

# Caregivers' perceptions about preventing childhood hospitalizations for primary care-sensitive conditions

Percepções de cuidadores sobre a prevenção de hospitalizações infantis por condições sensíveis à atenção primária Percepciones de los cuidadores sobre la prevención de hospitalizaciones infantiles por condiciones que requieren atención primaria

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#### Abstract

Objective: To understand the perceptions of caregivers regarding child care for the prevention of hospitalizations due to Primary Care-Sensitive Conditions, such as the diagnosis of gastroenteritis, pneumonia and/or asthma, in Teresina. Methods: This is a descriptive study with a qualitative approach, conducted through a semistructured interview with ten caregivers of children under the age of five years. The analysis of the collected data was based on Bardin's content analysis. Results: It was observed that the culture of immediate care is still very present, which makes the hospital-centric model clear. In addition, impairment in care related to factors such as caregiver coresponsibility, the need to understand the role of Primary Health Care, investments in public policies for basic sanitation in the city and socioeconomic conditions were identified. Conclusion: Financial aspects, both on the part of the user and the health service itself, cultural aspects, poor basic sanitation and lack of knowledge about the role of PHC, make it difficult to prevent PCSC. Therefore, PHC care needs to be reviewed in several aspects, considering financing, qualified human resources and promotion of health education actions.

**Descriptors:** Primary Health Care; Primary Care-Sensitive Conditions; Hospitalization; Child.

#### Whats is already known on this?

The actions focused on reducing infant mortality have contributed to reducing the rate of hospitalizations due to Primary Care-Sensitive Conditions, although they are still high in the Northeast region.

#### What this study adds?

Qualitative studies on Primary Care-Sensitive Conditions are practically scarce, so knowledge of the caregiver's perspective is essential for improving care.



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#### Resumo

Objetivo: Compreender as percepções de cuidadores acerca da assistência à criança para a prevenção de hospitalizações por Condições Sensíveis à Atenção Primária, pelo diagnóstico de gastroenterite, pneumonia e/ou asma, em Teresina. Métodos: Trata-se de uma pesquisa descritiva de abordagem qualitativa realizada por meio de uma entrevista com roteiro semiestruturado com dez cuidadores de crianças com idade inferior a cinco anos. A análise dos dados coletados foi realizada baseada na análise de conteúdo de Bardin. Resultados: Observou-se que a cultura do imediato ainda é bastante presente, o que torna nítido o modelo hospitalocêntrico. Ademais, identificou-se comprometimento no cuidado relacionados a fatores como corresponsabilidade do cuidador, necessidade de compreensão sobre a função da Atenção Primária à Saúde, investimentos em políticas públicas de saneamento básico da cidade e condições socioeconômicas. Conclusão: Aspectos financeiros, tanto por parte do usuário como do próprio serviço de saúde, culturais, saneamento básico precário e o desconhecimento sobre a função da APS, dificultam a prevenção das CSAP. Dessa forma, a assistência na APS precisa ser revista em vários aspectos, considerando financiamento, recursos humanos qualificados e promoção de ações de educação em saúde.

**Descritores:** Atenção Primária à Saúde; Condições Sensíveis à Atenção Primária; Hospitalização; Criança.

#### Resumén

Objetivo: Comprender la percepción de los cuidadores sobre el cuidado del niño para la prevención de hospitalizaciones por Condiciones Sensibles a la Atención Primaria, debido al diagnóstico de gastroenteritis, neumonía y/o asma, en Teresina. Métodos: Se trata de una investigación descriptiva con enfoque cualitativo realizada a través de una entrevista semiestructurada a diez cuidadores de niños menores de cinco años. El análisis de los datos recopilados se realizó con base en el análisis de contenido de Bardin. Resultados: Se observó que la cultura de acción inmediata aún está muy presente, lo que deja claro el modelo hospitalocéntrico. Además, se identificó el compromiso con el cuidado relacionado con factores como la corresponsabilidad del cuidador, la necesidad de comprender el papel de la Atención Primaria de Salud, las inversiones en políticas públicas de saneamiento básico en la ciudad y las condiciones socioeconómicas. Conclusión: Los aspectos financieros, tanto del usuario como del propio servicio de salud, los aspectos culturales, el saneamiento básico deficiente y el desconocimiento sobre la función de la APS, dificultan la prevención del CSAP. Por tanto, la asistencia en APS necesita ser revisada en varios aspectos, considerando financiamiento, recursos humanos calificados y promoción de acciones de educación en salud.

