

Perceptions of schoolchildren and lunch ladies about school meals: a focus groups analysis

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Abstract: **Introduction:** National School Feeding Program (PNAE) stands out for being one of the largest school feeding programs in the world, contemplating the Human Right to Adequate Food for Brazilian students. However, some research works have observed low acceptability and adherence to school meals. **Objective:** To analyze the perception of school lunch ladies and students about acceptability and adherence to school meals. **Methodology:** Qualitative research carried out through focus groups with lunch ladies from three schools and students from the sixth to the ninth grade of a public school in Sumidouro, Rio de Janeiro state, Brazil. The focus groups were carried out using semi-structured scripts and recorded in audio and video, later transcribed and analyzed by Content Analysis. Results: Six themes were identified: self-knowledge, adherence, acceptability, preparation and distribution of school meals, menu and environment. **Conclusion:** The use of efforts to improve the infrastructure and aspect of the food environment, with the acquisition of adequate utensils, change in the distribution service model and in the way of preparing meals, resulting in varied menus, are strategies that can contribute to improve adherence and acceptability to school meals. These changes favor the promotion of health in the school environment, focusing on healthy public policies.

► **Keywords:** School feeding. Students. Focus groups. Qualitative research. Public policies.

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Introduction

The National School Feeding Program (PNAE) was established in Brazil in the 1950s, with the aim of “contributing to the growth and biopsychosocial development, learning, school performance and formation of healthy eating habits of students from the public education system, through food and nutritional education actions and the provision of meals that cover their nutritional needs during the school period” (Brasil, 2009), and currently stands out for being one of the largest programs in the world to cover school feeding, covering the Human Right to Adequate Food (HRAF) and Food and Nutritional Security (Gabriel *et al.*, 2013; Machado *et al.*, 2013; Peixinho, 2013). However, the provision of resources directed to the acquisition of foodstuffs intended for school meals does not guarantee that acceptability and adherence to the program are satisfactory. (Locatelli; Canella; Bandoni, 2017; Oliveira; Vassimon, 2012; Silva *et al.*, 2013; Valentim *et al.*, 2017).

While acceptability, which reflects the approval of the dishes offered in school meals, portrays the quality and preference of the foods offered, the adherence index to school meals presents itself as a tool for investigating and monitoring the effectiveness of the program, providing support for the advancement of PNAE as a public policy that promotes HRAF (CECANE-UFRGS, 2017; Cesar *et al.*, 2020).

Results from the 2019 National School Health Survey (PeNSE) showed that 42.9% of students enrolled in the 9th grade in Brazilian public schools affirmed consuming school meals at least three days a week (IBGE, 2021). In this context, the search for identifying factors related to low acceptability and adherence to school meals is necessary for planning actions within the scope of the PNAE (Vale *et al.*, 2021). Studies on this topic are mostly aimed at students, and have highlighted structural, hygienic and operational criteria related to low adherence and acceptability of meals offered in Brazilian public schools, such as: cafeterias not sized for the number of students, lack of adequate utensils, lack of autonomy in choosing what to eat and monotony of the menus offered (CECANE-UFRGS, 2017; Nascimento *et al.*, 2016; Pedraza *et al.*, 2017; Teo *et al.*, 2009; Vale *et al.*, 2021).

However, the actors involved in the management and operationalization of PNAE, in addition to its beneficiaries, are essential in promoting healthy eating habits and lifestyles inside the school environment, as they are directly involved in

the social and cultural reality of students. (Carvalho *et al.*, 2008; Davanço; Taddei; Gaglianone, 2004; Juzwiak; Castro; Batista, 2013).

The lunch ladies, among all the professionals working in the school environment, know better about the preferences of the audience, being able to transform regular foodstuffs into tasty recipes that are appreciated by schoolchildren (Cunha, 2021).

Based on a study carried out through focus groups, with lunch ladies from public schools from a city in São Paulo, with the aim of identifying perceptions linked to school meals, the authors were able to observe that the potential of these professionals in school meals can be validated by understanding it from different perspectives, including the entire food preparation process and the concern with offering adequate meals to schoolchildren, in addition to a clear focus on environmental conditions and physical structures for adequate nutrition (Assao *et al.*, 2012).

In this sense, carrying out activities that provide effective participation of actors directly involved in school feeding favors critical reflection, participation and protagonism of these actors in the construction of a healthy school environment (Albuquerque *et al.*, 2014; Rasera; Rocha, 2010; Zimerman, 2000).

