

PERCEPTIONS OF SOCIAL, ENVIRONMENTAL AND HEALTH CONDITIONS OF FAMILIES LOCATED IN THE MUNICIPALITY OF CAXIAS, MARANHÃO

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Abstract: The relationship between health and environment is beginning to gain prominence due to the intense process of industrialization and urbanization, as this is accompanied by factors that have begun to affect human health. The study aims to analyze perceptions of socio-environmental and health conditions based on information collected from families in a community in the urban area of Caxias, Maranhão. This research was characterized by being quantitative and qualitative and the data collection was done from a questionnaire. The analysis of information was based on the technique of content analysis (qualitative) and through simple frequency in tables and graphs (quantitative). The results show that the factors that may contribute to possible damage to the health of these residents were: consumption of unfiltered water, lack of garbage collection by the municipality, open sewer. The results obtained in this study may contribute to the identification of problems that can certainly affect the families studied and thus provide subsidies to the municipal authorities for the implementation of specific public policies.

Keywords: Environmental conditions. Health. Vulnerable Families.

INTRODUCTION

The World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. This definition seeks to decouple the understanding of a single phenomenon for the production of disease, in addition to retreating from the understanding that health is the absence of disease (PAHO, 2018). The understanding of the unicausal factor associated with illness is currently in disuse, although this may still be rooted in the conception of many people (VEIGA, 2020).

In today's multicausal conception, man is

now conceived as a participant in nature and culture (BORGHI; OLIVEIRA; SEVALHO, 2018). This way, having the biological as a background, the multicausal theory says that the disease is the result of several causes, which are ordered within three categories: the agent, the host (the sick person), and the environment (physical, social and economic) (ARRUDA, 2021).

These factors are interrelated, in constant balance, which would correspond to the notion of health (OLIVEIRA et al., 2021). When something occurs that leads to an imbalance, such as malnutrition, mutation of an etiological agent, or even lack of basic sanitation, we have the disease (MACHADO et al., 2021).

Issues involving the relationship between health and the environment gained ground worldwide, especially after the 1970s (RABELO, 2021). This is because this theme gained emphasis only after the intensification of the industrialization, urbanization process and the incorporation of health-related issues in the agenda of demands of social movements (MACHÍN, 2018).

Environmental and health problems plague contemporary society, which have anthropic actions as their main culprits. (ALMEIDA, 2018). Human actions, such as soil degradation, air, water, domestic environment, and work pollution, have been contributing significantly to environmental imbalances that directly impact human health, especially the most needy populations (SILVA; ASSUNÇÃO, 2019).

This is because these people live in places where the environmental conditions are inadequate, where there is a lack of health services, basic sanitation, lack of decent housing, garbage collection, quality education and live in conditions of food insecurity (VALDIVINO; RODRIGUES; COELHO, 2021). The fact is that

environmental imbalances will multiply existing vulnerabilities and increase the difficulties already faced by people, in social and environmental aspects (MORETTO; SCHONS, 2007).

For the relationship between health and the environment, a multitude of approaches are essential that understand the environment as a result of ecological processes conducted by society, through the application of technologies and techniques with which humans interact with nature (PALÁCIOS; CÂMARA; JESUS, 2004). It is these environments that can pose risk situations for the health and quality of life of human beings. Therefore, it is necessary to understand that issues related to the relationship between health and the environment must be thought of as part of complex systems (PALÁCIOS; CÂMARA; JESUS, 2004).

This, from the perspective of the most vulnerable people, issues involving health and the environment are aggravated, as they are being impacted by a range of conditions that relate beyond the environment, economic, political and cultural issues, as they suffer from fragility in these aspects (DALCIN et al., 2016). Therefore, the identification of healthy living among the most vulnerable requires the analysis of the environmental factors that most influence the health conditions of this population (MAGALHÃES et al., 2013).