**Descriptores**: Atención Primaria de Salud; Condiciones sensibles a la atención primaria; Hospitalización; Niño.

## INTRODUCTION

Primary Care Sensitive Conditions (PCSC) are conditions that primary care services can prevent, identify, and treat early, avoiding unnecessary hospitalizations.<sup>(1)</sup> Adequate PHC performance results in a reduction in hospitalizations for conditions that can be prevented or treated in a timely and effective manner, in this case, PCSC. In 2008, the Brazilian list of PCSC was published, in accordance with Ministry of Health Ordinance number 221.<sup>(2)</sup> Thus, the list serves as an instrument for assessing hospitalization rates for PCSC and, consequently, access to and quality of the service provided in Primary Health Care (PCC).<sup>(1)</sup>

In recent years, the implementation of actions aimed at reducing infant mortality has contributed to the decline in the rate of hospitalizations for PCSC. In Brazil, there was a 45% reduction in hospitalization rates due to PCSC between 2001 and 2016.<sup>(3)</sup> Even with this reduction, gastroenteritis, pneumonia, and asthma are still responsible for the majority of hospitalizations and mortality, in line with the scenario of regional, social, and health inequalities in the country.<sup>(4-5)</sup>

In Piauí, in 2017, PCSC were responsible for 46,374 hospitalizations, which corresponds to 23.1% of all hospitalizations paid for by the SUS that occurred in the same period.<sup>(6)</sup> Despite the reduction in rates, pediatric hospitalizations are responsible for demanding high expenses for the SUS.<sup>(7)</sup>

The articulation of preventive and assistance actions and services that work to cooperate to change the social framework that affects the population's general health hazards and conditions can be achieved when care is based on comprehensiveness.<sup>(8)</sup> In order for this care to be able to meet the needs, one of the facilitators is the bond developed between the family and the professional. This bond allows meeting the family's needs, problems and priorities, which is essential for organizing a care plan focused on the child, as well as on the reality in which the child is inserted.<sup>(9)</sup>

In this way, approaching the reality experienced by the caregiver, whether this person is from the family or the community, allows for an understanding of how the professionals' conduct is perceived by the caregiver. Furthermore, this converges to visualize the difficulties and facilities encountered in this context.<sup>(10)</sup>

Therefore, it is highlighted that there is a need to understand the caregiver's view on the prevention of gastroenteritis, pneumonia and asthma, since these are the most predominant causes among hospitalizations due to PCSC. Furthermore, the caregiver's understanding of these conditions and the care strategies is essential for the prevention of PCSC.

The particularities, which range from family aspects to services provided in the PHC, are not only intrinsic to the professionals who make the link between the service and the community, but also to the

caregivers. This presents a care based on what is assimilated and considered achievable within the reality in which the caregivers live. Thus, their vision need to be known so that prevention strategies can be planned and operationalized.

It is noteworthy that there is an approach in the literature related to the most prevalent PCSC in the regions of the country with the highest incidence and care developed in the PHC for the prevention of PCSC. On the other hand, there is a gap in the literature regarding studies that address the caregiver's perception in the prevention of PCSC.

In this sense, this study aims to understand the perceptions of caregivers about child care for the prevention of hospitalizations for Primary Care Sensitive Conditions due to the diagnosis of gastroenteritis, pneumonia and/or asthma in Teresina.