Thus, considering the adherence and acceptability rates to school meals as fundamental tools for monitoring and investigating the effectiveness of PNAE, the aim of this study was to analyze the perception of lunch ladies and schoolchildren regarding the acceptability and adherence to school meals in the municipal public education system from Sumidouro, Rio de Janeiro, Brazil.

Methods

Aiming at the exploratory nature of the research question, the qualitative methodology was applied to enable the collection of in-depth information to understand and interpret the personal experiences of lunch ladies and schoolchildren on aspects related to school meals. The study was reported in accordance with the consolidated criteria for reporting qualitative research (Souza *et al.*, 2021; Tong; Sainsbury; Craig, 2007).

The research is part of the study “Professionals and Students for Healthy Eating in Sumidouro” (PAPASS), a school-based randomized trial that aimed to evaluate the effectiveness of a multicomponent intervention in adherence and acceptability to school meals, conducted in three public schools from Sumidouro – RJ in 2019

(Pinto *et al.*, 2019). Focus groups were preliminarily carried out to direct the interventions that would be implemented.

Three focus groups were held on three consecutive days in September 2018, through interviews on a previously scheduled day and time, with: (1) lunch ladies; (2) students who reported consuming school meals; (3) students who reported not consuming school meals. The focus groups lasted an average of 45 minutes and were conducted by postgraduate students experienced in conducting focus groups, who were responsible for audiovisual recording and field notes.

According to Debus (1994), the accepted size for a focus group has traditionally been from 8 to 10 participants. However, an optimal group would consist of 5 to 7 participants, in accordance with the established objectives and purposes (Debus, 1994).

Thus, the focus group carried out with the lunch ladies was attended by all professionals (n=8), all female, working in the three schools included in the PAPASS study, taking place in a location provided by the Municipal Education Department of Sumidouro-RJ. The focus group was conducted by the third author, with the fourth author as observer and responsible for taking notes. The first author did not participate in the activity with the lunch ladies due to his hierarchical position in relation to them, which could influence the activity. The lunch ladies who agreed to participate in the focus group were informed about the objective of the research and were conditioned to participate in the study by signing the Free and Informed Consent Form (TCLE).

The focus group carried out with schoolchildren who reported consuming school meals was composed of eight 8th and 9th year students (five females, three males), who agreed to participate voluntarily. The focus group carried out with schoolchildren who reported not consuming school meals was composed of five students from the 6th to the 8th grades (all male). Both occurred in the classroom at the school where the students were enrolled, being conducted by the first author, with the third and fourth authors as observers and responsible for taking notes. The participation of students was voluntary and was linked to the signing of the TCLE by parents or guardians and the signing of the Term of Assent (TA) by the students themselves.

To conduct the focus groups, semi-structured scripts were used for students who reported consuming school meals (Chart 1), for students who reported not

consuming school meals (Chart 2) and for lunch ladies (Chart 3), prepared in accordance with Krueger and Casey's guidelines (Krueger; Casey, 2015). The focus groups ceased when saturation of thematic data was reached, that is, when the mediator did not notice new themes emerging during the focus groups.

Before the start of the focus groups, the researchers involved in the activities were properly introduced to the participants and read the introductory text, with the purpose of highlighting the reasons for developing the research and ensuring the confidentiality of the information, expressing a guarantee that there would be no losses. to the participants.

The activities were recorded in audio and video, later transcribed verbatim and analyzed using the Content Analysis technique proposed by Bardin, with the help of the Atlas.ti v.8.4.4 software to "reinterpret the messages and achieve an understanding of their meanings at a level that goes beyond a common reading" (Moraes, 1999). Transcripts were not returned to participants for comment or correction.

To this end, initially the first, third and fourth authors individually carried out the coding of the material, which consisted of the systematic transformation of raw data (words or phrases), through clipping, enumeration and aggregation, into a representation of the content that allowed adding meaning the content to be analyzed. Subsequently, the data categorization stage took place, which corresponded to the classification of coded elements into thematic categories (Bardin, 2011). Coding discrepancies were resolved by discussion between the authors until consensus was reached.

Aiming to preserve the anonymity of the participants, they were identified with the letters "M" for lunch ladies, "Ea" for schoolchildren who reported consuming school meals and "Eb" for schoolchildren who reported not consuming school meals. followed by a number to help identify the speaker.

The study was approved by the Ethics Committee under the number 2.825.207.

