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Investigating health and healthcare status of hospital patients: A case study in Kolkata

Dr. Anuradha Mondal, Assistant Professor,

Vivekananda College for Women, Kolkata, West Bengal, India

Email: anuradha.vcw2017@gmail.com

Abstract

The concentration of people in city public hospitals comprises mainly rural population and the urban poor due to non-availability of quality healthcare services in specific geographies and economic constrain. It is also seen; the existing pressure on the urban government health facilities is merely an outcome of perceived satisfaction in spite of long waiting hours and cannot escape any out-of-pocket expenditures.

Keywords: *health status, healthcare utilization, medical expenditure*

Introduction

Utilization of healthcare services depends on prevalence of illness, need for healthcare services (demand), availability of healthcare services (supply) and ability to pay for the services (affordability). Healthcare utilization is also acknowledged for the role of health insurance, as health care consumption depends on the level of insurance coverage (McGuire *et al.*, 1988). The most common are the health belief model and socio-behavioural model which explains how threat perception, predisposing, enabling and need factors influence health care use (Ahmed, 2005). Treatment seeking behaviour in case of illness can vary with population group. These models in most circumstances explain health care seeking behavior for traditional and rural settings. In urban areas, most people try to avail facilities whenever required, unless time and income control accessibility.

Availability and quality of healthcare facilities has always been a concern. For outpatient care majority of the people are dependent on private providers in both rural and urban areas in India. The scenario is different for inpatient care where dependency is higher on government hospitals due to its affordability and lack of dependable private hospitals. However, trend

also shows the rate of dependency on government hospitals has been declining (Mukherjee, 2015).

Objective

This paper focuses on the health status, healthcare utilization, and medical expenses of the patients of selected public hospitals.

Methods

The study has been carried out with a total of 150 patients (30 patients per hospital) from selected medical colleges and public hospitals of Kolkata in the State of West Bengal in 2019. Five important public hospitals are selected. These are:

1. Seth Sukhlal Karnani Memorial Hospital (SSKM)
2. Nil Ratan Sircar Medical College and Hospital (NRS Medical College)
3. Medical College and Hospital (Calcutta Medical College)
4. Calcutta National Medical College and Hospital or Chittaranjan Hospital
5. R.G.Kar Medical College and Hospital

Hospital Profile

SSKM Hospital (H1) - It is a tertiary referral government hospital established in the year 1707 and is one of the oldest reputed hospital and research institute, located near Race Course ground in ward number 71.

NRS Medical College (H2) – Established in the year 1950, it is a premier medical teaching institution and public hospital located in Sealdah of ward number 50).

Calcutta Medical College (H3) – Built in the year 1822, another oldest medical institute considered to be one of the best medical colleges of the state. Located in College Street in ward number 44.

Chittaranjan Hospital (H4) – It is a medical education and research institute which was established in 1948. Located in Beniapur in ward number 59.

R.G.Kar Medical College and Hospital (H5) – established in the year 1886, it is a medical school and hospital. Located in Khudiram Bose Sarani, in ward number 5.

Table 1: List of total number of doctors and beds of the surveyed hospitals

Name of hospital	Total number of doctor	Total number of bed
SSKM Hospital (H1)	466	2275
NRS Medical College (H2)	409	1920
Calcutta Medical College (H3)	334	1160
Chittaranjan Hospital (H4)	340	1385
R.G. Kar Medical College (H5)	320	1470

Source: Official website and Primary survey, 2019.

The required data for the study is collected in two ways. The data about the patients, the facilities they get from the hospitals, accessibility of the hospitals etc. are generated by the primary survey. The secondary data about the hospitals are collected from online publication on the official website pages of several hospitals. In addition, qualitative information is collected from the literature review.

Results

Profile of the respondents

The patients who are included in the survey are categorized into three types of patients; (a) patients who come to the hospitals with minor diseases and are not required for admission in the hospital. These are called outdoor patient. Maximum outdoor patients (43 percent) are reported in H1, (b) patients, who get admission in the hospital, are called indoor patients. The highest (90 percent) indoor patients are found in H2, and (c) patients who visit to the doctor and are recommended for admission in the hospitals but do not get immediately admitted in the hospital, are called waiting patients. These patients are low in number for each hospital and thus account to 12.2 percent on an average. This situation is prevalent due to huge pressure of patients and shortage in number of beds in the hospitals. The percentage of male patient respondents are higher in the sample and comprised of mainly younger patients aged below 20 years (Table 2).

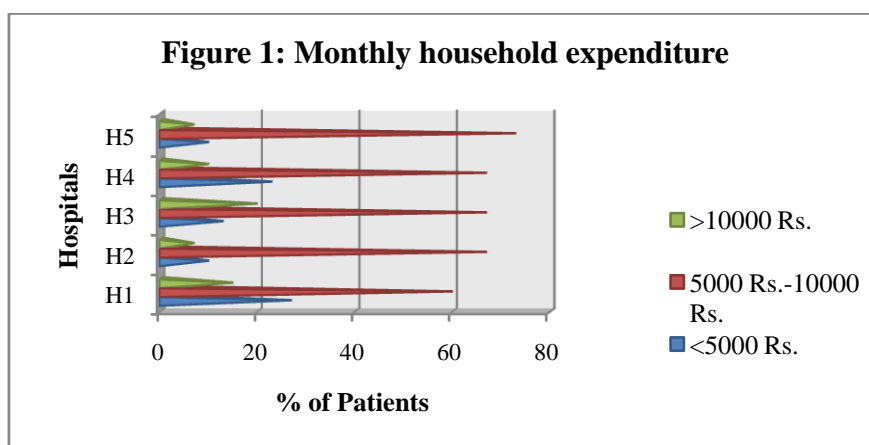
By economic status, monthly household expenditure (MHE) of the patients has been taken. There are three categories of MHE like Rs <5000, 5000-10000 and >10000. The maximum patients or the patient's family monthly household expenditure is Rs 5000-10000 which means that the patients who are coming to the hospitals belong to the lower middle class families who are not able to go to the private nursing homes due to their poor economic

