Research Article

Study of health-care seeking behavior of parents for child health problems in an urban slum area of Solapur

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ABSTRACT

Background: Integrated management of neonatal and childhood illness (IMNCI) considers health-seeking behavior an important determinant in childhood morbidity and envisions an improvement in the behavior. The World Health Organization (WHO) recognizes health-care seeking as one of the three central components of the IMNCI. A thorough understanding of health-care seeking behavior is of utmost importance in planning and formulating interventions for decreasing childhood morbidities in India. **Objectives:** To study the health-care seeking behavior of parents toward child health problems, to study the association between parent's behavior and socioeconomic factors, and also to determine the decision-making person regarding health-care seeking. **Materials and Methods:** This was a community-based, descriptive, cross-sectional study, conducted in the urban slum area under Urban Health Training Centre in Solapur city. A sample size of 100 was taken, and data were collected using a questionnaire. Analysis of the data was done using percentage and Chi-square test. **Results:** Nearly 56% of parents sought health care from private clinic while only 15% went to an urban health-care center. Only 5% of parents directly went to the pharmacy without consulting a doctor, and 21% treated the children at home. The decision-making authority was mother followed by joint decision by the father and the mother. **Conclusion:** Majority of the parents sought health care in a private set up. The time taken to seek care was 1-2 days. There was an association of age and education of father as well as mother to health-care seeking behavior. The decision-making authority was mother.

KEY WORDS: Health-care Seeking Behavior; Urban Slum; Maharashtra; Morbidity; Mortality

INTRODUCTION

In a developing country like India, prevalence of under-five morbidity, which includes diarrheal diseases, upper respiratory tract infections, and febrile illness, accounts up to 57.5%.[1] Furthermore, 70% of child deaths are attributed to diseases such as diarrhea, pneumonia, malnutrition, malaria, and measles.[2]

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According to the World Health Organization "Health care" is a multitude of services which are rendered to the community by health professions for promoting, maintaining, and restoring the health. In India, the public (Government/municipal) and private health-care facilities coexist. There is a higher health-care seeking in urban areas compared to that in rural areas.

Millions of children face morbidity or death owing to preventable diseases mainly due to failure to seek biomedical health care in a timely manner. The WHO and UNICEF have highlighted health-care seeking as one of the three main pillars of Integrated Management of Neonatal and Childhood Illness. The ability of a caregiver to recognize and seek appropriate health care is one of the activities under the Global Action Plan for the control of Pneumonia and Diarrhoea of WHO and UNICEF.[3]

In India, there is a coexistence between the public and private health-care facilities. A vast majority of the parents seek health care from the private facilities.[4] Government or public sector facilities were preferred less due to lack of trust in the doctors and poor care by doctors at the primary health-care level. Many parents treated their children at home and sought health care later on if the symptoms did not alleviate.[5,6] It has been found that 22.8% of urban dwellers still seek health care from faith healers.[7]

The WHO estimated that seeking appropriate and prompt health care would decrease child mortality due to acute respiratory infection by 20%.[8] Studies have suggested that this delay could be attributed to factors such as cost of health care, consulting with the head of family or grandparents before seeking health care.[3] The decision-making authority is an equally important factor which influences health-care seeking behavior of parents. Studies conducted have found the decision-making authority to be the father as well as the mother and the process of decision-making a complex one involving the elders as well.[9]

Health-care seeking behavior is also largely influenced by various sociodemographic factors which affect the pattern and time taken to seek health care. Factors such as age, sex, family size, education, sanitation, and hygiene influence health-care seeking behavior.[10]

Studies have found a positive association between maternal education and health-care seeking behavior. Health-care seeking behavior was also affected by total family income and socioeconomic status and sex of child. On the other hand, some studies did not find any association between sex of the child and health-care seeking.[4]

Literature on health-care seeking behavior of parents regarding child health problems and factors affecting it, in an urban slum setting in India is scarce.[9] Hence, our aim is to study the health-care seeking behavior of parents, especially in the urban setting as it is a resource limited and underserved group. Hence, a thorough understanding of health-care seeking behavior is of utmost importance in planning and formulation of interventions for controlling and decreasing child morbidities in a developing country like India.[8]

MATERIAL AND METHODS

This was a community-based descriptive study with a cross-sectional design. It was conducted in the urban slum area under the Urban Health and Training Centre in the city of Solapur, in the state of Maharashtra, India. The total population residing in the urban slum area under UHTC is 17,800 and the number of households in the area is 3560.

