Awareness of under Five Children Mothers towards Homecare of their Febrile Children in Mayo Arbaeen Quarter, Wad Medani, Gezira state, Sudan (2015)

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MMBS (University of Alfasher, 2009)

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Family Medicine

Department of Family Medicine and Community
Faculty of Medicine

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By:
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**Supervision committee**

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Date: Mayo / 2016
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Date of Exam: / /2016
Quran

"ولقد خلقنا الإنسان من سلالة من طين (12) ثم جعلنا نطفة في قرار مكين (13) ثم خلقنا النطفة علقة
فخلقنا العلقة مضغه فخلقنا المضغة عظاما فكسعنا العظام لحما ثم أنشأنا خلقا آخر فتبارك الله أحسن الخالقين (14)"

سورة المؤمنون
Dedication

To:

My family, my father and to my mother, my husband and my children.

Maha
Acknowledgement

All salutes are for Allah and no one is equal to him.

My sincere thankfulness to Dr. Alrayh Mohammed Ahmed, professor of community medicine, University of Gezira, for his advisory effort that made this dream come to true and what so ever he has offered me from his knowledge. He did not hesitate to dedicate his knowledge and time for me, and giving his arguments in this field.

Also, my thanks extend to Dr. Osman Hamid Abduelhameed for his help.

I would like to express my special thanks to the staff of Abu Sinon, and the mothers of under 5 children in Mayo 40 for the help and assistance that without them this study could not be achieved.

My thanks also extend to my colleagues for their continuous help in many ways.
Awareness of under Five Children Mothers towards Homecare of their Febrile Children in Mayo Arbaeen Quarter, Wad Medani, Gezira State, Sudan (2015)

Maha Daffalla Ahmed Qusmalla

Abstract

Fever is a common childhood problem, awareness of mothers towards home care of their febrile children determine by their knowledge about fever, causes, associated symptoms, management and complication. Also by attitude of mothers regard home management of fever and that can affect on the general health of febrile children and prevent worse complication. This is a descriptive cross-sectional community base study, aimed to determine the awareness of under 5 years children mothers towards home care of their febrile children in Mayo 40 in Wad Medani, Gezira State, Sudan, 2015. The study based on primary data obtained from a sample of 250 participants was selected by simple random systematic sampling from under 5 years children mothers resides in Mayo 40. The data was collected through structured interview by using questionnaire. The data was analyzed by statistical package of social sciences (SPSS) computer program, Chi-square test is used to determine the association between variables. The study revealed (47.2%) of participant in the age group 20-30 years old, (78.4%) of the participants were housewife, (52.00%) of them were secondary educated and most of the households were in moderate economic status (61.57%). Knowledge about fever, causes and associated symptoms and complication was in general good. Regard practices towards fever (51.6%) of participants went to health facility, (26%) started management at home and (51.2%) of them management of fever at home by drugs. Most of mothers (82%) use antipyretic drugs, (91.2%) chose Paracetamol, only (10.4%) determine the antipyretic right dose correctly and majority of mothers (95.7%) didn’t know about the antipyretic side effects. The study concluded there were some associations between knowledge about fever and educational level. In conclusion, the overall knowledge of the participants towards home care of their febrile children was good, but the attitude was moderate, most of the them misuse the antipyretics medications and also poor knowledge about side effect of antipyretics medications. This study recommends education program for mothers to raise their awareness towards home management of fever and further researches and are essential to strength the quality of services provided to.
مستوى الوعي بين أمهات الأطفال دون سن الخامسة اتجاه المعالجة المنزلية للحمى بمنطقة مايو 40 - محلة مدينة الكبرى
ولاية الجزيرة – السودان 2015

مها دفع الله أحمد قسم الله

ملخص الدراسة

تعتبر الحمى إحدى المشاكل الصحية السائدة لدى الأطفال، حيث يعتبر مستوى وعي أمهات الأطفال دون سن الخامسة اتجاه المعالجة المنزلية للحمى من خلال معرفتهم بالحمى، أسبابها، الأعراض المصاحبة لها، المضاعفات، وكيفية المعالجة المنزلية، في تحسين حالته، المصاب بالحمى وتفادي المضاعفات الجانبية. هذه الدراسة وصفية مقطعية مضمنة هدف لقياس وعي المجتمع بخير مايو 40 ومدينة ود من مستوى المعرفة بين أمهات الأطفال دون سن الخامسة اتجاه المعالجة المنزلية للحمى بمنطقة مايو 40 خلال شهر مايو 2015. بنيت هذه الدراسة على معلومات أولية تم الحصول عليها بواسطة عينة (250) مشارك من أمهات الأطفال دون سن الخامسة من منطقة مايو 40. تم استخدام العينة العشوائية البسيطة المنظمة، وقد تم جمع البيانات من خلال مقابلة منظمة مسبقا باستخدام الاستبيان. تم تحليل البيانات عن طريق الكمبيوتر بواسطة برنامج الحزمة الإحصائية للعلوم الاجتماعية. تم إجراء اختبار كاي لقياس العلاقة بين المتغيرات وكشفت الدراسة أن (47.2%) من المشاركين في الدراسة كانت أعمارهم ما بين 20 و 27 سنة. وجدت الحالة الصحية متى لم تتمكن الأمهات من الاعتراف بالحمى (51.4%) وقيمة (70%) لم يتمكن الأسر من التواصل مع أمهات الأطفال في حالة تعرض أطفالهم للحمى. (26%) فقط تنص على الاعتراف بالأعراض والعلاج. (51.2%) يستخدم الأدوية لمعالجة الحمى في المنزل. (82%) من الأمهات اعتمدت استخدام الأدوية في حالة تعرض أطفالهم للحمى. (91.2%) يستخدمون الأدوية كعلاج حرومية. كما وجدت الدراسة أن فقط نسبة (10.4%) من الأمهات اعتمدت استخدام الأدوية في حالة تعرض أطفالهم للحمى. (91.7%) لا يعرفن الأعراض الجانبية للأدوية ومتناول المرضى بوجه عام عن عناية المشاركات عن الحمى، وحدها على عكس مشكلاتهم في المعالجة التي عكست نسب متوسطة، وجود سوء استعمال لعلاج الحرومية وانعدام المعالجة في الأعراض الجانبية لها. وخرجت الدراسة بالوصورات التي تتعلق بزيادة وعي الأمهات عن طريق البرامج التعليمية وعمل بحوث ودراسات أخرى.
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Chapter one

1.1 Background:

Fever is the common childhood problem, it makes children’s feel unwell, it still one of the commonest reasons parents bring their children for medical attention (1).

