

Fever in children: parents' search for urgent and emergency services

Pedro Jose Pitoli (<https://orcid.org/0000-0001-8395-4720>)¹

Brenda Katheryne Duarte (<https://orcid.org/0000-0003-2581-9015>)¹

Andressa Amorim Fragoso (<https://orcid.org/0000-0001-8442-5863>)¹

Daniela Garcia Damaceno (<https://orcid.org/0000-0001-8656-009X>)²

Maria José Sanches Marin (<https://orcid.org/0000-0001-6210-6941>)¹

Abstract *The study analyses the understanding of parents or guardians of children aged zero to five years old about fever, the conduct and care for this condition, carried out in the urgent and emergency service. The qualitative research, which used the thematic analysis technique, was carried out through interviews with 14 parents or guardians who sought an urgent and emergency Pediatric Service in a municipality in the countryside of São Paulo for this reason. The experiences of parents who seek these services are associated to three main topics: fear of fever; care for a febrile child; and the experience of care at the urgent and emergency services. It was identified that an exaggerated fear of fever predominates and that parents / guardians feel safe regarding the existing technology found in urgent and emergency services. The adopted precautions, however, are not always those recommended for the existing situation.*

Key words *Child health, Fever, Child care, Parents, Emergency medical service*

¹ Faculdade de Medicina de Marília. R. Monte Carmelo 800, Fragata. 17519-030 Marília SP Brasil. pedropitoli@gmail.com

² Universidade Estadual Paulista Júlio de Mesquita Filho. Botucatu SP Brasil.

Introduction

Fever is a common finding in childhood. Approximately 20 to 40% of children up to the age of five are taken to a medical appointment because of the presence of fever. The concepts about fever and its management, although they have gone through different understandings over time, since the time of Hippocrates in 400 years BC, have been considered beneficial and therapeutic, since fever is a necessary event to restore the health status^{1,2}.

In 1876, French physician and physiologist Claude Bernard carried out a study, in which he verified that animals died when their body temperature rose five to six degrees Celsius above their normal temperature. Therefore, the concept of fever as healthy for the body ceased to be considered in its entirety³.

With the rupture of the paradigm, efforts were made to understand it and, consequently, to control it. Therefore, at the end of the 19th century, new antipyretic drugs were discovered and started being normally used throughout the world. Faced with this context, there was an increase in the demand for visits to the health service and consequent difficulties for the health team in carrying out the diagnostic and therapeutic approach of febrile conditions. Only in the mid-1980s, some criteria, such as the Boston, Milwaukee, Philadelphia and Rochester criteria, were developed and were used as the basis for guidelines and protocols of medical societies, used in clinical practice, with updates being made up to this day⁴.

According to these guidelines, the main issue for a child's initial assessment, regardless of the degree of fever, is the impairment of their overall status, assessed by parameters such as heart rate, respiratory rate, capillary filling time, degree of hydration, activity and responsiveness to stimuli, since fever alone is not a risk factor for assessing the severity of the disease⁵.

Little evidence is found on the association between high fever and disease severity. This was corroborated in a large study carried out in Australia, with 16,000 cases of children with fever, demonstrating a low predictive value in this association, as it was found that less than one, for every 250 febrile children under the age of five, progresses to invasive disease⁶, with this risk being close to 3.2%⁷.

It is also emphasized that, since the introduction of vaccines against *Haemophilus* type b (HIB) and against *Streptococcus pneumoniae*,

there has been a significant decrease in the occurrence of diseases with greater potential for severity, as these agents have been the main responsible for diseases such as pneumonia, meningitis and sepsis in the age group up to three years old⁸.

Even considering all this evidence, this complaint still remains one of the main reasons for seeking urgent and emergency services in Pediatrics, as parents perceive fever as a disease and a risk factor for major complications – seizures or brain damage. The misperception of the facts often occurs because the fever causes an unpleasant physical appearance in the child, generating feelings of fear, anxiety and insecurity in the presence of any new febrile episode. Therefore, these misconceptions generate fear described as 'fever phobia', a term used to define unrealistic fears in relation to this symptom⁹⁻¹¹.

When based on practices and beliefs, fever can be understood from three perspectives: scientific, scientific-pragmatic and phobic-fearful. The first is characterized by the adaptive response and beneficial to the organism; the second is defined by the recognition of the fever function in the body and, even so, being treated by health professionals, due to previous knowledge about fever; the third, the phobic-fearful model, is characterized by high levels of anxiety and frequent fear among parents or guardians¹².

