

Mother's Healthcare Response to Child Illness: A Slum-Based Cross-Sectional Study in Dhaka City, Bangladesh

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ABSTRACT

Background: With the burgeoning slum population in Dhaka, the fastest growing megacity in the world, slum population health is a real concern due to overcrowded, unhygienic living conditions and lack of health care facilities. Mortality of children under the age of five is higher in urban populations than in urban non-slum and rural areas, largely because of the mothers' inability to seek care promptly and appropriately. The present study assesses the behavioral patterns of slum mothers seeking treatment during their children's illness and determines important predictors of visiting medical doctors.

Methods: A community-based, cross-sectional study was carried out in two selected slums of Dhaka city. A total of 406 mothers were interviewed using a pretested, structured questionnaire to collect data on their socio-demographic backgrounds and care-seeking practices.

Results: Mothers received treatment from drug sellers (56%) as the predominant source for child recovery, whereas only 27% of mothers sought treatment from medical doctors. Only 25.6% mothers visited any providers within 24 hours. Mothers reported that low cost is the most influential factor for visiting drug sellers frequently, and the high cost of medical doctors is the most influential factor for not visiting drug sellers. Younger children (AOR 0.982, 95% CI 0.965-1.000), male children (OR 1.599, 95% CI 1.002-2.552), and unemployed children (OR 0.581, 95% CI 0.346-.976) were more likely to seek treatment from doctors. In addition, perceived illness severity (OR 1.821, 95% CI 1.118-2.965) and longer illness persistence (OR 1.041, 95% CI 1.01-1.066) were found to be significant predictors for seeking treatment from doctors.

Conclusion: Mothers were pushed to go through informal healthcare providers, mainly drug sellers, due to cheaper treatment, easy access to them, and unavailability of the skilled care providers in slum areas. Thus, training and logistic support for drug sellers are essential to deliver better treatment and referral if needed to the slum children, since they are so convenient to mothers.

KEY WORDS: Mother's health-seeking, informal healthcare providers, drug sellers, doctor's visit, child illness, slums

BACKGROUND

Bangladesh has made remarkable progress in achieving the Millennium Development Goal (MDG) of reducing infant and child mortality.¹ However, one in every nineteen children born in Bangladesh dies before reaching the age of five.² Recent estimates by UNICEF show that in every 1,000 live birth, 38 children in Bangladesh and 43 children worldwide have died under the age of five.³ These deaths occurred because illness was not recognized in time and treated appropriately by trained medical personnel.^{4,5}

Care-seeking interventions have the potential to reduce child mortality, but numerous children in developing countries die without ever reaching health facilities due to delays in seeking care.⁶ Millions of mothers and children in these countries are deterred by their social environment from seeking and receiving good healthcare.⁷

Progress in improving the health of children greatly varies across the countries in Southeast Asia and across different populations within the same country; for instance, under-five mortality among the urban poor population,

especially in slum areas, is worse than that of non-slum urban areas.⁸ The rapid and unplanned population growth, largely due to extensive rural-to-urban migration, of the cities in that region has caused the rise of temporary and illegal settlements, which are known as slums.⁹ Despite the spectacular progress in maternal and child health indicators in Bangladesh, these indicators are consistently found to be poor in these pockets of urban poverty.^{10, 11} Slums are characterized as impoverished or informal settlements that fail to provide one's basic needs for space, privacy, security, and access to safe water and sanitation, forcing their inhabitants into poverty, unemployment, and social and economic deprivation. Factors affecting child health of the urban poor in Southeast Asia include living conditions, availability of essential services and affordable health care services, cultural norms, and health behavior of the mothers.⁷ In the context of developing countries, mothers are the main caregivers of the children, and hence their health seeking behavior is crucial to reduce child mortality in the urban slum population.