## **METHODS**

This is a descriptive research with a qualitative approach. The research was carried out in a city in Piauí, from January to August 2023. The city has four health regions (Center/North, South, East and Southeast), which are responsible for organizing the flow in the Health Care Networks (HCN). According to data from the city's Municipal Health Foundation (MHF), the distribution of primary health services throughout the region is evidenced by the high coverage of the Family Health Strategy (FHS).<sup>(11)</sup>

This research was developed in a Basic Health Unit (BHU) in the south zone. This unit was chosen based on convenience criteria due to its ease of access and because it is a health service in the researchers' field of activity. It is important to note that the Consolidated Criteria for Reporting Qualitative Research (COREQ) instrument was used in the development of the methodology.<sup>(12)</sup>

Ten child caregivers participated in this study, in which the sample was delimited by convenience, with no refusals and no interviews being repeated. Caregivers over the age of 18 who were waiting for care at the BHU and who cared for children under the age of five, that is, children up to four years, 11 months and 29 days, were considered, since gastroenteritis, pneumonia and asthma predominate in this age group. Caregivers who were at the BHU for testing for COVID-19, with flu-like symptoms and those who did not attend the child's other childcare appointments were eliminated. To stop the inclusion of new participants, the theoretical saturation criterion was used.<sup>(13)</sup>

For data collection, the selected BHU was informed in person about the research and received authorization from the Research Ethics Committee of the MHF and the Research Ethics Committee (REC) of the State University of Piauí. Data collection began after the caregivers who were waiting for consultations at the BHU signed the Informed Consent Form (ICF).

The data collection script consisted of two sessions, one of which corresponded to sociodemographic data. The second part consisted of a semi-structured script, which addressed openended questions directed at the predominant conditions in the municipality, gastroenteritis, pneumonia and asthma. Previously, in order to evaluate the script, a pre-test was carried out with two caregivers. It should be noted that they were not included in the research population. This stage was concluded with the improvement of the interview script.

The interview script consisted of the following questions: "What do you understand about gastroenteritis, pneumonia and asthma?", "How do you prevent hospitalizations due to gastroenteritis, pneumonia and asthma?", "Has the child you care for ever acquired any of these diseases? If so, what care did you provide? If you used professionals at the BHU, what care did they provide?", "What are the difficulties and facilities you encounter in preventing these diseases?" and "How do you see the care provided by BHU professionals to prevent gastroenteritis, pneumonia and asthma?"

The interviews were recorded, in voice, with the help of a cell phone. The recording took place with prior authorization, as per the signing of the ICF. The length of the interviews varied between ten and fifteen minutes. As the interviews were conducted, they were transcribed in Microsoft Word ® and sent to the participants for validation.

In order to guarantee the confidentiality of the information, isolated and silent environments were used, restricted to the researchers and the caregiver. The participants were identified by the name of precious stones in order to ensure anonymity, namely: emerald, diamond, tourmaline, pearl, ruby, sapphire, amethyst, alexandrite and opal.

The data analysis used the Bardin content analysis technique.<sup>(14)</sup> This analysis is based on objective and systematic procedures in the handling of the content of the messages, making it possible to obtain

indicators, which favor logical deductions about the message. This type of analysis is governed by the preanalysis, exploration of the material and processing of the results.<sup>(14)</sup>

The pre-analysis, the initial stage, is carried out with the objective of organizing the material, which allows viewing of all the content that will be used in the subsequent stages. This stage allows the formulation of the corpus through a floating reading of the material.

The exploration of the material refers to the implementation of the decisions made in the first stage, followed by coding and categorization of the data. The manual coding consists of the selection of recording units (phrases), which corresponded to 32 units. Thus, they were classified and aggregated into categories. The last stage, processing of the results, was based on the elaboration of inferences and interpretations about the content.<sup>(14)</sup>

The research was conducted in accordance with Resolutions 466/2012 and 510/2016, and was approved by the Research Ethics Committee of the Municipal Health Foundation (MHF) and by the Research Ethics Committee of the State University of Piauí, according to Opinion number 5,874,496.

# RESULTS

Ten female caregivers participated in the interview. Regarding color/race, more than half of the participants declared themselves to be brown. Their ages ranged from 18 to 66 years old, and the majority reported having 12 or more years of education. Just over half of those interviewed said they were single. When asked about their occupation, most caregivers reported being unemployed, with their family being the support network for caring for the children. It is worth noting that only one of the caregivers was a grandmother, the others were biological mothers. All interviewees mentioned that the children had at least one of the conditions studied, and more than half of the cases sought emergency care for the first time.