Fever is defined as rectal temperature above 38c, oral temperature above 37.8c and auxiliary temperature above 37.4c, It begins with the release of endogenous pyrogens into the circulation in response to the presence of various infectious toxins and other mediators [1].

Fever in itself is not illness, It is a method by which the body fights infections, It could be a manifestation of infections and non-infectious diseases is often difficult to identify the causes, in some cases due parasite infection such as malaria which is a leading causes of fever in Sudan and sub-Saharan Africa, in other cases due to viral infection self limiting or serious bacterial infection such as urinary tract infection, measles, pneumonia, meningitis….., fever can result serious complication such as convulsion-dehydration, hypoglycemia. [1,2,9].

The management of the condition itself result in the management of fever, most febrile episodes are managed at home before consultation in a health facility, globally 85.7% of children were reportedly at home base, in Sudan 90% were treated at home base, home management of fever by mothers had remained symptomatic in most of African country, only a few mothers correctly managed her febrile children [1,3,4,9].

Mothers usually use antipyretic treatments such as Paracetamol and ibuprofen, physical methods are also used include; tepid sponging, bathing, fanning, and cooling blankets, were some group of mother use anti malaria or antibiotic symptomatic without laboratory investigation or seeking medical advice[13,14].

antipyretics have been and remain the preferred method for reducing fevers for many mothers and prefer to treat fever with antipyretics rather than physical method, many mothers not known the correct dose of antipyretics according to the weight, the dose of drug give to the children according to the last dose gave by the doctor or by read leaflet of the drug so that in too low, high or frequent doses with incorrect dosing more common in younger and low weight children, also not known the adverse effect of the drug like paracetamol were able to identify liver problems, gastritis as a potential adverse effect (13,14).

The goals of home care for a child with a fever are to reduce the temperature, prevent complication like convulsion hypoglycemia, dehydration and reduce mortality rate of children, also assess and monitor for serious or life-threatening illness[14].
Early diagnosis and prompt treatment are the basic elements of fever control that shorten the duration of the disease and prevent the development of complications which great majority of it is death, so that the mother's knowledge and perceptions about the cause of fever, duration of sickness, accessibility and the anticipated cost of treatment, frequent use of traditional medicine, and the perceived intensity and severity of sickness were the main factors that determined early and effective treatment of children under 5 years [10].

The mothers knowledge of normal and febrile temperatures is poor, attitudes toward fever remain negative, Beliefs about harmful outcomes from fever like brain damage, febrile convulsions and death, dehydration, hypoglycemia are poor irrespective of mother education or socio-economic status (13).
1.2 Problem statement:

Fever associated with common serious childhood illnesses among the top causes of morbidity and mortality in children under 5 year, more than 4.4 million children die every year in sub-Saharan Africa and most them die from fever at home without receiving adequate therapy [1].

High incidence children under 5 years suffer from fever , It estimated one third of all Pediatric consultations in general practice ,60% per year reporting in Sudan, under 5 years children mortality rate is 70 deaths per 1000 live birth in 2015 and 49% of them due to febrile illness in Sudan [ 1,7].

Usually there is lack of evidence about incorrect knowledge, beliefs and practices of mother regard febrile children [2].

Awareness of under 5 years children mothers toward home care of their febrile children is the first step to improve childhood morbidity and mortality due to common childhood illnesses [1].

1.3 Justification:

Fever is common complain of children under 5 years mother who attended in Abu sinon health center seeking advice for their febrile children and was observed during practicing that mothers has limited knowledge and false beliefs regard fever, also noticed there is delaying and inappropriate management of their febrile children at home by self medication even without laboratory investigation and that may lead to worse complication.

There is no previous study has been conducted to assess awareness of under 5 years children mothers towards home care of their febrile children in Mayo 40,wad Medani city, Gezira state , Sudan.

Therefore this the study will be carried as attempts to assess the knowledge , attitude and practical of under 5 years children mothers regard febrile children and how management at home base in Mayo 40.
1.4 Objectives:

**General objective:**

To assess awareness of under 5 years children mothers towards home care of their febrile children in Mayo 40, Great Medani Locality, Gezira State, Sudan in June 2015.

**Specific objectives:**

1. To determine knowledge, attitude and practice (KAP) of mother towards homecare of childhood fever for under 5 years children.
2. To identify knowledge of the mothers about the possible causes of fever.
3. To identify the methods of detecting fever by mothers at home base.
4. To determine the methods used for fever management of children under 5 years at home base.
5. To identify knowledge of the mothers about the drugs using for fever management, how to calculate right dose of lowering fever drugs and further more their knowledge about side effect of the antipyretic drugs.
Chapter Two

2.1 Literature review:

The IMCI strategy is an approach to address the overall health of children by encompassing a range of interventions to reduce the proportion of childhood mortality.

Many of the infectious diseases assessed, classified, and treated using the IMCI guidelines have fever as a secondary cause. For example, many children with an upper respiratory tract infection, pneumonia, or ear infection will have fever. Children with dysentery and diarrhea may also have fever[6].

According to IMCI strategy, teach the mothers to give paracetamol for febrile children and measure the right dose listed in the table:

<table>
<thead>
<tr>
<th>WEIGHT</th>
<th>AGE</th>
<th>Paracetamol 6 hourly</th>
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<tbody>
<tr>
<td>2-3 KG</td>
<td>Under 2 months</td>
<td>2ml</td>
</tr>
<tr>
<td>3-&lt;5KG</td>
<td>2 up to 6 months</td>
<td>2.5ml</td>
</tr>
<tr>
<td>5KG-&lt;8KG</td>
<td>6 up to 12 months</td>
<td>5ml</td>
</tr>
<tr>
<td>8KG-&lt;12KG</td>
<td>1 up to 3 years</td>
<td>7.5ml</td>
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<tr>
<td>12-&lt;15KG</td>
<td>3 up to 4 years</td>
<td>10ml</td>
</tr>
<tr>
<td>16-&lt;20KG</td>
<td>Over 4 years</td>
<td>12.5ml</td>
</tr>
</tbody>
</table>

While these conditions all cause fever, the management of the condition itself results in the management of the fever.