This conceptual disparity on fever emphasizes the need for continuous understanding of the topic in different realities, as it can induce inadequate conducts, even under professional guidance. Therefore, the following questions arise: How do parents or guardians of children aged zero to five years understand fever and the care provided in the urgent and emergency service? What conducts do they adopt in the presence of a febrile condition?

In view of this context, the present investigation aims to analyze the understanding of parents or guardians of children aged zero to five years about fever, its management and the care provided to febrile conditions, carried out in the urgent and emergency service.

Methods

Ethical aspects

The study followed the ethical precepts associated to research with human beings, established by Resolution n. 510, of April 7, 2016, of the National Health Council. The research proposal

was submitted to the Research Ethics Committee with Human Beings of Faculdade de Medicina de Marília (FAMEMA) and approved. The research participants signed the Free and Informed Consent form. For the presentation of results, the interviewees were designated by the letter 'I', followed by a numerical sequence, according to the order of the interviews, from 1 to 14, to ensure anonymity.

Study type

This is a qualitative study, carried out through interviews with parents or guardians who took their children to the urgent and emergency services of a pediatric hospital in a municipality located in the state of São Paulo, Brazil.

Study setting

The hospital where the study was carried out is considered a reference for high complexity cases of the Regional Health Care Network, which has five health micro-regions, with 62 municipalities and cares for an estimated population of 1,128,941 inhabitants. In 2016, the urgent and emergency service treated 407 children diagnosed with fever (ICD for fever in the medical file).

Data source and collection

The study included parents or guardians of children under five years of age who were admitted to the urgent and emergency service with fever complaints. Parents of children with chronic diseases, such as hematological disorders and neoplasms, or other health problems associated with fever, were excluded.

Data collection was performed by the researchers themselves, from September to November 2018, on different days of the week and periods of the day, aiming to attain sample diversification. After verifying that the child arrived at the service with fever as the main complaint, the parent or guardian was invited to participate in the interview. Those who accepted to participate were referred to a reserved room, to maintain their privacy and for comfort.

The interviews were carried out with 14 people, according to a script containing identification data and open questions about the meaning of the fever, the reasons that led them to seek the urgent and emergency service, the conduct adopted in relation to the fever and the opinion

regarding the care received at that service. The interviews, which had a mean duration of 20 minutes, were audio-recorded.

The sample was closed when data theoretical saturation was achieved, i.e., the moment of the research when the collection of new data would not bring further clarification for the studied subject. It is also mentioned that the saturation point, as well as the sample size, results from the heterogeneity of the assessed population. In this type of research, the quantity and quality of information are valued, concepts that are related to its volume and wealth¹³.

Data organization and analysis

The obtained data were the target of the thematic analysis technique, a qualitative analytical method that seeks to identify, analyze, report patterns (topic) and interpret the findings. In this procedure, the topic represents something important to be abstracted from the data in relation to the research question and has a standardized meaning, which may or may not show a high prevalence within the information set¹⁴. More specifically, a topic represents a group of ideas and contains common codes, with a high degree of generality that unifies ideas about the investigated subject¹⁵.

The operationalization of the thematic analysis occurs in six phases that allow successive approximations with the data. However, it is not a linear process, in which one phase precedes the other, being necessary to apply flexibility and be thorough in the interaction with the data to obtain rich and complex perceptions¹⁴. Among the proposed phases to be followed, familiarity with the data is initially set, achieved through data immersion, by repeated readings in order to approach the depth and breadth of the content.

The second phase involves the production of the initial codes from the data. These codes represent the semantic or latent content, which refers to the most basic segment or element of the data. The third phase, the search for topics, is developed based on the list of codes and comprehends the screening of the different ones to create the potential topics. At the end, there will be a collection of topics and sub-topics. In phase four, the time to revisit the topics, refinement is included, and the criteria of internal homogeneity and external heterogeneity are considered for the creation of thematic map. Subsequently, the topics are defined and named, that is, the essence of the subject of each topic is identified. In the

last phase, the analysis and writing of the report are initiated¹⁴.

Results

Regarding the degree of kinship between the interviewee and the child, 12 mothers, one father and one grandmother were interviewed. Age ranged from 25 to 39 years old, with a predominance of those younger than 30 years old. The most prevalent level of schooling was complete High School, followed by incomplete High School. Regarding marital status, the parents/guardians were married, single and had a common-law marriage. The participants came from the municipality itself and from neighboring cities¹⁶.