One way of combating, or mitigating, the possibly conflicting relationship between the environment and health is the implementation of public policies, such as actions to improve care services. public health, investments in drinking water, reduction of food insecurity, minimum conditions of basic sanitation, and especially educational actions (SANTOS; SILVA, 2019).

Improvements in the living conditions of this population may also reduce the susceptibility of these individuals to the

most diverse disease-causing agents, whether physical, emotional, chemical or biological (MAGALHÃES et al., 2013).

This study aims to analyze perceptions of socio-environmental and health conditions based on information collected from families in a community in the urban area of Caxias, Maranhão.

METHODOLOGY

CHARACTERIZATION OF THE STUDIED PUBLIC

The families who participated in this study reside in a location in the Pirajá neighborhood, in the urban area of the municipality of Caxias, Maranhão. In this place there are families that have lived in the region for more than 30 years, so people from region are descendants of the first ones who occupied the place and are distributed in a total of 19 families.

As a source of income there is the raising of chickens and pigs for sale and consumption, the production of handmade aluminum pots, many work in the local trade and others usually men in times of soybean harvest look for temporary jobs in the state of Mato Grosso.

The site has electricity supply and water for consumption is provided by the municipal public supply system. They do not have a sewage collection network and there is no domestic garbage collection. The street's infrastructure is insufficient, as part of it is paved with cobblestones and the other part is a side road.

These families are served by the Basic Health Unit (UBS), in Vila DNER and the elementary school and daycare that the children attend are also in the aforementioned neighborhood. The region does not have a secondary school. As for the level of education, it is identified that the oldest, many are not literate or have not completed Elementary School I and II. This profile is not identified among younger people, since most have completed high

school.

These are families that are distributed between 4 to 6 members, where few are headed by women. The residences consist mostly of buildings made of brick, with ceramic tile roofing and cement floors. All houses have bathrooms with septic tanks.

METHODOLOGICAL PROCEDURE

The present study presents a quantitative and qualitative approach, because a purely quantitative analysis of the problem would limit the understanding of the situation in question, that is, it would not be able to capture the subjective experiences of those involved in this work.(DROETTI, 2017).

Qualitative analysis was carried out “through content analysis, as it is a very effective methodological instrument for analyzing the most varied discourses” (BARDIN, 1977). As for the quantitative analysis, graphics and frequency tables were used, simple for the description.

The research was characterized by being field research as it consisted in the construction of data on facts and phenomena, as they occur spontaneously in loco regarding them, and in the recording of the variables that are presumed relevant to analyze them (MARCONI; LAKATOS, 2003).

Data for analysis were obtained through a semi-structured questionnaire with 10 (ten) questions, previously defined, mixed between objective and semi-open questions. The application of the questionnaires took place in March 2022. The acceptance to participate was through the signing of a Free and Informed Consent Term.

The research was carried out with only thirteen families, the others did not participate in the study because it was not possible to find a member of the respective families at the time of data collection. Only one of the residents participated in the study, criteria for choosing

the participant were not established, but in the vast majority of cases women were the main participants.

RESULTS

Figure 1 shows the treatment of water for household consumption. Among the interviewed families (n=8) they mentioned consuming water directly from the tap and in a smaller proportion (n=5), they reported the consumption of filtered water.

Table 1 shows the information related to the existence of sewage networks and septic tanks in the residences. What was observed from the information obtained is that (n=13), the existence of a sewage collection network was not mentioned, that is, normally the water used in the bathroom or sink is released directly into the streets. And regarding the disposal of sanitary sewage, all houses where the study took place (n=13) claimed to have a septic tank.

Figure 2 shows the forms of disposal of solid waste from the families interviewed. Among the forms of disposal (n=12), they mentioned that the most common form of disposal is through burning their waste and only (n=1) pointed out that they leave the garbage in the open.