2.2 Pathophysiology of fever:

Fever is elevated body temperature above normal level, it begins with the release of endogenous pyrogens into the circulation in response to the presence of various infectious toxins and other mediators.

These endogenous pyrogens reach the anterior hypothalamus via the arterial blood supply and release arachidonic acid which is metabolized into prostaglandin E2 (PGE2) resulting in an elevation of the hypothalamic thermostat and hence elevation of the body temperature above normal level[1].
2.3 Knowledge of the mothers:

2.3.1 Fever:

Regarding knowledge of the mothers about fever was perceived by them as hotness of the of the whole body of her child, usually mothers use body temperature to determine one’s state of health, measure of body temperature usually by palpation of her child’s head or feeling the limb of her child and also by using thermometer. Mothers are usually anxious about maintaining a “normal” temperature in their sick child, which leads many mothers to administer medications to their children even if there is minimal or no fever.

Studies report in African countries that mothers not determined the limit of normal and high body temperature for her children, they classify mild fever as high and actively reduce temperatures, sometimes normal temperatures, with incorrect doses of antipyretics. Also, have false beliefs and limited knowledge regarding fever, causes, management, and its role in illness, so there is knowledge of normal and febrile temperatures is poor.

Mothers report normal body temperature to range between 35.0°C and 37.2°C. In the United Kingdom many parents expected body temperature to be normal on a hot summer’s day, parents define temperatures between 37.0°C and 39.0°C as febrile with 38.0°C the most common.

2.3.2 Management of Fever:

Regarding knowledge of the mothers about the drugs using in the management of fever at home base antipyretics like paracetamol, mefanmic acid and ibuprofen have been and remain the preferred method for reducing fevers for many mothers rather than physical method like reducing additional clothing or tepid sponging.

Mothers’ knowledge about the effectiveness, appropriate dosing, and frequency of antipyretics, and concentration differences between antipyretics drugs is questionable, they possess incorrect knowledge about them.

Mothers expect antipyretics to reduce temperatures to normal and for the temperature to remain lowered for longer than the therapeutic time period, globally most of mother reported paracetamol improved their child’s well-being (46%), prevented febrile convulsions and brain damage. Some mothers were unaware there was an upper daily limit for safe paracetamol administration to children although an overdose of paracetamol could be dangerous, fewer were aware of the possibility of liver toxicity.

Knowledge about the effectiveness of antipyretics influences mothers decisions to seek medical assistance and failure of fever to respond to antipyretics is frequently the reason parents attend emergency departments.
Incorrect antipyretic dosing was reported nearly two decades ago. Only 32% to 35% of mothers’ correctly, many mothers administer antipyretics in too low, high or frequent doses with incorrect dosing more common in younger and low weight children[1].

Also there is incorrect beliefs about the concentrations of children’s paracetamol liquid and drops and dosing for the child’s age or height of the fever[13].

Regarding knowledge of the mothers about physical method using by mother for treating febrile children at home base, cooling are often recommended. The methods that are cheap, readily available and most commonly used include; tepid sponging, bathing, fanning, and cooling blankets are widely used by mothers for cooling the body during fever by reduces heat through conduction or evaporation[9].

The common adverse effects of physical methods include shivering, crying, and discomfort. Sponging with cold water may cause peripheral cooling, but the constriction of the blood vessels can actually cause heat conservation [9].

**2.3.3 complication of fever:**

Regarding knowledge of the mothers about complication of fever, most of mothers fear that untreated fever could lead to convulsion mainly, dehydration, hypoglycemia, brain damage and death.

**2.4 Causes of fever in children:**

Fevers are common in young children, they are usually caused by viral infections that go away on their own, such as the common cold, also fever can be caused by bacterial infections such as upper respiratory tract infection, pneumonia or ear infection, gastroenteritis, or parasite infection such as malaria.

On rare occasions a fever can be a sign of a serious illness such as a severe bacterial infection of the blood (septicemia), meningitis.

Occasionally, your child may develop a fever as a symptom of a specific condition rather than as a result of an infection, for example, certain blood disorders and autoimmune disorders may cause a fever. In this case, the fever lasts for longer than one associated with an infection.

**2.5 Diagnosis of fever in children:**

**Symptoms of fever in children:**

A child with a fever may feel tired, look pale, have a poor appetite, be irritable, have a headache or other aches and pain, feel generally unwell.

Fever can occasionally be a sign of a serious infection, contact your GP immediately or take your child to hospital if they are:

- Under three months of age
- Unusually sleepy or difficult to wake up
- Have bluish or mottled skin
- Have cold hands and feet
- Have a weaker than usual, high pitched cry or won’t stop crying
- Have difficulty breathing or are breathing very quickly
- Have a stiff neck
- Are vomiting
- Develop a rash that doesn’t disappear when pressed
- Have a fit
- Behavior changes and irritability

**Taking history should include:**

How long has the fever been present , has the mother been measuring temperature, by what method?

Is there a rash, are there any respiratory symptoms - eg, cough, runny nose, wheeze , has the child been pain at their ears, has there been excessive or abnormal crying, are there any new lumps or swellings, are there any limb or joint problems, is there any history of vomiting or diarrhea , has there been any recent travel abroad, has there been any contact with other people who have infective diseases, Is the child feeding normally (fluids and solids as appropriate), ask about urine output and pain during micturation.

If children drowsy, have there any convulsions or rigors, Is there any significant past medical history/regular medication/allergy.

Other points to consider from the history: has there been a previous serious illness or death due to febrile illness in the family?

Has the child been seen before in the same illness episode?

