



Knowledge, Attitude and Beliefs of Parents Regarding Fever in Children

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Aim: To assess the knowledge, attitude and belief of Parents about fever in their children and how they respond to it while at home and when they seek medical attention.

Objectives: The purpose of this study is to know the preexisting knowledge of parents about fever in their children and to impart additional knowledge to them.

Materials and Methods: A Cross- Sectional study in the form of a questionnaire was conducted at a tertiary care hospital among parents of children visiting the outpatient department and those admitted as inpatient with fever. Children who presented to the emergency room and those with chronic illnesses were not included. Majority of the primary caregivers was the child's mother, and family becomes the 1st point of contact for the intervention, hence we chose family. As per our department that at least 80% of children were primarily brought to OP for fever, and 90% of those admitted in wards were for febrile illnesses, with or without other associated problems, we asked the statistician to come up with an adequate number and we were given.

Results: A total of 100 parents were selected and interviewed. The informants were mostly mothers (83%). Most of the children were brought to outpatient department within the first five days of onset of fever (68%). The parents said that they confirmed the fever by touch(86%)and most of them prefer to consult the pediatrician before giving any medication (56%).The most common

symptoms which were seen associated with fever are cough, cold and running nose (54%). The most common cause for worry amongst parents are complications like febrile seizures (43%).
Conclusion: Fever is one of the most common complaints with which patients come to the hospital. Majority of parents in this study do not have the practice of documenting fever at home with a thermometer. Inadequate parental knowledge about the nature of fever can lead to poor management. Appropriate education helps them to take appropriate measures when their child develops fever.

Keywords: Fever, childhood, parents, knowledge.

1. INTRODUCTION

Fever is defined as an increase in body temperature above the set normal point in an individual. The normal core body temperature is between 35.8 – 37°C [1], which is maintained by the temperature center in the hypothalamus. Fever can be due to infectious and non-infectious processes that interact with the host's defence mechanism and mediated by cytokines like IL-1, IL-6, TNF- α , Interferons – β , γ . These pyrogens stimulate prostaglandin (PGE2) production which gets attached to the prostaglandin receptor in the temperature center of the hypothalamus and increases the set temperature point [2]. Fever is said to occur in children when the body temperature is more than 37°C. Fear and anxiety attached to fever by most mothers and it is often called as 'Fever Phobia'. Most of the parents and family members start to worry as the temperature of the child rises, fearing the possibility of any complication. Medical professionals need to help parents to maintain calmness during their child's illness, educate them about the warning signs, and understand their anxieties better, which will help improve parental perception and management of fever in their children. A majority of childhood illnesses which require medical attention present with fever as the primary complaint, many of which are treated at home before approaching the hospital [3]. An assessment of parent's perception to recognize fever and associated symptoms in their children,

their home management practices both scientific and unscientific, and suggesting corrective measures is the focus of this study.

2. MATERIALS AND METHODS

The study was done prospectively in which interviews were taken.

2.1 Total Study Population

100 children aged less than 15 years

2.2 Study Duration

January to March 2021 (3 months)

2.3 Location

Outpatient and in patient department of tertiary care medical center

2.3.1 Exclusion criteria

- i. Children who presented to the emergency room
- ii. Those with chronic underlying illnesses which will predispose to recurrent fever like Immunodeficiency, Type 1 Diabetes mellitus, Chronic kidney disease, Cerebral palsy, Vesico – ureteric reflux
- iii. Children greater than 15 years old

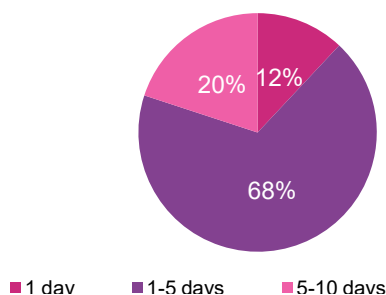


Fig. 1. Duration of fever

2.4 Method

Information was taken regarding demographics of the parents and the children, parent's perception of fever and its management by interview method. The questionnaire was prepared by the investigators and standardized before being used in the study. Responses of the parents were filled into the questionnaire. The collected data was entered in MS-Excel and was analyzed and statistically evaluated by Descriptive technique. Quantitative data was expressed by mean and standard deviation and qualitative data was expressed by the percentages.