Based on the initial coding, new contacts were carried out with the data, aiming to the creation of the codes and respective topics, resulting in the final thematic map. As shown in Figure 1, three topics were highlighted: the fear of fever; care for

the febrile child; and the experience of care in the urgent and emergency services.

The fear of fever

When analyzing the meaning of fever, the interviewees expressed their fear of fever, as they associated it with infection, seizure, severe illnesses, belief in the child's low immunity and showed concern with signs and symptoms that left the child weak, tearful, with no appetite, tired and in pain. Fever is understood as a sign that something abnormal is happening in the child's body, and even considering previous experiences that its occurrence has worsened the health status, as can be seen in the fragments:

That something is going on. That something is not normal. The child might have some type of infection. (I3)

I am worried that [the temperature] will become very high and a seizure occurs. (I1)

Ah, because fever can cause seizures. I am afraid. (I12)

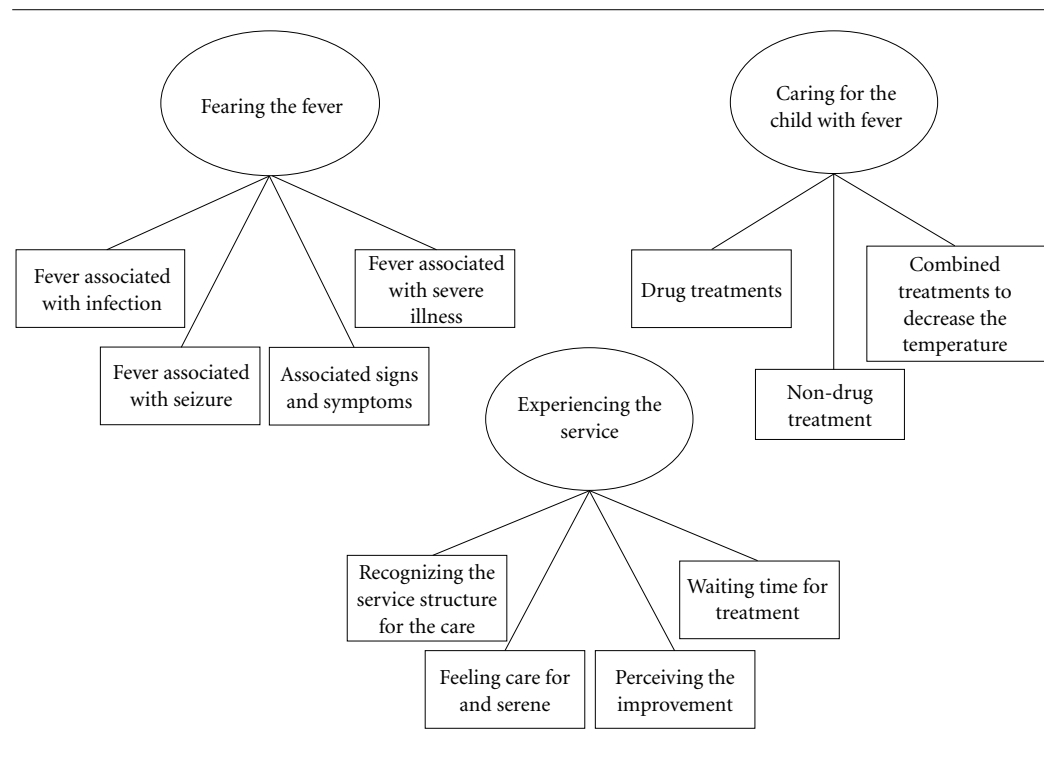


Figure 1. Final thematic map, created based on the interviews with the parents or guardians of the children treated at the urgent and emergency service. Marília, São Paulo, Brazil. 2019.

I am more worried because she is three months old, she is very small, she does not have much immunity, does not have much resilience, just like ... higher ... so, I get very worried. And it never happened to her. This is the first time she had a fever. (I4)

Ah, this swine flu, mercy! I immediately think of it, I get worried about the swine flu. The infection starts somewhere. People say things, I think a doctor said: "oh, if you have a fever, you have an infection". Trying to find out ... like the other time he was here. They did not find anything, I do not know. (I1)

You see the child has some kind of difficulty, she does not want to nurse, she just cries, and she gets ... let me see how she gets, she gets very tired, you know? ... she is not one to cry. (I4)

And then, as a mother, I realized that she was more weary, she only wanted to be held. (I6)

Care of febrile children

Regarding the management of fever in children, the interviewees used drug treatments, non-drug treatments, as well as the combination of both.