**Examination of the child:**

- **Identify any immediately life-threatening features:** assess airway, breathing, circulation and consciousness.

- **Measure body temperature**

- **Look at the skin, lips and tongue color:** normal/pallor/mottled//blue
- **Look at the activity level of the child**: responsive/content and smiling/awake or easily arousalble/normal cry.

**Examine the respiratory system**: Measure the respiratory rate.

Look for nasal flaring/grunting/chest in drawing, auscultate the chest for crackles or wheeze, Measure oxygen saturation, if possible.

**Examine the cardiovascular system**:

Auscultate the heart, check pulse volume normal or weak, blood pressure should be measured if the heart rate or capillary refill time is abnormal and there are the facilities to measure it.

**Assess the level of hydration**: exam in the eyes and skin look normal, or there reduced skin turgor, are the mucous membranes moist, the capillary refill time? (NB: a capillary refill time ≥3 seconds should be considered an intermediate-risk group marker for serious disease ('amber' sign), extremities warm or cool, and the child feeding normally urine output reduced.

**Examine for other features**:

Rash, any new lumps, limb or joint swelling, there normal or bulging fontanelle, there neck stiffness, there focal neurological signs/convulsions, Perceived symptoms associated with fever were as decreased appetite, vomiting, decreased activity, refused feeding, headache,… [14].

**2.6 Complications of fever**:

**Convulsions**:

Children between about 6 months and 5 years old may have a febrile convulsion if their temperature rises quickly.

This is not abnormal; about 4% to 5% of all children have at least one fever-related convulsion.

Febrile convulsions generally last less than 5 minutes and are not harmful, the child’s face may turn blue and the arms and legs may shake uncontrollably.

Even though these convulsions are likely the result of a febrile convulsion, just to be sure you should call your doctor immediately after the seizure stops (or after 5 minutes if the seizure continues) to rule out serious infection or other possible problems.

**Dehydration**:

Contact to doctor if the children cries without tear, dry mouth without saliva, Igor to drink, or if children be arousable.

**Hypoglycemia**:
Symptoms of hypoglycemia the children be cold exterametes, rigor, deterioration level of consciousness, immediately should be give the children sweet or honey.

2.7 Home care of febrile children:

The three goals of home care for a child with a fever are to reduce the temperature, prevent dehydration, and assess/monitor for serious or life-threatening illness.

- If your baby has a fever, remove extra blankets and clothing so heat can leave her body and help lower the body temperature but don’t take off all your child's clothes, because she may become too cold and start shivering, which makes more body heat and will cause her temperature to rise again, Sponging your child with tepid sponging not recommended.

- Give regular fluids: breast milk if the child is breast-fed.

- Monitor for signs of dehydration: sunken eyes, depress fontanel, dry mouth, absence of tears, poor appearance.

- Antipyretic treatment: Give either Paracetamol or ibuprofen for discomfort or distress.

Across section study was conducted on 2007 to determine mothers intentions to reduce childhood fever in western Nepal in Australia, (8.9%) started treatment of fever at home, (64 %) of the mothers intended to reduce fever with anti pyretic, also founded education, number of children, and health industry experience had some influence on attitudes of correct management of fever (15).

Another cross-section study was conducted in 2009 to determined mothers' home-based management of fever in under 5 years children in Uganda, the result found immediately action taken when the child developed a fever gave antipyretic about( 43.4%) , (52%) of mothers mention malaria is the major cause of malaria, (53%) of mother in the age group 20 -30 years, (59,3%) of mothers married, (36,7%) of mothers primary level educated, (54,2%) moderate socioeconomic state, (59%) mothers preferred to have their children medically treated rather than instituting symptomatic home-based treatment of treatment, in conclusion found the mother had some knowledge about fever, the age of the mother, level of education and socioeconomic state affect in the mothers management to the fever (17).

There was a descriptive cross sectional hospital based study was carried out Hospital between June to November 2010 amongst mothers who brought their children to the Pediatrics outpatient clinic of the University of Port Harcourt in Nigeria to assess Mothers' Perception of Fever Management in the children under five years, the (74.8%) of the participants in the study had good knowledge about fever, The commonest identified symptom associated with fever was lack of appetite in (71.5%), (47,0%) mothers believed fever is caused by malaria, (70,9%) gave her child paracetamol for treatment the fever at home, (67,7%) believe convulsion is the common complication of fever, (76.2%) of the mothers measured their children's body temperature by a touch.
on their fore heads, (76.9%) children treated for fever at home prior to presentation in the hospital, the study concluded there was good knowledge of fever and its management amongst the participants in this study (1).

A descriptive hospital based study was carried out in 2011 assessed the perception of Fever Management in Children under 5 years old in Nigeria ,by using data from Lagos teaching hospital ,in the study founded most mothers (83.3%) were knowledgeable about fever, (66.7 %) of mothers management of fever at home , malaria being a major cause of fever in the children(54.2%) ,home medications used in the treatment febrile children by their mothers is antipyretic about (60.8% ), (96%) chose paracetamol as antipyretic , symptoms associated with fever is decreased appetite (47.9% ) , also majority of the mothers(75%) believed convulsions the common complication of fever ,(83.3%) of mothers detect the fever by touch the forehead of her child ,(85.5%) of mothers do not know the side effect of the antipyretic(14) , the study concluded malaria being a major cause of fever in the children, need to create more awareness on the use of drugs amongst the mothers(14).

Also cross-Sectional Study was conducted in 2014 to identifies factors that must affect mother knowledge, attitude and beliefs of childhood fever management in Jordan ,showed (22.8%) of mothers has 2 children per house hold ,(33.3%) 1 year is the age of the youngest children ,(92,1%) of mothers married ,(62%)of mothers education level is university or post,(63.4%) of family is moderate socioeconomic state , brain damage (58%) being the most frequently reported side effect ,(65.1%) of mothers use paracetamol for treated fever at home, (47.7%) of decided the dose of fever lowering drug by Previous advice from the pediatrician ,(36%) of mother’s measure of child’s temperature by using their hand , by using the mercury-in glass thermometer is (32%) , we also found that more than 98% of mothers use physical in addition to medication to treat fever [5].