3. RESULTS

3.1 Demography of the Parents and their Children

In our study, the informants were mostly mothers 83(83%). Out of which 63(63%) are home makers coming from rural areas. The

monthly family income of both parents was mostly (5000- 10000) (45%).

56(56%) of the children in the study were males. Most of the children were in the age group of (1-5 years)43(43%). The duration of fever in majority of children mentioned was between 1 to 5 days (68%).

3.2 Parental Knowledge of Fever

In our study only few parents 9(9%) use the thermometer for the detection of fever. Majority 86 (86%) of them perceived as hotness of the whole body.

3.2 Management of Fever by the Parents

In this study, majority of the children had Respiratory symptoms 54 (54%) like cough, cold, running nose, nose block. Some parents 61(61%) restricted the child's diet to fluids like milk and reduced the intake of rice which is the staple food in the region.

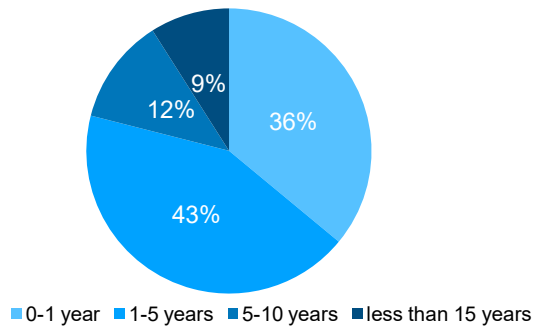


Fig. 2. Age of the Children

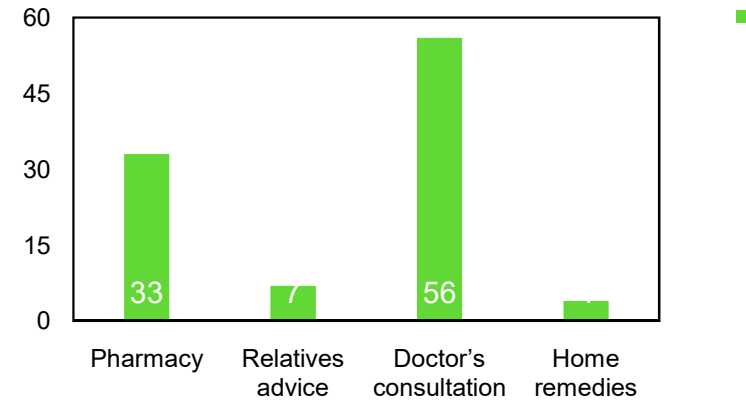


Fig. 3. Various modes of Management

Almost all the parents 98(98%) have given medication to their children. Majority of them 56(56%) have consulted the Doctor. Preferred supportive ways of fever management at home adopted by the parents include home remedies like turmeric milk and cold-water tepid sponging 4(4%), paracetamol syrups 33(33%). Few of the parents 7(7%) have given medication based on their relatives advice.

4. DISCUSSION

In the present study, the children in the age group of 1-5 years were most common. This is similar to the study done by Whitburn et al [4] wherein the most common reason for coming to an outpatient clinic for a child was fever and earache. In a study conducted in Jordan by Athamneh et al,[5] parents believed that 38°C or 39°C are the normal body temperatures of a small child while approximately 14% considered a child with a temperature of (96.8°F) or (98.6°F) as feverish, more than 97% of parents believed that there is potential harm from fever if left untreated, with brain damage (58%) being the most frequently reported side effect, then seizure (20%). This is similar to our study where parents feared the possibility of seizures after fever. In a study done by Teng C L, mothers often use touching to detect fever in their children [6] The sensitivities of maternal touching for fever were