The lives of children living in these settlements are in more danger regarding health outcomes because children are highly sensitive to the hazardous environment of the slums. In addition, there are no medical centers in these slums; hence, the slum children are deprived of primary healthcare facilities.¹² As a consequence, infant and child mortality is significantly higher in the urban poor of the slum areas, even though it is lower in urban areas than rural areas.¹³⁻¹⁵ The 2007 Bangladesh Demographic and Health Survey shows that the under-five mortality rate was lower in urban areas than rural areas (63 vs. 77 per 1,000 live birth).¹³ According to the 2006 Urban Health Survey, under-five mortality rate was 80.7 deaths per 1,000 live births in urban slum areas compared to 31.0 deaths per 1,000 live births in non-slum urban areas.¹¹

The capital city Dhaka, the fastest growing megacity in the world, has around 5,000 slum clusters where 3.4 million (37% of total city population) people lived in 2005.¹⁶ It has a plethora of private health facilities, but cost of their services makes these facilities inaccessible to the urban poor. The Ministry of Health and Family Welfare organizes urban health care in collaboration with the city corporation and non-government organizations, which cannot cater to all the medical needs of this ever growing population.¹⁷ Therefore, lack of access

to health facilities, the higher costs in private facilities, inadequacy of care in public facilities, and inequity in health care seeking by those of different socioeconomic statuses are the main barriers to achieving better health service for poor children and consequently to reducing child mortality.^{13, 18-20}

In urban areas of Bangladesh, the Urban Primary Health Care Services Delivery Project for urban poor is run by different NGOs and private operators, and the project is funded by Asian Development Bank. This project provides a package of essential primary health-care services emphasizing preventive care with a focus on maternal and child health. However, these facilities focus on reproductive health care and are not available in all slum areas. Thus, slum dwellers mostly depend on informal providers for treating their illnesses, largely on drug selling persons as a primary means for health care due to their easy accessibility, cultural familiarity, and low cost.²⁰ Drug sellers, also known as drug vendors or drug retailers, usually sit in unlicensed pharmacies and have no formal training in dispensing, diagnosis, or treatment,²¹ yet they are the main source of treatment among slum dwellers.²² Furthermore, the lack of data on child morbidity and the unmet healthcare needs in slums hamper the efficient allocation of health care initiatives and the provision of appropriate disease prevention services.²³ Therefore, the health challenges in slums are not studied comprehensively; the challenges are big and deserve more thorough consideration.¹⁶

While the living conditions in the urban slums of Dhaka City are harmful, particularly for the health and well-being of young children due to the threat of eviction, movement, haphazard growth, and unhealthy environment,²⁴ little prior national as well as international level research exists on this issue. In the last decade, several surveys and research studies have focused on slum and squatter settlement, which mostly addressed their housing and infrastructural problems or socio-economic circumstances, but few have focused on health problems as well as behavior regarding health care seeking practices.¹⁶ The existing studies with a nationwide sample and different aged people have failed to address child health problems and mother's behavior regarding child illness, because the socioeconomic conditions, living standards, and environmental surroundings of slum dwellers are different from the usual urban-rural differential used in the studies and surveys. Therefore, the

present study aims to look into health care seeking behavior of mothers for their children and to examine the effects of socio-demographic and illness-related variables on availing care from medical doctors.

METHODS

Sampling and Data Collection

This study was a community-based cross-sectional survey conducted in two large slums of Dhaka city, known as Karail and Jhil Paar slum, from March 15 to 31, 2013. We selected the ten largest slums considering their population and total area and identified five slum areas situated near rich areas and another five slum areas near comparatively less well-off areas. We randomly picked one slum, Karail, with a rich neighborhood and another, Jhil Paar, with a less well-off neighborhood. The respondents of this study were mothers with at least one child aged between 0 to 59 months, who suffered from at least one illness in the 30 days prior the survey. When a mother had more than one child, she was asked only about the last illness of her youngest child to reduce the biases associated with the order of children. It was also expected that a mother is more concerned about her youngest child. When the youngest child was not ill, the immediate older child was considered for collecting information about child illness. A total of 406 mothers from two slums who met the eligible criteria of the study were interviewed at their homes using a pretested, structured questionnaire. Informed consent was taken from all mothers verbally before the interview.