Families with a child or children below the age of 12 years were included in this study. Head of the family or any member above 18 years of age present at the time of the visit were interviewed. Persons not willing to participate in the study and locked households after three visits were excluded from the study. Single parents or children with a deceased parent were excluded from the study.

The percentage of seeking child health care is considered as 50%.[7] Allowable error is taken as 10%, and confidence interval is 95%.The sample size is calculated using the formula.

$$N = \frac{4pq}{L^2}$$

$N = 4 \times 50 \times 50/100$,
N=100.

Hence, the minimum sample size to be studied was 100.

A simple randomized sampling method was used. A sampling frame was obtained by numbering all the households in the area. A computer-based random number generator software was used to obtain a sample of 100. If the household selected did not have child or children below 12 years of age, next random number was taken.

The Institutional Ethical Committee approval was obtained before the commencement of the study. A pre-designed and pre-tested questionnaire was used for the purpose of collection of data by undertaking house-to-house visits. The head of the family or any member of the family above the age of 18 years of age or mother of the child was interviewed. An informed written consent was taken from the participant before asking the questions. The questionnaire included points about the brief history of illness of the child in the past 6 months, the pattern of seeking consultation and treatment, and sociodemographic factors such as family size, socioeconomic status, age, education, and occupation of the parents, time taken to seek health care, and the person taking decision. Analysis of the data obtained was done using percentage and Chi-square test for association and Chi-square test for goodness of fit.

RESULTS

A total of 100 children below the age of 12 years and their parents were included in this study.

The average age of children was 4.79 years, father's was 32.38 years and mother's was 26.42 years.

Table 1 shows the distribution of children based on age and sex. Figure 1 shows distribution of children based on health problems reported by the mother in the past 6 months. Figure 2 shows distribution of children based on behavior

of parents for seeking health care. Other includes traditional healer (1%) and tertiary care hospital (2%). Figure 3 shows distribution of children according to sex, based on time taken to seek health care. Figure 4 shows the decision-making person in the family while seeking health care. About 38% of mothers took the decision which was significantly more than the other family members (Chi-square = 95.44, degrees of freedom = 6, $P < 0.01$). Here, m+gp means mother and grandparents, whereas f+gp means father and grandparents and joint includes mother and father only. Table 2 shows the distribution of parents based on age, education, and occupation. A total of 100 mothers and fathers were studied. Table 3 shows distribution of father's education and health-care seeking behavior. The association between father's education and health-care seeking behavior is statistically significant (Chi-square = 21.4, df = 1, $P < 0.05$). About 75% of fathers had education up to secondary. Out of them 57.3% sought health care in a private clinic. 25% of fathers who were uneducated sought health care directly from a pharmacy.

Table 4 shows the distribution of mother's education and health-care seeking behavior. The association between mother's education and health-care seeking behavior is statistically significant (Chi-square = 7.71, df = 1, $P < 0.01$). 77% of the mothers had education till secondary and 53.2% of them took their children to a private clinic. Table 5 shows distribution of socioeconomic class of the family and health-care seeking behavior. Upper class includes upper and upper middle class, whereas low class includes lower middle and lower class according to the Modified B G Prasad socioeconomic scale.[11] The association between socioeconomic class and health-care seeking behavior is statistically significant (Chi-square = 7.57, df = 1, $P < 0.01$). 69% of the families belonged to the low socioeconomic class and 53.62% of them sought health care from private clinic while 5.79% went directly to the pharmacy. Table 6