70.6–97.3%, in such a situation, we can accept maternal touch as sensitive method to detect fever in children, however it will be better to confirm by checking the temperature. In a study conducted by Ekaete, ibuprofen is more effective in the treating fever in under-fives compared to paracetamol [7]. In our study 98 (98%) parent's used medications to bring down the fever. Majority of parents 56 (56%) in this study, claimed to have derived this information from doctors which is similar to the study done by Mallick [8] in which Majority of parent's (98.3%) agreed to have visited a doctor for fever. This is similar to our study. Maximum number of parents 43(43%) in this study feared seizures as the complication of fever. In a study done by Maryam Ravanipourn [9]. Almost all mothers were worried about side effects, particularly febrile seizures. This is similar to our study. In this study parents also believed fever can cause complications like typhoid and dengue 30(30%). This is similar to the study done by Yukti Sharma [10]. It is evident from the present study that there is considerable awareness and fear among the parents of children regarding fever, which leads to inappropriate practices for management. It is recommended that health education regarding management of fever should be provided to the parents at every contact with the health care providers.

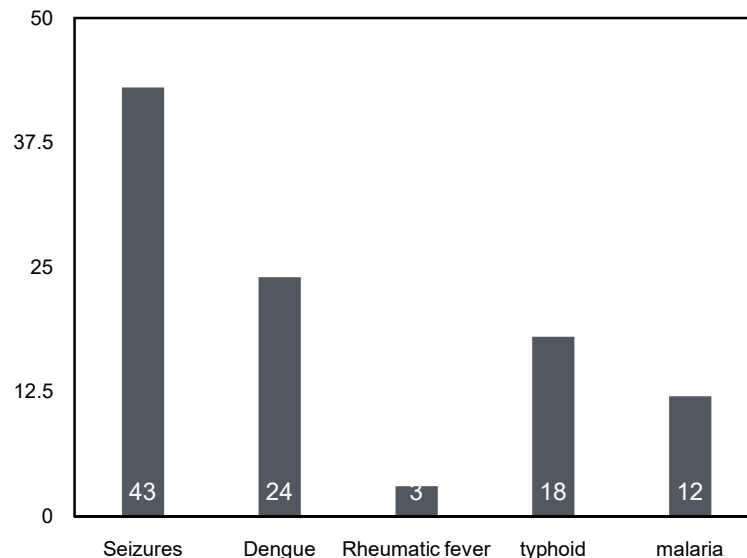


Fig. 4. Fever related Complications

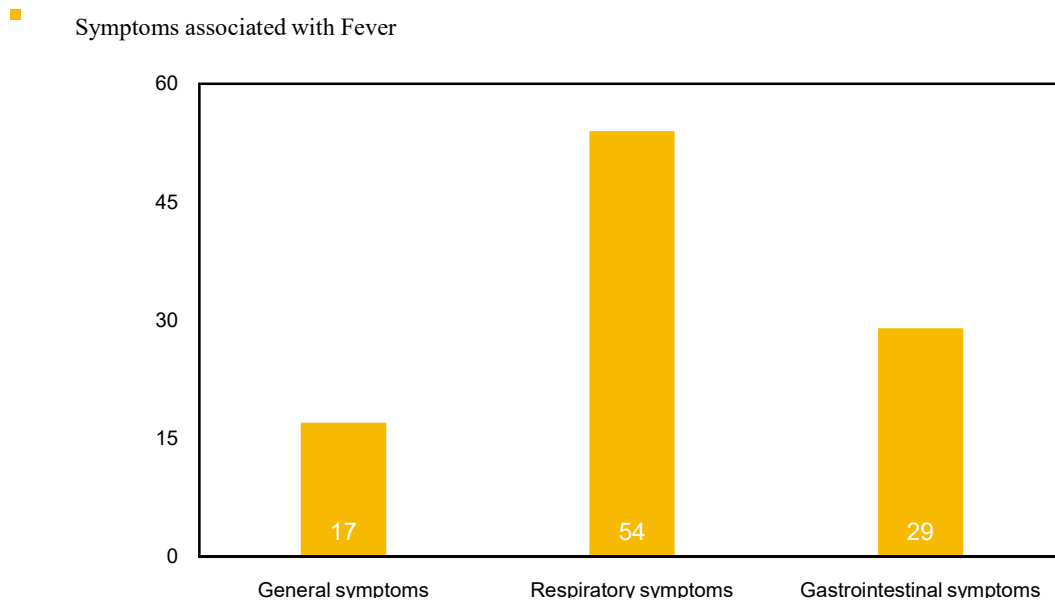


Fig. 5. Comparative profile of general, respiratory and gastrointestinal symptoms

5. CONCLUSION

There is a need to strengthen the awareness regarding fever amongst parents. Parents of symptomatic children are prone to be more anxious than those whose children's symptoms have resolved [11]. Parents need to be educated when they consult health care facilities. Most of the children experienced fever within five days and most of the children are immunised as per the age. Lack of parent's knowledge about the nature of Fever and how they should deal with it can lead to poor management [12]. Majority of the parents have consulted the Doctor before providing any medication. Respiratory symptoms were seen along with fever. Diet intake is limited during fever in their children. Seizures are the main fever related complication that are known to parents. Parental education and emotional support are important interventions, and information may need to be repeated depending on the parent's anxiety and education level [13].

