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Disease Pattern and Health Seeking Behaviour of Slum Dwellers in Dhaka City

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Abstract
A descriptive cross-sectional study was conducted to find out the disease pattern and health seeking behaviour of slum dwellers in some selected slums of Dhaka City. Out of 1029 respondents, 536 (52.1%) were male and 493(47.9%) were female. The mean age of the respondents was 19.50 years (SD ± 17.929). Most 704 (68.41%) of the respondents were employed like domestic work, day labour, rickshaw puller, small business, transport work or helper and butcher. Regarding educational status, 589 (57.3%) were illiterate and 440(42.7%) were literate. The mean family income of the respondents was Tk 7202.43; (SD ± 2969.902). During the preceding 21 days, 511(49.65%) slum dwellers were sick and 518 (50.34%) were not sick at that period. The male slum dwellers 153 (14.9%) were mostly affected by diseases of the respiratory system (Cold /cough /fever /asthma /tonsillitis /pharyngitis) and the female slum dwellers 122 (11.9%) were mostly affected by diseases of the digestive system (Gastric /diarrhoea /fever/ hepatitis/ helminthiasis). Most 921 (89.4%) of the slum dwellers sought health care services during sickness. Majority 476 (46.3%) of the slum dwellers consulted drug sellers of pharmacy during illness. Among rest, 238 (23.1 %) slum dwellers preferred going to the medical college hospital, 162 (15.7 %) respondents preferred going to government hospital and 124 respondents (12.1%) consulted a private practitioner. According to the reasons for not seeking treatment, majority (26%) of the respondents did not seek treatment due to lack of money and 25% respondents were waited for self-recovery. Rest of slum dwellers did not seek treatment due to the distance; services were unknown and waited for self-recovery and lack of money. Only 22% respondents gave multiple answers. Highly significant association was found between the education and monthly family income of the slum dwellers with health seeking behaviour during illness (p=0.002 and p=0.01).

Keywords: Health seeking behaviour, disease pattern, slum dwellers.

1. Introduction
Healthcare seeking behaviour is any activity undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy [1]. Knowledge about health seeking behaviour is essential to provide need based health care delivery to any population. Community based study can only reflect the true picture of disease pattern in a given community and what are their preferences in seeking health care services. The prevalence of period specific sickness and economic condition predictably hold an inverse relationship in underprivileged area. Episodes of illnesses are reported to be higher for poor people due to their living conditions and nutritional status. The high incidence of morbidity cuts their household budget both ways i.e. not only they have to spend large amount of resources on medical care but are also unable to earn during this period. One possible consequences of this could be pushing these families into a zone of permanent poverty [2].

Understanding the morbidity profile and healthcare seeking behaviour in different socioeconomic strata of the community is important for planning and delivery of appropriate health services, especially for the poor [3]. Morbidity may be defined as the attributes of sickness like illness, disability, handicap and other compromised states of physical, social and mental well-being. Self-perceived morbidity refers to measures that are perceived and reported by an individual in response to inquiries regarding illness or symptoms over a defined time period [4]. This most common form of morbidity data in the developing world may be biased by factors like individual knowledge and experience, personal predisposition in the perception of illness and its social acceptance, somatisation and conscious misreporting of illness to achieve other goals. To characterize a full range of morbidity, measuring both self-perceived

and observed Morbidity is advocated [5]. The slum is almost ignored by the government in terms of providing health-care facilities and NGOs providing such services are almost rare. Thus, the slum was chosen as the ideal area for the study [6].

Very few researches have been undertaken on health care demand in developing countries, and even less that focuses on the poor, especially the urban poor. A recent study on the demand for Health Care among urban slum residents in Dhaka, Bangladesh, concluded that urban health systems in Bangladesh must work to improve access to care by the poor. The present study might be interesting for health planners and other relevant stakeholders in developing countries as they need to understand people's healthcare utilization pattern including determinants of leading healthcare services. Evidence from this study also indicates that the urban poor view health care as both an investment in future productivity and as consumption good. Hence, providing health care facilities to the urban slum dwellers of Bangladesh becomes crucial in balancing social welfare. This information also helps in formulating policies and implementing targeted strategies which are responsive to people's needs and priorities [5, 7].

