



(RESEARCH ARTICLE)



STUDY OF INFANT FEEDING PRACTICES IN THE CITY OF MAN

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ABSTRACT

The aim of this study was to explore infant feeding. Through our surveys and analyses, we obtained several relevant results. First, our surveys revealed that the majority of respondents were mothers, primarily housewives, in rural areas (27.5%) compared to urban areas (16.67%). We observed a preference for the use of traditional flour in rural areas (34.17%), while in urban areas, the use of industrial flour was more widespread (27.5%). Regarding the age of weaning, we observed variability in practices, with the majority of mothers interviewed weaning between 6 and 9 months. As for the introduction of infant flour, the majority of mothers began it between 6 and 9 months.

Keywords: Infant; Malnutrition; Feeding; Weaning food

1 INTRODUCTION

Child malnutrition is a major public health problem in Côte d'Ivoire, particularly in rural areas. The rate of chronic malnutrition among children under five in the country is 18.3%, while the rate of severe acute malnutrition is 4.4%. The mountain region, which includes the city of Man, is one of the areas most affected by child malnutrition in Côte d'Ivoire [1]. Global population growth and rising living standards demand good nutrition, which is essential for children's survival and healthy development. To sustain life, be active, and be healthy, we need adequate food in terms of quantity, quality, and variety to meet our energy and nutritional needs. Without adequate nutrition, children cannot reach their full potential [2].

In the Tonpki region, which covers an area of 12,180 km², the situation is particularly worrying. The city of Man is the regional capital and has a population of over 165,000. According to data from the latest national nutrition survey in Côte d'Ivoire, the rate of chronic malnutrition among children under five in the mountain region is 31.4%, while the rate of severe acute malnutrition is 8.3%. The situation is therefore alarming and requires urgent interventions to improve children's nutrition in the region. Malnutrition primarily affects children between the ages of 0 and 2. During this period, children gradually transition from a liquid and milk-based diet to a more diversified semi-liquid and then solid diet [3].

Breastfeeding and complementary feeding are two closely linked stages. Indeed, from 6 months of age, breast milk is no longer sufficient to meet the child's energy and nutrient needs. It must be supplemented with foods of age-appropriate nutritional value that are free from both microbiological and toxicological contamination. However, in many countries, these conditions are not met, and there is a very high prevalence of protein-energy malnutrition (PEM) beyond 6 months

of age, the age at which children begin receiving complementary foods to breast milk [4]. This study falls within this context and aims to identify local practices regarding infant feeding.

2 MATERIAL AND METHODS

2.1 Study Area Overview

The city of Man is located in western Côte d'Ivoire, in a mountainous region. It lies between 7°20' and 7°35' North latitude and 7°25' and 7°45' West longitude, 600 km from Abidjan (Figure 1). Man is the capital of the Tonkpi region and is also known as the "city of 18 mountains" because of the numerous mountain ranges that surround it. The city covers a total built-up area of approximately 2,500 hectares and has an estimated population of 198,048 inhabitants (RGPH, 2021). The city of Man is organized into several districts with various types of housing. These include residential neighborhoods, neighborhoods with evolving housing patterns, and commercial and administrative districts located in the city center (Figure 2). The area also includes villages absorbed by the city's expansion, with traditional housing coexisting with more modern urban developments. Most neighborhoods have grown up on the city's mountain slopes. With an area of 4,140.7 km², the city of Man is one of the largest in western Côte d'Ivoire.