Chart 1. Semi-structured script used to conduct the focus group with students who reported consuming school meals.

1. Do you eat the school meals every day?
 2. What do you like about the meals?
 3. What don't you like about the meals?
 4. What should lunch be like at school?
 5. What do you think of the school cafeteria?
 6. How is the food placed on your plate?
 7. Do you know what meal will be served tomorrow?
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Chart 2. Semi-structured script used to conduct the focus group with students who reported not consuming school meals.

1. Have you ever eaten the school meals?
 2. What's good about the meals?
 3. What's bad about the meals?
 4. What should lunch be like at school?
 5. What do you think of the school cafeteria?
 6. How is the food placed on your plate?
 7. Do you know what meal will be served tomorrow?
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Chart 3. Semi-structured script used to conduct the focus group with the lunch ladies.

1. What is the role of the lunch lady at school?
 2. Do you think that most of the students eat the school meals?
 3. Do you think that most of the students like the school meals served?
 4. Why don't some students eat the school meals?
 5. What do you think of the way the food is served on the plate?
 6. In your opinion, what could change in the recipes to make the school meals more attractive to students?
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Results and Discussion

Content analysis allowed the identification of six themes called “self-knowledge”, regarding exclusively the speeches of the lunch ladies, and “adherence”, “acceptability”, “preparation and distribution”, “menu” and “food environment”, referring to the speeches of the lunch ladies and the students. These were divided into 11 subthemes, of which six were approached by the lunch ladies and six by the students (Table 1).

Table 1. Categorization of the themes and subthemes covered in each focal group

Themes	Subthemes	Lunch ladies	Students who reported not consuming school meals	Students who reported consuming school meals
Self-knowledge	Perception of the role of the lunch ladies in school meals	*		
Adherence	Perception of the adherence of schoolchildren to school meals	*		
	Motivation of schoolchildren's non-adherence to school meals	*		
	Frequency of school meals consumption		*	*
Acceptability	Perception of the acceptability of the meals served to schoolchildren	*		
	Meals with high acceptability		*	*
	Meals with low acceptability		*	*
Preparation and distribution	Preparation and distribution service model	*	*	*
Menu	Strategies to make school meals more attractive to schoolchildren	*		
	Prior knowledge of the meals served		*	*
Food environment	Perception of the environment where school meals are consumed		*	*

Source: the authors.

Self-knowledge

The “self-knowledge” category refers to the speeches of the lunch ladies, and aimed to capture the perception of the role of the lunch ladies in school meals.

The speeches revealed an awareness of the importance of their role in the formation of healthy eating habits among students, as well as the support network in which they participate together with other actors involved in the school environment.

I think it's a very important role. If there are no school meals, the students cannot study properly. (M7)

[...] There are children at school who leave home at 4:40 am. If there are no school meals, how will a child like that study? I think the role of the lunch lady is very important. (M2)

It is of paramount importance. We have to take care of their nutrition and we are also the

heart of the school. There are children at school who call us “mom”. (M8)

The experiment phase has to be very controlled by us. I started to like some things at school. (M8)

A relationship of affection was observed in the lunch ladies’ speech, referring to the fact that they can feed the schoolchildren, playing the role of caregivers, which goes beyond their specific function of preparing and distributing food. This relationship is also mentioned in the work of Nunes (Nunes, 2000), who reports that the lunch ladies constantly state that they feel a bit like the students’ mothers.

Adherence

The “adherence” category refers to the school lunch ladies’ reports regarding the perception of schoolchildren’s adherence to school meals and the motivation for non-adherence. On the other hand, among schoolchildren, this category refers to the frequency of consumption of school meals.

According to lunch ladies, few students do not consume school meals. They pointed out possible aspects related to the non-consumption of meals, such as: the time they are served, the presence of ultra-processed food stores around the schools and the proximity of the school to the students’ residence.

There is a market in front of the school. (M8)

[...] The children who eat there [market] are, for the most part, those who live close to the school. They might wake up later, drink coffee later, right? Then, at lunch time, they don’t want to eat food, they prefer snacks, soda, cookies... (M7)

[...] In the morning shift, there are some students who live next to the school and go home for lunch, because they don’t have lunch at school. Also because of the time, our first recess is at 9:40am, then the other is at 10:30am. And in the afternoon shift, there are some small children who have lunch at home, before coming to school. (M2)

As mentioned, the presence of commerce around schools is one of the factors that can influence the frequency of consumption of school meals, by offering more attractive options to students (Cesar *et al.*, 2018).