The sample size was estimated considering the population proportions of mothers receiving health care services from formal health care settings. A contemporary study on slum children showed that 40.6% of children received care from either physicians or para-professionals for acute respiratory infection.¹¹ With a precision of 5% and confidence level of 95%, a minimum required sample size of 369 subjects was estimated. Taking 10% non-response, the minimum sample needed for the study was increased to 406 subjects. Since there are no area specification and population count, mothers were selected and interviewed conveniently while maintaining population ratio of the two slums: 223 from Karail and 183 from Jhil Paar. An equal number of respondents were interviewed face-to-face from different units (informally both slums are divided into several units) of the two slums. Mothers were asked about their children's most recent illness and remedial actions in response to this, as well as about their

socioeconomic and demographic backgrounds. A maximum one-month recall period was considered to ensure considerable inclusion of all types of illnesses and to get proper response from those. Multiple responses were taken to depict the exact pattern and flow of behavior, and to reveal the transition of treatment choice with increased severity and persistence of illnesses.

Ethical Statement

This study was carried out as a master's thesis and the study protocol was approved by the academic committee of the Department of Population Sciences, University of Dhaka. Each stage of this study was supervised by the assigned supervisor of the committee. Before taking interviews, respondents' full consent was taken verbally. Every respondent was briefed shortly but very clearly about the topic and the objectives of the study. Respondents had the freedom not to take part, to skip any question and to quit the interview at any time they wished. They were not to mention their name, address or any other identifiable information during interviews; the respondents' personal information was kept confidential and used only for study purposes.

Study Variables

The outcome variables concerning health care seeking behavior were defined as the sources of treatment sought by the mothers during their children's illnesses. The explanatory variables of this study were different socio-demographic variables: age of mother, child's age and gender, household size and ownership, mass media access, mother's education and employment, father's education, total family income and NGO help receiving status. Moreover, various illness-related variables were collected; these are perceived illness severity and the persistence of illness.

Statistical analysis

The data were analyzed using SPSS statistical software package (version 16.0 for Windows; SPSS Inc., Chicago, IL). Descriptive information of the study population is expressed as a number, percentage, and mean with standard deviation (SD). While mean and standard deviation (SD) of continuous variables like mothers' and children's ages and family income are reported, numbers and percentages are shown for categorical variables. To illustrate mother's behavior conspicuously, different graphs have been drawn. Step-wise logistic regression analysis was executed to identify the factors influencing care seeking from medical doctors. The correlations of health care seeking behavior have

Table 1. Socio-demographic characteristics of the mothers and illness related factors of the children

been determined by the value of adjusted odds ratios (AORs) and 95% confidence intervals (CI) with a P value less than .05 is considered as significant.

RESULTS

Characteristics of the study population

Table 1 describes the background characteristics of the 406 mothers surveyed, whose average age was 24.87 years (SD 5.50) and their reported children's mean age was 23.92 months (SD 14.65). More than half of the respondents were living in a family containing four or fewer members, about three fourths of the respondents live in a rental house, and 71% have regular access to television at their home or neighbors' place. More than one-third of respondents never went to school and around 43% went to primary school but dropped out before reaching secondary school. Similarly, more than one-third of the husbands of respondents were found to have no education. 39% of mothers were engaged in wage-earning activities outside of the home mostly as housekeepers (18.47%), followed by small entrepreneurs (10.34%), and garments or others industry workers (8.37%). The median total family income was BDT 8000 per month. Approximately one-fourth (26.11%) of mothers had ever received any sort of help from any organizations for herself, her children, or other family members.

Morbidity of the children

Of the 406 mothers who participated in this survey, 37.2% reported the common cold as the most common illness their children suffered from followed by diarrhea (19.46%) and fever (16.75%), respectively. Other prevailing childhood illnesses