In the study found there was poor awareness of the risk associated with misuse the antipyretics medications, incorrectly manage their child’s fever, follow inappropriate practices to reduce fever, and generally have poor knowledge of basic information regarding fever and in the antipyretic dose , age, and level of education were associated with mother knowledge and choice of routes to administer fever-lowering drugs (2).

Across- section study was conducted in 2015 to determined mother perception and home management of pyrexia in under 5 years children in Nigeria by using data from yenagoa city , show mean age of children between 5 month -2 years , male to female ratio  1:1 , (57%) of the mothers less than 30 years old, (33%) mother primary educated , most utilized method for detected the fever is touch the forehead (90%),(63%) of mothers recognized fever by increase body temperature ,action taken by the febrile children home treatment by self medication (31%) , self medication using at home (8%)administered antipyretic,(54,3%) of mother mentioned the malaria is the common cause of fever , (35%) gave their children anti malaria , (31%) mothers treat fever at home ,over all found of this study suggest the mothers had minimal knowledge of fever
, method for detecting fever and started management by aggressive treatment by abuse of anti malaria, all this effect negatively regarding home management of fever, educational level not participate in the knowledge of fever but strong correlation with management of fever and use self medication (3).

In Sudan across-section study was conducted in 2007 to investigate the mothers knowledge and perceived causes of fever in kassalla, the result found most of mother (85.7%) had at least basic education and (69.7%) full-time housewives, (67.7%) mothers were found to have adequate knowledge about fever, (77.4%) malaria was the commonest febrile illness in the study area, Self-treatment at home with antipyretic reported in this study was (25%) , (91.1%) mothers reported consulting the health facility for treatment of fever if not relieve , In conclusion the study found mothers with children under 5 years had adequate knowledge about fever (13).
Chapter Three
Method & material

3.1 Study Design:
Cross-sectional, descriptive community based study.

3.2 Study area:
The study carried out in Mayo 40, Wad Medani city, Great Medani Locality, Gezira State, Sudan.

It is located in the eastern side of Wad Medani town, bordered by Darrdig area from the North, Mayo Nos to the south, Blue Nile to the East, Alzmalic area from the West divided to 5 blocks.

The total number of population in Mayo 40 was about 4,074, females were about 2,056, according to the last statistical survey in catchment area preformed by family medicine program in 2014.

3.3 Study Population:
Mothers who have children under 5 years were about 720.

3.4 Sample size:
The total sample size was 250, based on Stephen Sampson formula.

<table>
<thead>
<tr>
<th>Population</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline levels of the indicators</td>
<td>P</td>
</tr>
<tr>
<td>Margin of Error (MOE)</td>
<td>d</td>
</tr>
<tr>
<td>Level of Confidence Measure</td>
<td>z</td>
</tr>
</tbody>
</table>

\[ n = \frac{N \times p(1-p)}{\left[ N - 1 \times \left( d^2 + z^2 \right) \right] + p(1-p)} \]

n= 250.07

The sample size is 250.
3.5 Sample technique:

Data was collected by researcher after interview mothers and obtain oral consent from them all approached women agreed to participate, data was collected by simple random systemic method by dividing the catchment area into 5 blocks, and selecting a house and skipping one, if the selected house isn’t having a mother of under five then shift and so on.

3.6 Study Subject:

3.6.1 Inclusion criteria:

- Mothers of under five child who live in catchment area in Mayo 40 and greed to participate.

3.6.2 exclusion criteria:

- Mothers with no under-five child and mothers.
- mothers refused to participation in study.
- Mothers not live in catchment area.

3.7 Data collection method:

The data collection was carried out by pre tested standardized administer questionnaire in Arabic language contains 20 questions.

The questionnaire covered the socio-demographic information about the mothers knowledge if 3 or more answers considered as good knowledge, 2 answers considered moderate knowledge, one or no answer considered poor knowledge also covered attitude and practices of fever management.

3.8 Data analysis:

All data was entered and stored on a personal computer and analyzed using the Statistical Package for Social Sciences (SPSS version 16) by assistant of statistician.
Variable were analyzed in terms of frequencies and percentages.

Chi–square test is used to determine the association between variables.

3-9 Ethical consideration:

-the study and its objectives were explained to all participants.

-Verbal consent from mothers was taken.

-Confidentiality of results was maintained and they will be informed with the results.
Chapter Four

Results

Table 4.1: Shows the Age group distribution of mothers among the study sample.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 20</td>
<td>14</td>
<td>5.6</td>
</tr>
<tr>
<td>20-30</td>
<td>118</td>
<td>47.2</td>
</tr>
<tr>
<td>31-40</td>
<td>79</td>
<td>31.6</td>
</tr>
<tr>
<td>&gt; 40</td>
<td>39</td>
<td>15.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The majority of the participants in the age group 20-30.

Table 4.2: Shows the Occupation of mothers among the study sample.

<table>
<thead>
<tr>
<th>occupation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housewife</td>
<td>196</td>
<td>78.4</td>
</tr>
<tr>
<td>Employee</td>
<td>38</td>
<td>15.2</td>
</tr>
<tr>
<td>Worker</td>
<td>14</td>
<td>5.6</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Most of the participants are housewives (78.4%).
Table 4.3: Present the educational level of mothers among the study sample.

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>10</td>
<td>4.0</td>
</tr>
<tr>
<td>Intermediate</td>
<td>22</td>
<td>8.8</td>
</tr>
<tr>
<td>Secondary</td>
<td>130</td>
<td>52.0</td>
</tr>
<tr>
<td>University or post</td>
<td>88</td>
<td>35.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The majority of the study sample were secondary educated and beyond (87.2%) and only 4% primary educated.
Figure 4. Illustrate the marital status among the study population.

Most of the participants were married (90.8%).
Table 4.4: Shows the household monthly income among the study sample.

<table>
<thead>
<tr>
<th>Household monthly income</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1,000</td>
<td>26</td>
<td>10.4</td>
</tr>
<tr>
<td>1,000-2,000</td>
<td>192</td>
<td>76.8</td>
</tr>
<tr>
<td>&gt; 2,000</td>
<td>32</td>
<td>12.8</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
</tr>
</tbody>
</table>

About (76.8%) with average income 1,000-2,000 SDP per month

Table 4.5: shows the family type among the study sample.

