

A study on the health seeking behavior among caregivers of under-five children in an urban slum of Bhubaneswar, Odisha

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ABSTRACT

Background: The under-five children are a vulnerable age group; their mortality reflecting a country's overall development. Timely and appropriate healthcare seeking behavior, if practiced by caregivers, can have a significant impact on survival. The slum dwellers have poor health-seeking behavior due to their lower socioeconomic status, prevailing malnutrition, poor immunization status, overcrowding, poor sanitation, personal and cultural practices, beliefs, and attitude toward healthcare providers. **Objectives:** (1) To assess the health-seeking behavior among caregivers of under-five children during acute childhood illness (2) To find out the factors associated with their treatment-seeking behavior. **Materials and Methods:** A community-based cross-sectional study, among 260 caregivers, in the field practice area of Urban Health and Training Centre of a medical college was undertaken from September 1, 2016 to February 28, 2017, using a pretested semistructured questionnaire after obtaining a list of under-fives from the female health worker. **Results:** In total, 260 caregivers with mean of 26.61 ± 4.31 years participated in the study, 77.69% reported of some health morbidity. Around 21.92% of the caregivers gave primary care at home, 33.46% visited a chemist, and 33.08% attended health facility nearby. About 79.23% sought healthcare immediately following illness. Of the remaining 20.77% who did not seek medical advice, 75.93% used home remedies. Significant association was found between the age of the mother, educational status of the mother, religion, birth order of the child and socioeconomic status of the caregivers, and appropriate treatment seeking behavior during an episode of acute illness. **Conclusion:** This study attempted to identify health-seeking behavior of caregivers for children under-five and the determinants of appropriate treatment-seeking behavior. The knowledge of signs and symptoms of ill-health can reduce morbidity and mortality; however, continuous education of caregivers for recognition of symptoms and the need to seek appropriate medical care is needed. Government facility was the preferred choice for the population in the sampled slum. Treatment-seeking behavior was good among the respondents with majority having appropriate behavior. Measures can be taken to help promote awareness among those who did not have appropriate treatment seeking behavior.

Keywords: Acute childhood illness, caregivers, health-seeking behavior, morbidity

Introduction

In spite of the epidemiological transition of diseases globally, child morbidity still remains a challenge in the developing world.^[1] Children are dependent on their parents for their health and well-being. Being young they are vulnerable to

a number of infections. Proper health-seeking behavior of caregivers can help reduce the associated morbidities and mortality associated with acute illness. Globally, India had the largest population of under-fives (127 million), and the greatest number of under-five deaths (2.1 million) in 2006.^[2] The childhood diseases assessed in National Family Health Survey-4 (NFHS-4) were episodes of diarrhea, acute respiratory infections (ARI), and anemia. The incidence of diarrhea remained the same (9%) between NFHS-3 and

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NFHS-4, whereas the prevalence of ARI almost halved from the level of 5.6%.^[3] Child survival in India varies significantly across states, geographical location and socioeconomic factors, reflecting uneven development in the country and inequalities in many aspects of life. Odisha is one of the states in India with high infant and under-five mortality rates. Although the under-five mortality is in a declining trend, but the burden of morbidity continues to remain high. The prevalence of reporting to health facilities being still high with complains of ARI and fever (74.3%) and diarrhea (65.8%) in urban areas of Odisha.^[4] The slum dwellers are more vulnerable to diseases because of socioeconomic factors, poor sanitation, personal and cultural practices, overcrowding, malnutrition, and poor immunization status. Hence, this study was undertaken in an urban slum which is catered by the Urban Health and Training Centre (UHTC) of a medical college.

Objectives

1. To assess the health-seeking behavior among caregivers of under-five children during acute illness
2. To find out the factors associated with their treatment-seeking behavior.

Materials and Methods

Study design

It was a community-based cross-sectional study.

Study area

This study was carried out in the field practice area of UHTC of a medical college.

Study period

The study was carried out over a period of 6 months from September 2016 to February 2017.

Study population

The study population comprised of the caregivers of children under-five years of age and included mothers and other family members who were primarily responsible for attending to the child's health.

Sample size

The sample size was calculated on the basis of 63% of children with childhood illness were taken to a health facility according to the NFHS-3 survey.^[5]

Hence, $P = 63\%$

$q = 1 - P = 37\%$

$d = 10\% \times 63 = 6.3$

Allowable error- 10%

$$N = \frac{4pq}{d^2} + 10\% = \frac{4 \times 63 \times 37}{6.3 \times 6.3} + 10\% = 235 + 10\%$$

$$= 258 \approx 260$$

Hence, a sample size of 260 was calculated for the study.