Table 2 presents a description of the materials used for the construction of residences, roofing of houses and composition of the floor. About the material used for the construction of the houses (n=10), they are made of bricks, while only (n=03), they are made of wattle and daub. Regarding the roof of the dwellings (n=13), in all where the study took place it was identified that it is made from ceramic tiles. About the paving of the floor (n=03) is dirt, (n=07) is cement and (n=03) is ceramic.

RESULTS AND DISCUSSION

Socio-environmental conditions are factors

that significantly influence the quality of life of a community, so it is important to carry out studies that aim to relate these two aspects, environment and health, so that alternatives can be offered that seek to prevent possible damage to health. of a population (AZEREDO et al., 2007).

This aspect is not always perceived, this can often be due to low educational level, cultural practices or financial issues, but it is important that communities are able to know how factors related to the environment directly reflect on their health conditions. It is in the face of reports such as the one presented below that it is possible to obtain a panorama from the holistic view of people who live in environments with conditions that are unsuitable for health. "Here at home, when I fill the bottles, I do it at the sink faucet and put it in the fridge to freeze, sometimes I also drink water from the pot, but I don't filter anything, nor do I have a (filter)".

This reality is not restricted to those surveyed, but to countless Brazilian families, especially the most needy (PEREIRA; LIMA; REZENDE, 2018). Water for human consumption, when not properly treated, is one of the main forms of transmission of enteroparasites, such as *Ascaris lumbricoides*, hookworms, *Entamoeba histolytica* and *Giardia lamblia* (VALADÃO et al., 2021). These parasites are related to delays in the neuropsychomotor development of countless children and adolescents in Brazil (SANTOS et al., 2018).

It is relevant to mention that enteroparasites are related to numerous social determinants, such as: access to basic sanitation services, housing conditions and personal hygiene habits (AMORIM et al., 2013).

With regard to the sewage network, it is presented based on the report of one of the study participants, his difficulties in relation to the lack of a domestic sewage collection

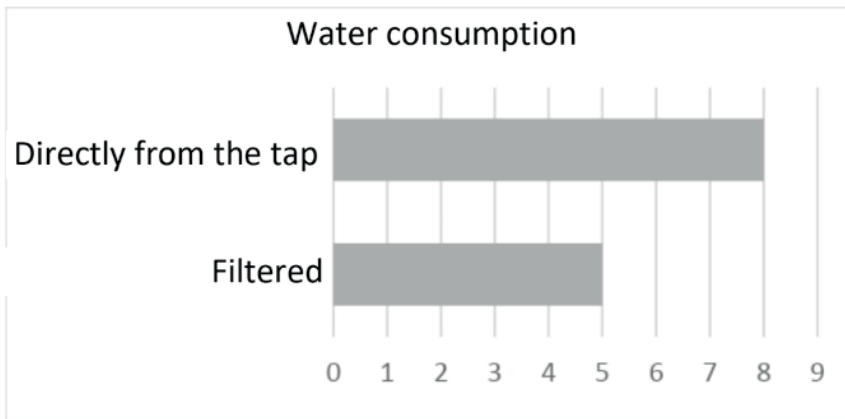


Figure 1- Water consumption, presented among the families that participated in the study.

Source: Authors, 2022.

Sewerage system		septic tank	
Yes	No	Yes	No
0	13	13	0

Table 1- Existence of septic tank and sewerage system, in the community studied in the municipality of Caxias, Maranhão.

Source: Authors, 2022.



Figure 2- Forms of garbage disposal, pointed out by the families in the study.

Source: Authors, 2022.

Wall		Roof		Floor		
Bricks	Stick and daub	Roof tile	Straw	Cement	Beaten ground	Ceramics
10	3	13	0	7	3	3
Total = 13		total= 13		total= 13		

Table 2- Materials used for building the houses, covering the roof and paving the floor.

Source: Authors, 2022.

network. “Here the sewage passes by the door of houses, children sometimes have contact because they walk around barefoot, chickens drink water, cats and dogs too. There are days when there is a strong bad smell and there are also a lot of mosquitoes”.