<table>
<thead>
<tr>
<th>Family type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple</td>
<td>12</td>
<td>4.8</td>
</tr>
<tr>
<td>Extended</td>
<td>238</td>
<td>95.2</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Most of the study sample (95.2%) where living in extended families.
Table 4.6: Present the age of last child in month distribution among the study sample.

<table>
<thead>
<tr>
<th>Age in month</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-12</td>
<td>53</td>
<td>21.2</td>
</tr>
<tr>
<td>13-24</td>
<td>88</td>
<td>35.2</td>
</tr>
<tr>
<td>25-36</td>
<td>41</td>
<td>16.4</td>
</tr>
<tr>
<td>37-48</td>
<td>33</td>
<td>13.2</td>
</tr>
<tr>
<td>&gt; 48</td>
<td>35</td>
<td>14.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The majority of children were aged 1-24 month 141 (56.4%).

Table 4.7: Shows the number of under five children per household among the study sample.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23.2</td>
</tr>
<tr>
<td>2</td>
<td>46.8</td>
</tr>
<tr>
<td>3</td>
<td>28.0</td>
</tr>
<tr>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
</tr>
</tbody>
</table>

Nearly half of the participants had 2 children (46.8%).
Figure 4.2: Illustrate the knowledge about fever among the study sample.

Two thirds of the study sample were good knowledge about fever.

Table 4.8: Shows the knowledge about fever causes among the study sample.

<table>
<thead>
<tr>
<th>Knowledge about fever causes</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good knowledge</td>
<td>153</td>
<td>61.2</td>
</tr>
<tr>
<td>Moderate knowledge</td>
<td>89</td>
<td>35.6</td>
</tr>
<tr>
<td>Poor knowledge</td>
<td>8</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Most of mothers (61.2%) were good knowledge about fever causes.
Table 4.9: Shows the method for temperature measuring among the study sample.

<table>
<thead>
<tr>
<th>Method for temperature measuring</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forehead touching</td>
<td>148</td>
<td>59.2</td>
</tr>
<tr>
<td>Whole body touching</td>
<td>95</td>
<td>38.0</td>
</tr>
<tr>
<td>Thermometer</td>
<td>7</td>
<td>2.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Nearly two third of mothers (59.2%) use forehead touching for temperature measuring, while only (2.8%) use thermometer.

Table 4.10: Present symptoms associated with fever among the study sample.

<table>
<thead>
<tr>
<th>Symptoms associated with fever</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crying baby</td>
<td>28</td>
<td>11.2</td>
</tr>
<tr>
<td>Loss of appetite</td>
<td>61</td>
<td>24.4</td>
</tr>
<tr>
<td>Lethargic</td>
<td>113</td>
<td>45.2</td>
</tr>
<tr>
<td>Headache</td>
<td>8</td>
<td>3.2</td>
</tr>
<tr>
<td>Yellowish eyes</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Vomiting</td>
<td>16</td>
<td>6.4</td>
</tr>
<tr>
<td>Cough</td>
<td>19</td>
<td>7.6</td>
</tr>
<tr>
<td>Sweating</td>
<td>5</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Nearly half of the study sample reported that lethargic was the most common symptom associated with fever.
(51.6%) of mothers went to health facility when their child has fever.

**Table 4.11: Shows types for fever home management among the study sample**

<table>
<thead>
<tr>
<th>Types of fever management</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>drugs</td>
<td>128</td>
<td>51.2</td>
</tr>
<tr>
<td>Removing closes</td>
<td>22</td>
<td>8.8</td>
</tr>
<tr>
<td>Air flow</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Body cold spongy</td>
<td>38</td>
<td>15.2</td>
</tr>
<tr>
<td>Forehead cold spongy</td>
<td>62</td>
<td>24.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Found More than half of the mothers (51.2%) use drugs a fever management not high compared with (48.8%) using physical method
Table 4.12: Shows types of medication used to home-manage fever among the study sample.

<table>
<thead>
<tr>
<th>Type of drugs</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antipyretic</td>
<td>205</td>
<td>82.0</td>
</tr>
<tr>
<td>Antibiotic</td>
<td>20</td>
<td>8.0</td>
</tr>
<tr>
<td>Anti malarial</td>
<td>25</td>
<td>10.0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Most of the participants (82.0%) had a correct practice towards medication used to home manage fever, while 45 (18.0%) had wrong practice.

Table 4.13: Shows the Types of antipyretic used to home-manage fever among the study sample.

<table>
<thead>
<tr>
<th>Antipyretic used</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paracetamol</td>
<td>228</td>
<td>91.2</td>
</tr>
<tr>
<td>Mefenamic Acid</td>
<td>20</td>
<td>8.0</td>
</tr>
<tr>
<td>Ibuprofen</td>
<td>2</td>
<td>0.8</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The majority of the study sample (91.2%) used Paracetamol to manage fever at home, while only 2 used Ibuprofen.
Figure 4.4: illustrate knowledge about antipyretic right dose at home among the study sample.

Only (10.4%) determine the antipyretic right dose correctly, while (89.6%) didn’t.
Table 4.14: shows knowledge about antipyretic side effects among the study sample.

<table>
<thead>
<tr>
<th>Side effect of antipyretics</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug hypersensitivity</td>
<td>12</td>
<td>4.3</td>
</tr>
<tr>
<td>Gastrointestinal complications</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Hepatic failure</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Don’t know</td>
<td>238</td>
<td>95.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Majority of mothers (95.7%) didn’t know about the antipyretic side effects.

Table 4.15: Shows Cases for seeking immediate medical care among the study sample.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convulsions</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td>Unconscious</td>
<td>4</td>
<td>1.6</td>
</tr>
<tr>
<td>Non-relief fever</td>
<td>67</td>
<td>26.8</td>
</tr>
<tr>
<td>Immediately</td>
<td>130</td>
<td>51.6</td>
</tr>
<tr>
<td>Refusal of feeding</td>
<td>46</td>
<td>18.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Majority of mothers (73.2%) seeking immediate medical care.
Table 4.16: Shows knowledge about fever complications among the study sample.