As for the drug treatments, the interviewees reported the use of ibuprofen alone and, in case of persistent fever, intercalated it with dipyrone. In addition, double-dose paracetamol was also introduced. The association of dipyrone with paracetamol was also reported. There was also a concern about not medicating the child, as they understood that, when the fever ceased, the urgent and emergency service might not treat their children.

I gave ibuprofen, it would pass. She had to take it every eight hours. So in between these eight-hour intervals, if she had a fever, then I would give her dipyrone. There was one time when the fever was very high, I think it was on Friday, when I gave her the medication every four hours. I gave her dipyrone, it did not solve the problem, then four hours later, I gave her paracetamol. It is just that I even gave her a double dose, because seven drops were not going to have an effect on the fever. (I2)

I gave her the number of drops that was adequate for her weight. She weighs eleven kilograms. I gave her eleven drops of acetaminophen. Then it helped to lower the fever. (I9)

I gave dipyrone and also paracetamol. The grandmother also did it, intercalating them. (I10)

At the time, I thought that if I gave her medicine, she would not be treated here. Ok ... / I: I would come here, the fever would be down, they

were not going to treat her, give her the care she needed, because she did not have a fever. (I14)

The non-drug treatments used by the parents/guardians included a lukewarm bath, placing a wet cloth on the child's forehead and removal of warm clothing. A bath containing drops of alcohol was also mentioned.

First, I put a wet cloth on his forehead. Because at that moment, I was out of medication. (I3)

Then, I give her a lukewarm bath. Until she improves. If after all of that she does not improve, this is when I bring her to the emergency room. (I8)

I give her a bath with lukewarm water. And if the fever is very high, I put two drops of alcohol in the water. The bath is in the tub, with lukewarm water in the tub, and I let her cool down with the water. (I11)

The parents/guardians also indicated that they used combined measures to control the fever

I bathe her, give medication, the fever goes down, but then it goes up again. (I4)

I give him dipyrone. And in addition to the dipyrone, I put him in the bath. (I9)

Experiencing the service

Regarding the urgent and emergency service, the interviewees indicated a favorable structure, that they observed improvement, felt cared for and serene. However, some pointed out the delay in being treated.

As for the favorable service structure, they said that it allows a detailed assessment of the situation, as well as good service in case of worsening of the condition, which made them feel secure, as expressed in the following fragment of speech.

But, here, it is something more like that ... that they have the resources to treat the case if he has something. There is an ICU, if something more serious occurs. So, there is a larger structure here than in BHU. It gives me security. (I10)

The care for the child with fever in the urgent and emergency service, as perceived, gives the parents/guardians a feeling that the child is being cared for, that she is taking the right medication and undergoing tests. All this contributes to the improvement of the condition, that is, to the disappearance of the fever, leaving them serene. Moreover, the parents/guardians maintained the expectation that this improvement would persist, according to the statements below.

They really talk about all that she really has. They take care of her. Give the medication, prescribe the right medication. (I4)

So, then, she is fine. Her blood test, urine test... she has to improve a little bit more. But, I am more relaxed. (I6)

Better, she has improved a lot. She has already improved. The fever is gone, there are only a few pains, but the expectation is for a complete improvement. This is our hope; that she will improve. (I7)

For the study participants, one inconvenience in coming to the urgent and emergency services is related to the delay for this care to occur.

It took them a little while to treat her, I think we stayed here for two and a half hours. (I2)

At first, it took a while, but as he was very feverish, the treatment was quicker afterwards. (I11)

Discussion

According to the speeches of the interviewees who took their children to the urgent and emergency services due to the presence of fever, we identified, essentially, the manifestation of great fear towards the presence of this clinical sign, since for them the fever represented an indication of disease, often a severe one. In addition, the concerns intensified with the signs and symptoms resulting from it, as they can modify the child's behavior in relation to decreased food intake and lead to weakness.

It can be observed that the presence of fever makes the population seek the health services more often, and the time between the onset of fever and seeking care is very short. In different regions of the world, in which the knowledge and management of fever were investigated, some practices have been discouraged, essentially the fact of taking the child to the urgent and emergency services without this being really necessary¹⁷.