In addition, it was evident that some caregiving is limited by financial reasons, which interfere with travel to appointments, hygiene measures and autonomy of care, since many share a home with their parents.

After analyzing the content described in the caregivers' statements, it was possible to group them into the following categories: "Care aimed at preventing hospitalizations for PCSC"; "Perceptions about the care developed by professionals to prevent gastroenteritis, pneumonia and asthma"; "Difficulties in preventing conditions sensitive to Primary Care" and "Facilities in preventing conditions sensitive to Primary Care".

### Care aimed at preventing hospitalizations due to gastroenteritis, pneumonia and asthma

The idea of hospital-centered care, marked by a culture of immediacy, is observed when most caregivers mentioned seeking hospital care in the event of a child's illness as a way of avoiding complications. Seeking care at the BHU in these cases is not seen as an option.

When it's diarrhea, I don't like to give the medicine on my own [...], I take the patient straight to the hospital (Emerald).

When she gets sick, I take her straight to the emergency room. I'm not used to coming here [...] (Pearl).

On the other hand, some people are adept at using home remedies prepared with medicinal plants, based on advice from family members.

*I live with my grandmother* [...], so when my daughter starts to get the flu, she always makes thick syrup and my daughter gets better very quickly. (Alexandrite).

When asked about the care they take to prevent gastroenteritis, pneumonia and asthma, they mentioned personal hygiene, food hygiene, environmental hygiene, adequate nutrition, vaccination and avoiding crowded places.

*I take care of his space to play [...] I invest a lot in hygiene, food and vaccinations [...] when I arrive, I wash all organic food before storing it (Diamond).* 

*I give him lots of fruit, his things are separated and scalded, and I wash the fruit with neutral soap (Tourmaline).* 

[...] To prevent this, I use bleach on the floor, I also sanitize his toys, because he puts them in his mouth (Pearl).

[...] He only eats natural food and I am very careful about food hygiene, body hygiene, environmental hygiene and clothing [...] I select places he can go, I don't take him to crowded places and I don't let him have contact with animals (Ruby).

**Perceptions about the care provided by professionals to prevent gastroenteritis, pneumonia and asthma** The development of actions aimed at prevention is highlighted as something that the community needs to seek out at the BHU so that it can have access to this knowledge.

The nurse has already given me several instructions on how to prevent these diseases. We also need to look for the service to get information about prevention (Alexandrite).

Some caregivers make suggestions on how this care should be provided in the service. The need for community health agents to be more present and actively disseminating information was highlighted. In addition, the BHU is mentioned as a space that has the power to attract the community to preventive actions, using active methodologies.

I think that the health agent should be more present, to provide more guidance [...], he/she marks the presence of the BHU in the community, it is always important for him/her to bring information on disease prevention, give tips, talk to residents [...] and visualize the reality of each one (Sapphire).

*I* miss dynamic lectures, because they are also important, everyone has access to information, the issue is that it stays in the minds of the citizen and the BHU has the power to bring this public to action (Opal).

## Difficulties in preventing hospitalizations for Primary Care-sensitive conditions

Prevention of PCSC is interconnected with several factors, many of which make it difficult for parents to provide effective care. Problems such as inefficient basic sanitation, exposure to crowding in schools, public awareness of the role of the BHU in preventing these diseases, centralized interest in government programs, and financial conditions were mentioned by caregivers, as they make it difficult to prevent hospitalizations for PCSC.

It's not easy to prevent these diseases, not at all. We try to be careful, because the streets aren't paved. When it rains, water accumulates and the children play there [...] not to mention that they come into contact with many people at school (Pearl).

*The biggest problem is in the community, because the population lacks awareness about preventing these diseases [...] (Ruby).* 

We come here more because of the government programs I was involved in (Sapphire)

There's one point that I think is very important, which is the lack of basic sanitation, which causes many diseases [...] here in Piauí, the basic sanitation rate is one of the lowest in the country, which leads to many diseases, attracts mosquitoes and so many other things that pose a risk to all of us (Opal).