6. RECOMMENDATIONS

Fever is a symptom and not a Disease. Measurement of Temperature is the first step in managing fever among children [14]. Body temperatures outside normal ranges may be indicative of underlying disease processes and should be identified within a timely manner. Maintaining a stable body temperature within normal ranges assists in optimising metabolic

processes and bodily functions. Encourage the child to take adequate fluids to avoid dehydration. The provision of accurate information on the causes and treatment of fever can help in providing care [15]. Providing health education about the warning signs as to when they should bring their child to hospital in the setting of fever is important to ensure timely diagnosis and treatment is given to the child and also to allay the anxiety amongst parents.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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KNOWLEDGE, ATTITUDE AND BELIEFS OF PARENTS REGARDING FEVER IN CHILDREN

QUESTIONNAIRE

1.Name

2. Age

- 0-1 year
- 1-5 years
- 5-10 years
- >10 years

3.Gender

- Male
- Female

4.Address

5. Occupation

6. Family income per month(per month)

- 1000-3000
- 3000-5000
- 5000-10000
- >11000

7.Has your child affected with fever?

- Yes
- No

8. If yes, for how many days?

- Less than 5 days
- 1-5 days
- 5-10 days
- >10 days

9.What do you do to confirm that your child has fever?

- Touch method
- Thermometer
- Others

10. Do you observe any associated features along with fever?

- Yes
- No

11. If yes,

- General symptoms- poor appetite, Body pains, lethargy, irritability, chills rigors, headache
- Respiratory symptoms- cough, cold, running nose, nose block
- Gastrointestinal symptoms- diarrhoea, vomiting, abdominal pain

12. What do you feed when your child has fever?

- Normal diet- idly, sambhar
- Restricted diet- fluids only
- Bread, rice, milk

13. Do you give any medication to your child?

- Yes
- No

14. If yes, what

- Pharmacy- paracetamol, syrups
- Relatives advice
- Doctor's consultation
- Home remedies- turmeric milk, cold compresses

15. Is your child immunized till date?

- Immunised
- Not immunized
- Partially immunized
- Not sure

16. Is your child prone to any allergic reactions

- Yes - if any
- No

17. Are you aware of the fever related complications

- Yes- if any
- No

18. Fever related complications (if yes)

- Seizures
- Covid
- Dengue, malaria, typhoid
- Rheumatic heart disease
- Others

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