Table 1: Distribution of children based on age and sex

Age/sex (years)	Male	Female	Total
<5	31	26	57
5-12	20	23	43
Total	51	49	100

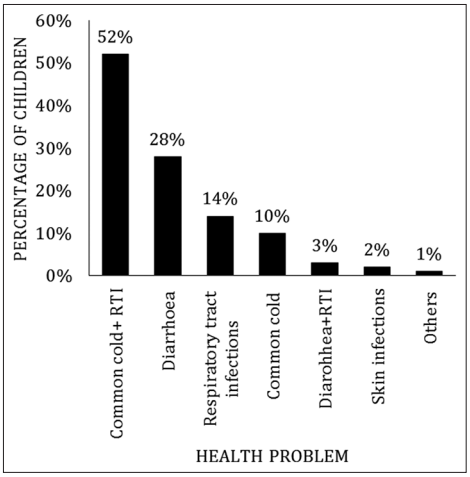

Figure 1: Distribution of children based on health problems

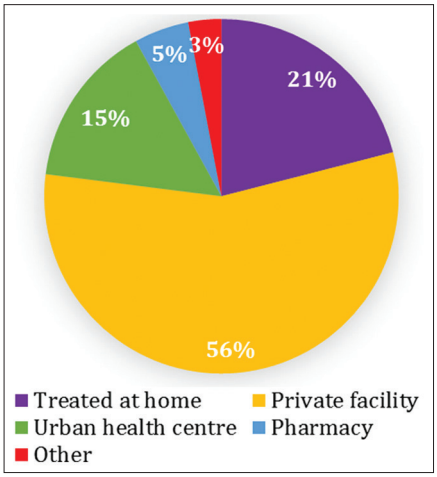

Figure 2: Distribution of children according to seeking of health care

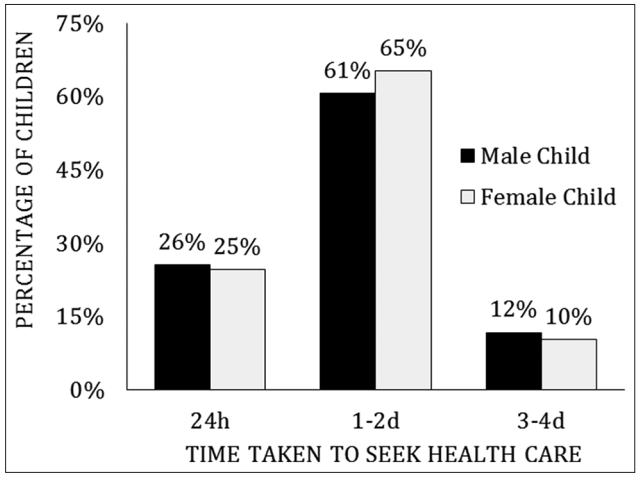

Figure 3: Distribution of children based on time taken to seek health care

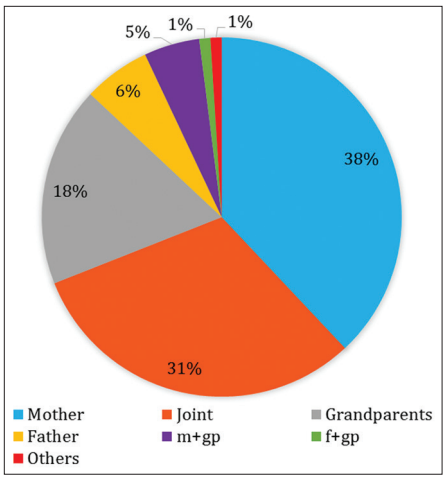

Figure 4: Decision-making person while seeking health care

shows distribution of children based on sex and health-care seeking behavior. The association between sex of the child and health-care seeking behavior is statistically significant (Chi-square = 6.66, df = 2, $P < 0.05$).

About 60.78% of male children and 51.02% of female children were taken to a private clinic for seeking health care. 30.6% of the female children and only 11.76% male children were treated at home. 83% of parents had never sought treatment for their child from a Government tertiary care hospital. When asked about the reason for not seeking health care in a government set up 21.68% of parents said that they thought the disease was not serious enough, 18.07% stated that the government facility was far away, 15.66% stated that it was too crowded, and 10.8% said that it was time-consuming and delayed their work and chores.