A systematic review of fever phobia showed that seizures are the main concern, as it is a frightening experience, especially for the parents. However, the administration of antipyretics does not solve the problem¹⁸. Recently, a study was able to show a decrease in the prevalence of febrile seizures with the use of rectal paracetamol¹⁹.

Concerned about the low immunity of their children, parents or guardians seek urgent and emergency services. Knowing that fever is a necessary manifestation for a better host immune response, a study showed that of the 1,097 children with fever who were medically treated, only 0.4% showed a possible evolution to an invasive disease⁶. The risk of complications in the presence of fever was found to be close to 3.2%⁷.

It is also necessary to consider the findings of studies that analyzed the reasons why parents seek urgent and emergency services in cases of fever. It should be noted that the parents/guardians evaluate this service as the most appropriate place to take their children, which congregates a specialist's consultation, investigation and treatment of the disease quickly and effectively. Another aspect that contributes for parents to take their children to urgent and emergency services in case of fever is the easy access to the service, due to the fact that it is close to them or because it is open at a time when primary care services are closed^{20,21}.

It is recognized that excessive concern with fever, due to the correlation with situations that are not always real, leads to unnecessary tests, indiscriminate and inappropriate use of antibiotics, antipyretics and analgesics, as well as the suffering of parents and their children^{22,23}. An important point to be understood in this discussion refers to the fact that the prophylactic use of antipyretics does not prevent complications².

It is important to note that there is no link between professionals and the family at the urgent and emergency service, which makes it difficult to assess the parents' capacity to determine a possible worsening in the clinical picture, leaving doubts regarding the assurance of the children's monitoring. Moreover, at these services, following the risk protocols becomes more difficult, even if these represent a potential advance in the approach of patients presenting with unfocused fever.

Fever by itself does not require treatment, and the guidelines recommend that treatment should be directed towards the relief of symptoms concomitant with the clinical picture, and not just lowering the temperature as the only objective. Moreover, it has been observed that it is not uncommon for parents to offer an under or overdose of medications and use other intercalated measures, which are often uncomfortable and unnecessary²³.

Despite the evidence in relation to fever, the use of antipyretic medication is performed by more than 50% of parents, and monotherapy is still used by about 67% of caregivers²⁴⁻²⁷. Alternation of medications and / or concomitant use of two antipyretic drugs have also been reported in the literature, as found in this study. The recommendation is that simultaneous drugs should not be used, due to the risks of undesirable side effects and/or overdose. The alternating of two medications should only be performed in case

of persistence of symptoms that cause discomfort/ distress for the child, not with the specific objective of decreasing the temperature, as also observed in this study¹⁶.

In addition to drug treatments, the interviews disclosed several other methods that were used to lower the temperature. According to the results of other studies, these methods are less frequently used, namely: lukewarm baths, cold compresses, removal of clothes, increasing the supply of liquids, sponges soaked in alcohol or vinegar and plant infusions²⁷⁻²⁹.

Many of these measures aimed at decreasing the body temperature are not recommended, since they generate more discomfort than benefits to the child. Increasing fluid intake constitute a relevant measure in case of fever, since dehydration is one of the main complications of fever in children under 11 months²⁷, which was not mentioned by the interviewees in this study.

A literature review study that analyzed the changes in behavior and knowledge of parents about fever over the course of three decades, disclosed sporadic differences throughout these years, showing the persistent of an important gap between the knowledge and behavior of parents/guardians and the recommendations of the health agencies³⁰, highlighting the phenomenon of cultural inertia³¹. It is noteworthy that this phenomenon also affects health professionals. Some data have shown this condition occurs for different reasons: many pediatricians are mainly concerned with the child's discomfort and the nurses are concerned with the most feared effect: the fever-induced seizure³².

In the context of great concern with the presence of fever in children, many parents/guardians seek the health services because they do not feel safe regarding its management²⁰. Consequently, they seek the evaluation by a health professional to reassert that the fever is not associated with serious diseases and, consequently, to calm their fears^{22,33}.

Hence, the parents' fantasies about their children's health and disease processes are recovered, making them seek somewhere else for what is lacking in them. From the psychoanalytic view, when a fact is fantasized, it can be recalled as if it truly occurred. In fantasies, there is a contrast between the psychic reality and the material reality. In the world of neuroses, the psychic reality prevails³⁴.