Offering school meals at unusual times, even containing foods that are part of the students’ culture, can lead to the rejection of some meals provided by the school (Bertolo *et al.*, 2004; Freitas *et al.*, 2013), despite studies reporting that students who eat before going to school are more likely to consume school meals (Cesar *et al.*, 2020; Locatelli; Canella; Bandoni, 2017).

When the group of students who reported consuming meals served at school were asked about the frequency of consumption, half of them said they consumed daily, even though they did not like the meals served, while the other half justified not consuming daily because they did not like the meals served at school during certain days of the week.

I eat every day, even if I don't like it. (Ea5)

I eat every day, because otherwise I will be hungry later. (Ea8)

I don't eat every day because I don't like fish nor soup. (Ea3)

I don't eat every day because I don't like fish nor farofa. (Ea2)

In a study carried out with adolescents enrolled in public schools from a city called Lapa, Paraná, southern Brazil, it was observed that students who attend schools in rural areas, even having eaten before going to school, cited the main reason for consumption of school meals the fact that they feel hungry at the time the food is served (Cesar *et al.*, 2020). On the other hand, Silva *et al.* (2018) point out that there are episodes in which schoolchildren consume school meals even though they don't like it, because, by refusing, they would have no other possibilities to eat.

In other studies that evaluated aspects related to non-adherence to school meals, the authors identified disapproval of meals as one of the factors conditioning the non-consumption of the food offered. (Carvalho *et al.*, 2017; Cesar *et al.*, 2018). It is also necessary to consider situations in which the student prefers not to eat, rather than being seen as poor and needy if they consume school meals. (Cesar *et al.*, 2020).

Among the students who reported not consuming school meals, only one reported never having consumed them, while the others reported having already consumed the meals served at school, despite not being a habit.

I have never eaten anything. (Eb5)

I have already had lunch at school, but I don't like having lunch that much. This year, I haven't had lunch so far. (Eb1)

I usually have lunch at home. (Eb3)

Acceptability

The “acceptability” category included the speeches of schoolchildren and lunch ladies, which allowed the identification of meals with the best and worst acceptability among schoolchildren.

They don't like vegetables. (M1)

[...] they don't eat angu, canjiquinha... and also vegetables. (M2)

I can tell you that they hate fish. (M3)

At [name of the school] they don't eat persimmon fruit. They don't like persimmon fruit because there are lots of persimmon plantations there. And we offer persimmon fruit as a dessert. (M4)

There, persimmon fruit is successful. (M8)

There, they like pasta with mincemeat a lot. (M4)

They like meat with potatoes. (M6)

As a dessert, they prefer banana or apple. (M5)

The students at [name of the school] like tangerine. (M6)

They love jelly. (M6)

Milk cream too. (M7)

Guava paste. (M8)

Children love risotto. (M3)

There, they like salad a lot. (M7)

National School Health Survey (2019), which measured the habitual consumption of foods that indicate healthy eating, estimated that 28.8% of Brazilian students aged 13 to 17 in public and private schools consumed vegetables on five or more days a week prior to the research, while beans had a frequency of consumption of 59.0% (IBGE, 2021). The same research investigated the consumption of food markers of unhealthy eating, observing that 32.8% of students reported consuming sweet treats, a high percentage when compared to the consumption of soft drinks, which presented a percentage of 17.2% (IBGE, 2021). These results converge with the speeches of the lunch ladies, who highlighted the rejection of vegetables and the preference of sweets by schoolchildren.

Among the students who reported consuming school meals almost daily, one student reported liking all the meals offered, while the others pointed out the meals they liked most. Salty recipes that had bovine or poultry protein in their composition were related to greater acceptability.

I like it all. (Ea7)

Meat with potato, chicken and risotto. (Ea1)

Risotto. (Ea4)

Risotto, chicken, stewed potato. (Ea5)

Risotto, meat with potato. (Ea6)

Among the same group of schoolchildren, there were also reports of meals with a lower acceptability index, in which recipes based on fish and liquid/pasty consistency were not well accepted.

Fish. (Ea1)

I don't like fish nor farofa. (Ea2)

I don't eat every day because I don't like fish nor soup. (Ea3)

Soup and fish. (Ea4)

We eat farofa, but we don't like it very much. (Ea5)

When the topic “acceptability” was presented to students who did not consume the meals served at schools, they showed their perceptions, highlighting that, just like the students who reported consuming school meals more frequently, they had similar impressions in relation to both the meals with high and low acceptability.

