Original Research Article

Relationship between maternal education and socioeconomic status on knowledge, attitude and practice of mother and her child regarding acute diarrhoeal diseases

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Received: 31 October 2017
Revised: 16 November 2017
Accepted: 17 November 2017

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ABSTRACT

Background: In India, diarrhoea caused more than 130,000 child deaths in 2013. This also accounts for roughly one-fourth of all global diarrhoea deaths among children under five years of age. The incidence of diarrhoeal disease in rural India is 12% and in urban India is 9%. Acute diarrhoeal disease is both preventable and treatable. Untreated severe diarrhoea leads to fluid loss and it may be life-threatening especially in young children and among the people who are high risk like malnourished or have impaired immunity.

Methods: A cross sectional study was carried out among the secondary high school children (8th std) Azad high school, Kasegaon to find out the relationship between maternal education and socioeconomic status on knowledge, attitude and practice of mother and her child regarding acute diarrhoeal diseases. A pre-structured and pretested questionnaire was used to get the information regarding definition, causes, signs, symptoms, treatment, preparation of ORS, prevention of diarrhoeal etc.

Results: Nearly 57% of the mothers had school education and 10% had college education and illiteracy was 36%. As per the occupation 46.6% were farmers, 30.6% were labours and 14% were housewives. Mother’s education was significantly associated with children Knowledge, attitude whereas practice was not associated. Illiterate mothers had significant poor knowledge and attitude.

Conclusions: Maternal education and maternal socio economic status has important role is ascertaining the knowledge, attitude and practice of her children regarding acute diarrhoeal diseases.

Keywords: Maternal education, Socio economic status, Acute diarrhoeal diseases

INTRODUCTION

According to a report of UNICEF, diarrhoeal diseases account for nearly 1.3 million deaths per year among under-five years children.1 This makes the diarrhoeal diseases second most common cause of child deaths worldwide. More than half of the mortality occur in just five countries i.e. India, Nigeria, Afghanistan, Pakistan and Ethiopia. In India, diarrhoea caused more than 130,000 child deaths in 2013.2 This also accounts for roughly one-fourth of all global diarrhoea deaths among children under five years of age.3 The incidence of diarrhoeal disease in rural India is 12% and in urban India is 9%.4 Acute diarrhoeal disease is both preventable and treatable. Untreated severe diarrhoea leads to fluid loss and it may be life-threatening especially in young children and among the people who are high risk like malnourished or have impaired immunity. Source of
A pre-structured and pretested questionnaire was used to get the information regarding definition, causes, signs, symptoms, treatment, preparation of ORS, prevention of diarrheal etc. A total of 12 questions were asked to assess knowledge, attitude and practice of acute diarrheal diseases of which 4 for knowledge, 4 for attitude and 4 for practice for children and in case of mothers 13 questions were asked to assess KAP of ADD of which 4 for knowledge, 5 for attitude and 4 for practice. Scoring system was developed to assess both pre and post test performance of study and control group. Correct answer was given score 1 and wrong answer and uncertain answer 0. The grading of knowledge, attitude and practice was done as 0=1= Poor, 2=Average and 3-4=Good. The grading for overall KAP was done as 0-3=Poor, 4-7=Average, 8-12=Good. This was done in consultation with statistician and with the help of reference studies number 12.

Data was collected related to knowledge, attitude, practice on diarrheal diseases among 8th students and mothers in predesigned and pretested questionnaire. The mothers were interviewed personally. Institutional Ethical Committee clearance and permission from school was taken before the start of study.

RESULTS

Table 1 show that nearly 57% of the mothers had school education and 10% had college education and illiteracy was 36%. As per the occupation 46.6% were farmers, 30.6% were labours and 14% were housewives. Most of the families were belonging to middle class i.e. 64% and 20% to lower class and 16% to upper class.

Table 2 show that mother’s education was significantly associated with children knowledge, attitude whereas practice was not associated. Illiterate mothers had significant poor knowledge and attitude. Majority of children whose mothers were illiterate had poor knowledge and attitude as compare to the children of educated mothers.

Table 3 show majority of mothers even having school education had poor knowledge, attitude and practice whereas illiterate mothers had poor knowledge, attitude and practice. The difference was found statistically significant.
According to Table 4, maximum numbers of mothers belonged to middle class socioeconomic status, had poor Knowledge, attitude and practice followed by the lower class. The difference was suggesting association between socio-economic status and KAP and was found statistically significant.

From the above Table 5 it is observed that the knowledge, attitude and overall KAP of children found significant associated with KAP of mothers while practice was not found statistically significant. The difference may be due to social and cultural practices followed at home without knowing the appropriate reasons behind it.
hygienic practices, subsequently

casts and very less

Mother's education

In study of
there was no difference in study as well as control group.

46.8% were boys and 53.2% girls. As in current study

grade and 14 years (range: 13 -14). Majority of

them were boys constituting 74.7% whereas only about

standard students was 13 yrs

According to age group and gender, mean age was 10 years (range: 9 -10) in the 5th grade and 14 years (range: 13-17) in the 8th grade. And

6.8% were boys and 53.2% girls. As in current study

there was no difference in study as well as control group.

In study of Savitha et al, reported illiteracy among

mothers of 63.46% of study subjects and very less proportion of mothers with school and college education among study subjects. A

Whereas Haroun et al observed less proportion of maternal illiteracy (13.2%) among study subjects while as Broot et al observed more

Table 4: Comparison of socioeconomic status with maternal knowledge, attitude and practice.