Characteristics	Number/ Mean (\pm SD) (N= 406)	Percentage
Mother's Age in Year	24.87 (5.50)	
Child Age in Month	23.92 (14.65)	
Gender of the child		
Male	195	48.03
Female	211	51.97
Household size		
\leq 4 persons	218	53.69
$>$ 4 persons	188	46.31
Ownership of the living house		
Owner	105	25.86
Tenant	301	74.14
Access to Television (per week)		
Almost every day	288	70.94
At least one day	64	15.76
Not a single day	54	13.30
Mother's Education		
No education	147	36.21
Primary education	174	42.86
Secondary education or higher	85	20.94
Mother's employment		
Unemployed	247	60.84
Employed	159	39.16
Mother's occupation		
Homemaker	247	60.84
Industry Worker	34	8.37
Housekeeper	75	18.47
Small Entrepreneur	42	10.34
Others	8	1.97
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Father's Education (N=394)		
No education	150	36.95
Primary education	132	32.51
Secondary education or higher	112	27.59
Median Monthly Family Income (BDT)	8000.00	
NGO help receiver		
Received ever	106	26.11
Received never	300	73.89
Prevalence of child illness		
Common cold		
Diarrhea	151	37.20
Fever	79	19.46
Acute Respiratory Infection (ARI)	68	16.75
Skin disease	13	3.20
Worm <u>manifestation</u>	13	3.20
Measles	6	1.48
Chicken pox	15	3.69
Others	19	4.68
	42	10.34
Perception about Illness Severity		
Severe	174	42.86
Not severe	232	57.14
Illness Persistence (days)	9.61 (10.53)	

Treatment Choice	Number (N= 406)	Percentage (%)
No treatment	59	14.5
Faith healer	50	12.3
Homeopath	17	4.2
Drug seller	228	56.2
Para-professional	5	1.2
Medical Doctors	111	27.3
-Private Chamber	40	9.6
-Govt. health center/hospital	44	10.8
-NGO clinic/hospital	20	4.9
-Private clinic/hospital	10	2.5
Time of treatment receipt		
≤ 24 hours	104	25.6
> 24 hours	302	74.4

a Multiple responses

b Medical doctor is the combination of four treatment sources: private chamber, govt. health center/hospital, NGO clinic/hospital, and private clinic/hospital.

were ARI, skin disease, worm manifestation, measles, chicken pox, and others. Approximately 43% of mothers rated these illnesses as severe. Children suffered from these illnesses for around 10 (mean 9.61, SD 10.53) days on average (Table 1).

Healthcare-seeking behavior

In Table 2, 85.5% of children received single or multiple treatments, while the rest (14.5%) did not seek any treatment outside of their home during the last illnesses. Drug sellers were the major source of treatment, with 56.2% of mothers visiting them. Medical doctors were the second most visited provider (27.3%), whereas 12.3% of mothers visited faith healers, 4.2% visited homeopaths and 1.2% visited para-professionals for their child’s illness. The government health center was the main source of doctors (10.8%) followed by private chambers (9.6%), NGO clinics (4.9%), and private hospitals (2.5%). In response to child illness, only 25.6% of mothers sought any sort of care provider within the first 24 hours of the illness. Drug sellers were the most common choice of the mothers; mothers visited nearby drug stores or drug sellers for most of the illnesses. When children contracted measles, half of the mothers received treatment from faith practitioners, and when children contracted chicken pox, more than half of the mothers did not seek any treatment. Mothers visited doctors mostly for ARI and skin diseases (Table 3).

Table 2. Care-seeking of the mothers for their children’s common illnesses

Figure 1 illustrates that more than one-fourth of mothers (28.8%, 32 out of 111) who received care from doctors visited a doctor’s office after visiting different providers. 93% (212 out of 228) of mothers preferred drug sellers, and 80% (40 out of 50) of mothers chose a faith healer as the first provider, whereas the rest of the

mothers took them as a later source. Among treatment received from doctors, less than one-fifth (17.1%, 19 out of 111) of mothers received care within 24 hours, while one-third (76 out of 228) of drug sellers’ visits were within 24 hours from the recognition of the illness (Figure 2). Only 10 out of 50 (20.0%), 2 of 17 (11.8%), and 2 of 5 (40%) mothers visited a faith healer, a homeopath, and a para-professional respectively within 24 hours of illness recognition (Figure 2). Figure 3 shows that cheaper cost was the biggest influencing factor for mothers using drug sellers’ treatment (58.8%) among treatment receiver of drug sellers. Around 49% of mothers claimed that they went there because of its close geographic proximity to them and another 43% expressed their reliance on drug sellers due to their effectiveness in treating illnesses.