I like meat with potatoes, risoto. (Eb1)

I like risoto. (Eb2)

Risotto is good... because it doesn't have much seasoning. (Eb3)

I don't like risotto and fish very much. (Eb4)

And I also don't like fish. (Eb1)

I don't like fish very much. And food with lots of spice. (Eb3)

After the students' speeches, there was a similarity in relation to the meals with greater and lesser acceptability, regardless of adherence to school meals. The “fish” showed greater disapproval among the participants in the focus groups (schoolchildren and lunch ladies), which may be related to local food models and practices, since the municipality of Sumidouro is located in the Southeast region of Brazil, which has the lowest average per capita food consumption of fresh fish in the country, when compared to other Brazilian regions (IBGE, 2020). Furthermore, the predilection for recipes based on meat and poultry corroborates the results of the 2017-2018 Family Budget Survey, which indicates a higher frequency of food consumption of these items in the Southeast region of Brazil (IBGE, 2020).

Preparation and distribution of school meals

In the category “preparation and distribution of school meals”, the lunch ladies’ statements permeated the food distribution service model established in schools.

[...] There at [name of school], we serve through the window [a type of passage that lunch ladies use to deliver ready-to-eat dishes to students, common in public schools in Sumidouro, RJ], we serve the children individually. (M8)

We serve through the window. We serve the dish, and it goes smoothly. (M1)

It is also observed that the lunch ladies reported being familiar with the schoolchildren’s eating habits, and that they have the option of choosing what they would like to consume given the options presented at the time the meals are served.

We know... I don’t need to ask them. I know that one will eat rice, I know how much they eat. Because this also avoids waste. (M8)

[...] and they also choose what they want. (M1)

[...] some of them say: “I don’t want beans”. Others, we ask. (M2)

Furthermore, they often reported not following the menu, with the aim of reducing waste given the low acceptability of some meals.

We don’t make salad there. We add the vegetables and make soup. They eat the vegetables in the soup. (M4)

Beetroot, at least at [name of school], there’s only one way they can eat it... cooked in beans. (M3)

The other day, I had two boxes of yams. You can’t fry it, but I think that once in a lifetime it won’t kill anyone. We made fried yam. And the yam problem was over.” (M8)

We have no waste, because we make smoothies, soup... we have to change the menu. But not to spoil food. (M3)

The menu is one thing. If they don’t eat it, we change the menu. (M7)

Among the students who reported consuming school meals, the majority reported a lack of autonomy in choosing during meals, claiming that there was poor hygiene and a lack of standardization of gastronomic techniques during preparation, in addition to the inadequacy of the temperature of the preparations offered.

Dissatisfaction with the way food is prepared was also described by Paiva et al. (2016) during focus groups with students from two schools in the semi-arid region of Bahia, where the students highlighted a lack of care, such as preparing watery juice saltless soup (Paiva; Freitas; Santos, 2016).

I guess the menu must be followed (Ea5)

A little more hygiene. Many people find hair in their food. (Ea1)

When it's time to serve food, we see the lunch ladies wearing bonnets. When it comes to cooking... [expression of doubt]. (Ea5)

There are times when they [lunch ladies] make salad... people say they don't like it or don't want it, they serve it anyway. (Ea1)

For some people they serve a lot of food, for others they don't. (Ea3)

[...] when you don't want something, they still serve it. (Ea2)

They [lunch ladies] say that we must eat. Because vegetables are part of the diet. (Ea6)

This is how waste happens. Because if someone doesn't like, he/she won't eat. It will be left on the plate. (Ea5)

They [lunch ladies] force us to eat what we don't like. (Ea2)

There are days when the food is not very hot either. (Ea2)

[...] there are days when the food is not salty. (Ea3)

Beans too, sometimes they are not seasoned. (Ea1)

Everyone complains about the juice. Sometimes it's sweet, other times it's just water. (Ea1)

The same students pointed out what could be modified or instituted so that more students adhere to and accept school meals, highlighting the desire to increase fresh or minimally processed foods and appropriate utensils varying according to the type of meal.