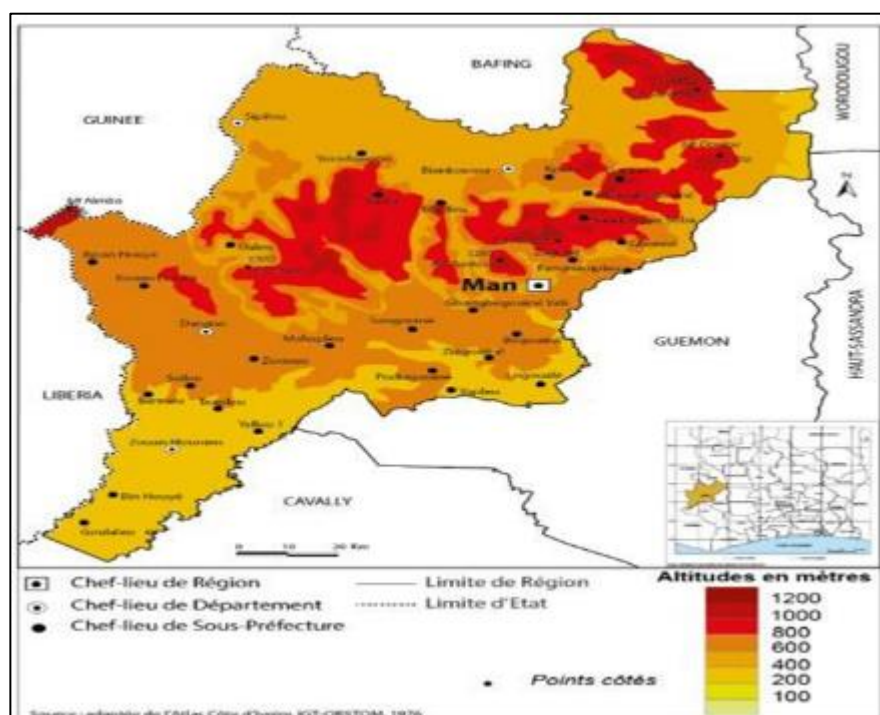


Figure 1: Location of the city of Man.

2.2 Profiles of the Surveyed Populations

The surveys were conducted at the household level. Prior to the surveys themselves, preliminary surveys were carried out in the city to select the neighborhoods. Six neighborhoods were chosen based on the living conditions of the population. These are: the urban area (Domoraud, Babadjan, and Dioulabougou) and the rural area (Kassiapleu, Kouitongouiné, and Zélé). The survey was based on interviews with 120 randomly selected households, distributed between the two areas (60 in each). We administered a list of questionnaires to the interviewees. These questionnaires were designed to provide information on the average weaning period, the foods consumed by infants, mothers' views on nutritional supplements, and the population's preferences regarding complementary foods used to feed infants. In the field, it sometimes happened that the same name was given to several species, or vice versa. Thus, recording food recipes based on local names carries a risk of errors.

2.3 Data Processing Methodology

2.3.1 Profiles of the Surveyed Populations

Based on the data collected on the respondents' identities, a social and demographic profile of our sample was defined using Excel software. This profile includes the respondents' occupations, as well as the proportions of gender and ethnicity.

2.3.2 Survey Data

The information and data collected from the populations allowed us to calculate several parameters using Excel software. The calculated parameters are as follows:

2.3.3 Percentage of Education

The percentage of education (%Pi) provides information on the mothers' level of education. It is obtained by dividing the number of mothers (Xi) who were educated by the number of mothers surveyed (X) multiplied by 100 :

$$\%R = \frac{X_i}{X} \times 100$$

(1)

2.3.4 Percentage of different ethnicities

The percentage of ethnicity (%Ei) provides information about the mothers' origins. It is obtained by dividing the number of mothers of ethnicity i (Ei) by the number of mothers interviewed (X), multiplied by 100:

$$\%E_i = \frac{E_i}{X} \times 100$$

(2)

2.3.5 The percentage of different weaning ages

The percentage of the weaning age (%ÂSi) provides information on the most frequent age of infant at weaning and therefore the one to which mothers refer. It is obtained by dividing the number of times age i is mentioned (ÂSi) by the number of mothers surveyed (X), multiplied by 100:

$$\%\hat{A}S_i = \frac{\hat{A}S_i}{X} \times 100$$

(3)

2.3.6 Percentage of Consumption

The percentage of consumption (%Ci) provides insight into mothers' flour preferences. It is calculated by dividing the number of times flour i is mentioned (Ci) by the number of mothers surveyed (X), multiplied by 100:

$$\%C_i = \frac{C_i}{X} \times 100$$

(4)

2.3.7 Percentage of ages for administering infant cereal

The percentage of age for administering cereal (%Adi) provides information on the most frequent age of infant at which cereal is administered, and therefore the age to which mothers refer. It is obtained by dividing the number of times age i is mentioned (Adi) by the number of mothers interviewed (X), multiplied by 100:

$$\%\hat{A}d_i = \frac{\hat{A}d_i}{X} \times 100$$

(5)

3 RESULTS

3.1 Survey Results

3.1.1 Sociodemographic Characteristics of Respondents

The surveys were conducted with 120 individuals, all mothers, from six neighborhoods in the city of Man, in both urban and rural areas. The respondents were primarily women (100%), of whom 27.5% were housewives in the rural area, 18.33% were tradespeople (hairdressers, seamstresses, etc.), and 4.17% were students. In the urban area, the breakdown was as follows: 16.67% housewives, 30.83% tradespeople, and 1.67% students (Figure 2). In terms of ethnic groups, the Yacouba represent more than half of the communities interviewed (62.5%), the Baoulé (23.34%), the Wobé 5.83% and all the other ethnic groups encountered (Malinké, Mahoka, Odienéka, Toura, Guéré, Gnamboa, Kôyaga and Guinean) together 8.33% (Figure 3). In urban areas, 27.5% of the women interviewed use industrial flour and 22.5%

use traditional flour (rice, millet and maize) while in rural areas 15.83% use industrial flour and 34.17% use traditional flour (Figure 4).

