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RESEARCH

Factors associated with food insecurity in families of beneficial owners transfer income program in the municipality of brazilian semi-arid

Fatores associados a insegurança alimentar em famílias beneficiárias de programa de transferência de renda em município do semiárido brasileiro

Factores asociados a la inseguridad alimentaria en familias beneficiarios de programa de transferencia de ingresos en municipio de semiárido brasileño

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ABSTRACT

Objective: To investigate predisposing to food insecurity in households receiving income transfer program factors. **Method:** Cross-sectional, descriptive study with 224 families a municipality Piauí, in the period from March to June 2012. Data were collected through a structured questionnaire, processed using the Statistical Package for the Social Sciences and subjected to statistical analysis. **Results:** Of the families surveyed 88.4% were food insecure. Statistical significance was observed between variables residing in localities, types of housing, family spending on food and number of rooms in the home ($p \leq 0.05$) with food insecurity. **Conclusion:** Thus, it is necessary policies for food and nutrition security that has the ultimate goal of reducing inequalities with immediate and effective measures to minimize living with hunger and prevent the occurrence of this disease in the community. **Descriptors:** Food security, Hunger, Family health.

RESUMO

Objetivo: Investigar fatores predisponentes à insegurança alimentar em famílias beneficiárias de programa de transferência de renda. **Método:** Estudo transversal, descritivo, realizado com 224 famílias de um município piauiense, no período de março a junho de 2012. Os dados foram coletados por meio de um questionário estruturado, processados no Statistical Package for the Social Sciences e submetidos a análise estatística. **Resultados:** Das famílias pesquisadas 88,4% apresentaram insegurança alimentar. Foi observada significância estatística entre as variáveis localidades em que residem, tipos de moradias, gastos da família com alimentação e número de cômodos da casa ($p < 0,05$) com a insegurança alimentar. **Conclusão:** Assim, faz-se necessário políticas de segurança alimentar e nutricional que tenha como objetivo final a redução das desigualdades com medidas imediatas e eficazes para minimizar a convivência com a fome e prevenir a ocorrência deste agravo na comunidade. **Descritores:** Segurança alimentar e nutricional, Fome, Saúde da Família.

RESUMEN

Objetivo: Investigar que predispone a la inseguridad alimentaria en los hogares receptores de factores de programas de transferencia de ingresos. **Método:** Estudio transversal, descriptivo, con 224 familias en un municipio del Piauí en el período de marzo a junio de 2012. Los datos fueron recolectados a través de un cuestionario estructurado, procesados utilizando el paquete estadístico para las Ciencias Sociales y se sometieron a análisis estadístico. **Resultados:** de los hogares encuestados el 88,4% eran de inseguridad alimentaria. Se observó significación estadística entre las variables que residen en las localidades, tipos de vivienda, el gasto familiar en alimentos y el número de habitaciones en el hogar ($p \leq 0.05$) con la inseguridad alimentaria. **Conclusión:** Por lo tanto, son las políticas necesarias para la seguridad alimentaria y nutricional que tiene el objetivo final de reducir las desigualdades con medidas inmediatas y efectivas para minimizar vive con hambre y prevenir los casos de esta enfermedad en la comunidad. **Descritores:** la seguridad alimentaria, el hambre, la salud familiar.

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INTRODUCTION

The Food Insecurity (FI) is determined mainly by poverty and social inequalities, FI situations can be identified by various manifestations, such as hunger, malnutrition, specific deficiencies, excess weight, diseases of inadequate nutrition and consumption of unhealthy products.^{1,2,3}

Ensuring the act of eating with dignity is still far from reality for millions of people worldwide. In Brazil about 17 million people starve or suffer from malnutrition. The Food Insecurity (FI) achieves on average 30.2% of the population. Considering the five major regions, the Northeast showed the highest proportion of FI (46.1%), in all states, and the second Piauí state worse off, with more than half of its population (58.6 %) affected by injury, second only to the Maranhão (64.6%).⁴

The basic healthcare role is to follow all the families, especially the income transfer program, such as Bolsa Família, since they consist of people with social vulnerability, including food inaccessibility.⁵ More than diagnose the situation of food and nutritional security of a population, it is necessary to identify the variables associated with it, because a relational approach to food and nutrition contributes to the set of practices used by the health sector in valuing human life, beyond biological condition and the recognition of its centrality in the health production process.⁶

Considering the influence of food access on the health situation and the responsibility of the health sector to monitor the diet and nutrition of the cities, this study aims to evaluate the predisposing factors to food insecurity in families participating in income transfer program in a county in semiarid Piauí, to contribute to the (re) direct actions of protection and confrontation this disease, especially in the municipalities of similar conditions.

METHODOLOGY

The research was conducted in the municipality of Francisco Santos (PI). Of the 1,079 families benefited from the Bolsa Família Program and supported by the Family Health Strategy in that district, 224 were selected for meeting the inclusion criteria, namely: to be registered in the Bolsa Família family, have children under five years of age and holder of the sign the program Statement of Informed Consent Form (ICF), before performing the interview. Data collection was conducted during the period March to June 2012 and data were collected in households through interview from the Brazilian Food Insecurity Scale (EBIA).

Data were entered in Excel 2010 program and processed using the Statistical Package for the Social Sciences Application (SPSS / PASW), version 18.0, where the chi-square tests were performed to verify the possible association between the variables, and Posthoc ANOVA of Bonferroni test, to check for differences between the means of the variables and the three levels of food insecurity and present the results in tabular form.

Were observed the ethical principles contained in Resolution 196/96 of the National Health Council, which regulates research involving human subjects. The research project was approved by the Municipal Health Secretary Francisco Santos-PI and subsequently approved by the Ethics Committee in Research of the University Center UNINOVAFAPI - CAEE, paragraph 0389.0.043.000-11. The surveyed prior signing the WIC, which clarified the objectives, procedures and benefits of the study was requested.