<table>
<thead>
<tr>
<th>Knowledge (n=150)</th>
<th>Attitude (n=150)</th>
<th>Practice (n=150)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor (%)</td>
<td>Average (%)</td>
<td>Good (%)</td>
</tr>
<tr>
<td>Upper class</td>
<td>0 (0)</td>
<td>4 (100)</td>
</tr>
<tr>
<td>Middle class</td>
<td>67 (62.6)</td>
<td>24 (22.4)</td>
</tr>
<tr>
<td>Lower class</td>
<td>36 (92.3)</td>
<td>1 (2.6)</td>
</tr>
<tr>
<td>X² value</td>
<td>28.950</td>
<td>41.183</td>
</tr>
<tr>
<td>P value</td>
<td>&lt;0.05</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

Table 5: Comparison of mother’s knowledge, attitude, practice and overall KAP with children’s knowledge, attitude, practice and overall KAP.

<table>
<thead>
<tr>
<th>Mother (KAP)</th>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
<th>χ² value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>51 (63.8)</td>
<td>13 (16.3)</td>
<td>16 (20)</td>
<td>23.012</td>
<td>0.000</td>
</tr>
<tr>
<td>Average</td>
<td>49 (81.7)</td>
<td>5 (8.3)</td>
<td>6 (10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>3 (30)</td>
<td>0 (0)</td>
<td>7 (70)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>110 (89.4)</td>
<td>10 (8.1)</td>
<td>3 (2.4)</td>
<td>29.118</td>
<td>0.000</td>
</tr>
<tr>
<td>Average</td>
<td>12 (50)</td>
<td>5 (20.8)</td>
<td>7 (29.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>3 (100)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>111 (81.1)</td>
<td>9 (7.1)</td>
<td>6 (4.8)</td>
<td>1.703</td>
<td>0.790</td>
</tr>
<tr>
<td>Average</td>
<td>18 (90)</td>
<td>2 (10)</td>
<td>0 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>4 (100)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall KAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>75 (72.8)</td>
<td>27 (26.2)</td>
<td>1 (1)</td>
<td>14.781</td>
<td>0.001</td>
</tr>
<tr>
<td>Average</td>
<td>28 (59)</td>
<td>11 (23.4)</td>
<td>8 (17.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DISCUSSION

Generally the mother is the primary caretaker of the family and is thus charged with teaching her children proper health and hygiene practices. An illiterate or uneducated mother even though she takes care of her family, she may be less knowledgeable about teaching her children proper hygienic practices, subsequently leading to increased rates of infection and disease amongst her children.

According to age group and gender, mean age of 8th standard students was 13 yrs (range: 12-14). Majority of them were boys constituting 74.7% whereas only about 1/4th girls population i.e. 25.3%. In study of Magalhaes et al. students from the 5th and 8th grades were participants of study. Mean age was 10 years (range: 9-14) in the 5th grade and 14 years (range: 13-17) in the 8th grade. And 46.8% were boys and 53.2% girls. As in current study there was no difference in study as well as control group.

In study of Savitha et al, reported illiteracy among mothers of 63.46% of study subjects and very less proportion of mothers with school and college education among study subjects. Whereas Haroun et al observed less proportion of maternal illiteracy (13.2%) among study subjects while as Broor et al observed more proportion of maternal illiteracy (42.6%). In current study, more than 1/3rd mothers are illiterates ie 36% and 58% were literates. This different observation may be due to different of study setting.

Regarding maternal occupation, majority of mothers were farmers and labourers whereas only minimum proportion were housewives & professionals in both groups. In Angela study, 11% of mothers of children in an agriculture work, 3.36% on daily based labour, 1.68% domestic work for others, 85.71% were housewife.

In socioeconomic status using modified B.G. Prasad classification, Maximum families in study belong to middle class followed by lower class and upper class. Ramesh puri and Mehta reported that 66.4% belonged to lower class, 23.8% belong to middle class and 9.6% belong to upper class. The different observation is due to different study setting. In the current study it was noted that mother’s education had significant association with children knowledge and attitude (p<0.05) but was not associated with practice (p>0.05). Mother’s education was compared with their KAP & observed significant association (p<0.05). Seter Siziya et al conducted study on Diarrhoea and acute respiratory infections prevalence and risk factors among under-five children in Iraq in

2000 which showed significant association between maternal education and maternal socioeconomic status with prevalence of diarrhoea and ARI (AOR=1.11, 95%CI [1.04, 1.18]). Ibrahim et al in a 3 year demographic surveillance observed, under 5 mortality from diarrhoea in children of illiterate mothers was more in comparison with literate mothers. The findings suggest that the use of ORT is associated with a mother’s ability to allocate time to health care and her general position in the household and also maternal illiteracy and ignorance are responsible for difference in under-5 mortality. All observations indicate that mother’s education is associated with child health as well as children’s knowledge, attitude and practice. Lloyd, Angela reported that the baseline scoring on acute diarrhoeal diseases, the literate mothers already had knowledge, attitude and practice. Hence the risk of acute diarrhoeal diseases was less in their children as compared to illiterate mothers among whom risk was high.

Socioeconomic status was found significantly associated with mother knowledge, attitude and practice. Those belonging to upper class had good knowledge, attitude and practice as compared to those belonging to middle and lower class similarly mother’s Knowledge, attitude, practice was significantly associated with child’s knowledge, attitude and overall KAP, while mother’s practice was not associated with child’s practice. This difference might be due to social and cultural factors which have been followed in the family. Siziya et al also showed that poor socioeconomic status was associated with incidence of diarrhoea. Datta et al observed that the incidence of diarrhoea was found to be more among low socioeconomic status as compared to upper class. The results were similar to the current study.

CONCLUSION

Maternal education and maternal socio economic status has important role is ascertaining the knowledge, attitude and practice of her children regarding acute diarrhoeal diseases.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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