (GAR015)

Table 3. Characteristics of Study Participants and Caregivers' Child Feeding Practices

Characteristics	n	%	Characteristics	n	%
Sex of caregivers			Household size		
Male	1	3.3	1-3	0	0.0
Female	29	96.7	4-6	14	46.7
Age of caregivers (years)			≥7	16	53.3
18-25	15	50.0	Sex of children*		
26-35	8	26.7	Male	25	67.6
36-45	4	13.3	Female	12	32.4
≥46	3	10.0	Age of children (months)*		
Religion			6-12	10	33.3
Catholic	27	90.0	13-24	18	48.6
Christian	3	10.0	25-36	9	30.0
Relationship to the child			Mode of feeding		
Parent	22	73.3	Breastmilk substitutes with food	16	53.3
Grandparent	4	13.3	Breastfeeding with complementary feeding	9	30.0
Aunt or Uncle	3	10.0	Breastfeeding only	1	3.3
Hired caregiver	1	3.3	Regular diet	4	13.3
Civil status			Caregivers' awareness		
Single	25	83.3	Complementary feeding	3	10.0
Married	4	13.3	Commercially produced complementary food	2	6.7
Widowed	1	3.3	Commercially produced complementary food usage*		
Highest educational attainment			Dry, powdered and instant cereal or starchy food	24	80.0
Elementary	5	16.7	Soft-wet spoonable ready-to-eat foods	13	43.3
High school	13	43.3	Meals with chunky pieces	1	3.3
College	9	30.0	Dry finger foods and snacks	9	30.0
Vocational	2	6.7			
Never enrolled	1	3.3			
Employment status					
Employed	1	3.3			
Self-employed	5	16.6			
Unemployed	19	63.3			
Student	5	16.7			

*Multiple answers

The cost of CPCF was viewed as expensive since it increases the household's food expenditure: "Because complementary food is not for everyone in the family. It doubles our expenses since she's the only one who will eat it." (URM006) Conversely, some caregivers noted that the price of a commercial snack depends on the size of the product: "The small pack of the complementary food is cheap. It only costs less than PhP100. I also consider the amount and frequency that I can prepare the product. The small boxes are good to try out different flavors since there are times that my child doesn't like it." (OBE023) The price of CPCF likewise varies among food retailers: "I base it on the product's price. The ones sold at sari-sari stores are cheaper compared to grocery stores because these can be bought at retail." (CUN007)

The caregivers considered CPCF as convenient. In particular, the preparation time is reduced to a great extent in comparison with home-cooked meals: "There are products that are easy to open and ready-to-eat. You don't have to deal with it, you just give it to the child. While cereals are faster to prepare because only water is needed. It also requires less equipment." (CAS022) Convenience was also based on ease in feeding

the commercial snacks: "There are products that are ready-to-eat and are quick to prepare. Biscuits are easy for the child to hold." (LAP012)

DISCUSSION

This study sought to determine the availability and nutritional suitability of the CPCF marketed in an urban poor community in Manila. It also aimed to evaluate the use and perceptions of CPCF of caregivers residing in a selected community. The dry, powdered, and instant cereal or starchy foods were the predominant category of CPCF identified, which was not concordant with a recent Philippine study.⁷ This may be attributable to the small sample size of the supermarkets included in this research. With regard to nutritional thresholds, most of the products were not compliant with the WHO Europe NPM recommendations due to the presence of added sugars or sweeteners and inappropriate sodium levels. These findings are consistent with CPCF product profiling conducted by the Access to Nutrition Initiative, wherein 21.0% had high sugar content

and 68.0% were classified as not suitable to be promoted to older infants and young children.^{7,18} Added sugars have been associated with the increased risk of overweight, obesity, dental caries, and non-communicable diseases.^{19–22} Moding and colleagues also suggested that frequent intake of foods with high sugar content may influence the trajectory of the child's transition to family foods.²³ According to the WHO, foods for infant and young children should not contain any nutrition, health, or marketing claims.¹⁴ However, all of the products carried a statement on composition or nutrition, a third contained statements relating to health, and a little more than two-fifths had statements related to marketing. This study result is supported by the research of Westat and NCP relating complementary foods as the products most often promoted inappropriately.¹⁸