Sometimes, financial conditions contribute [...] I have a sick boy [...], I don't know what he has, if it's an allergy or something else. He's never gotten better. The doctor even gave me a referral to an ENT specialist, but on the day of the appointment, it turned out that this little boy got sick and I ran out of money, I couldn't take him to the appointment (Amethyst).

## Facilities for preventing hospitalizations for Primary Care-sensitive conditions

Amidst the difficulties mentioned above, participants reported that the best way to prevent hospitalizations for PCSC is through the dissemination of information, community awareness about their rights and duties, as well as actions by the government to improve basic sanitation and extend the opening hours of the BHU.

I think that information would be the main way to facilitate this care (Sapphire)

[...] What contributes is the awareness of each person regarding his rights and duties... if everyone were aware, it would be easier to prevent these diseases, because it does not depend on just one resident, it depends on the collective. And it also depends on the government to improve, mainly, basic sanitation (Opal).

I think that opening the BHU at other times, such as on weekends, would facilitate more visits here and also the prevention of these diseases (Alexandrite).

# DISCUSSION

The results of this study highlighted the multiple factors that can interfere in the prevention of hospitalizations for PCSC. The caregivers' perceptions bring up the discussion of aspects related to health services, the caregiver's own co-responsibility, the need to understand the role of PHC, investments in public policies for basic sanitation in the city, and socioeconomic conditions. The limitations caused by each of these factors compromise the functioning of the HCN.

The HCN has the PHC as its communication center, which is responsible for coordinating flows and counterflows of the health care system.<sup>(15)</sup> In order for the flow of care to occur appropriately and reach the entire community, it is essential that the population understands the service provided at the BHU. However, lack of knowledge about this role of PHC is still common, since some caregivers reported seeking emergency care instead of going to the BHU because they believed that it would not meet their needs.

The availability of PHC services may be limited by factors such as underfunding, which limits resources and, therefore, the resolution of this level of care. At the same time, this raises the question of what image of care is being left to the community, since these limitations are common in these services. Thus, PHC as a gateway for users is seen as a challenge, which may result in overloading other health care points.<sup>(16)</sup>

These aspects also highlight the need to value disease prevention and health promotion, since the focus on disease has historically been established. In the meantime, it is essential to change users' perceptions of the benefits and effectiveness of health practices, when care goes beyond actions based on signs and symptoms. At the same time, this conveys to the users the notion of co-responsibility for their own health, distancing them from the culture of the immediate.<sup>(17)</sup>

This situation is visualized in the speech of a caregiver when she reports that the citizen must also have an active stance to have access to information and care provided by the PHC, since the professionals of the service are prepared to disseminate knowledge about disease prevention and health promotion.

In this way, the role of disseminating information about the services available at the BHU also helps in the continuity of care. Thus, at each appointment, it is essential to clarify about the care that can be developed at the unit and when the patient needs to seek care in an emergency, since this understanding goes beyond facilitating continuity of care, as the overload at other levels of care can also be impacted. In a study conducted in Paraná, it was observed that people treated by some type of PCSC stood out as the main ones in the inappropriate use of the emergency service.<sup>(16)</sup>

The perceptions of caregivers regarding the services offered in the PHC and the advantage of seeking care in an emergency room may be related to several aspects.<sup>(17)</sup> Among these, the following stand out: opening hours, waiting time, availability of medical professionals, opinions of family members, speed in referral for consultation with a specialist, carrying out exams and lack of knowledge about the flow of care in the healthcare network..<sup>(16)</sup>

These interconnected aspects of care contribute to the maintenance of diseases, since the community's knowledge about preventive measures, such as hygiene and immunization, remains lacking.<sup>(18)</sup> This is observed in a study that highlights infectious gastroenteritis as the main cause of hospitalizations for PCSC in children, which also demonstrates the neglect of common clinical symptoms, such as diarrhea and colic.<sup>(19)</sup>