An initiative that seeks improvements for situations like this was the approval of the new sanitation framework in Brazil in July 2020, this initiative seeks to solve the chronic problems of the sector in the country and bring water and sewage to the entire population, however there are still not many actions aimed at mitigating these issues and when they occur they are concentrated in certain regions of the country, such as the Southeast region (ROUBICEK. Inadequate sanitation is one of the main sources of diseases in various parts of the world and when investments in this area positive impacts on the health of a region are obtained ²⁶.

Another factor also commented on by one of the participants refers to the existence of septic tanks in all residences in the community where the study took place, a fact considered positive in maintaining the health of residents in that region. However, this was not always common among the interviewed families, as the following report points out.

Here, I think that about 10 years ago, most people used the bushes as a bathroom, then things changed and I think that now everyone already has a little bathroom at home. Thankfully, because if it hadn't, it would have been difficult because now there isn't even any forest, because people invaded everything and cut down the forest that was back there.

This technique (septic tank) prevents the release of organic waste directly into rivers, lakes, springs or even on the surface of the soil, and is considered essential for improving the hygiene conditions of populations for whom the construction of sewage networks is impractical (SOUZA, 2019).

Another problem identified in the community is related to garbage disposal. The participant's report below is representative.

Here I think everyone does is burn the garbage, because there is no collection, only food scraps are taken to the mother's house because she raises pigs. The mother is the one who recycles the most here because she works making those recycled aluminum pans, so people live around here selling old aluminum, old pans and aluminum cans.

Unfortunately, the municipality's lack of monitoring of this issue makes community residents feel obliged to take their own initiatives, one of which is the burning of their solid waste. The action is very harmful, since the combustion of household waste causes damage to the environment through the emission of carbon dioxide and causes diseases to human beings (BRAZIL, 2010). Where the burning of plastics existing among the residues promotes the release of digoxin, which is a type of toxic gas, as well as making recycling unfeasible, in addition to providing pollution with the elimination of greenhouse gases (BRAZIL, 2010).

For this issue, it would be necessary to monitor the municipality and educational actions in the community, including an approach to health and environmental risks regarding this type of practice and the importance of recycling (SOUZA, 2019). In a way, some actions involving recycling are identified in the community, such as the statement cited in the previous report.

Regarding housing conditions from the point of view of the environment as a determinant of health, housing constitutes a space for the construction and development of family health, thus, based on on-site observation, it was identified (Table 2) that it is common in the interior of some residences the presence of animals such as chickens, dogs, cats, birds and in some cases even pigs.

In some houses there is an accumulation

of materials that are used in the manufacture of handmade pots, such as old aluminum, charcoal and wood, which can serve as a shelter for venomous animals (scorpions and snakes) or for some animals that transmit diseases (rats, cockroaches, among others). others), thus health in unfavorable conditions of housing and housing favor the spread of respiratory, infectious and parasitic diseases (LOPES, 2005).

FINAL CONSIDERATIONS

This study sought to analyze, based on the information collected, the possible relationships between socio-environmental conditions and the health of residents in a community in the municipality of Caxias, Maranhão.

Among the conditions identified in the community studied, it was found that the factors that most tend to contribute to possible damage to the health of these residents were: consumption of unfiltered water, lack of garbage collection by the municipality, open sewage, however other situations identified in loco, may be significant for possible damage to the community such as prolonged contact with animals inside the residences and/or the accumulated waste inside some dwellings used in their economic activity.

Many of these possible damages to the health of the public studied can be mitigated with the help of the municipality and also with educational measures, since the lack of knowledge and some cultural habits (consumption of pot water) in many cases is considered an aggravating factor of the situation.

The results obtained in this study may contribute to the identification of problems that can certainly affect the studied community and thus provide subsidies to the municipal authorities for the implementation of specific public policies.

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