



Home Based Management of Common Illnesses of Under Five Children Among Mothers Residing at Agartala Municipality Area: A Cross Sectional Study

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ABSTRACT

Objectives: To estimate the knowledge of mothers on home based management of common illnesses of their children and the socio demographic factors responsible for the knowledge. **Methodology:** A Cross sectional study was conducted among 210 mothers residing in urban slum area of Agartala in February – April 2016. Multistage sampling method was followed for selecting mothers. **Results:** Regarding knowledge on home based management, 85.7% of mothers knew about tepid bath & sponging with cold water in fever, 61.9% had knowledge on ORS in diarrhea and 34.3% had knowledge on giving soothing materials in case of cold and cough. Overall 63.8% mothers had satisfactory knowledge on home based management. Educational status and monthly family income were significantly associated with satisfactory knowledge. **Conclusion:** Health education in community level is needed to improve mother's knowledge and help them to recognize danger signs of common illnesses

KEYWORDS : Home based management, urban slum, Agartala**INTRODUCTION:**

In 2013, approximately 6.3 million children under 5 years died worldwide. ¹ Approximately, 50% of the deaths of children occurred in only five of these countries, namely India, Nigeria, Pakistan, Congo, and China; of which 21% occurred in India. ² In Tripura under five mortality rate is 33 per 1000 live births. ³ Diarrhoea and acute respiratory infections (ARI) were responsible for majority of children's deaths. These deaths could have been prevented if early and appropriate treatment were provided to children. ⁴ Improving families' care seeking behaviour could contribute significantly to reducing child mortality in developing countries. The World Health Organization estimates that seeking prompt and appropriate care could reduce child deaths due to acute respiratory infections by 20%. ⁵ The integrated management of neonatal and childhood illness (IMNCI) strategy, besides improving providers' skills in managing childhood illness also aims to improve families' care seeking behaviour. The health workers are trained to teach the mothers about danger signs and counsel them about the need to seek care promptly if these signs occur. ⁶ In developing countries, the majority of the, approximately 12 million fatal illnesses that occur each year among children younger than 5 years can be prevented or treated effectively by means of simple interventions. ⁷ Most studies focus on people presenting at health centres who represent a highly selected population with illnesses and limited data is available from community based studies. Information on the knowledge of mothers on common childhood illnesses helps the policy makers set strategies to decrease the mortality. But to the best of our knowledge no such studies have been reported from Tripura. So the objectives of our study were to estimate the knowledge of mothers on home based management of common illnesses of their children and mothers' knowledge about danger signs of common childhood illnesses. We also proposed to determine the socio-demographic factors responsible for the knowledge.

METHODOLOGY:

A Cross sectional study was conducted among mothers of under five children residing in urban slum area of Agartala Municipal Corporation for a period of 3 months (1st February – 30th April 2016). Data were collected on a pre tested, pre designed, and semi- structured interview schedule. Considering the adequate knowledge of the mothers regarding home based management of fever to be 84% ⁸, at 5% level of significance with absolute precision of 5% sample size had been calculated to be 210. Multi stage sampling method was followed for selecting study participants. In Agartala Municipal Corporation was divided into four zones namely North zone, Central zone, East zone and South zone. In first stage, one slum from each of the

four zones was selected by Simple Random Sampling method. From North zone: Goyal Basti slum, from Central zone: Dashamighat slum, from East zone: Aralia slum and from South zone: Hrish para slum were selected. All Anganwadi Centre placed on the selected slum had an updated list of of under 5 children. In the Second stage, from that list required numbers of mothers of under five children were selected by Simple Random Sampling method. PPS method was followed for calculating number of women from each slum area. A house-to-house survey was conducted. Then eligible mothers were approached to participate in the study and informed consent was sought. Mothers who were not willing to participate in the study, not found at home even after 2 successive visits, were residents of that area for less than 6 months and who were physically or mentally unsound to state a valid statement were excluded. The knowledge of mothers on home based management of fever, diarrhoea and acute respiratory infection was asked and recorded. Data analysis was done by Epi info. Version 6. Descriptive statistics was expressed in frequency and percentages. Chi square statistics was applied to assess the association between different variables. P value < 0.05 was taken as significant. Ethical clearance was obtained from Institutional Ethics Committee, AGMC.

