Knowledge regarding prevention and management of typhoid fever among patients and caregivers attending OPD in government area hospital at Bhadrachalam, Telangana

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Abstract

Background: Typhoid (enteric) fever is a systemic infection in man that is caused by Salmonella serotypes which are strictly adapted to humans or higher primates, including Salmonella enteric serotypes Typhi, Paratyphi A, Paratyphi B, and Paratyphi C. Enteric fever is a systemic infection caused by the human adapted pathogens Salmonella enteric serotype Typhi (S. Typhi) and S. Paratyphi A, B, and C.

Aim: The aim was to assess the knowledge regarding prevention and management of Typhoid fever.

Objectives: 1. To assess the level of knowledge on prevention and management of Typhoid fever among patients and caregivers. 2. To associate the selected demographic variables with the knowledge regarding the prevention and management of typhoid fever among patients and caregivers.

Methods: A descriptive design was adopted for the study with 100 samples of patients and caregivers were selected by using simple random sampling technique.

Results: Study revealed that, out of 100 samples 41(41%) had inadequate knowledge, and 51(51%) had moderate knowledge, and 8(8%) had adequate knowledge.

Conclusion: The study concluded that, significant percentage of the patients and caregivers (41%) had moderate knowledge regarding prevention and management of Typhoid fever.

Keywords: prevention, typhoid fever, general patients, caregivers

Introduction

Typhoid and paratyphoid fever most often present as clinically similar acute febrile illnesses and accurate diagnosis relies on laboratory confirmation. Bone marrow culture remains the gold standard diagnostic test for enteric fever. Efforts to develop serologic methods for the diagnosis of typhoid fever that improve on the poor performance of the Vidal test still suffer from substantial limitations of both sensitivity and specificity. Serological approaches to the diagnosis of S. Paratyphi A, B, and C have been developed but have not been evaluated or adapted for field use. Consequently blood culture, a less sensitive method than bone marrow culture, is often the practical first choice test for both patient diagnosis and for epidemiologic evaluation of S. Typhi and S. Paratyphi burden[3].

Contaminated water and food are important vehicles for transmission of typhoid fever. Historical surveillance data suggest that enteric fever was endemic in Western Europe and North America and that rate declined in parallel with the introduction of treatment of municipal water, pasteurization of dairy products, and the exclusion of human faces from food production. Today enteric fever prevention focuses on improving sanitation, ensuring the safety of food and water supplies, identification and management of chronic carriers of S. Typhi, and the use of typhoid vaccines to reduce the susceptibility of hosts to infection[5].

Extending the benefits of improved sanitation and the availability of safe water and food achieved in industrialized countries a century ago to low- and middle-income countries has proved to be a challenge. United Nations Millennium Development Goal (MDG) 7 sets a target to halve by 2015 the proportion of the population without sustainable access to safe drinking water and basic sanitation[3].
Need for the study
The disease is currently rare in the United States and Europe but endemic in Asia, Africa and South America from where it can be imported by foreign travel (Santos et al., 2001). Investigators from the US Centers for Disease Control and Prevention estimate that there are 21.6 million typhoid cases annually, with the annual incidence varying from 100 to 1000 cases per 100,000 population [4].

The global mortality estimates from typhoid have also been revised downwards from 600,000 to 200,000, largely on the basis of regional extrapolations. Recent population based studies from South Asia suggest that the incidence is highest in children aged less than 5 years, with higher rates of complications and hospitalisation, and may indicate risk of early exposure to relatively large infecting doses of the organisms in these populations (Bhutta, 2006). This threat is especially pronounced in the Southeast Asian region [5].

As a consequence of economic growth, extensive, reciprocal movements of migrant workers are occurring between the neighboring countries of Malaysia, Thailand, and Indonesia, which has one of the highest incidences of typhoid fever in the world at more than 1,000 cases per 100,000 inhabitants (Thong et al., 1995). During the surveillance period, 285 S. Typhi episodes and 84 S. Paratyphi A episodes were detected at the 4 sites [6].

Problem Statement
A descriptive study to assess the knowledge regarding prevention and management of Typhoid fever among general patients and caregivers attending OPD in Government area hospital at Bhadrachalam, Telangana.

Objectives
1. Assess the level of knowledge on prevention and management of Typhoid fever among general patients and caregivers.
2. To associate the selected demographic variables with the knowledge regarding the prevention and management of typhoid fever among patient and care givers.