Regarding the thematic in which the parents/guardians of the children with fever expressed their understanding of care in urgent and emer-

gency services, it was observed that they consider the structure and care offered as satisfactory, including the presence of devices that provide them with security. In view of this fact, it is necessary to consider that the user's evaluation of the assistance received in the health care service has as an essential focus on the affective aspect of the experience; although it represents an important aspect of the quality of assistance³⁵ in the health area, the user cannot always have a clear understanding of its actual meaning.

From this perspective, in the last decades, with the promulgation of the new Federal Constitution, a new model of health care has been proposed by the Brazilian legislation, which widely defends a generalist care, focused on health promotion, from an interdisciplinary perspective, with a view to overcome the fragmented biologist model, focused on specialties and high-density technologies.

However, even with all the effort that has been made, it can be observed that the idea that the assistance received in the urgent and emergency service occurs more effectively due to equipment, proximity to the Intensive Care Unit resources, in addition to the complementary exams that can be offered, still prevails among parents and guardians, and even in cases of fever without clear signs of its origin. A study carried out in the capital of the state of Minas Gerais, (Brazil), with mothers who take children to the emergency services for non-urgent reasons, also identified that the fact of being treated by a pediatrician, having the physical structure and the possibility of having complementary exams available contributes to this behavior²⁰.

The condition of seeking urgent and emergency services without actually requiring it, however, has a personal and social cost, starting with the great demand created, which compromises the treatment of situations of greater complexity, also resulting in an increase in health care costs. An alternative to this condition is the implementation of risk classification in urgent and emergency services, which, although represented an important way of organizing the demand, does not always satisfy users, who consider their own problem as more relevant when compared to the professionals' assessment³⁶.

One weakness of the study is the lack of the analysis of health professionals' understanding and conduct when facing this situation, showing that their perception is complementary when determining the interventions in the presence of signs and symptoms of fever.

The data in this study contribute to raise the health professionals' awareness about the need for educational actions with children's parents or guardians, since the care in the case of fever, according to the guidelines, contributes to less stress for the parents, greater comfort for the children, in addition to the rational use of antipyretics and antibiotics.

Final considerations

The interviewees, the children's parents or guardians who took them to the emergency service due to the presence of fever, attribute this necessity to their great fear, as they associate fever to serious infectious diseases, seizures and low immunity. To care for their children with fever, they used

drug treatments, non-drug treatments, as well as the combination of both, not always following the adequate criteria. As for the care received in the urgent and emergency services, they felt safe and confident in the high-density technology found in the assessed scenario.

Therefore, interventions aimed at this population are necessary, aiming to reassure and support them, so they can feel safe when dealing with this common clinical sign in children, since it is a manifestation of the child's own body protection against diseases and, in most cases, showing a benign evolution. Additionally, further studies are required to show how health professionals, especially those working in primary care, deal with this reality, as they are the main professionals that can help parents manage the situation while relying on scientific evidence.

Collaborations

PJ Pitoli - Participated in the study concept and design, data collection and analysis, and writing of the final report. BK Duarte, AA Frago and DG Damaceno - Participated in the study concept and design, data analysis, and writing of the final report. MJS Marin - Participated in the study concept and design, data analysis, and writing of the final report.