<table>
<thead>
<tr>
<th>Fever complication</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convulsions</td>
<td>114</td>
<td>72.6</td>
</tr>
<tr>
<td>Dehydration</td>
<td>23</td>
<td>19.2</td>
</tr>
<tr>
<td>Hypoglycemia</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Unconsciousness</td>
<td>44</td>
<td>5.2</td>
</tr>
<tr>
<td>Don’t know</td>
<td>69</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>250</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Majority of the mothers (72.6%) reported convulsion is complications fever.
Crosstabs

The relation between knowledge about fever and educational level, there was a significant relationship (P value = 0.011).

The relation between knowledge about causes of fever and educational level, there was a significant relationship (P value = 0.041).

The relation between means of temperature measuring and educational level, there was no significant relationship (P value = 0.121).

The relation between Symptoms associated with fever and educational level, there was a significant relationship (P value = 0.036).

The relation between practice towards fever and educational level, there was no significant relationship (P value = 0.141).

The relation between knowledge about fever and occupation, there was a significant relationship (P value = 0.029).

The relation between knowledge about causes of fever and occupation, there was a significant relationship (P value = 0.041).

The relation between means of temperature measuring and education, there was no significant relationship (P value = 0.347).

The relation between Symptoms associated with fever and occupation, there was no significant relationship (P value = 0.633).

The relation between practice towards fever and occupation, there was no significant relationship (P value = 0.442).
Chapter Five

Discussion

Awareness of under 5 years children mothers towards home care of their febrile children, has a great effect not only to improve childhood morbidity, but also to avoid worse complication and reduce mortality rate. The result revealed that most common occupation among the mothers in this study was housewife (78.4%), and there was a significant association of knowledge about fever and occupation where (P value = 0.011). The education level among the participants was high where secondary, university and post graduate which was (87.2%), only (4.0%) were primary educated. This result differed from both similar studies results conducted by Muntasir & etal in Kassalla and Ebidor & etal 2015 in Nigeria where (85.7%) and (33%) respectively of mothers were primary educated (13, 3). As a fact in this study there was a significant association with knowledge about fever and educational level where (P value = 0.029). This mean education may has role in awareness of mothers. Two third (60.5%) of the participants has a good knowledge about fever, it contrast with the previous study result of mothers' perception of fever management at home in children of same age carried by Balafama & etal in Nigeria 2010(1). Where (74.8%) had good knowledge.

Regarding causes of fever about (61.2%) of mothers had good knowledge, there was significant association between knowledge about fever causes and both educational level and the occupation where (P value = 0.041) and (P value = 0.041) respectively. Concerning symptoms associated with fever nearly half of mothers (45.2%) identified lethargic as the commonest symptoms, followed by loss of appetite (24.4%). This result in contrast with both previous studies results conducted by Balafama & etal and Kazeem & etal in Nigeria 2011. They identified the commonest symptom was lack of appetite where (71.5%) and (47.9%) respectively. There was no significant relation between knowledge of symptoms associated with fever and the occupation where (P value = 0.633). Therefore in this study it was observe the participant had good knowledge about fever, causes and associated symptoms. Regarding practices of mothers towards fever (51.6%) went to health facility and while (26%) started
management at home. It against both studies results carried by Balafama & etal, and Kazeem & etal where (76.9%) and (66.7 %) respectively of mothers management of fever at home. While the relation between practice of mothers towards fever and both educational level and also the occupation was statistically not significant where (P value = 0.141) and (P value = 0.442) respectively. Most of the methods used by the mothers for detecting fever were forehead touching (59%) and (2.8%) used thermometer. The result was differed than the previously study result conducted by Ebidor & etal where most of the mother detected the fever was touch the forehead (90%)(3). In spite of using thermometer for measuring temperature is most accurate, but in this study had lower percentage among participant as shown in the result. The association between means of temperature measuring and education level was statistically not significant where (P value = 0.347). The present study showed that practices of mothers towards fever home management was (51.2%) used drugs and (48.8%) used physical method. Regarding the drug that was used by them at home (82%) choose antipyretic, (8%) used antibiotic and (10%) used antimalaria. This was adverse to the study result reported by Ebidor & etal (8%) of mothers administered antipyretic and (35%) gave their children anti malaria. Also higher than the previous studies results carried by Richard, Kazeem & etal, Walsh and Muntasir & etal where (43.4%), (60.8%), (64 %) and (25%) respectively of mothers treated her children at home with antipyretic. Paracetamol is the most commonly administer antipyretic drug at home for the children as antipyretic (91.2%). However it agree with the study result conducted by Kazeem & etal while found (96%) of mothers choose it. The result was higher than study about awareness of mothers regard childhood fever conducted by Liqa and etal in Jordan 2014(2) and the result carried by Balafama & etal, where (65.1%) and (70.9%) respectively of mothers use paracetamol for treated fever at home. (89.6%) of mothers determined the antipyretic right dose at home incorrectly by last prescribed doses, while (10.4%) determined correctly as doctor prescription. It was higher than the study result conducted by Liqa and etal where (47.7%) of mothers decided that the dose of fever lowering drug by Previous advice from the doctor. Regarding the knowledge about antipyretic side effect among participant reported that (95.2%) of mother didn’t know the antipyretic side effect, but only (4.8%) mention the drug.
hypersensitivity is the side adverse. This result was approximately consistent with that reported by Kazeem &etal where (85.5%) of mothers did not know the side effect of the antipyretic. This finding reflect lack in knowledge of mothers’ about use the paracetamol correctly with respect to the dose of use and the potential adverse effects of it. Mothers knowledge of convulsion was being a complication of fever was commendable (72.6%). This finding supported by both studies results carried by Kazeem &etal and Balafama &etal where (75%) and (67.7%) respectively of mothers believed convulsions the common complication of fever.
Chapter Six

Conclusion & Recommendations

6.1 Conclusion:

1- The study concluded that the awareness of under 5 years children mothers towards home care of their febrile children in Mayo 40 among community was good.