Figure 1. Mother’s treatment preferences by provider type

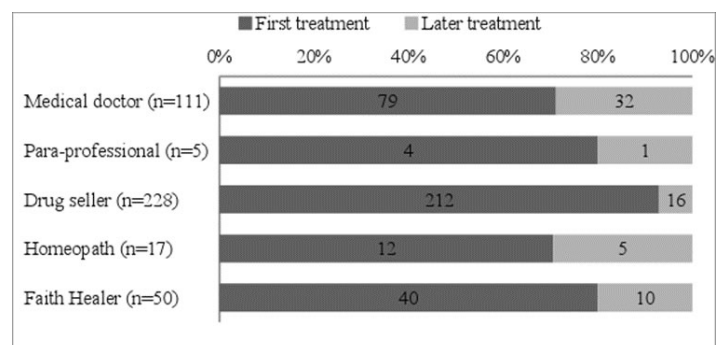


Table 3: Distribution of treatment choices across types of illnesses

Illness	No treatment n (%)	Faith healer n (%)	Homeopath n (%)	Drug-seller n (%)	Para-prof. n (%)	Medical Doctor n (%)	Total
Diarrhea	34 (45.3)	9 (12.0)	2 (2.7)	46 (61.3)	0	25 (33.3)	75
Fever	21 (33.9)	5 (8.1)	5 (8.1)	42 (67.7)	3 (4.8)	18 (29.0)	62
Common cold	66 (47.1)	4 (2.9)	3 (2.1)	89 (63.6)	1 (0.7)	36 (25.7)	140
ARI	2 (15.4)	3 (23.1)	0	9 (69.2)	0	8 (61.5)	13
Skin diseases	5 (38.5)	3 (23.1)	1 (7.7)	7 (53.8)	0	5 (38.5)	13
Measles	6 (42.9)	7 (50.0)	2 (14.3)	1 (7.1)	0	2 (14.3)	14
Chicken pox	11 (61.1)	7 (38.9)	1 (5.6)	6 (33.3)	0	3 (16.7)	18
Others	12 (26.7)	12 (26.7)	3 (6.7)	28 (62.2)	1 (2.2)	14 (31.1)	45

Among mothers who went to at least one provider, around 117 mothers (31%) expressed their wish to visit another provider. More than one-third (38.5%) of mothers wished to visit government health center/hospitals, one-third (32.5%) of mothers wanted to visit physician's chambers/pharmacies, and 20% of mothers wanted to visit private clinics/hospitals (Figure 4). However, most of them could not visit their desired provider due to the high cost of services (56%). Reasons for not utilizing these services were: there was no one to take the child to the health facility (13%), children's improving condition (12%), and long distance (9%) (Figure 5).

Determinants of healthcare-seeking behavior

Table 4 shows the correlations of treatment seeking from medical doctors in terms of crude odds ratios (ORs), adjusted odds ratios (AORs), and 95% confidence intervals (CIs). Child age, gender of the children, mother's employment status, perceived illness severity, and illness persistence were found as significant predictors ($p < 0.05$) by logistic regression analysis. The likelihood of receiving doctor's care decreased with child age by 2% (AOR = 0.982, 95% CI = 0.965-1.000) and increased with illness duration by 4% (AOR = 1.041, 95% CI = 1.01-1.066). Male children were 1.6 times more likely to receive doctor's treatment than

their female counterparts (AOR = 1.599, 95% CI = 1.002-2.552). Children of employed mothers were about half as likely to visit a doctor's office (AOR = 0.581, 95% CI = 0.346-0.976). Mothers who perceived the child's illness as severe were 1.8 times more likely to visit a professional doctor (AOR = 1.821, 95% CI = 1.118-2.965). Although three other explanatory variables, the mother's age, education level of the mother, and total family income, are important factors regarding mother's health care practices, they were not found to be significant in this study.

DISCUSSION

This study contributes to the limited body of research that explores mother's health care seeking behavior during their child's illness in the slum settlements of Dhaka city. The study mainly discussed from where mothers are taking medical advice or care and why they are choosing this source of care for their child's recovery. This study documented the strong preference for drug sellers over other healthcare providers. Fifteen percent of mothers did not seek treatment during their child's illness. Furthermore, the rates of a child receiving any care within 24 hours were found to be considerably low. Our findings also suggest that mothers more often sought medical doctor's care for younger and male children. Mothers who are unemployed, who rated their child's illness as severe, and whose child suffered for many days were more likely to visit doctor's offices.

