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Dietary self-perception by women beneficiaries of the *Bolsa Família* Program in Fortaleza, Ceará, Brazil

Autopercepção alimentar de mulheres beneficiárias do Programa Bolsa Família em Fortaleza, Ceará, Brasil

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ABSTRACT

Objective
To evaluate the association between dietary self-perception and socioeconomic, health, diet, and lifestyle variables of socially vulnerable women in primary health care.

Methods
This cross-sectional study was conducted in a Primary Health Care Unit in Fortaleza, Ceará, with 158 women beneficiaries of the *Bolsa Família* (Family Aid) Program. We applied a questionnaire containing socioeconomic and health variables, food knowledge, and self-perception. Pearson's chi-square test, with a 5% significance level, was adopted to investigate possible associations between women's food self-perception and other variables.

Results
The women had a mean age of 31.2 years. Most had a household income of less than one minimum wage (75.9%), a high school education level (53.8%), were overweight (67.7%), did not engage in physical activity (72.8%), and received dietary guidance (51.9%). Negative dietary self-perception was reported by 57.0% of the sample. Women who did not engage in physical activity had a higher frequency of negative dietary self-perception (p=0.007).

Conclusion
Most women showed negative dietary self-perception. The variable "physical activity" was positively associated with dietary self-perception. Knowing how women perceive their diet and which factors are associated with their food choices can help health professionals in their daily conduct in health care units.

Keywords: Food. Perception. Primary health care. Social vulnerability. Women.

RESUMO

Objetivo

Avaliar a associação entre a autopercepção alimentar negativa e variáveis socioeconômicas, de saúde, alimentação e estilo de vida de mulheres em vulnerabilidade social, na atenção primária à saúde.

Métodos

Estudo do tipo transversal realizado em uma Unidade de Atenção Primária à Saúde de Fortaleza, Ceará, com 158 mulheres beneficiárias do Programa Bolsa Família. Um questionário foi aplicado contendo as variáveis investigadas. O teste Qui-quadrado de Pearson, com nível de significância 5% foi utilizado para investigar possíveis associações entre a autopercepção alimentar das mulheres e as demais variáveis.

Resultados

As mulheres apresentaram média de idade de 31,2 anos e a maioria tinha renda familiar inferior a um salário-mínimo (75,9%), ensino médio como o nível de escolaridade (53,8%), apresentou excesso de peso (67,7%), não praticava atividade física (72,8%) e recebeu orientações sobre alimentação (51,9%). A autopercepção alimentar negativa foi relatada por 57,0% da amostra. As mulheres que não praticavam atividade física, tiveram maior frequência de autopercepção alimentar negativa (p=0,007).

Conclusão

A maioria das mulheres apresentou autopercepção negativa da alimentação e a variável "atividade física" mostrou associação positiva em relação à autopercepção alimentar. Conhecer como as mulheres percebem sua alimentação e quais fatores se associam às suas escolhas pode auxiliar os profissionais de saúde em suas condutas no cotidiano dos atendimentos nas unidades de saúde.

Palavras-chave**:** *Alimentos. Percepção. Atenção primária à saúde. Vulnerabilidade social. Mulheres.*

INTRODUCTION

Socially vulnerable Brazilian households are the target audience for direct cash transfer programs, such as the *Bolsa Família* (PBF), which aims to expand actions to overcome hunger and poverty in the country, promoting food security and social protection [1,2]. Notably, the beneficiaries of these programs are primarily women [2]. Although the PBF could not change the precarious situation of beneficiary families, its impact is evident, mainly because it was the only source of income for many households to purchase food [3]. Despite positive evaluations, the PBF was extinguished at the end of 2021 and replaced by the so-called *Auxílio Brasil* Program [4].

Socially vulnerable individuals have inadequate food intake, characterized by a monotonous diet with a higher caloric density based on flour, sugars, and fats [3]. Health professionals should work on these aspects in primary care [5], knowing that eating adequate and healthy food is relevant in the path to health promotion.