Table 2: Distribution of parents based on age, education, and occupation

Parameters	Father (%)	Mother (%)
Age (years)		
20-29	37	68
30-40	53	30
>40	10	2
Education		
Up to 10 years (up to secondary)	75	77
Above 10 years (above secondary)	13	10
Uneducated	12	13
Occupation		
Skilled and semi-skilled	86	28
Unskilled	12	5
Unemployed	2	67

DISCUSSION

We studied 100 children and their parents in an urban slum area in Solapur. 57% of the children were under-five, whereas 43% were between 5 and 12 years of age. 51% were male children, whereas 49% were female children. 52% children suffered from common cold and upper respiratory tract infections in the past six months and 2% suffered from skin infection. 52% of the parents sought health care at a private clinic, whereas 21% treated their children at home, 15% went to the Urban Health and training Centre, 5% went directly to the pharmacy, and only 1% consulted a traditional healer. 60.7% of male children and 65.3% of female children were given health care in 1-2 days. Only 11.7% of male children and 10.2% female children were treated 3-4 days after onset of symptoms. 76% of the children did not need further treatment but 24% needed further treatment. 21% sought further treatment in a private facility, whereas only 3% took further treatment in a government health-care facility. In our study, the decision-making person was the mother (38%) followed by father and mother jointly (31%). 18% decisions were taken by the grandparents alone while 6% decisions were taken by grandparents and parents jointly. The average age of the father was 32.8 years. The association between age of father and health-care seeking was statistically significant (Chi-square = 11, df = 2, $P < 0.01$). The occupation of father and health-care seeking behavior did not have a statistically significant association. 75% of the fathers had education up to secondary while 13% were educated above secondary and 12% were uneducated. The association between fathers education and health-care seeking behavior is statistically significant (Chi-square = 21.4, df = 1, $P < 0.05$). The average age of the mothers in our study was 26.42 years. There was a statistically significant association between age of mother and health-care seeking behavior for child health problems

Table 3: Distribution of father's education and health-care seeking behavior

Education of father	Up to secondary (%)	Above secondary	Uneducated	Total
Treated child at home	15 (20)	6 (46.15)	0	21
Private clinic	43 (57.3)	6 (46.15)	7 (58.3)	56
Urban health center	13 (17.6)	0	2 (16.6)	15
Pharmacy	2 (2.6)	0	3 (25)	5
Other (specify)	2 (2.6)	1 (7.69)	0	3
Total	75	13	12	100

Table 4: Distribution of mother's education and health-care seeking behavior

Education of mother	Up to secondary (%)	Above secondary (%)	Uneducated (%)	Total
Treated at home	19 (24.6)	2 (20)	0	21
Private	41 (53.2)	5 (50)	10 (76.9)	56
Urban health center	10 (12.9)	3 (30)	2 (15.38)	15
Pharmacy	4 (5.19)	0	1 (7.69)	5
Other (specify)	3 (3.89)	0	0	3
Total	77	10	13	100

Table 5: Distribution according to socioeconomic class and health-care seeking behavior

SE status	Upper class*	Middle class	Low class#	Total
Treated at home	4 (44.4)	3 (13.63)	14 (20.2)	21
Private	4 (44.4)	15 (68.18)	37 (53.62)	56
Urban health center	1 (111)	3 (13.63)	11 (15.94)	15
Pharmacy	0	1 (4.54)	4 (5.79)	5
Other (specify)	0	0	3 (4.34)	3
Total	9	22	69	100

*Upper class includes upper and upper middle class while# low class includes lower middle and lower class according to modified B G Prasad socioeconomic scale[11]

Table 6: Distribution of children based on sex and health-care seeking behavior

Sex of child	Male (%)	Female (%)	Total
Treated at home	6 (11.76)	15 (30.6)	21
Private	31 (60.78)	25 (51.02)	56
Urban health center	10 (19.60)	5 (10.20)	15
Pharmacy	2 (3.92)	3 (6.12)	5
Other (specify)	2 (3.92)	1 (2.04)	3
Total	51	49	100