3.1.2 In urban areas

3.1.2.1 Weaning age (Figure 5)

- Between 6 and 7 months (19.17% of mothers surveyed)
- Between 8 and 9 months (15% of mothers surveyed)
- Between 10 and 11 months (10.83% of mothers surveyed)
- Between 1 year and 1 year 5 months (3.33% of mothers surveyed)
- 2 years (1.67% of mothers surveyed)

3.1.2.2 Age of infant formula introduction (Figure 6)

- Between 6 and 7 months (12.5% of mothers surveyed)
- Between 8 and 9 months (34.17% of mothers surveyed)
- 10 months (3.33% of mothers surveyed)

3.1.3 In rural areas

3.1.3.1 Weaning age (Figure 5)

- Between 5 and 6 months (35.83% of mothers surveyed) (as surveyed)
- Between 8 and 9 months (14.17% of mothers surveyed)

3.1.3.2 The age of administration of infant cereal (Figure 6)

- 6 months (33.33% of mothers surveyed)
- 7 months (10% of mothers surveyed)
- 8 months (6.67% of mothers surveyed)

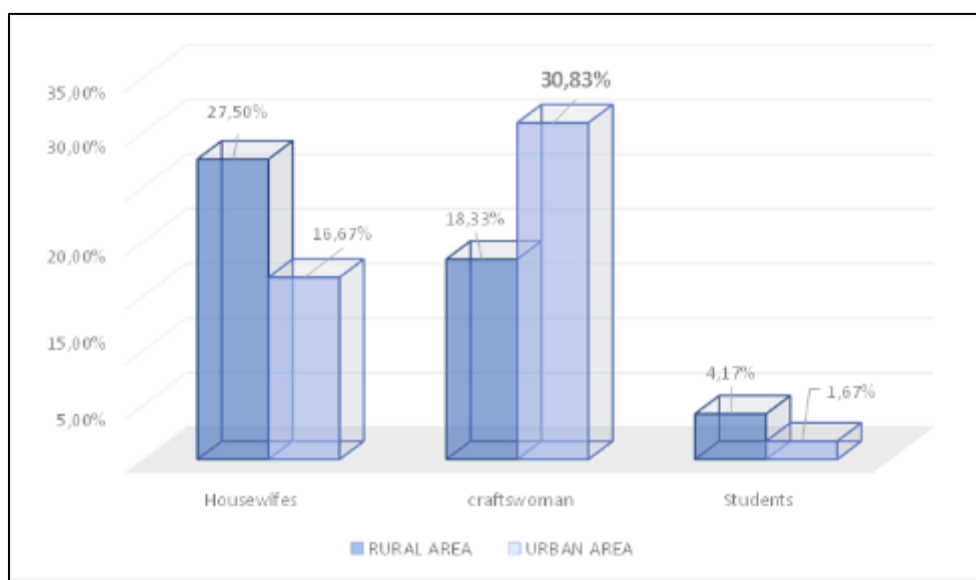


Figure 2: Histogram of the educational level of the respondents

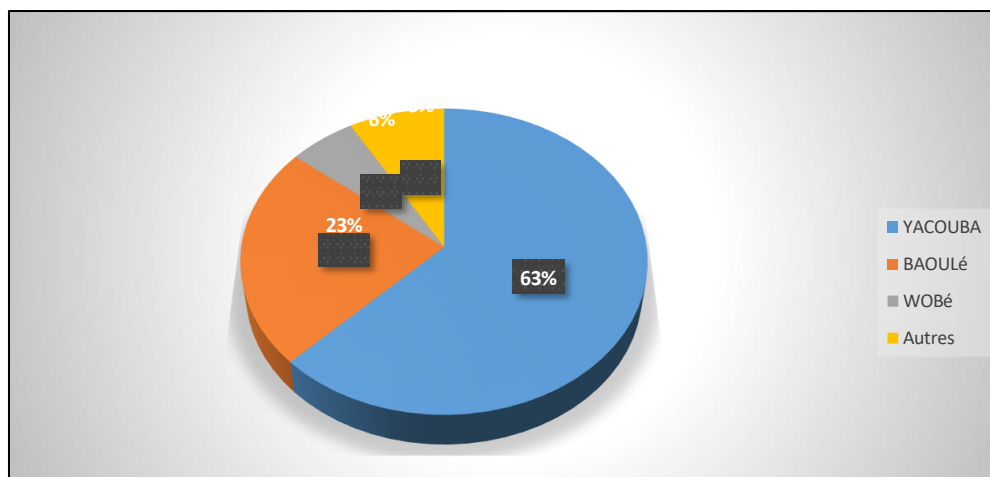


Figure 3: Distribution of respondents according to ethnicity

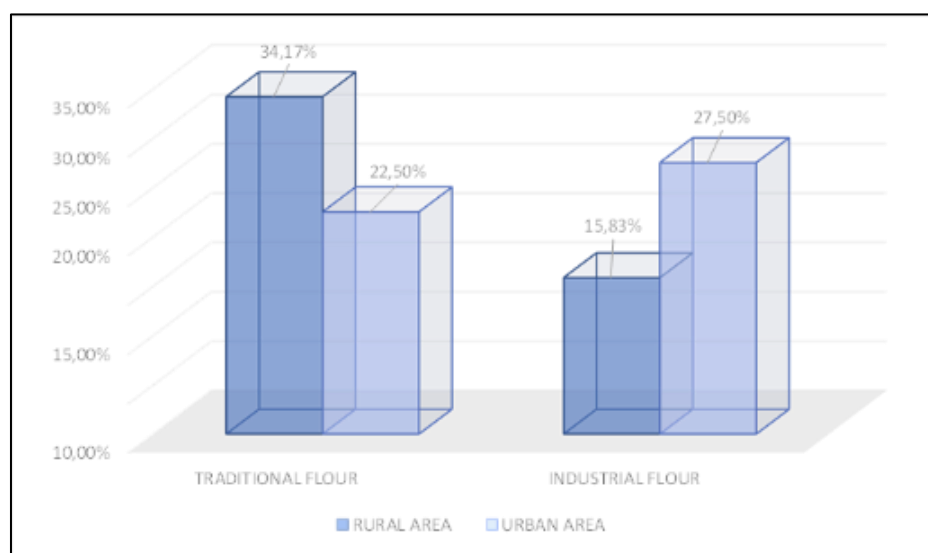


Figure 4: Distribution of infant flour consumption according to residential area.