Food choices are influenced by various nutritional, economic, social, cultural, and psychological aspects, and it is impossible to think about food only in terms of consumed food [6]. It is necessary to take a broader look at the food context, including each individual's perception of his/her diet.

Brazilian public policies have emphasized promoting healthy eating and identifying individuals' difficulties in achieving this objective [7]. Therefore, knowing how women perceive their diet is essential for possible adjustments in nutritional intervention strategies in primary care. Dietary self-perception needs to be better explored in the literature, and existing research mainly evaluates adolescents and adults in general [8,9]. This study evaluates the association between dietary self-perception and socioeconomic, health, diet, and lifestyle variables of socially vulnerable women in primary health care.

METHODS

This cross-sectional study was conducted in a Primary Health Care Unit in Fortaleza, Ceará, Brazil, with women beneficiaries of the *Programa Bolsa Família* (PBF) who were present at the Primary Health Care Unit from January to July 2018 on the days intended for data collection and agreed to participate in the research by signing the Informed Consent Form. The health unit was conveniently selected because it is linked to internships, visits, research, and extension activities with the State University of Ceará.

The inclusion criteria were being a user of the health unit, a PBF beneficiary, not being pregnant, and being over 19. Women with any cognitive or physical impairment that would prevent them from answering the questions asked or having their anthropometric measurements taken would not participate in the research.

Three trained interviewers applied a previously tested questionnaire to collect data, which contained variables relating to socioeconomic situation: age (less than 30/greater than or equal to 30), income (less than the minimum wage/higher than the minimum wage. The minimum wage at data collection was R$ 954.00), education (elementary/high school, without separation between incomplete and complete), marital status (with partner/without partner); health: parity (yes/no), nutritional status (eutrophy/overweight/obesity); nutrition: receiving dietary guidance, based on the question: "Have you ever received any dietary guidance?" (yes/no), dietary self-perception (positive/negative); lifestyle: tobacco use, based on the question: "Do you smoke?" (yes/no), alcohol use, based on the question: "Do you drink alcoholic beverages?" (yes/no), and physical activity (engaging/not engaging).

Regarding dietary self-perception, the open-ended question was: "What do you think of your diet?" The spontaneous responses were initially grouped into excellent, good, fair, poor, and very poor. This variable was dichotomized for statistical analysis into positive (when excellent, good) and negative (when very poor, poor, and fair).

For the anthropometric assessment, trained interviewers weighed and measured the participating women at the interview and calculated the Body Mass Index (BMI) from weight and height data, considering overweight as a BMI greater than 25 kg/m^2, per the recommendations of the Food and Nutrition Surveillance System, of the Ministry of Health [10].

The descriptive analysis was performed using categorical variables as absolute and relative frequencies. The Shapiro-Wilk test was used to assess the normality of the variables. Pearson's Chi-square test or Fisher's exact test was applied to investigate possible associations between women's dietary self-perception and other variables of interest. The significance level adopted was 5%.

This study is nested in the research "Health promotion of women of childbearing age: adequacy of nutritional status and preparation for future pregnancy", submitted and approved by the State University of Ceará, Research Ethics Committee (CAAE: 67993417.70000.5534, protocol nº 2.424.982).

RESULTS

The sample consisted of 158 women, with no exclusions or refusals. The mean age was 31.2 years, most women had a household income of less than one minimum wage (75.9%), High School level (53.8%), had a partner (58.3%), and had already been pregnant at least once (98.1%). Regarding parity, 125 women (80.6%) had one to two children (Table 1). Overweight appeared in 37.9% of women,

with a mean BMI of 27.6 kg/m^2. Most of them did not smoke (94.4%), did not drink alcohol (82.3%), did not engage in physical activity (72.8%), and stated that they had received dietary guidance at some point in their lives (51.9 %) (Table 1).