Healthier food. More vegetables, more salad. (Ea1)

I think there should be more vegetables. And different fruits. (Ea2)

A colorful plate. Healthier desserts. (Ea8)

More fruits. (Ea4)

More vegetables. And a fork. Because eating pasta with a spoon is very difficult. (Ea7)

I think there should be more vegetables. And when there is pasta with meat, we have to eat with a spoon. (Ea6)

I think lunch should be something different. It doesn't have to be that fancy thing. But something simple, that invites everyone to have lunch, and not that drives people away. (Ea5)

Similar speeches were observed by Albuquerque et al. (2014) and Paiva (2016), in which it was reported that, in the opinion of schoolchildren, the increase in the

supply of fresh foods would provide greater consumption of school meals, potentially influencing healthier food choices (Albuquerque *et al.*, 2014; Paiva; Freitas; Santos, 2016).

The demand from schoolchildren for a greater variety of foodstuffs is established by the legislation that guarantees the provision of school meals to basic education students within the scope of PNAE and must be promoted and encouraged by the implementing entities, guaranteeing healthy and adequate food, respecting the culture and eating habits of the region (Brasil, 2020).

Within the same theme, students who do not consume the food served at school reported their impressions about the distribution service model, as well as what should be modified to make school meals more attractive. The need to promote autonomy of choice for students and expand the choice of meals served was highlighted. According to Bezerra (Bezerra, 2006), the promotion of an adequate food service that respects students' eating habits and the regionalization of menus involves enabling students to choose what they will consume.

I think we should have more options, more variety. (Eb1)

Once I was having lunch, and the [lunch lady's name] was serving angu, I didn't want it, so I didn't eat. (Eb2)

They [lunch ladies] put a lot of seasoning in the food. (Eb3)

I thought that whoever wanted to eat something, would eat it. And whoever didn't, wouldn't. (Eb4)

Everyone gets what they want, not what the lunch lady wants. (Eb5)

Menu

In the "menu" category, the lunch ladies described actions that could be carried out in order to make school meals more attractive to students. They suggested that adapting the quantities distributed and replacing foods with low acceptability and ultra-processed foods with fresh or minimally processed foods could influence adherence and acceptability to school meals, reducing waste. Paiva (2011) observed that the difficulty in relation to the quantity of foods available at school meant that lunch ladies would make adjustments to menus to provide school meals adequately. (Paiva, 2011).

There should be no fish. (M5)

I also agree, because at [name of school] the problem of students not eating happens when we serve fish. Serving fish is a disaster. (M3)

We are having difficulties in relation to quantity. The amount of fruit that is sent to school is large. I think they should know what's popular at each school. (M8)

By reducing waste or even reducing the quantity, they could buy something else that they like more. And I think fruit is healthier than dulce de leche, guava paste. (M7)

They send some things too much and other things too little. (M1)

[...] because sometimes in one school there is too much and in another we can't follow the menu because we don't have the goods. (M2)

In a study that evaluated the perception of lunch ladies within the scope of the PNAE, Kutz and collaborators (2020) observed that lunch ladies justified non-compliance with the menu due to the occurrence of unforeseen events in the supply of foodstuffs, or aiming to improve the acceptability of the preparations (Kutz et al., 2020). However, failure to comply with the menu in its entirety may compromise the nutritional value offered to schoolchildren as established by law.

The students reported that there was no commitment to the menus prepared by nutritionists in accordance with current legislation. Others reported not being aware of the existence of a scheduled menu, demonstrating their lack of prior knowledge of the preparations that will be served.

There are days when it is very difficult to know what will be served, because they don't follow the menu. (Ea1)

They don't follow the menu. Today there was going to be meat with potatoes and there was fish. (Ea6)

They display the menu in the cafeteria, but the lunch ladies don't follow it. (Ea3)

I think they should follow the menu. (Ea2)

There's no menu. Each week they serve different dishes. (Eb1)

I went there to see what they would serve, and it was risotto. I found out because I went to the cafeteria. (Eb3)

If there is a menu, then it's something recent. Because there wasn't. (Eb5)

We usually don't know. (Eb2)

For the meals offered to schoolchildren to be considered of high quality, menu planning is essential, in addition to organizing the purchase and distribution of foodstuffs and adequate preparation conditions. (Barberini, 2021). Another important point to be considered in the preparation and practice of the school menu is respect for students' eating habits, as well as the region of the country in which they live. (Tanajura; Freitas, 2012).