References

- Magni AM, Scheffer DK, Bruniera P. Antipyretic effect of ibuprofen and dipyron in febrile children. *J Pediatr* 2011; 87(1):36-42.
- NICE Guideline Updates Team (UK). *Fever in under 5s: assessment and initial management* [internet]. London: National Institute for Health and Care Excellence (UK); 2019 [cited 2019 Nov 26]. Available from: <https://www.nice.org.uk/guidance/ng143>
- Razón Behar R. Fiebre fobia. *Rev Cuba Pediatr* [periódico en internet] 2011 [acceso en 2019 Nov 26]; 83(4):431-441. Disponible en: <http://scielo.sld.cu/pdf/ped/v83n4/ped11411.pdf>
- Mekitarian Filho E, Carvalho WB. Current management of occult bacteremia in infants. *J Pediatr* 2015; 91(6 Supl. 1):S61-S66.
- Fernandes TF. *Febre não é doença, é um sinal* [internet]. São Paulo: Sociedade Brasileira de Pediatria de São Paulo; 2019 [acessado 2019 Maio 26]. Disponível em: http://www.spsp.org.br/site/asp/recomendacoes/Rec87_2.pdf
- Bustinduy AL, Chis Ster I, Shaw R, Irwin A, Thiagarajan J, Beynon R, Ladhani S, Sharland M, CABIN network. Predictors of fever-related admissions to a paediatric assessment unit, ward and reattendances in a South London emergency department: the CABIN 2 study. *Arch Dis Child* 2017; 102(1):22-28.
- Kool M, Elshout G, Moll HA, Koes BW, van der Wouden JC, Berger MY. Duration of fever and course of symptoms in young febrile children presenting with uncomplicated illness. *J Am Board Fam Med* 2013; 26(4):445-452.
- American College of Emergency Physicians Clinical Policies Committee, American College of Emergency Physicians Clinical Policies Subcommittee on Pediatric Fever. Clinical policy for children younger than three years presenting to the emergency department with fever. *Ann Emerg Med* 2003; 42(4):530-545.
- Purssell E. Antipyretic use in children: more than just temperature. *J Pediatr* 2013; 89:1-3.
- Peetoom KK, Ploum LJ, Smits JJ, Halbach NS, Dinant GJ, Cals JW. Childhood fever in well-child clinics: a focus group study among doctors and nurses. *BMC Health Serv Res* 2016; 16:240.
- Patricia C. Evidence-based management of childhood fever: what pediatric nurses need to know. *J Pediatr Nurs* 2014; 29(4):372-375.
- Purssell E. Fever in children-a concept analysis. *J Clin Nurs* 2014; 23(23-24):3575-3582.
- Cecília M, Minayo M. Amostragem e saturação em pesquisa qualitativa: consensos e controvérsias. *Rev Pesqui Qual* [periódico na Internet]. 2017 [acessado 2019 mar 23]; 5(7): 1-12. Disponível em: <https://editora.sepq.org.br/index.php/rpq/article/view/82/59>
- Braun V, Clarke V. Using thematic analysis in psychology. *Qual Research Psychol* 2006; 6(2):77-101.
- Vaismoradi M, Jones J, Turunen H, Snelgrove S. Theme development in qualitative content analysis and thematic analysis. *J Nurs Edu Practic* 2016; 6(5):100-110.
- Pitoli PJ, Fragoso A, Duarte BK, Damaceno DG, Marin MJS. Febre em crianças: significado atribuído por responsáveis que procuram serviço de urgência e emergência. *Atas do 8º Congresso Ibero-Americano em Investigação Qualitativa: Investigações em Saúde*; 2019 jul. 16-19; Lisboa, Portugal. Lisboa: CIAIQ; 2019. p. 985-993.
- Pérez Polo A, Bartolomé Ferrero A. Actitud y conocimiento de los padres sobre la fiebre. *Rev Pediatr Aten Primaria* [periódico en internet] 2016 [acceso en 2019 Nov 26]; 18(72):e209-e216. Disponible en: <http://scielo.isciii.es/pdf/pap/v18n72/1139-7632-pap-18-72-0e209.pdf>
- Clericetti CM, Milani GP, Bianchetti MG, Simonetti GD, Fossali EF, Balestra AM, Bozzini MA, Agostoni C, Lava SAG. Systematic review finds that fever phobia is a worldwide issue among caregivers and healthcare providers. *Acta Paediatr* 2019; 108(8):1393-1397.
- Lanzlinger D. Reduction in recurrence of febrile seizures with paracetamol use. *J Paediatr Child Health* 2019; 55(1):116.
- Rati RM, Goulart LM, Alvim CG, Mota JA. “Criança não pode esperar”: a busca de serviço de urgência e emergência por mães e suas crianças em condições não urgentes. *Cien Saude Colet* 2013; 18(12):3663-3672.
- van Ierland Y, Seiger N, van Veen M, van Meurs AHJ, Ruige M, Oostenbrink R, Moll HA. Self-referral and serious illness in children with fever. *Pediatrics* [serial on the internet]. 2012 [cited 2019 Nov 26]; 129(3):e643-e651. Available from: <https://pediatrics.aappublications.org/content/pediatrics/129/3/e643.full.pdf>
- Bont EG, Loonen N, Hendrix DA, Lepot JM, Dinant GJ, Cals JW. Childhood fever: a qualitative study on parents' expectations and experiences during general practice out-of-hours care consultations. *BMC Fam Pract* [serial on the internet]. 2015 [cited 2019 Nov 26]; 16:131. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4597376/pdf/12875_2015_Article_348.pdf
- Chiappini E, Bortone B, Galli L, Martino M. Guidelines for the symptomatic management of fever in children: systematic review of the literature and quality appraisal with AGREE II. *BMJ Open* [serial on the internet] 2017; 7(7):e015404. [cited 2019 Nov 26]. Available from: <https://bmjopen.bmj.com/content/bmjopen/7/7/e015404.full.pdf>
- Wallenstein MB, Schroeder AR, Hole MK, Ryan C, Fijalkowski N, Alvarez E, Carmichael SL. Fever literacy and fever phobia. *Clin Pediatr (Phila)* 2013; 52(3):254-259.
- Burokiene S, Raistenskis J, Burokaite E, Cerkauskienė R, Usonis V. Factors determining parents' decisions to bring their children to the pediatric emergency department for a minor illness. *Med Sci Monit* 2017; 23:4141-4148.
- Figuroa FN, Forero J, León JA, Londoño AC, Echandía CA. Detección, manejo y percepción materna de la fiebre en niños, Cali, Colombia. *Rev Fac Med* 2012; 60(1):40-49.