Table 1 – Socioeconomic, health, diet, and lifestyle characteristics of socially vulnerable women in primary health care. Fortaleza (CE), Brazil, 2020. (N=158).

Characteristics	n	%[a]
Age		
<30 years	86	54.4
≥30 years	72	45.6
Household income		
<1 minimum wage[b]	120	75.9
>1 minimum wage	38	24.1
Schooling		
Elementary School	67	42.4
High School	91	57.6
Marital status		
With companion	92	58.2
Without companion	66	41.8
Parity		
No	3	1.9
Yes	155	98.1
Nutritional status		
Eutrophy	51	32.3
Overweight	60	38.0
Obesity	47	29.7
Tobacco use		
No	150	94.9
Yes	8	5.1
Alcohol use		
No	130	82.3
Yes	28	17.7
Received dietary guidance[b]		
No	74	47.4
Yes	82	52.6
Physical activity		
Not engaging	115	72.8
Engaging	43	27.2

Note: [a]N: absolute frequency and % of relative frequency; [b] Two women did not respond.

Figure 1 shows the percentages of dietary self-perception. We observed that 36.7% of women had a good self-perception of their diet, followed by poor self-perception (31.0%). When dichotomized (positive or negative), 57.0% of women had a negative self-perception of their diet.

Table 2 shows the association between dietary self-perception and socioeconomic, health, diet, and lifestyle variables. We observed that physical activity was associated with dietary self-perception, showing that women who did not engage in physical activity had a higher frequency of negative dietary self-perception. No association was observed between the other variables investigated.