Methodology

This descriptive cross sectional study was conducted to find out the disease pattern and health seeking behaviour of slum dwellers in some selected slums of Dhaka City. The study was conducted at Mogbazar, Basabo and TNT slum of Dhaka city for a period of 6 months starting from September 2013 to February 2014. The target population consisted of individuals living permanently in mogbazar slum, basabo slum and TNT slum of Dhaka city. A house to house survey was conducted and a total of 1029 slum dwellers were enrolled for the study. Purposive sampling technique was used in the study. Only interested dwellers were interviewed and information regarding age, education, occupation, monthly family income, disease pattern and health seeking behaviour of the slum dwellers were collected. In the survey, we had 439 under 5 years children and their information were collected from their parents. Informed consent was taken by explaining the purpose of the study. Assurance had been given that the confidentiality concerning their information would be maintained strictly. A semi structured pre-tested questionnaire was developed to collect data from a face-to-face interview. The history of the preceding 3 weeks was kept as a minimum so as to reduce recall bias. The data were checked, verified and then entered into the computer. The analysis was carried out with the help of SPSS (Statistical package of social science, version-17) Windows software program. All analyzed data were presented in the form of percentages. Chi-square tests were applied wherever applicable.

Results

Out of 1029 urban slum dwellers, 536 (52.1%) were male and 493(47.9%) were female. The mean age of the respondents was 19.50; (SD ± 17.929) years. Most of the respondents 1019(90.0%) were Muslim and 862(83.8%) were married. More than half 704(68.41%) of the respondents were employed like domestic work, day labour, rickshaw puller, small business, transport work or helper and butcher. A very few (5.6%) respondents were doing other job like bagger, care taker, security guard, driver, students and night guard. Regarding educational status, 589 (57.3%) were illiterate and 440(42.7%) were literate. The monthly family income of most 558(54.2%) of the respondents varied from Taka 4001 to Taka 8000 and the mean income was Taka 7202.43; (SD ± 2969.902) (Table-1). During the preceding 21 days, 511(49.65%) slum dwellers were sick and 518(50.34%) were not sick at that period. (Figure: 1) The male slum dwellers 153 (14.9%) were mostly affected by diseases of the respiratory system (Cold /cough /fever /asthma /tonsillitis /pharyngitis) and the female slum dwellers 122 (11.9%) were mostly affected by diseases of the digestive system (Gastric /diarrhoea /fever/ hepatitis/ helminthiasis). The common general illnesses reported by the slum dwellers included diseases of the respiratory system (cold /cough /fever /asthma /tonsillitis /pharyngitis) 257(25%), diseases of the digestive system (Gastric /diarrhoea /fever/ hepatitis/ helminthiasis) 233 (22.6%), severe pain (headache/ chest pain /body ache) 157 (15.3) and eye problem (burning in the eye / problem in the eye sight) 85 (8.3%). (Table: 02). Out of 1029 respondents, 484 (47%) female and 437 (42.4%) male slum dwellers sought health care during their sickness. (Table: 03). Most 476 (46.3%) of the slum dwellers consulted drug sellers of pharmacy during illness. Among rest, 238 (23.1 %) slum dwellers preferred going to the medical college hospital, 162 (15.7 %) respondents preferred going to government hospital and 124 respondents (12.1%) consulted a private practitioner. (Table: 04). According to the reasons for not seeking treatment, the majority (26%) of the respondents did not seek treatment due to lack of money and 25% respondents were waited for self-recovery. Rest of slum dwellers did not seek treatment due to the distance; services were unknown and waited for self-recovery and lack of money. Only 22% respondents gave multiple answers. (Figure: 02). Highly significant association was found between the education and monthly family income of the slum dwellers with health seeking behaviour during illness (p=0.002 and p=0.01). (Table: 05)

Table 1: Distribution of the respondents by socio-demographic characteristic (n=1029)

socio-demographic characteristics	Frequency	Percentage	Mean±SD
Age			
≤ 10 years	462	44.9	
11-20 years	105	10.2	**19.50 ± 17.929**
21-30 years	202	19.6	
31-40 years	124	12.1	
41-50 years	75	7.3	
>50 years	61	5.9	
Sex			
Male	493	47.9	
Female	536	52.1	
Education			
Illiterate	363	35.3	
Can sign only	226	22.0	
Class 1-V	184	17.9	
Class VI-X	229	22.2	
SSC passed	27	2.6	
Occupation			
Unemployed	134	13.0	
Domestic worker and Garments worker	333	32.4	
Day labourer	133	12.9	
Rickshaw puller and Transport work or help	76	7.4	
Small business	51	5.0	
Butchery	53	5.2	
House wife	191	18.6	
Others	58	5.6	
Marital status			