The prevalence of feeding CPCF in the study area was high, but awareness was low. Awareness refers to caregivers' ability to identify CPCF and its importance. The observed discrepancy may reflect the widespread availability and visibility of the products in large supermarket chains and increasing reliance on processed food in urban settings. Similar patterns have been reported, where commercially available complementary foods are frequently used despite limited knowledge on optimal child feeding practices.^{24,25}

Reasons considered in feeding commercially available complementary food were organized into four themes: perceived healthiness, perceived child preference, perceived cost, and perceived convenience. These driving factors were consistent with findings in Kathmandu Valley, Nepal.^{15,18} CPCF were largely perceived as less healthy than home-prepared foods due to concerns about processing, additives, and nutritional value, although trust in branded products and labeling was expressed. Early childhood is characterized by rapid growth and development, hence the food provided for children should have sufficient energy and nutrient contents to support these changes. Some caregivers perceived some CPCF brands as healthy due to the assumption that these products were designed to meet the children's nutritional needs. Findings from the first sub-study showed that not all products carried health and marketing claims. Previous evidence indicates that some food products do not accurately reflect the actual nutritional content and can mislead consumers into thinking these items are more healthful than they actually are.^{26,27} Children's preferences, the second theme identified, strongly influence feeding decisions, with acceptance or refusal shaping caregivers' choices. Food preference begins taking shape during fetal development and continues to develop throughout life. It is influenced by biological, environmental, and social factors, which in turn affect diet quality.²⁸ Although some of the products contain fruits and vegetables, their taste was often masked with flavors appealing to children. This can lead to poor food choices, and repeated consumption of these food items may promote unhealthy food preferences. In terms of cost, CPCF was viewed as increasing household expense, but was still

purchased through the small package sizes and retail markets. This finding aligns with existing literature that product price affects food choices and consumer behavior.²⁹ Convenience was a major driver for the product use, reflecting caregivers' need to reduce time and effort for food preparation and feeding. This was a key factor similarly reported in other studies.^{15,30}

CONCLUSIONS

The present study revealed that dry, powdered, and instant cereal or starchy foods were the most common CPCF in the urban poor community in Manila, Philippines. The commercially available complementary foods in the supermarkets had inappropriate nutritional quality to be marketed as suitable for older infants and young children. Moreover, the use of CPCF was prevalent among caregivers of children aged 6–36 months in the selected community. Caregivers believed that a product's healthiness, food preferences, affordability, and convenience are key factors to consider in providing CPCF to children.

Overall, the study findings contribute to the limited Philippine literature on commercially available complementary food. Future research is necessary to further examine the determinants of CPCF. It is also recommended that measures be strengthened to improve the implementation of the Guidance on Ending the Inappropriate Promotion of Foods for Infants and Young Children in the Philippines. Manufacturers should reformulate their products to meet infants' and young children's nutritional requirements and ensure product labeling is in compliance with the WHO Nutrient Profile Model to prevent misleading consumers. Simultaneously, caregivers' knowledge on proper infant and young child feeding should be enhanced using tailored nutrition education programs, enabling them to critically interpret food labels, correct misinformation, and make informed feeding decisions. These strategies apply to similar communities in low- and middle-income countries and can support healthier complementary feeding practices.

This study has several limitations. First, the relatively small sample size may not reflect the diversity of experiences across other contexts. Second, data were based on self-reported experiences, which are subject to recall and social desirability biases. Third, although the thematic analysis approach was used, potential biases may have arisen from the authors' interpretation of the caregivers' narratives. Finally, the study was conducted in a single urban poor community in Manila, which may limit the generalizability of results in other settings. Despite these limitations, the study provides valuable insights that can offer guidance for future research and nutrition interventions in similar populations.

Statement of Authorship

All authors certified fulfillment of ICMJE authorship criteria.

Author Disclosure

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