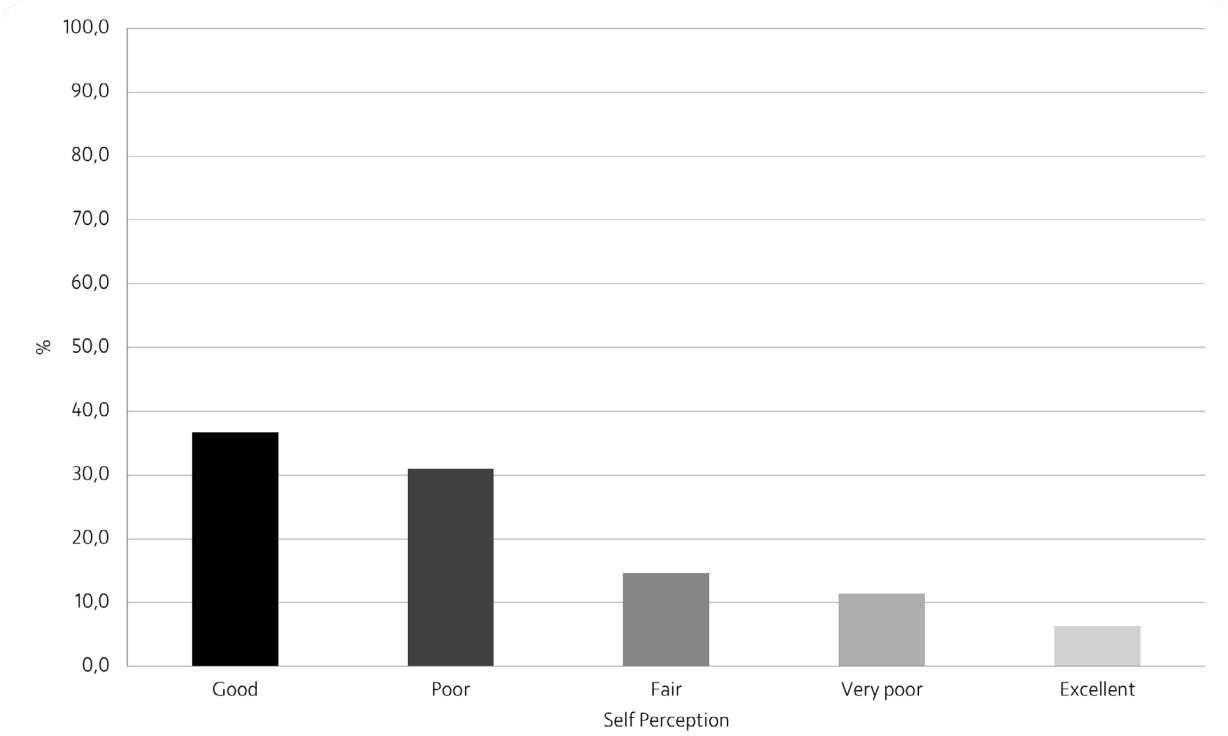

Figure 1 – Prevalence of dietary self-perception of women beneficiaries of the *Programa Bolsa Família*. Fortaleza (CE), 2017.

DISCUSSION

More than half of the participants in the present study reported a negative dietary self-perception, were overweight, did not engage in physical activity, and received some dietary guidance at some point in their lives. The finding on negative dietary self-perception is higher than that found in two Brazilian studies, where the percentage was 27.6% in the first and 36.8% in the second [9,11]. However, the results are similar to another study in which 55.5% of respondents considered the diet unhealthy, and 82.6% stated that they would need to change their daily diet [12].

On the international scene, the trend of lower percentages of negative or unhealthy self-perception continues when compared to the study in question, as is the case with the research by Slater and Mudryj [13], in which only 4% of women responded that they had poor eating habits. On the other hand, Batis et al. [14] found that 53.2% of women perceived their diet as unhealthy.

In the present study, the high percentage of women who perceived their diet as negative may be because they are more discerning when it comes to health and food issues against men. In studies on dietary self-perception, women were more discerning and demanding concerning their diet, as they had more significant negative [9,11] or unhealthy [15] dietary self-perception and a greater possibility of perceiving difficulties in keeping a healthy diet [16].

In the present study, dietary self-perception was statistically significant only for physical activity when associated with socioeconomic, health, diet, and lifestyle variables. Therefore, women who did not engage in physical activity perceived their diet negatively. The relationship between physical activity and dietary self-perception seems well established in studies, as Zarini et al. (2014) pointed out, who found that poorer self-rated health was significantly associated with low physical activity only among women [17]. A Korean study showed that respondents were more likely to self-perceive a healthy diet if they exercised regularly [18].

Table 2 – Association between socioeconomic, health, lifestyle and dietary self-perception characteristics of socially vulnerable women in primary health care. Fortaleza (CE), Brazil, 2020. (N=158).

Variables	Total		Dietary self-perception				p^b
			Positive		Negative		
	n	%[a]	n	%	n	%	
Age							0.516
<30 years	86	54.4	35	51.5	51	56.7	
≥30 years	72	45.6	33	48.5	39	43.3	
Renda							0.894
<1 minimum wage	120	75.9	52	76.5	68	75.6	
>1 minimum wage	38	24.1	16	23.5	22	24.4	
Schooling							0.786
Elementary School	67	42.4	28	41.2	39	43.3	
High School	91	57.6	40	58.8	51	56.7	
Marital status							0.433
Without companion	66	41.8	26	38.2	40	44.5	
With companion	92	58.2	42	61.8	50	55.5	
Parity							1.000
No	3	1.9	1	1.5	2	2.2	
Yes	155	98.1	67	98.5	88	97.8	
Nutritional status							0.183
Eutrophy	51	32.3	24	35.3	27	30.0	
Overweight	60	38.0	29	42.7	31	34.4	
Obesity	47	29.7	15	22.0	32	35.6	
Tobacco use							0.726
No	150	94.9	64	94.1	86	95.6	
Yes	8	5.1	4	5.9	4	4.4	
Alcohol use							0.658
No	130	82.3	57	83.2	73	81.2	
Yes	28	17.7	11	16.2	17	18.8	
Received dietary guidance							0.428
No	74	47.4	31	45.6	43	47.7	
Yes	82	52.6	37	54.4	45	52.3	
Physical activity							0.007[c]
Not engaging	115	72.8	42	61.7	73	81.1	
Engaging	43	27.2	26	38.2	17	18.9	

Note: [a]N: absolute frequency and % of relative frequency; [b]Chi-square or Fisher's exact test; [c]*p*-values in bold are statistically significant ($p<0.05$).