Results:

A total of 210 mothers were surveyed. Majority (42.4%) of mothers belonged to the age group of 25-29 years with mean age of 26.7 ± 4.59 years. Majority of respondents are Hindu (86.6%), housewives (68.1%), belonged to general category (56.7%) and had come from nuclear family (68.1%). Regarding educational status 53.3% had completed up to secondary & higher secondary level of education and having monthly family income of Rs 5000 to 10000 (39%). [Table - 1].

TABLE-1 Socio-demographic profile of study participants

| | Characteristics | N (%) |
|----------|------------------|------------|
| Age | 15-19 yrs | 10 (4.8) |
| | 20-24 yrs | 55 (20.2) |
| | 25-29 yrs | 89 (42.4) |
| | 30-34 yrs | 43 (20.5) |
| | 35-39 yrs | 8 (3.8) |
| | 40 yrs and above | 5 (2.4) |
| Religion | Hindu | 182 (86.6) |
| | Muslim | 12(5.7) |
| | Christian | 14 (6.6) |

| | | |
|----------------------------|------------------|-------------|
| Community | General | 134 (56.7) |
| | SC | 39(18.6) |
| | ST | 2 (1.0) |
| Type of Family | Nuclear | 143 (68.1) |
| | Joint | 67 (31.9) |
| Education | Illiterate | 11 (5.2) |
| | Primary | 43 (20.5) |
| | Secondary & HS | 112 (53.3) |
| | Graduate & above | 44 (21) |
| Occupation | Service | 14 (6.7) |
| | Business | 12 (5.7) |
| | Skilled labour | 16 (7.6) |
| | Unskilled labour | 25 (11.9) |
| | Housewives | 143 (68.1) |
| Monthly Family income | Less than 2,000 | 11 (5.2) |
| | 2,000 to 5,000 | 80 (38.1) |
| | 5,000 to 10,000 | 82 (39) |
| | More than 10,000 | 37 (17.6) |
| Number of Family member(s) | 4 or less | 129 (61.4) |
| | More than 4 | 81 (38.6) |

N (%): Frequency (Percentage)

Prevalence of Health Problems in Children:

In this study, 57.14% (120) children had got some health related problems in last one month preceding the study. The most common problems faced by the children were fever, cold and cough, and diarrhoea, the prevalence of which was found to be 27.6%, 20%, and 9.5%, respectively.

Knowledge of mothers on home based management of common illnesses of their children:

It was observed that, in case of fever 85.7% mothers were having knowledge of traditional methods like tepid bath and sponging with water. Very few mothers had knowledge on some fever tablets (5.7%), herbal medicines (1.9%). When we asked about the home care management of diarrhoea 61.9% mothers had knowledge on ORS solution. But knowledge on right method for preparation of ORS solution was very low (12.4%). Regarding home care practices of cough and cold, 34.3% mothers knew about some traditional methods e.g. honey, ginger and tulsi. Knowledge on antibiotics and cough syrup were 25.7% and 9.5% respectively. Regarding recognition of danger signs only 1.9% mothers could not tell anything. Mothers knew about refusal of feeding (55.7%), very high temperature (20.5%), decreased activities of child (14.3%) condition of child getting worse (4.8%), unconsciousness (2.4%), were danger signs and in that situation child must be brought to health care facilities. [Table 2].