RESULTS AND DISCUSSION

The proportion of households in a situation of food insecurity (FI) was found to be 88.4% (equivalent to 198 households). Of these

Bezerra MGS, Mesquita GV, Moura MEB *et al.* households, 46.4% were in a situation of food insecurity, in mild form, 25.0% in moderate, 17.0%, severe.

This scenario enables reflect that beneficiary families of income transfer programs accumulate conditions of greater vulnerability, leading to less access to food, especially the situation in general is a result of marginalization and social exclusion, with serious consequences for the health and welfare of people.

In Paraíba, a study conducted in 14 municipalities, 52.5% of families are in a state of FI, of these 11.3% and 17.6% respectively have moderate FI and severe FI.⁷ By comparing the result of research conducted in Francisco Santos-PI, with studies cited above, there is a percentage of families in much higher than in other regions of the FI situation.

This study showed significant differences ($p = 0.04$) between the levels of FI with the variables: food expenditures and number of rooms in the house. Households spending less on food and those that have the least number of rooms in the household have a higher bill of FI (Table 01).

Although no statistical significance between the variables number of people per household and family income has been verified, it is observed that households with more members and a lower monthly family income had higher injury FI, according to Table 01. In other studies, the income has been described as the most important food insecurity and hunger determinant, although the authors highlight that it is not a sufficient indicator because it does not consider many differences between families or individuals or singular problems specific to each family.^{8,9}

Research conducted in Viçosa-MG, the prevalence of food insecurity was higher in households with lower socioeconomic status, higher number of residents who had treated water by filtration and whose mothers had low education.

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Factors associated with food insecurity ..

Table 01: Distribution assisted by the Family Health Strategy (FHS) families, according to average levels of food insecurity, Francisco Santos (PI), 2012.

Variables	Food Insecurity			p value
	Light Food Insecurity	Moderate Food Insecurity	Severe Food Insecurity	
Age (years)	28,8	29,5	29,4	0,90
Number of people per house	4,1	4,0	4,4	0,42
N ^o of children 0 to 5 months	1,3	1,0	2,5	0,30
No. of children aged 6 to <10 years	1,6	1,5	1,9	0,77
Number of adolescents aged 10 to <20 years	1,4	1,4	1,3	0,85
No. of adults aged 20 to <60 years	2,1	2,0	1,9	0,38
Number of seniors 60 and over	1,6	1,0	1,0	0,14
Number of persons working in the family	1,3	1,5	1,4	0,58
Monthly Family Income (U.S. \$)	410,1	400,8	328,2	0,25
Spending on Food (U.S. \$)	212,6	207,5	163,6	0,04
Spending on health (U.S. \$)	60,4	38,3	50,9	0,60
Total Expenditures (U.S. \$)	356,2	326,9	299,4	0,15
Number of rooms in the house	4,3	3,8	3,7	0,04
No. of rooms used for sleeping	1,8	1,7	1,6	0,15

Source: Direct Research

Spending on food has a very distinctive weight in household expenditure in different income strata, and the regular and adequate access to food in the lower layers is high (absorbs a significant portion of household income) and may compromise access to other goods and services necessary for a dignified life. The low purchasing power conditions somewhat varied pattern of food consumption.

In this aspect, the literature draws attention to the fact that the beneficiary households of income transfer programs already constitute in itself a group with lower income and under increased vulnerability to food shortages and thus more susceptible to food insecurity conditions.¹¹

It is found in Francisco Santos strong relationship between food access and purchasing power within the family, especially in households with an average of four resident members. This fact also shows the reflection on food prices, in constant ascendancy in recent years, which

Bezerra MGS, Mesquita GV, Moura MEB *et al.* therefore requires more resources to purchase a smaller amount and / or quality of genres, to be divided among peers.

One of the survival strategies has been the relative change in eating habits in the poorest feed over cereals, flours and fats providing an increase in body weight. Studies have found relationship between FI and the lowest likelihood of daily consumption of meats, dairy, fruits, vegetables and beans and relate this to the little income available to purchase adequate food, encouraging people to buy foods considered "cheap" and that in general, fattening, such as oil, sugar, pasta and carbohydrates, that is, an extremely dense calorie diet. So food insufficiency can also lead to nutritional deficiency causing damage to health.^{5,12, 13}

Corroborating these findings, research has shown that the relationship between the presence of food insecurity and consumption of food groups with high caloric density and low nutritional value among families with children older than 18 months, justified because of the important role of these in satiety.¹⁴

Other research shows the impact of the consumption of cheap foods with high caloric density and high glycemic level among low-income population, the Bolsa Família Program. The data presented indicate a high rate of overweight and obesity among these individuals. According to the authors, to increase income through the receipt of the benefit from the conditional cash transfer, families began to consume foods with high palatability and high energy density, which would be favoring overweight observed.¹⁵

These researches are consistent with other published recently conducted in Southeastern Brazil, which demonstrate that regardless of the region studied, the factors associated with food insecurity, are the same and must be fought all over the country.^{16,17}

Given the results of this study and the impact of FI described in the literature, it is J. res.: fundam. care. online 2013.dec. 5(6): 234-239

Factors associated with food insecurity... important to note that the contribution that disclosure of such data may allow, as they confirm the factors that are associated with FI, giving subsidies to public policy formulation this area.

CONCLUSION

The results showed a significant association of food insecurity with the following variables: family income, location of household, food expenditures and number of rooms in the house. In view of this, policies for food and nutrition security in Francisco Santos, PI should be the ultimate goal of reducing inequalities with immediate and effective measures to minimize living with hunger and prevent the occurrence of this disease in the community.

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