Sampling technique

Simple random sampling technique was used to identify the study participants. A list of household with under-five children was prepared by house-to-house survey by the female health worker. The sample size was randomly selected from the drawn list. In total, 1,628 under-five children in 786 households were identified; of which 260 were randomly chosen. If in a house there were more than one under-five children, the caregiver of the younger child was interviewed.

Methodology

Each caregiver was interviewed in their home by the investigator using a predesigned, pretested, semistructured schedule. The schedule was pilot tested among 30 local caregivers in another slum.

Inclusion criteria

1. Caregivers' of children who were from 6 months to 5 years
2. Caregivers' who gave written informed consent
3. Caregivers' who were residing in the slum since at least One year.

Exclusion criteria

1. Those mothers with chronically sick underfive children
2. Caregivers' who were uncooperative
3. Caregivers' not found in the house even after two home visits
4. Caregivers' <18 years or mentally ill
5. Caregivers' who were unable to tell the age of the under-five child.

Study tool

The study tool included a semistructured pretested questionnaire with three parts. The first part had details of the sociodemographic data; the second part had questions related to the child's immunization status and the health seeking behaviour during acute childhood illness considering a recall period of 6 months. Details of all the self-reported morbidities of the under-five children, such as fever, cough, difficult breathing, and diarrhea or any other morbidity were extracted. The choice of healthcare professionals of the caregivers' during any acute childhood illness, reasons for their choices, and reasons of some caregivers not seeking any help from healthcare professionals was assessed. The third part comprised of the details of the findings on general examination and anthropometrical measures. Those found to have any ailments were referred to the medical college for appropriate management.

Operational definitions

1. Caregiver: Caregivers were the mothers or other family members who were primarily responsible for attending to their child's health
2. Healthcare-seeking practice: Any activity undertaken by individuals who perceived themselves or their children to have a health problem for the purpose of finding a remedy. This was based on the recognition of symptoms, which were interpreted by individuals who then proceeded to address the problems^[6]
3. Appropriate treatment-seeking behavior: It was defined as seeking treatment from trained personnel or at a health facility within 24 h of onset of symptoms
4. Acute childhood illness: In this study, acute diarrheal disease, acute respiratory illness, and febrile illness were considered among the assessed acute childhood illness
5. Acute diarrhea disease (ADD) - It is defined as the passage of three or more loose or liquid stools per day (or more frequent passage than is normal for the individual)^[7]
6. Acute Respiratory Illness: Child who had any of the symptoms of blocked or runny nose, cough, difficulty in breathing, or fast breathing in the previous 6 months^[7]
7. Fever: When the caregiver perceived a rise in body temperature/previous available records for such episode, within 6 months preceding the study.

Ethical implication

Ethical clearance and approval were obtained from the Institutional Ethics Committee. Written informed consent was obtained from the study participants. We assured that they had right to refuse to participate at any stage of data collection. The caregivers had been told that the information obtained from them will be kept completely confidential.

Data analysis

Data were entered into Microsoft Excel sheet and analyzed using Epi Info software version 7.2.0.1. Descriptive statistics was used and Chi-square test as the test of significance with a *P* value of <0.05 taken as statistically significant.

Results

Our study on health-seeking behavior of caregivers of under-five children done among 260 caregivers threw light on their existing practices. All the caregivers in the study participants were mothers. The mean age of the informants was 26.61 ± 4.31 years; most (68.8%) of the informants being 20- to 30-year old. Around 88.08% of them were Hindus. Most of them were homemakers and 57.31% of them belonged to upper-lower class based on modified Kuppaswami socioeconomic scale. Around 50.77% of the children were males, 42.31% of birth order of one [Table 1].

Around 77.69% reported of some health morbidity in the last 6 months. Diarrhea (52.69%) was the most common morbidity, followed by ARI (30%). Around 15% reported having both

Table 1: Sociodemographic characteristics of the caregivers (n=260)

Variables	Frequency (n)	Frequency (%)
Age group (years)		
<20	14	5.38
20-30	177	68.08
>30	69	26.54
Religion		
Hindus	229	88.08
Muslims	21	8.02
Christians	10	3.90
Occupation		
Employed	58	22.31
Unemployed/homemakers	202	77.69
Socioeconomic status		
Lower	7	2.69
Lower middle	80	30.77
Upper lower	149	57.31
Upper middle	24	9.23

diarrhea as well as fever within the last 6 months. In total, 213 episodes of different morbidities were reported among the 260 children.