TABLE-2 Knowledge of mothers on home based management of children

| Characteristics | Frequency (%) |
|--|---------------|
| Fever | |
| Tepid bath & sponging with cold water | 180 (85.7) |
| Remove clothing | 4 (1.9) |
| Any tablets | 12 (5.7) |
| Herbal/Traditional medicine | 4 (1.9) |
| No home treatment | 10 (4.8) |
| Diarrhoea | |
| Knowledge on ORS | 130(61.9) |
| Home available fluids | 49 (23.3) |
| Antibiotics | 19 (9.0) |
| Herbals/Traditional medicine | 7 (3.3) |
| Follow previous prescription | 3 (1.4) |
| No home treatment | 2 (1.0) |
| Cold & Cough | |
| Soothing materials like ginger, honey, tulsi | 72 (34.3) |
| Antibiotics | 54 (25.7) |
| Cough medicine | 20 (9.5) |
| Others | 33 (15.7) |
| No home treatment | 31 (14.7) |

| Danger sign | |
|---------------------------------|------------|
| Refusal of feeding | 117 (55.7) |
| Very high temperature | 43 (20.5) |
| Decreased activities/ lethargy | 30 (14.3) |
| Condition of baby getting worse | 10 (4.8) |
| Unconsciousness /convulsion | 5 (2.4) |
| Not known | 4 (1.9) |

To estimate the overall knowledge of mothers on home based management of common illnesses, a scoring system was used. Over all knowledge of mothers was assessed through ten basic questions. Each correct response scored as one where as other responses, such as 'wrong' or 'don't know', was scored as zero. In knowledge score of mothers, we found that the median score of 4 with standard deviation of 1.645. So total score of ≥ 4 was considered as "Satisfactory knowledge" and score of < 4 was taken as "Unsatisfactory knowledge". In our study we found that 63.8% mothers had satisfactory knowledge about the common illnesses on home based treatment. Educational status of mothers and monthly family income were found to be statistically significant determinants of satisfactory knowledge on home based management of common illnesses of children. [Table-3]

TABLE-3. Factors affecting knowledge of home based management

| | Characteristics | Satisfactory Knowledge | Unsatisfactory Knowledge | P value |
|----------------------------|------------------|------------------------|--------------------------|---------|
| Age | 15-24 yrs | 40(19.04%) | 24(11.42%) | 0.81 |
| | 25-34 yrs | 84(40%) | 48(22.85%) | |
| | 35-44 yrs | 10(4.76%) | 4(1.9%) | |
| Religion | Hindu | 120 (57.14%) | 62(29.52%) | 0.20 |
| | Muslim | 5(2.3%) | 7(3.3%) | |
| | Christian | 8(3.8%) | 6(2.8%) | |
| Community | General | 76(36.19%) | 43(20.48%) | 0.28 |
| | SC | 24(11.4%) | 15(7.14%) | |
| | ST | 8(3.8%) | 9(4.2%) | |
| | OBC | 26(12.3%) | 9(4.2%) | |
| Education | Illiterate | 5(2.3%) | 6(2.8%) | 0.01 |
| | Primary | 28(13.3%) | 15(7.14%) | |
| | Secondary & HS | 82(39.04%) | 30(14.2%) | |
| | Graduate & above | 39(18.5%) | 5(2.3%) | |
| Occupation | Service | 9(4.2%) | 5(2.3%) | 0.74 |
| | Business | 6(2.8%) | 6(2.8%) | |
| | Labour | 20(9.5%) | 21(10%) | |
| | Housewife | 83(39.5%) | 60(28.5%) | |
| Monthly Family income (Rs) | Less than 2000 | 6(2.8%) | 5(2.3%) | 0.04 |
| | 2000-5000 | 70(33.3%) | 10(4.7%) | |
| | 5000-10,000 | 64(30.4%) | 18(8.5%) | |
| | More than 10,000 | 31(14.7%) | 6(2.8%) | |
| Family type | Nuclear | 91(43.3%) | 52(26.7%) | 0.93 |
| | Joint | 43(20.4%) | 24(11.4%) | |

Discussion:

In this study, 57.14% children had got some health related problems in last one month preceding the study. The most common problems faced by the children were fever, cold and cough, and diarrhoea, the prevalence of which was found to be 27.6%, 20%, and 9.5%, respectively. Whereas Balpreet et al ⁹ found that 39% children had got some health related problems in the 15 days preceding the survey. The most common problems faced by the children were cold and cough (34.7%), crying for unknown reasons (32.7%). NFHS-4 ³ reported 2.6 % prevalence of fever in the two weeks preceding the survey which was lower than present study. In case of fever, approaches to therapy vary from country to country as in rural Chattisgarh ¹⁰ only 8.3 % of mothers had knowledge on tepid bath and practice so, which was quite lower the the findings of present study. Overall, 4.9 % of all children under age five had diarrhoea as per NFHS-4 ³ in Tripura, which was lower in present study. The knowledge of ORS was 61.9 % in our study as compared to that reported by NFHS 4 ³ which was 46.3%. Knowledge of antibiotics is 9% for the treatment of childhood diarrhoea, which was consistent with the study by Abhay Mane et al. ¹⁰The present study revealed that 34.3% mothers knew about some traditional methods e.g. honey, ginger and tulsi for treatment of cough and cold. Abhay Mane et al ¹⁰ found that 50 % of the

mothers gave cough medicine to the children in ARI and 29.4% gave anti-biotic / other medicine. In our study, the most common danger signs told by mothers were refusal of feeding (55.7%), very high temperature (20.5%), decreased activities of child (14.3%). Abhay Mane et al¹⁰ found that the most common danger signs of illness felt by mothers were fever (33.1%) and change in appetite (18.4%).

Conclusion:

In our study we found that 63.8% mothers had satisfactory knowledge on home based treatment of the common illnesses of their children. Majority (85.7%) of the mothers had knowledge about tepid bath & sponging in case of fever, (61.9%) use of ORS solution in diarrhea, (34.3%) were using Soothing materials like ginger, honey, tulsi, herbal tea in case of cold & cough. Educational status of mothers and monthly family income were found to be statistically significant determinants of satisfactory knowledge on home based management of common illnesses of children.

Recommendations: There were gaps in knowledge of mothers on home based management of common illnesses of under 5 children. Intensive IEC activities, motivated intervention, skilled peripheral health workers are required to enhance the knowledge of the mothers in management of common childhood illnesses.

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Conflict of interest: Nil

References:

1. UNICEF. Level & Trends in Child Mortality. Report 2014. Available at: http://www.unicef.org/media/files/Levels_and_Trends_in_Child_Mortality_2014.pdf.
2. UNICEF. The State of the World's Children 2014. Available at: http://www.unicef.org/gambia/SOWC_report_2014.pdf. [last accessed on 10/6/16]
3. National Family Health Survey (NFHS- 4), India, 2015- 16: Tripura. Mumbai: IIPS. www.nfhsindia.org [last accessed on 10/6/16]
4. WHO. Mortality Factsheet (2006). Available at: http://www.who.int/whosis/mort/profiles/mort_searo_ind_india.pdf (last accessed on February 20, 2014).
5. World Health Organization: Technical bases for the WHO recommendations on the management of pneumonia in children at first level health facilities. Geneva: WHO; 1991. (WHO/ARI/91.20.)
6. World Health Organization: Counsel the mother: management of childhood illnesses. Geneva: WHO; 1997.
7. Gove S. Integrated management of childhood illness by outpatient health workers: technical basis and overview. *Bull World Health Organ.* 1997; 75:7-24.
8. Nesrin N, Huda F, Haya M, Christine Savage, Muntaha K. Mother's knowledge and practices of managing minor illnesses of children under five years. *Journal of Research in nursing* 2012; 18 (7): 651- 666
9. Singh B, Ghosh A, Singh A. Health problems in children and associated remedial measures in Punjab, India. *International Journal of Medical Science and Public Health* 2015; 4 (2): 173- 178
10. Abhay B Mane, Sushil Dohare , Sunil V. Gite Child Health: Understanding the home care practices in some illnesses among Underfive children in IMNCI implemented rural area. *International Journal of Biological and Medical Research.* 2012; 2(4):1251-1254