27. Bertille N, Pursell E, Hjelm N, Bilenko N, Chiappini E, Bont EGPM, Kramer MS, Lepage P, Lava SAG, Mintegi S, Sullivan JE, Walsh A, Cohen JF, Chalumeau M. Symptomatic management of febrile illnesses in children: a systematic review and meta-analysis of parents' knowledge and behaviors and their evolution over time. *Front Pediatr* [serial on the internet] 2018 [cited 2019 Nov 26]; 6:e279. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6183237/pdf/fped-06-00279.pdf>
28. Enarson MC, Ali S, Vandermeer B, Wright RB, Klassen TP, Spiers JA. Beliefs and expectations of Canadian parents who bring febrile children for medical care. *Pediatrics* [serial on the internet] 2012 [cited 2019 Nov 26]; 130(4):e905-e912. Available from: <https://pediatrics.aappublications.org/content/pediatrics/130/4/e905.full.pdf>
29. Nijman RG, Oostenbrink R, Dons EM, Bouwhuis CB, Moll HA. Parental fever attitude and management: influence of parental ethnicity and child's age. *Pediatr Emerg Care* 2010; 26(5):339-342.
30. Poirier M, Collins E, McGuire E. Fever phobia: a survey of caregivers of children seen in a pediatric emergency department. *Clin Pediatr (Phila)* 2010; 49(6):530-534.
31. Pereira GL, Tavares NUL, Mengue SS, Dal Pizzol TS. Therapeutic procedures and use of alternating antipyretic drugs for fever management in children. *J Pediatr* 2013; 89(1):25-32.
32. Martins M, Abecasis F. Healthcare professionals approach paediatric fever in significantly different ways and fever phobia is not just limited to parents. *Acta Paediatr* 2016; 105(7):829-833.
33. Maguire S, Ranmal R, Komulainen S, Pearse S, Macnochie I, Lakhanpaul M, Davies F, Kai J, Stephenson T; RCPCH Fever Project Board. Which urgent care services do febrile children use and why? *Arch Dis Child* 2011; 96(9):810-816.
34. Silva VCC, Santiago J. "Embelezamento dos fatos" à "cicatriz": uma investigação sobre a fantasia em Freud. *Psicol Teor Pesqui* [periódico na Internet]. 2017 [acessado 2019 Nov 26]. 33:e33419. Disponível em: <https://www.scielo.br/pdf/ptp/v33/0102-3772-ptp-33-e33419.pdf>
35. Inchauspe JAF, Moura GMSS. Aplicabilidade dos resultados da pesquisa de satisfação dos usuários pela Enfermagem. *Acta Paul Enferm* 2015; 28(2):177-182.
36. Oliveira JLC, Gatti AP, Barreto MS, Bellucci Junior JA, Góes HLF, Matsuda LM. Acolhimento com classificação de risco: percepções de usuários de uma unidade de pronto atendimento. *Texto Contexto Enferm* [periódico na Internet] 2017; 26(1):e0960014. [acessado 2019 Nov 26]. Disponível em: https://www.scielo.br/pdf/tce/v26n1/pt_0104-0707-tce-26-01-0960014.pdf

Article submitted 27/04/2020

Approved 03/06/2020

Final version submitted 05/06/2020

Chief editors: Maria Cecília de Souza Minayo, Romeu Gomes, Antônio Augusto Moura da Silva.