The present study demonstrates that drug sellers were the most preferred providers for slum mothers; except for measles and chickenpox, mothers sought treatment from nearby drug stores for all other health problems of the

Figure 2. Seeking care within 24 hours by provider types

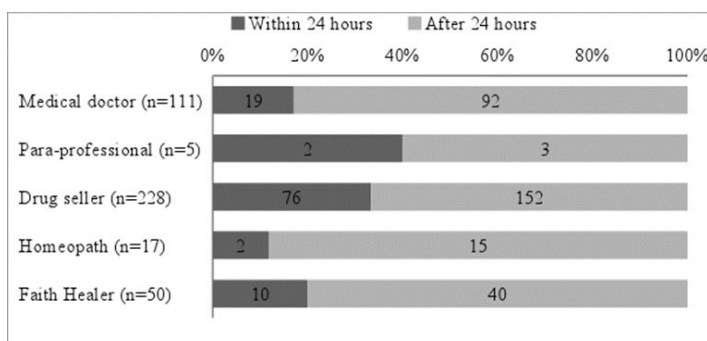


Table 4
Correlates of mothers' care seeking from medical doctors in logistic regression analysis

Factors	Visit Medical Doctors (mean ± SD)/ N (%)	OR	AOR	95% Confidence Interval	
Child Age (Month)	21.21 (± 14.0)	0.98*	0.98*	0.97	1.00
Gender					
Female (Ref.a)	49 (44.14)	1	1		
Male	62 (55.86)	1.54	1.60*	1.00	2.55
Mother's Age (Year)	24.16 (± 4.9)	0.97	.98	0.94	1.03
Mother's Education					
No Education (Ref.a)	39 (35.1)	1	1		
Primary	46 (41.4)	0.99	1.04	0.60	1.79
Secondary or more	26 (23.4)	1.22	0.99	0.51	1.91
Income	9189.19 (± 4469.9)	1.00	1.00	1.00	1.00
Mother's Employment					
Unemployed (Ref.a)	78 (70.3)	1	1		
Employed	33 (29.7)	0.57*	.58*	0.35	0.98
Perceived severity of Illness					
Not severe (Ref.a)	47 (42.3)	1	1		
Severe	64 (57.7)	2.29*	1.82*	1.18	2.97
Illness Persistence	13.51 (±15.7)	1.05*	1.04*	1.02	1.07

*significant at p <0.05

a Ref. = Reference group

children. The numbers of mothers who visited the nearest drug stores were more than double the number of mothers who visited professional medical doctors for their child's recovery. Studies conducted on the urban slum population of Bangladesh found similar findings, the nearest drug sellers are the first point of health care for slum dwellers,²² and for slum children who suffered from diarrhea²⁵ and ARI.¹⁰ Drug sellers may not provide the best care, they are located nearby and provide low-cost treatment with better conduct, hence, easy to approach and more receptive to mothers' concerns; therefore, they are perceived as adequate and effective solution.²⁰ Many mothers wished to visit facilities with medical doctors; however, they could not go there because of the excessive cost of services; despite the adequate

number of doctors around them in various private clinics. In our study, the diminishing reliance on faith healers and homeopaths was observed among the mothers, which is supported by other studies conducted in slum areas²⁵ and other regions of Bangladesh.²¹ Only one-fourth of mothers sought a prompt remedy from outside sources within 24 hours of illness detection. In fact, among 111 medical doctor visitors, 32 mothers (28.8%) went there as a secondary option when other remedies failed.