2- Most of the participants has good knowledge about fever, causes, associated symptoms and complications of it.

3- Regarding attitude most of mothers not use accurate method for detecting fever and inattention to start management of fever at home.

4- There were moderate practice about type of fever management at home.

5- Majority of the them misuse the antipyretics medications in correct dose, frequency, and has poor knowledge about side effect of it.
6.2 Recommendations:

The researcher suggest the following recommendations:

1-Health education program provide for the mothers in Mayo 40 should be directed, at emphasizing the importance of seeking early treatment of fever, taking drugs as prescribed and promptly, and raising mothers’ awareness of the danger signs of fever symptoms & sign and side effect of the antipyretic drug.

2-Accurate doctors counseling, availability of health care provider and improve health services for febrile children to provide proper diagnosis and management care.

3-Educated mother about home care of their febrile children, not only to mothers of young children but also to the community as a whole.

4-Further researches are essential for detect the stander of under five years old children mothers towards home care of their febrile children and service provided to children and mother.
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بسم الله الرحمن الرحيم

جامعة الجزيرة – كلية الطب

استبيان حول معرفة مستوى وعي الامهات للاطفال دون سنة الخامسة اتخاذ المعالجات المنزلية للحمى في منطقة مايو اربعين

1. عمر الام ......

2. مستوى تعليم الام:
   (ا) امي (   ) (ب) ابتدائي (   ) (ج) متوسط (   ) (د) ثانوي (   ) (ه) جامعي فما فوق (   )

3.الحالة الاجتماعية:
   (1) متزوجه (   ) (2) متزوجه متزوج (   ) (3) ارمله (   ) (4) مطلقه (   ) (5) مطلقه متزوج (   )

4. مهنة الام:
   (ا) اربه منزل (   ) (ب) موظفة (   ) (ج) عامله (   ) (د) اخرى (   )

5. مدة سكن الام:
   (ا) منزلي (   ) (ب) مسکن (   ) (ج) مسکن اجنبي (   ) (د) اخرى (   ) (ه) لا تعرف (   )

6. دخل الاسرة الشهري :
   (1) اقل من 1000 جنيه (2) 1000-2000 جنيه (3) اقل من 2000 جنيه

7. عمر الطفل :
   (1) اقل من سنه (2) 1 سنة الى سنتين (3) 3 سنوات الى ثلاثه (4) اثاث عاوات الى اربعه (5) اربعه الى خمسه

8. عدد الأطفال الأقل من خمس سنوات :
   (1) واحد (   ) (2) اثنين (   ) (3) ثلاثه (   ) (4) اربعه (   ) (5) اكثر (   )

9. هل تعلم اسباب حدوث الحمى:
   (1) اسبابه عامة في الجسم (   ) (2) مالاريا (   ) (3) الاعياء (   ) (4) فقدان الشهية (   ) (5) لا تعرف (   )

10. ما هي اسباب حدوث الحمى:
    (1) مالاريا (   ) (2) تغيب في درجة حرارة الجو (   ) (3) اضافات البرد (   )

11. ما هي الطرق المستخدمة للقياس درجة حرارة الطفل :
    (1) باللمس على مقدمة الرأس (   ) (2) باللمس على كافة الجسم (3) باستخدام الالكتروني

12. عدد الاطفال الأقل من خمس سنوات :
    (1) واحد (   ) (2) اثنين (   ) (3) ثلاثه (   ) (4) اربعه (   ) (5) اكثر (   )

13. هل تستطيعين تعريف الحمى :
    (1) سخونه عامه في الجسم (   ) (2) مالاريا (   ) (3) الاعياء (   ) (4) فقدان الشهية (   ) (5) لا تعرف (   )

14. اخرى حدد (   )
ما هي الأعراض المصاحبة للحمى:

1. الابكاء
2. فقدان الشهية
3. خسارة القدرة على الجلوس
4. فقدان الشعور بالدوار
5. السعال
6. الأعصاب
7. الصداع
8. الأعياء
9. الاستفراغ
10. الصرع
11. التعرق
12. الامساك
13. فقدان الوعي
14. نقص في الرؤية
15. الارقطين
16. الاستفراغ
17. السعال
18. كثرة التعرق
19. السعال
20. المسمار
21. الصداع
22. فقدان الشعور بالدوار
23. السعال
24. كثرة التعرق
25. المسمار
26. الصداع
27. فقدان الشعور بالدوار
28. السعال
29. كثرة التعرق
30. المسمار

ما هي المعالجة المنزلية للحمى:

1. اعطائه ادوية خافضة للحرارة
2. ازالة الملابس
3. تعريضه لتيار هواء
4. عمل مكممات مياة
5. اعطائه ملعقة ماء

هل تعريف علامات الخطورة للفحوصات؟

1. فشل الامام العين
2. فقدان الوعي
3. علامات هبوط السكر
4. عدم رجوع درجة الحرارة للمعدل الطبيعي
5. سوء حالته
6. لا يستطيع ان يشرب او يرضع

ما هي الادوية التي تستخدم للمعالجة المنزلي للحمى:

1. خافض حراره
2. مضاد حيوي
3. مضاد للملاريا

ما هي الأدوية التي تستخدم للمعالجة المنزلي للحمى:

1. اعطائه ادوية خافصة للحرارة
2. ازعجه لاقرب مرفق صحي
3. قبولي باجراء فحص معملى من غير استشارة طبيب
4. اعطائه ادوية من غير استشارة طبيب

متى يجب اخذ الطفل للوحدة الصحية العلاجية؟

1. عند حدوث تشنجات
2. عند فقدان الوعي
3. عدم رجوع درجة الحرارة للمعدل الطبيعي
4. عدم الابتعاد عن البرد أو يوضع

كيف تتم تحديد الجرعة الصحيحة من الادوية؟

1. استشارة الطبيب
2. من خلال الوصفة الدوائية المرفقة
3. من خلال جرعة محددة عند اخبار محدد لمرفق صحي

ما هي الأعراض الجانبية للادوية خافصة الحرارة؟

1. نقص في الرؤية
2. الصداع
3. الامساك