Married	858	83.4	
Unmarried	145	14.1	
Separated (not divorced)	4	0.4	
Divorced	11	1.1	
Widowed	11	1.1	
Religion			
Islam	1019	99.0	
Hindu	10	1.0	
Monthly family income	**Frequency**	**Percent**	
Taka ≤ 4000	233	22.6	
Taka 4001-6000	274	26.6	
Taka 6001-8000	284	27.6	**8904.17± 4096.676**
Taka 8001-10000	133	12.9	
Taka >10000	105	10.2	
Total	**1029**	**100**	

Out of 1029 urban slum dwellers, 536 (52.1%) were male and 493(47.9%) were female. The mean age of the respondents was 19.50; (SD ± 17.929) years. Most of the respondents 1019(90.0%) were Muslim and 862(83.8%) were married. Most 704(68.41%) of the respondents were employed like domestic work, day labour, rickshaw puller, small business, transport work or helper and butcher. A very few (5.6%) respondents were doing other job like bagger, care taker, security guard, driver, students and night guard. Regarding educational status, 589 (57.3%) were illiterate and 440(42.7%) were literate. The monthly family income of most 558(54.2%) of the respondents varied from Taka 4001 to Taka 8000 and the mean income was Taka 7202.43; (SD ± 2969.902) (Table1).

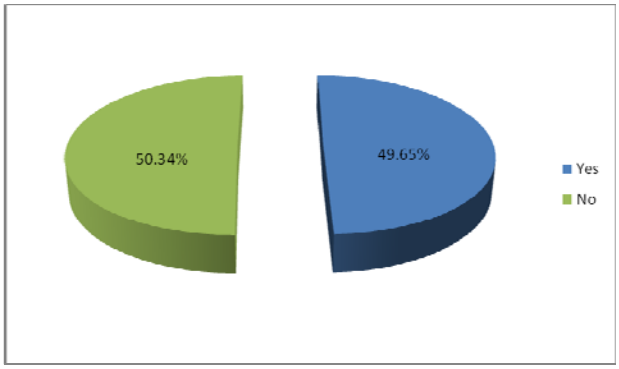

Fig 1: Distribution of the respondents according to sickness (preceding 21 days)

During the preceding 21 days, 511(49.65%) slum dwellers were sick and 518(50.34%) were not sick at that period. (Figure: 1).

Table 2: Distribution of the respondents by types of sickness (general Health) (n=1029)

Types of sickness (general Health)	Male* (n= 493)	Female* (n = 536)	Total
Diseases of the digestive system (Gastric/diarrhea/fever/hepatitis/helminthiasis)	111(10.7)	122(11.9)	233(22.6)
Diseases of the respiratory system (Cold/cough/fever/asthma/tonsillitis/pharyngitis)	165(16.0)	113(10.9)	278(27.0)
Disease of the genitourinary system (Fever/UTI)	10(1.0)	54(5.2)	64(6.2)
Skin disease(scabies)	20(2.0)	29(2.8)	49(4.8)
Eye problem (burning in the eye/problem in eye sight)	45(4.3)	40(4.0)	85(8.3)
Cardiac problem (hypertensive)	34(3.0)	49(5.1)	83(8.1)
Endocrine problem (diabetes mellitus)	14(1.4)	15(1.4)	29(2.8)
Sexually transmitted disease (STD)	3(0.1)	8(1.0)	11(1.1)
Others	139 (13.5%)	190(18.4%)	329(31.9%)

*Multiple responses

The male slum dwellers 153 (14.9%) were mostly affected by diseases of the respiratory system (Cold /cough /fever /asthma /tonsillitis /pharyngitis) and the female slum dwellers 122 (11.9%) were mostly affected by diseases of the digestive system (Gastric /diarrhoea /fever/ hepatitis/ helminthiasis). The common general illnesses reported by the slum dwellers included diseases of the respiratory system (cold /cough /fever /asthma /tonsillitis /pharyngitis) 257(25%), diseases of the digestive system (Gastric /diarrhoea /fever/ hepatitis/ helminthiasis) 233 (22.6%), severe pain (headache/ chest pain /body ache) 157 (15.3) and eye problem (burning in the eye / problem in the eye sight) 85 (8.3%). (Table: 02).