Environment

The “environment” category was addressed during focus groups held with schoolchildren, with the aim of capturing perceptions regarding the environment in which they eat meals.:

Sometimes there are no chairs in the cafeteria, we have to eat standing up. (Ea1)

The cafeteria is very small. There’s no place to sit. Then we have to eat standing up. (Ea2)

It could have more chairs. (Ea3)

I think there could be more space in the cafeteria and more chairs for everyone to sit. Then no one would eat standing up. (Ea4)

Too small for the number of students. (Ea6)

I think there should have more tables in there. (Ea5)

I think that’s good. At least from my point of view. (Eb1)

I don’t really like it because of the lines. We have to wait in line for a long time. (Eb2)

Good. But there are times when it’s very crowded, there are people coming with their plates, others coming back... (Eb3)

Most students highlighted only the negative points of the cafeteria, revealing the inadequacy of the physical space intended for consuming meals due to the lack of tables and chairs to accommodate everyone, in addition to the lack of organization at the time available for meals.

The *Guia Alimentar para População Brasileira [Food Guide for the Brazilian Population]* highlights that characteristics of the food environment directly influence food consumption and that aspects such as smells, noises, lighting, comfort and cleaning conditions are important characteristics for an appropriate food environment that favors food consumption (Brasil *et al.*, 2014). According to Ferreira *et al.* (2011), furniture can serve to direct the flow, but it can also disrupt the space if its arrangement is not adequate. (Ferreira; Avegliano; Gonzaga, 2011). Therefore, it is necessary to study the layout of the environment, observing the logical sequence of the service and the best use of spaces.

Conclusion

Holding focus groups with lunch ladies and schoolchildren gave voice to these actors directly involved in the PNAE. The use of the focus group technique, a qualitative methodology, proved to be effective, as it provided collective dialogue and

made it possible to uncover aspects that could favor the acceptability and adherence to school meals in the municipality of Sumidouro, within the scope of the PNAE.

Thus, it is possible to conclude that the use of efforts to improve infrastructure and aspects of the food environment, such as the acquisition of appropriate utensils, adaptation of the meals distribution service model, investment in training aimed at food handlers and preparation of technical sheets, aiming to standardize and quantify the preparations offered, promote the dissemination of established menus and preserve local and individual eating habits may contribute to better adherence and acceptability of preparations, favoring the promotion of healthy habits in the school environment focusing on healthy public policies.¹

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Note

¹ R. L. Pinto: study design, collection, analysis and interpretation of data, writing, critical review and approval of the final version of the manuscript. B. da S. N. de Souza: study design, analysis and interpretation of data, writing, critical review and approval of the final version of the manuscript. A. B. S. Antunes and R. S. Benthroldo: collection, analysis and interpretation of data, writing, critical review and approval of the final version of the manuscript. R. Sichieri and D. B. Cunha: study design, data analysis and interpretation, critical review and approval of the final version of the manuscript.

Resumo

Percepções de escolares e merendeiras sobre alimentação escolar: uma análise por grupos focais

Introdução: O Programa Nacional de Alimentação Escolar (PNAE) destaca-se por ser um dos maiores programas do mundo de alimentação escolar, contemplando o Direito Humano à Alimentação Adequada a estudantes brasileiros. Entretanto, alguns estudos têm observado baixa aceitabilidade e adesão à alimentação escolar.

Objetivo: Analisar a percepção de merendeiras e escolares acerca da aceitabilidade e adesão à alimentação escolar.

Metodologia: Pesquisa qualitativa realizada através de grupos focais com merendeiras de três escolas e escolares do sexto ao nono ano de escola pública de Sumidouro, Rio de Janeiro, Brasil. Os grupos focais foram realizados utilizando-se roteiros semiestruturados e gravados em áudio e vídeo, posteriormente transcritos e analisados por

Análise de Conteúdo. **Resultados:** Foram identificados seis temas: autoconhecimento, adesão, aceitabilidade, preparo e distribuição da alimentação escolar, cardápio e ambiente. **Conclusão:** O emprego de esforços na melhoria da infraestrutura e aspecto do ambiente alimentar, com a aquisição de utensílios adequados, alteração no modelo de serviço de distribuição e no modo de preparo das refeições, resultando em cardápios variados, são estratégias que podem contribuir para melhorar a adesão e aceitabilidade à alimentação escolar. Essas mudanças favorecem a promoção de saúde no espaço escolar, com foco em políticas públicas saudáveis.

► **Palavras-chave:** Alimentação escolar. Estudantes. Grupos focais. Pesquisa qualitativa. Políticas públicas.