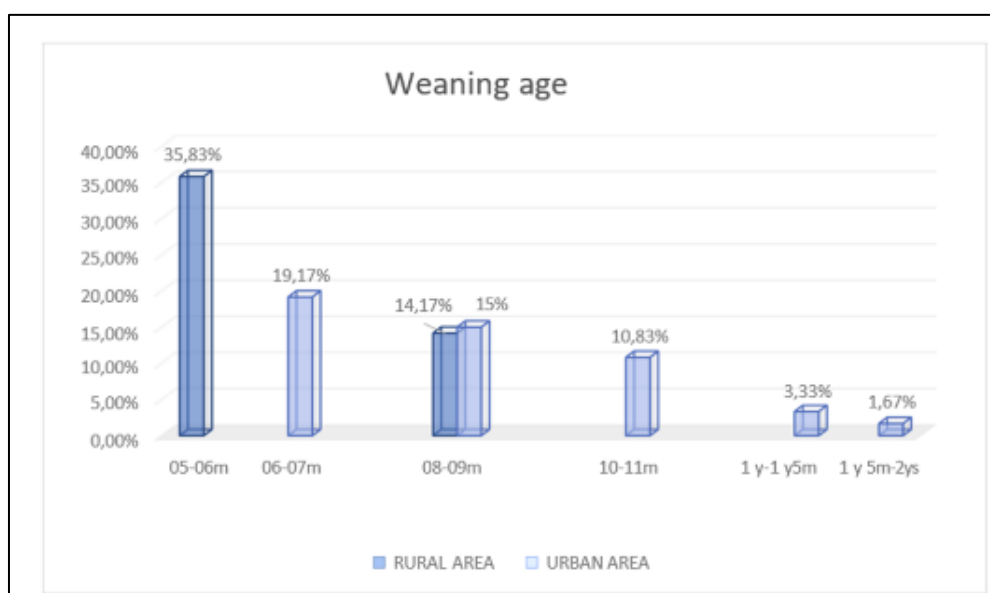


Figure 5: Distribution according to weaning age

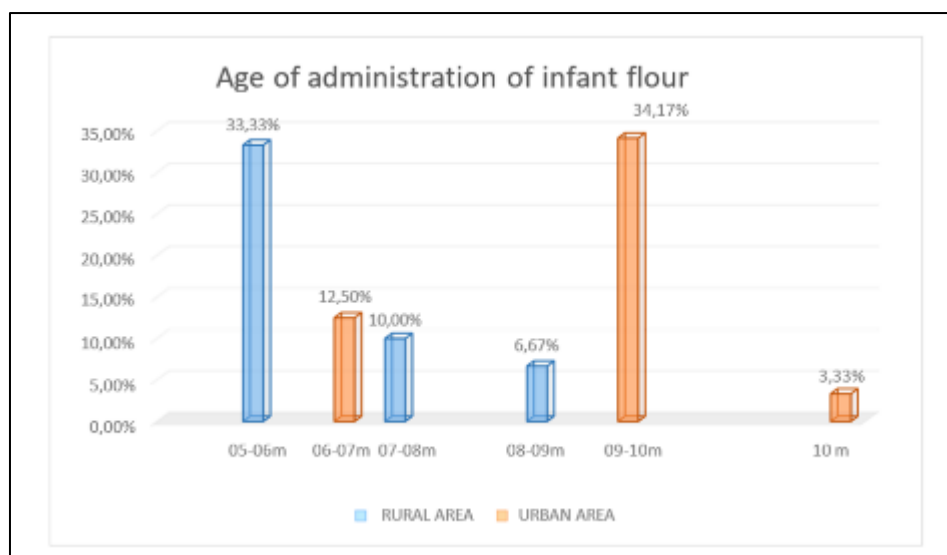


Figure 6: Distribution according to age of administration of infant flour

4 DISCUSSION

The surveys revealed significant differences in the dietary practices of the mothers interviewed, depending on their area of residence, as well as variations in the nutrient content of the different flours studied.

These results are consistent with other studies conducted in other regions, which have observed that mothers' dietary practices are often influenced by socio-economic and cultural factors specific to each region [5, 6, 7]. For example, in a study conducted in a rural region of Burkina Faso, mothers also primarily used traditional flours, but with variations in the types of grains used [8]. Based on these results and the findings of other studies, it is clear that mothers' dietary practices are influenced by socio-economic and cultural factors specific to each region. For example, a study conducted in Benin showed that mothers primarily used local grains to feed their children, such as maize, sorghum, and millet [9].

Similarly, a study conducted in Burkina Faso showed that mothers' dietary practices in rural areas were influenced by food availability and accessibility [10]. The results of our study are therefore consistent with these previous studies and highlight the importance of considering regional differences in dietary practices.

In short, this study contributes to a broader body of research on nutrition and dietary practices in different regions of the world and confirms the importance of considering regional differences when developing nutrition strategies.

5 CONCLUSION

The aim of this study was to explore infant feeding. Through our surveys and analyses, we obtained several relevant results. First, our surveys revealed that the majority of respondents were mothers, primarily housewives, in rural areas (27.5%) compared to urban areas (16.67%). We observed a preference for the use of traditional flour in rural areas (34.17%), while in urban areas, the use of industrial flour was more widespread (27.5%). Regarding the age of weaning, we observed variability in practices, with the majority of mothers interviewed weaning between 6 and 9 months. As for the introduction of infant flour, the majority of mothers began it between 6 and 9 months. In conclusion, this study has highlighted specific dietary practices in the context of infant feeding, with an emphasis on the use of flours.

PERSPECTIVES

This study opens the way to several avenues for research and action in the field of infant feeding. Here are some suggestions for future directions:

- Expanding the sample: The study was conducted on a specific sample of mothers. It would be beneficial to broaden the scope of the research by including fathers, healthcare professionals, and other key stakeholders involved in infant feeding. This would provide a more comprehensive view of practices and perspectives.
- Improving policies and regulations: The findings of this study can contribute to the development of policies and regulations related to infant feeding. It is important to encourage the use of high-quality, locally sourced ingredients and to promote strict production and marketing standards for infant flours. The relevant

authorities could leverage these findings to implement measures and regulations that support safe and healthy infant feeding.

Following these lines of inquiry, we could deepen our understanding of infant feeding.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

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Disclosure of conflict of interest

The authors declare no conflict of interest, financial or otherwise

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