Table 3: Distribution of the respondents by sought health care services during illness (n= 1029)

Sought health care services	Percentage		Total
	Males (n= 493)	Females (n = 536)	
Yes	437(42.4)	484(47.0)	921(89.4)
No	56(5.4)	52(5.1)	108(10.5)

Out of 1029 respondents, 484 (47%) female and 437 (42.4%) male slum dwellers sought health care during their sickness. (Table: 03)

Table 4: Distribution of the respondents by place of service during illness (n=921)

Place of service during illness	*Frequency	Percent
Pharmacy	476	46.3
Homeopath	58	5.6
Ayurveth	40	3.9
Govt. Clinic/Hospital	162	15.7
NGO facility	34	3.3
Private practitioners	124	12.1
Healer	35	3.4
Medical College Hospital	238	23.1

*Multiple responses

Most 476 (46.3%) of the slum dwellers consulted drug sellers of pharmacy during illness. Among rest, 238 (23.1%) slum dwellers preferred going to medical college hospital, 162 (15.7%) respondents preferred going to government hospital and 124 respondents (12.1%) consulted a private practitioner. (Table: 04).

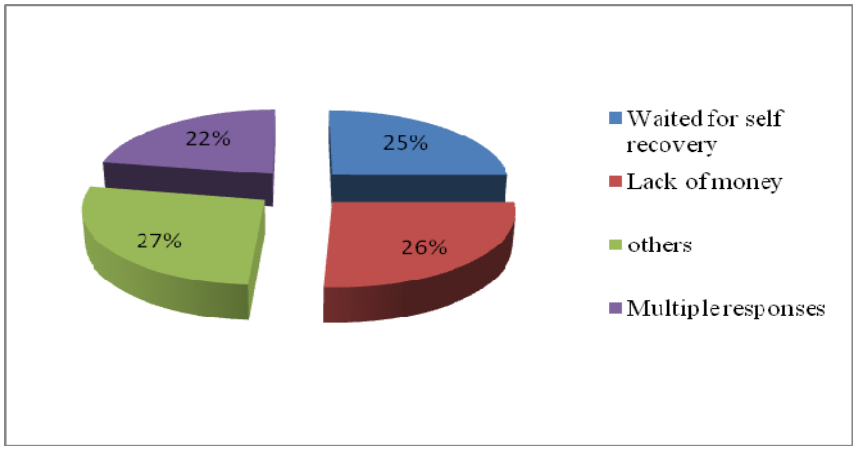

Fig 2: Distribution of the respondents by reasons for not seeking treatment (n=108)

According to the reasons for not seeking treatment, majority 28 (26%) of the respondents did not seek treatment due to lack of money and 27 (25%) respondents were waited for self-recovery. Rest of slum dwellers 29 (27%) did not seek treatment due to distances; services were unknown and waited for self-recovery and lack of money. Only 24 (22%) respondents gave multiple answers. (Figure: 02)

Table 5: Relationship between education and monthly family income of respondents with health seeking behaviour during illness

Education of the respondents	**Sought health care service during illness**		**Total**	**χ2(P-value)**
	Yes	**No**		
	No(%)	**No (%)**		
No education	310(85.4)	53(14.6)	363(100.0)	
Some education	611(91.7)	55(8.3)	666(100.0)	10.060**(0.002)**
Total	921(89.5)	108(10.5)	1029(100.0)	
Monthly family income	**Yes**	**No**	Total	
	No(%)	No (%)		
Taka ≤ 6000	442(87.2)	65(12.8)	507(100.0)	5.750**(0.01)**
Taka > 6000	479(91.8)	43(8.2)	522(100.0)	
Total	921(89.5)	108(10.5)	1029(100.0)	

Highly significant association was found between the education (p=0.002) and monthly family income (p=0.01) of the slum dwellers with health seeking behaviour during illness. (Table: 05).

Discussion

The study was aimed to determine the disease pattern and health seeking behaviour of slum dwellers in Dhaka City. The study found that socioeconomic status was the single most pervasive determinant of health seeking behaviour among the study population, overriding age and sex and in the case of types of illness as well. These findings may not be generalized for all of Bangladesh since the study was done only in one specific area. In this study the measurement of health seeking behaviour was based on self-reported illness and action taken to seek treatment.