The study results show a significant variation in receiving care from medical doctors across different aged children, in that younger children were more likely to receive doctor's care. A study in Bangladesh and another study in Nigeria showed that care-seeking behaviors are better for younger

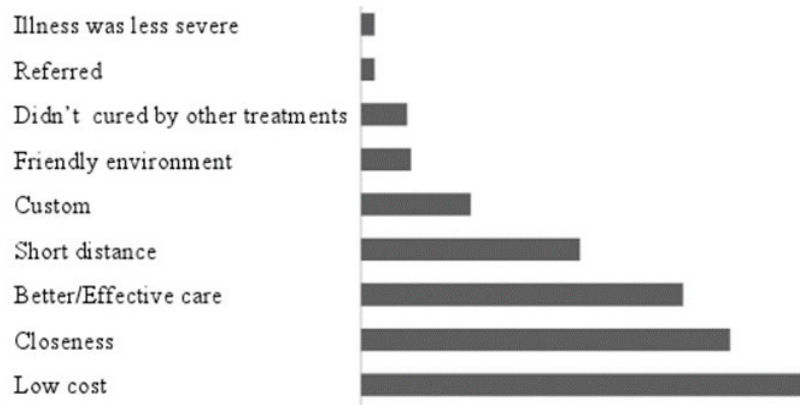


Figure 3. Reasons of visiting drug sellers (N=228, multiple responses)

little time and freedom from their workplace to take their children to the doctor. This is consistent with the study finding that employed mothers are less likely to have healthcare.²⁹ The perceived severity of illness and illness persistence have a strong positive impact on the mother's attitude toward visiting medical doctors. Mothers who perceived their child's illness as severe were 1.8 times more likely to visit doctors than the

mothers who rated the illness as not severe. This argument is supported by various studies conducted in different countries.³⁰⁻³³ Authors in Bangladesh²⁶ and Nepal²⁸ found consistent results with this study that perceived severity of illness influences the decision of mothers to seek care. Mothers' doctoral visits increased gradually with the longer persistence of the illness i.e. the longer the duration of the illness, the more likely mothers were to seek skilled doctor's care. A previous study also found that longer duration of illness was a significant predictor of licensed provider utilization and antibiotic treatment.²⁵ This might be true, because mothers become fearful and alert with increasing illness persistence, so seek an effective and reliable source of treatment.

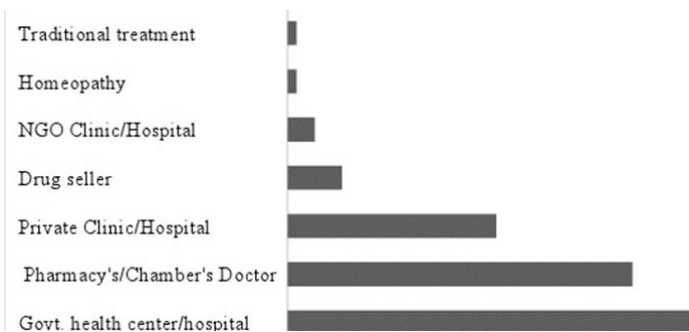
There were little variations in education and income level among mothers living in slums and for that we cannot find any significant differences in our study population. However, their low level of educational attainment and income are major social determinants for their overall health which could be documented with a comparison group of mothers with higher education and income. Disparities on the basis of economic conditions in care seeking behavior favoring higher income households were identified in other studies in Bangladesh,²⁴ and in other developing countries.^{4, 29} Several studies in different developing countries reported a positive influence of maternal education on health seeking behavior.^{4, 21, 25, 28, 32} However, one study found a negative relationship between maternal education and care-seeking behavior in Kerala, India.³²

Following a sound methodology, pretested structured questionnaire, and a careful data collection procedure, the study successfully investigated the nature and logical grounds of the mother's health care seeking behavior during child illness. The study findings suggest that children are living in a vulnerable health condition in slums due to a lack of skilled care in slum areas, high cost of treatment

children than for older children.^{4, 26} Present study also identified the gender of the children as a significant factor for mother's behavior in seeking physician's treatment. In fact, male children are more than one and half times more likely to receive care from medical professionals. This is consistent with the established differential trends that child survival, health services utilization, and treatment expenditure favor males in developing countries.²⁵⁻²⁷ A study in Nepal stated that, the gender of the child affects illness reporting, treatment expenditure, and decision making to choose a health-care provider.²⁷ Our findings also reflect the gender disparities found in Bangladesh Urban Health Survey 2006¹¹ and Bangladesh Demographic and Health Survey 2011 in treatment seeking for ARI from a health facility or provider.² However, other studies found no gender disparities in care seeking behaviors among Nigerian and Nepalese mothers.^{4, 28} Cultural preference for male children (son preference) could be the cause of differential behavior in seeking skilled practitioners' treatment during a child's illness.