Healthy eating and physical activity are strategies widely disseminated around the world. In 2004, the World Health Organization approved the Global Strategy on Diet, Physical Activity and Health and recommended that its Member States promote the inclusion of healthy eating and physical activity [19]. In the same year, the Brazilian Ministry of Health established a Technical Group to analyze and implement such recommendations [20]. The National Health Promotion Policy itself highlights, among its priority themes, "adequate and healthy eating" and "bodily practices and physical activities" [21]. The Ministry of Health, in 2021, created the physical activity guide for the Brazilian population, with the first recommendations and information on physical activity throughout the life cycle [22], following the example of what already exists on diet [5].

The fact that health professionals adopted guidelines based on the consumption of healthy food and engaging in physical activity in their statements meant that women in this study were more inclined to have a negative dietary perception related to the lack of physical activity. We should recall that 51.9% of participants stated that they received dietary guidance.

Although no association was found between dietary self-perception and the other study variables, 67.7% of participants were overweight, and 72.8% did not engage in physical activity.

Several economic and social factors affect people's lifestyles, mainly how they eat. The cultural dimension of the community strongly influences habits, customs, and eating practices, although new habits, which are only sometimes healthy, can be introduced [3].

Even though the present study did not evaluate the food consumption of the participating women, some studies that did so showed that the positive or healthy dietary self-perception did not coincide with reality [12,13,23]. However, in the study by Machado et al. [9], participants' positive dietary self-perception was associated with 10 of the 13 healthy eating indicators.

Therefore, knowing what users of health services think about their diet and other health habits, what interferes with their choices, and what they consume is vital so that health professionals can outline their strategies when guiding these women. Nutritional interventions are proven to be more effective when they are based on the target population's behavior, needs, and beliefs [6].

Some limitations were identified in the development of this study: the cross-sectional design does not allow establishing cause-and-effect relationships and facilitates reverse causality for some variables; how the issue about dietary self-perception was collected differed between the current study and the other studies that supported the discussion, which resulted in differences between the percentages found in the studies, besides the fact that some of them do not make clear the percentage of dietary self-perception only of women, which is the focus of our study; and, finally, the small sample size, which may have hampered the association between the variables and dietary self-perception. Furthermore, some studies assessed dietary self-perception with samples of women and men without explaining the different percentages between them. They asked the questions differently, for example: "Do you consider your diet healthy?" Alternatively, "How do you consider your diet?" Because of this, some comparisons must be made with reservations.

However, having only women as participants is a strength of the study, as talking to them about their dietary self-perception helps them reflect on the subject and, perhaps, seek alternatives to reverse this negative perception. In primary health care, this dialogue is pertinent, not to place the entire responsibility of providing healthy food for the family on women but to recognize their role in issues related to health and nutrition since they are the ones who visit health units the most and are most responsible for the household's diet. Another aspect worth highlighting is that asking about how women perceive their diet is another tool for health professionals, especially nutritionists, to use in food education activities.

CONCLUSION

More than half of the participating women had a negative self-perception of their diet, and this self-perception was associated with a lack of physical activity. The need to know how women view their diet and what factors and lifestyle habits are associated with their food choices was highlighted. Investigating food and considering lived experiences will add value to this knowledge and can transform guidelines into practical attitudes.

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CONTRIBUTORS

MPM DIAS and DV AZEVEDO were responsible for the conception and design, data analysis and interpretation, revision and approval of the final version of the article. DM REIS and CV AZEVEDO were responsible for analyzing and interpreting the data, revising and approving the final version of the article. AAF CARIOCA contributed to the analysis, revision and approval of the final version of the article.