Furthermore, comprehensive care aimed at avoiding gaps and failures in monitoring the child's growth and development must also consider practices at home, such as the use of medicinal plants, especially when the target audience is children, justified by the fact that the community's belief in what is natural outweighs the contraindication and caution in the use of this therapy, but it can pose risks to the child, in addition to interacting with conventional medications. Thus, it is evident that popular knowledge needs to be combined with scientific knowledge so that this audience can benefit from both practices.<sup>(20)</sup>

One factor that strengthens this practice without adequate recommendation from health professionals is the financial factor. Financial conditions often prevent people from going to a health service or make it difficult to follow the prescriptions prescribed by professionals. This scenario is particularly common in countries that face high infant mortality rates, such as South Africa. Due to its low financial situation, the population can only rely on traditional medicine when they have a similar clinical condition.<sup>(21)</sup>

Therefore, socioeconomic conditions end up delaying the search for care in a health service. Delays in this care are reflected in the prognosis and, in most cases, are decisive in seeking care only when the condition is aggravated, and thus this care is provided in emergency services.<sup>(22)</sup> In this context, it can also be mentioned that the greater the socioeconomic deprivation of the municipalities, the higher the mortality rates for PCSC, which highlights the importance of providing equitable treatment to the population.<sup>(23)</sup>

In addition, basic sanitation is considered precarious in the country, with just over half of the population having sewage collection and less than half having sewage treatment, which exposes the population to situations that favor the spread of diseases. This is one of the difficulties faced by the community in preventing PCSC, since it does not depend solely on health services and citizens, as it is also closely linked to the implementation of public development policies, especially basic sanitation.<sup>(24)</sup>

In this sense, there are multiple factors that contribute to strengthening the prevention of hospitalizations for PCSC and, therefore, achieving effective care. Although some of these aspects are not within the scope of the service offered in PHC, coping strategies, with a focus on comprehensive care, allow the development of bonds, bringing the community closer to its rights and duties for the benefit of the community.<sup>(25)</sup>

As the bond is strengthened, the community's knowledge increases, which is reflected in PHC coverage. On the other hand, the reduction in PHC coverage is directly related to the increase in hospitalizations, as was observed in a study carried out in the state of Ceará.<sup>(18)</sup> In these circumstances, these services play an important role in reducing PCSC, given their ability to develop promotion, prevention and treatment strategies.<sup>(26)</sup>

Finally, it is worth highlighting as a limitation of this research the fact that data collection was carried out before or after the consultation without prior communication regarding attendance at the BHU, since this made it difficult for caregivers to adhere, as some mentioned commitments and unavailability to wait.

This research is an important source of contribution to the scientific community, given the scarcity of qualitative studies on this topic. In addition, it was possible to visualize the scenario in which these children are inserted and specific factors that determine the PCSC. This information contributes to the formulation and operationalization of actions with the aim of minimizing hospitalization rates.

# **CONCLUSION**

The study allowed us to understand the caregiver/user's view of the care provided at the BHU. Thus, it is possible to conclude how the perception of care is expanded when the starting point for this reflection are the users, since the users bring to the discussion the main barriers that interfere with access to the service.

Therefore, financial aspects, both on the part of the users and the health service itself, cultural aspects, poor basic sanitation and lack of knowledge about the function of the PHC, make it difficult to prevent PCSC. Therefore, health services need to be prepared to deal with all these aspects related to care, since the way in which this service is offered or when it is no longer offered reflects on the users' view of the PHC.

Thus, assistance in the PHC needs to be reviewed in several aspects, considering financing, qualified human resources, promotion of health education actions to prevent gastroenteritis, pneumonia and asthma and investment in facilitators for the proper functioning of the HCN. Furthermore, the effectiveness of these actions also depends on public policies that aim to strengthen both the health service and infrastructural aspects within the community.

# CONTRIBUITIONS

Contributed to the conception or design of the study/research: Amaral JV, Brandão SASM. Contributed to data collection: Amaral JV, Carvalho SMO. Contributed to the analysis and/or

interpretation of data: Amaral JV, Brandão SASM. Contributed to article writing or critical review: Amaral JV, Leal SRMD. Final approval of the version to be published: Freitas CSC, Torres MV.

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