The health-seeking behavior of the caregivers during the morbidity episode was found to be appropriate among 219 (84.23%), who sought medical help within 24 h of the child falling ill. Most (30.59%) of them preferred a government hospital; the next preference being a medicine store during any acute childhood illness [Figure 1].

The age of the mother, educational status of the mother, religion, and socioeconomic status were found to be significantly associated with the treatment-seeking behavior of the caregivers' during an episode of acute childhood illness [Table 2].

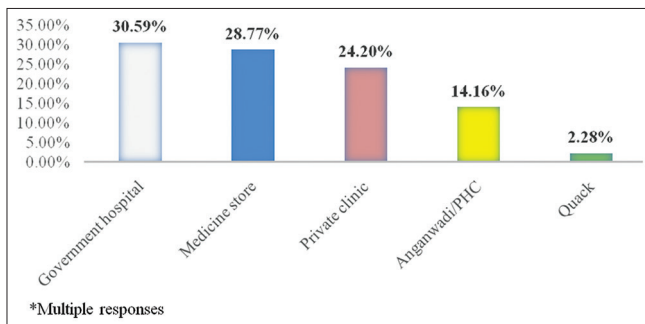
Among the 41 caregivers (15.77%) who did not have appropriate health-seeking behavior (i.e. not seeking healthcare within 24 h of illness), the most common reason cited was using home remedies on the first day of illness [Figure 2]. None of them responded "nonavailability of health worker" or "distance from health facility" as a reason for not seeking healthcare.

Discussion

In this study on the health-seeking behavior in an urban slum of Bhubaneswar, the health-seeking behavior of the respondents was found to be appropriate in nearly 84.23%. Around 88.08% of the respondents were Hindus in this study, whereas in a study done in slums of Dibrugarh town in Assam, only 57.5% of the respondents were Hindus.^[8] In this study, 77.69% of the respondents were homemakers, whereas a study by Minz *et al.* done in Lucknow among rural and urban poor communities in the year 2018 reported that majority (93%) of the study participants were homemakers.^[9] Another study done in Tamil Nadu also reported similar results as our study where

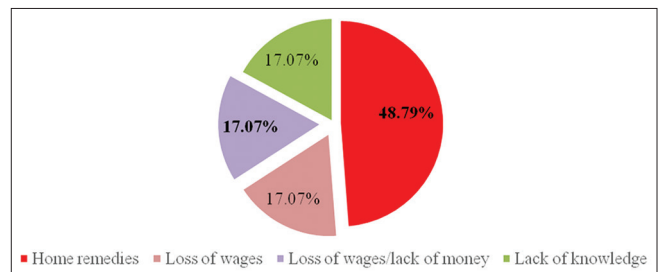
Table 2: Association between sociodemographic variables and treatment-seeking behavior (n=260)

Variables	Appropriate treatment seeking behavior (n=219), %	Inappropriate treatment seeking behavior (n=41), %	P
Age of the mother (years)			
<20	7 (3.2)	7 (17.1)	<0.0001
20-30	167 (76.3)	10 (24.4)	
>30	45 (20.5)	24 (58.5)	
Educational status of the mother			
Illiterate	30 (13.7)	35 (85.4)	<0.0001
Literate	189 (86.3)	6 (14.6)	
Religion			
Hindu	207 (94.5)	22 (53.7)	<0.001
Muslim	7 (3.2)	14 (34.1)	
Others	5 (2.3)	5 (12.2)	
Socioeconomic status			
Lower	3 (1.4)	4 (9.8)	<0.001
Lower middle	60 (27.4)	20 (48.8)	
Upper lower	140 (63.9)	9 (21.9)	
Upper middle	16 (7.3)	8 (19.5)	
Birth order of the child			
First	104 (47.5)	6 (14.6)	<0.001
Second	103 (47.0)	22 (53.7)	
Third or above	12 (5.5)	13 (31.7)	
Sex of the child			
Male	112 (51.1)	20 (48.8)	0.92
Female	107 (48.9)	21 (51.2)	

**Figure 1: Distribution of caregivers according to the preference of healthcare facility during acute childhood illness (n = 219)***

76.54% of the participants were homemakers.^[10] In this study, majority (57.31%) of the participants belonged to upper-lower class followed by lower-middle class based on modified Kuppaswami socioeconomic scale 2017, whereas the study done in Assam reports that most of the caregivers belonged to class IV of the socioeconomic scale.^[8]