In the study out of 1029 respondents, 493(47.9%) were male and 536(52.1%) were female. The majority 862 (83%) of the respondents were married. Similar findings were observed by Bukasa Parish, Makindye Division-Kampala [8] and Jagdalpur Municipality, in Chhattisgarh state[9]. Most 462 (44.9%) of the respondents were included in the age group of ≤ 10 years. The mean age of urban slum dwellers were 19.50 years (SD = ± 17.929). The age distributions of the respondents were correspondent with the other studies conducted among the same population of railway line in Bukasa Parish, Makindye Division-Kampala [8] and the study done in urban population of Bangladesh [10]. Out of 1029 respondents, 1019(90.0%) were Muslim and only 10(1.0%) were Hindu. BBS-2009 found the similar statistics [11]. More than half 589 (57.3%) of the slum dwellers were illiterate and only 440 (42.7%) were literate, which was not correspondent to the adult literacy rate of Bangladesh [12]. This may be due to ignorance and low socioeconomic condition of urban slum dwellers. Average monthly family income of the respondents were between Taka 6001-8000 and the mean monthly family income was TK 7202.43 (SD = ± 2969.902). This was quite similar in relation to per capita income of Bangladesh [12].

Regarding morbidity, 511 (49.6%) slum dwellers were sick during preceding 21 days. These findings were similar with the study conducted in rural population of Madhukhali Upazila of Faridpur District, Bangladesh [2], Tamil Nadu, India [13] and Bhosari, near Landevadi slum [14]. In the study, the frequently reported illnesses were respiratory diseases 257(25.0%), diseases of digestive system including Gastric/ diarrhea/ fever /hepatitis /helminthiasis 233(22.6%) and severe pain (Headache /chestpain/ Body ache) were 157(15.3%). Hussain *et al.* [15] found the same disease pattern. Ahmed *et al*. noted the same findings in their study [16], except fever, which was associated with the disease of all system of the body. Another study conducted by M Rahman *et al.* observed the similar findings [2].

According to the health seeking behaviour, 921(89.5%) slum dwellers sought health care services during illness and 108(10.5%) slum dwellers did not sought health care services during illness. The study conducted by Marinka van der Hoeven *et al.* showed that 74.8% of urban populations had sufficient access to health care [17].

In our study, pharmacy was found to be the main 476 (46.3%) source of health care for slum dwellers. A study done in

Kamrangir Chor showed the similar findings [18]. Medical college hospital 162(15.7%) is the second highest number of seeking health care services for the slum dwellers in the study. Among rest, 238 (23.1%), 124 (12.1%), 58 (5.6%), 40 (3.9%), 34 (3.3%) and 35 (3.4%) were seek health care services from Govt. Clinic/Hospital, Private practitioners, Homeopath, Ayurveth, NGO facility and Healer which was almost similar with the study of Impact assessment of health care for slum dwellers[19]. Similarly, in urban slums of Kaula Bandar (KB), Mumbai, India observed that the preferred health care provider is most often the closest one; parents often take children to NGO health providers [20], local pharmacists and chemists, bhagats (traditional healers) and local "doctors" who may not be qualified practitioners [21, 22]. The study indicates the preference of the private sector, while seeking health care than the public sector. Increasing government infrastructure has not solved this preference in the past was the possible reason for preference of private sector. Some qualitative inputs have therefore been included in the study conducted by Zodpey S [18] and Amitav Banerjee *et al*. [13].

According to the reasons for not seeking treatment, majority 28 (26%) of the respondents did not seek treatment due to lack of money and 27 (25%) respondents waited for self-recovery. Rest of slum dwellers 29 (27%) did not seek treatment due to the distance; services were unknown and waited for self-recovery and lack of money. Only 24 (22%) respondents gave multiple answers. The study done in South Africa showed that the main reasons for not having sufficient access to health care included transport/distance to health care facilities, financial constraints, and problems with the service [19]. Another study done in an unregistered urban slum, Kaula Bandar (KB), in Mumbai, India, showed that clinic hours, often coincide with working hours, have lengthy waiting time, or are simply too far away and unaffordable [4]. Amitav Banerjee *et al*. also observed the similar findings [13].

In the study highly significant relationship was observed between monthly family income and education of the slum dwellers with health seeking behaviour (P = 0.01 and P= 0.002) during illness. So, educational level and family income plays an important role in health seeking behaviour of slum dwellers in this study.

Conclusion and recommendations

Educational improvements of slum dwellers are recommended. Health education programmes should be focus on the importance of seeking early treatment and raising awareness during illness and taking drugs as prescribed. Further, in depth research should be conducted and the findings of the current study should be replicated to formulate policy measure to improve the overall scenario of the health system of urban Bangladesh.

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