(Chi-square = 8.89, df = 2, $P < 0.01$). The occupation of mother was not found to be associated with health-care seeking behavior ($P > 0.05$). With regard to education of the mothers, 77% of the mothers were educated up to secondary, 10% had education above secondary, and 13% were uneducated. The association between education of mother and health-care seeking behavior regarding child health problems was statistically significant (Chi-square = 7.71, df = 1, $P < 0.01$). In our study, 31% were nuclear families, 22% were joint, and 47% were three generation families. A statistically significant association exists between type of family and health-care seeking behavior (Chi-square = 7.57, df = 1, $P < 0.01$). The average per capita income was Rs. 1466/- and the families were divided on the basis of Modified BG Prasad socioeconomic classification (2014).[11] The lower class includes lower and lower middle while the upper class includes upper middle and upper class. 69% of families belonged to the lower middle and lower class and only 9% belonged to upper class. The association between socioeconomic class and health-care seeking behavior was statistically significant (Chi-square = 5.86, df = 1, $P < 0.01$). Our study included 51% males and 49% females. There existed a statistically significant association between health-care seeking and sex of the child (Chi-square = 6.66, df = 2, $P < 0.05$).

According to the National Family Health Survey-III in India, 19.2% children suffered from diarrhea.[12] In a study conducted in Nepal, 46.2% children were taken to a pharmacist and 26.4% were taken to a medical doctor, whereas 0.6% children were taken to a traditional healer. It also highlighted delay in seeking health care leading to increase in morbidity and mortality in children. Similar to our study, it showed that family income and socioeconomic class were positive indicators for health-care seeking.[8] In accordance with another study in Nepal, 81.4% mothers had sought treatment out of which 69% sought treatment from health facility and 31% from traditional healer. There was significant relationship between education of the mother ($P = 0.05$), sex of the child ($P = 0.004$) and health-seeking behavior of mothers.[13] Unlike our study, the one conducted in Kenya stated the father as the main decision-taking person further showing importance of grandparents in decision-making.[14] In opposition to our findings, a study conducted in Nepal showed no association between sex of the child and health-care seeking behavior of the mothers.[4] A study conducted in a rural setting found higher male child preference in seeking health-care seeking behavior.[15]

In our study, the high utilization of private facilities could be attributed to the proximity of private clinic. The parents engaged in occupation mainly based on daily wages, so private clinic was an easier and quicker alternative as it consumed less time. The observation that the mother was the decision-making authority could be attributed to the fact that 66% of mothers were unemployed and were homemakers. Furthermore, the mother was in contact with the child for a longer time, so she was the one who recognized the symptoms. Furthermore, children in this age group are emotionally closer to their mothers.

Our study was conducted in an urban slum area which is a low-resource setting with high childhood morbidity and mortality. Furthermore, we studied the wider age group of children from 0 to 12 years. The limitations were that the sample size was limited to 100 and mother's/care giver's perception of the severity of the disease was not considered.

CONCLUSIONS

The major health problems were found to be common cold and upper respiratory tract infection followed by diarrhea. A vast majority of the parents sought health care from a private clinic owing to the proximity of the clinic from their homes (56%). Most of them did not seek health care from government facilities citing reasons such as distance, crowded hospitals, time-consuming, and lack of trust in the doctors. Most of the children were given health care in 1-2 days after appearance of symptoms. The decision-making authority was mother. The factors associated with health-care seeking behavior were the age and education of mother. We found that the age and education of father and mother, sex of the child, type of family, and socioeconomic status were associated to health-care seeking behavior. Socioeconomic status is an important factor as seeking health care becomes an out of pocket expenditure. Further research could be done

to assess the perception of mothers toward the illness and its association with health-care seeking behavior. Research could also be done to determine the level of utilization of government facilities and schemes and their association with health-care seeking behavior.

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