Assumption
Most of the patients have may have knowledge regarding prevention and management of Typhoid fever among general patients.

Delimitations
1. The period of study is 5 days.
2. The sample size is only 100.

Materials and Methods
Research Approach: Quantitative research approach

Design: Descriptive design.

Setting: The study was conducted at Govt. Area Hospital, Bhadrachalam

Population: Target Population: General patients and care giver of patients.

Accessible Population: General patients and care giver of patients at Govt. Area hospital Bhadrachalam

Sample size: Sample size was 100 general patients and care giver of patients.

Sampling Technique: Simple random sampling technique.

Criteria for selecting sample
The criteria for sample selection are mainly divided under two headings which include the inclusion and exclusion criteria.

Inclusion criteria
General patients who
- Are attending the outpatient department during data collection period.
- Can understand Telugu.
- Both male and female involved.

Exclusion criteria
General patients who
- Are mentally ill.
- Are not will to take participate.
- Are willing to participate in the study.

Description of tool
Part-I: It comprised of demographic characteristics of the general patients such as age, sex, religion, marital status, type of family, family history of any illness, income of the family, resident of the clients, history of medical disorder and source of health information.

Part-II: It consisted of 2 divided sections of 20 multiple choice question on prevention and management of typhoid fever.

Score Interpretation

<table>
<thead>
<tr>
<th>S. No</th>
<th>Level of knowledge</th>
<th>Mark</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate knowledge (1-10)</td>
<td>0-10</td>
<td>&lt; 50</td>
</tr>
<tr>
<td>2</td>
<td>Moderate Knowledge (11-15)</td>
<td>11-15</td>
<td>51-75%</td>
</tr>
<tr>
<td>3</td>
<td>Adequate knowledge (16-20)</td>
<td>16-20</td>
<td>75%</td>
</tr>
</tbody>
</table>

Results & Discussion

Table 1: Frequency distribution of level of knowledge among patients (N=100)

<table>
<thead>
<tr>
<th>S. No</th>
<th>level of knowledge</th>
<th>frequency</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inadequate Knowledge (1-10)</td>
<td>41</td>
<td>41%</td>
</tr>
<tr>
<td>2</td>
<td>Moderate Knowledge (11-20)</td>
<td>51</td>
<td>51%</td>
</tr>
<tr>
<td>3</td>
<td>Adequate Knowledge (21-40)</td>
<td>8</td>
<td>8%</td>
</tr>
</tbody>
</table>

Fig 1: Frequency and percentage distribution of level of knowledge on among patients
Table 2: The mean and standard deviation of knowledge on prevention and management of typhoid fever (N=100)

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of knowledge</td>
<td>10.4</td>
<td>44.4</td>
</tr>
</tbody>
</table>

Table 3: Association between Level of Knowledge and Demographic Variables among general patients (N=100)

<table>
<thead>
<tr>
<th>S. No</th>
<th>Variables</th>
<th>Inadequate Knowledge</th>
<th>Moderate Knowledge</th>
<th>Adequate Knowledge</th>
<th>Chi square (X²)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>1.</td>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2000-5000</td>
<td>23</td>
<td>23</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>5001-8000</td>
<td>13</td>
<td>13</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>8001-10,000</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>&gt;10,000</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2.</td>
<td>History of Disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cardiac arrest</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Pneumonia</td>
<td>13</td>
<td>13</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Psychosis</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Nephritis</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td>Residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>2</td>
<td>2</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Rural</td>
<td>39</td>
<td>39</td>
<td>41</td>
<td>41</td>
</tr>
</tbody>
</table>

Major findings of the study
- Out of 100 samples 41(41%) had inadequate knowledge, and 51(51%) had moderate adequate knowledge and 8(8%) had adequate knowledge.
- The mean knowledge score was 10.4 with the standard deviation of 44.4.
- The chi square test revealed that there was a significant association with income of family, history of medical disorder and residence at the P<0.05 level.

Recommendations
- A similar study can be conducted with a Non experimental study.
- A similar study can be conducted with assess the knowledge as intervention.
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- A comparative study can be conducted prevention and management of Typhoid fever among general patients.
- A researcher can be conducted to find the causative factor of Salmonella Typhi.
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References