Appropriate treatment-seeking behavior (seeking treatment from healthcare facility within 24 h of the onset of childhood illness) was found among 84.23% of the caregivers in this study, which is fairly more than the finding in a study done in the Hooghly district of West Bengal where appropriate health-seeking behavior was found only among 32.6% of the caregivers.^[11] Similar results were also reported in a study conducted in Ethiopia in the year 2011, which showed that as few as 13.7% had appropriate health-seeking behavior among them.^[12] This study reveals that appropriate health-care seeking behavior was present in 84.23% of the caregivers which is much higher than both the previous

**Figure 2: Reasons cited for not seeking healthcare (n = 41)**

studies. This might be due to frequent role plays and awareness camps organized in these slums by our institution. A study done among the fisherman community of Tamil Nadu reported better results than this study where all the children were taken to some healthcare centre within 2 days of illness, around 90.82% sought care immediately and none of the caregivers practiced self-medication.^[10] This difference can be attributed to their higher literacy level (100% of the respondents were literates).

The place of preference for seeking care in the present study was Government Hospital (30.59%) followed by medicine store, private clinics, anganwadi centers and quacks (2.28%). In a study by Minz *et al.* in an urban slum of Lucknow, the respondents primarily preferred a qualified private practitioner (65.4%), followed by an unqualified private practitioner (26.9%) and a tertiary care health center (7.8%).^[9] Another study done in Assam by Borah *et al.* reported that Government facilities was preferred by majority (41.8%), followed by health worker (17.5%), family member (16.8%), and private doctor (9.6%) of the participants during any childhood illness.^[8] Another study by Annadurai *et al.*

in Tamil Nadu reported that around 81.15% of the caregivers preferred a private doctor during any childhood illness and as few as 18.85% preferred a government health center.^[10] This difference in utilization of healthcare facility may be because of the difference in accessibility and quality of the health care delivered in these regions. Another study done by Chauhan *et al.* among rural population of a coastal area of south India reported that around one-third of the study participants preferred a private practitioner during any ailment of their under-fives and the reasons for preference were better availability and better quality of healthcare.^[13]

This study reveals that the reasons for not seeking healthcare were mainly use of home remedies suggested by family members and neighbors (48.79%), loss of wages (17.07%), previous experience with the health services (17.07%), and lack of knowledge about the danger signs of acute childhood illness (17.07%), whereas Borah *et al.* reported that nothing was done on the first day of childhood illness by 32.5% of the study participants out of which ignorance was the most common reason, followed by the reason that the treatment was unaffordable and the distance from the hospital was the next common reason.^[8] Another Ethiopian study revealed the main reasons for inappropriate treatment seeking behavior to be illness was not serious (53.3%), no money (26.7%), and did not see any benefit in treatment (13.3%).^[14]

Association between the age of the mother, literacy status, religion, socioeconomic status of the mother, birth-order of the child, and the treatment seeking behavior was found to be highly statistically significant in this study. This denotes that appropriate treatment seeking behavior was less among mothers who were >30 years, those who were illiterates, who belonged to Hinduism, those who belonged to lower-middle socioeconomic class and those who had birth order 2. The statistical significance in Hinduism may be because of the fact that majority (88.08%) of the study participants were Hindus. The statistical significance in the birth order two may be explained by the fact that 125 participants had a birth order of 2 in the last delivery. The study by Borah *et al.* depicted that literacy of both the parents was found to be statistically significantly associated with health-seeking behavior of caregivers during any acute childhood illness.^[8] In this study, 51.1% of the males and 48.9% of the females had an appropriate treatment-seeking behavior, showing the gender of the child had no changes in attitude for health-seeking behavior. The findings of a study by Yerpude *et al.* done among the rural population of Gujarat had a difference in the health-seeking behavior with male children given earlier access and better care toward the ailments in comparison to their female counterparts.^[15]

Conclusion

This study highlights the practices of health-seeking behavior of caregivers of under-five children in a slum community. The under-five morbidity and mortality associated with acute illnesses can be prevented, if we as primary care physicians are able to know about their health-seeking behavior, preference

of utilization of health services, and their reasons for not seeking timely medical care. The sampled population had a good treatment-seeking behavior, reflecting the increasing awareness of the importance and utilization of timely health-seeking behavior among them. This slum being catered by the medical college can have a better health-seeking behavioral pattern, which cannot be generalized to the whole slum population of Odisha. Measures can be taken to help promote awareness among those who did not have appropriate treatment-seeking behavior.

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Conflicts of interest

There are no conflicts of interest.

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