Mother's employment negatively influenced their care seeking behavior, in that employed mothers are less likely to choose professional doctor's care for their child's illness. This could be happening, because, employed mothers get

Figure 4. Choice of treatment mothers wished but could not visit (N= 117)



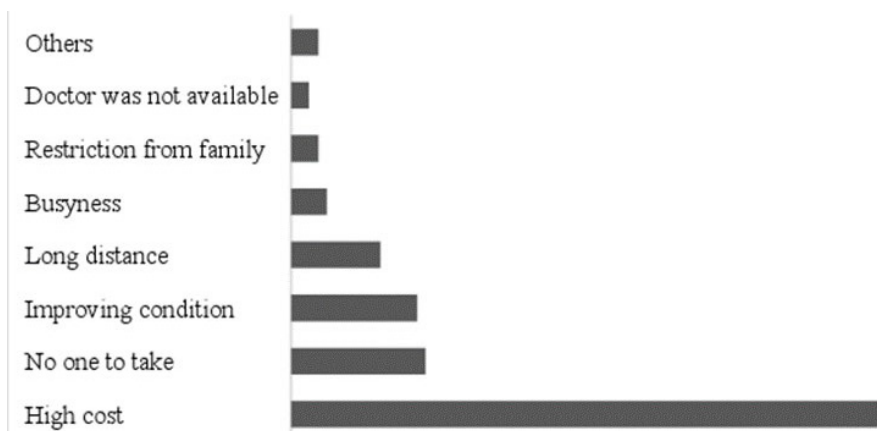


Figure 5. Causes of not taking desired treatment (N=117)

in neighborhood private practices, and lack of prompt response to illness, because of the unavailability of primary healthcare services associated with different socioeconomic factors, dissuaded them from seeking treatment of skilled medical personnel.

Limitations of the study

Non-probability sampling techniques and the small sample size used in the study may limit the representativeness of the vast slum population of Dhaka city. A stratified random sampling technique with a larger sample size covering all slum areas could be more representative to predict mothers' behavior accurately. In our study, we relied on self-reported answers that may create recall and reporting bias. This study considered childhood illnesses for a definite time period (one month) of the year although mother's behavior could be influenced by seasonal illnesses.

DISCUSSION

A substantial number of mothers did not seek care from a medical doctor during their child's illness. They sought out care frequently from drug sellers, but rarely from skilled medical professionals. Mothers were forced to go through informal healthcare providers due to cheaper treatment, easy access to them, and unavailability of the skilled care providers into slum areas, coupled with few socio-demographic and illness factors that discourage mother from seeking doctors' care. Child's age and gender, mother's employment, and perceived illness severity and illness persistence substantively influence mothers' decisions regarding care seeking. Mothers also reported cost as one of the crucial factors for visiting drug sellers and not visiting medical doctors. These differential determinants of health care seeking behavior are important in the sense

that these shall be the point of further intervention to improve health status of the slum children. Therefore, providing knowledge on the signs and symptoms of different diseases and flexible working hours to mothers could increase mother's participation in taking care of their children during illnesses. Informal providers like drug sellers are more effective in engaging caregivers in health services

utilization; however, they may not provide appropriate care, and in some extent their advice might be unnecessary and dangerous for children before receiving care from skilled professionals.¹⁹ Since drug sellers have a wide acceptance among mothers due to their proximity, easy accessibility, reliability, low cost, and lower access to primary health care in slums, providing training and initial logistic supports to the drug sellers can make them alternative health care providers to deal with common illnesses. We can expect that they would not charge for consultation like doctors, because that will make the visits costly for slum-dwelling mothers. In that case, they will lose their distinct advantage of being a low-cost provider for the mothers. Moreover, they can be entrusted to provide basic primary care and they can be trained to refer the children to the nearest facility for complicated cases. Engaging trained informal providers to the referral process for the serious diseases can also ensure appropriate and timely care for the children.

AUTHOR INFORMATION

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