condition. Though majority of the patient's family belong to tertiary sector occupation but they mainly work as service provider thus their economic condition is not better (Figure 1).

Table 2: Age-Sex Structure

Hospitals	Age in years (in %)				Gender (in %)	
	<20	20- 40	40-60	>60	Male	Female
H1	30	30	30	10	60	40
H2	30	7	53	10	77	23
H3	50	20	17	13	56	44
H4	30	40	30	-	37	63
H5	33	23	30	14	63	37

Source: Primary survey. 2019.



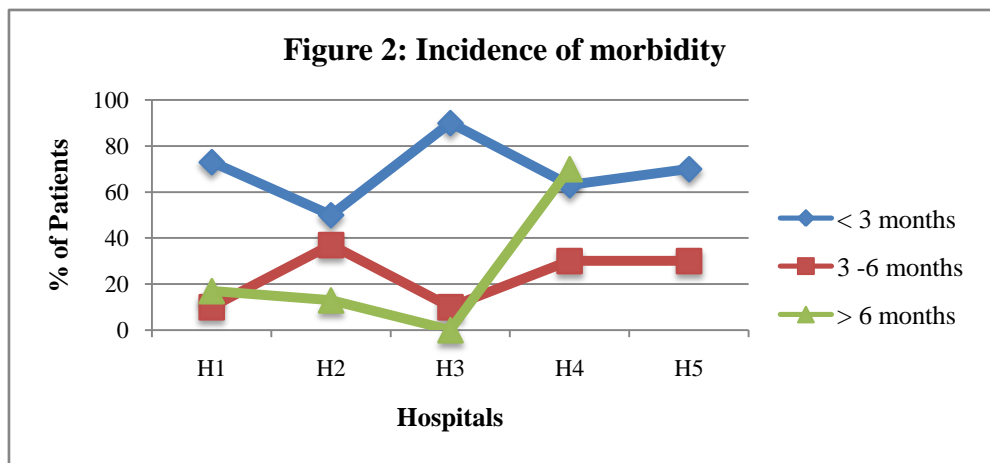
Source: Primary survey. 2019.

Incidence of morbidity

In studies, illness episode is taken as proxy indicator of health status (Hwang *et al.*, 2001; Gupta, 2002 and Dror *et al.*, 2009). The duration of patients suffering from diseases has been considered to understand the level of health complications of patients. Duration is considered in the study as the criticality of each disease was difficult to understand. Some of the diseases commonly reported by patients are head injury, hand injury, leg injury, abdomen pain, nerve problem, infectious diseases, skin diseases, and pregnancy related etc. Thus, diseases were classified into three categories based on duration <3 months (minor disease), 3-6 months (acute disease) and >6 months (severe disease). By hospitals it is found, that majority of the patients have reported to be suffering from minor ailments. The patients falling into this category are 90 percent, 73 percent, 50 percent, 90 percent, 63 percent and 70 percent in

respective hospitals H1, H2, H3, H4 and H5. A deeper enquiry with patients reveal that many of them travel from adjoining rural areas to avail city hospital for minor ailment as they have more faith on the doctors of these hospitals.

Remaining patients are reported to be suffering from acute ailments; majority of whom are seeking healthcare from H2 (37 percent), 30 percent each from H4 and H5 and only 10 percent are seeking treatment from H1 and H3. It also indicates that the percentage of patients suffering from severe ailment is quite low in these two hospitals, H1 and H3 (Figure 2).



Source: Primary survey, 2019.

Type of healthcare

Health care service is always challenged with demand and supply problem when population is large and ill and infrastructure allocated for them falls short of demand. India faces enormous shortage of health infrastructure (both physical and manpower) because of the problem of fund allocation and ‘brain drain’ losing one fifth of the nursing labour force to wealthier countries and personal choice for choosing specific work geographies (Maurya and Goswami, 2018; Sriram, 2018). The best health professionals leave public hospitals and health centers and choose more lucrative jobs in private sector and foreign countries even though substantial funds have been sent by donor countries and agencies to invest on them. Moreover, dispersion of health infrastructure is another major problem in the country.

Outpatient care

Table 3 shows the patients have visited hospitals in Kolkata after they were referred by their local primary health centres or district hospitals. The frequency of visits show majority of the patients (three-fifth) is visiting hospitals in Kolkata for the first time.

The patients who are coming to the public hospitals have to wait several hours to visit the doctors. There are four categories of waiting times such as <1 hours, 1-2 hours, 2-3 hours and >3 hours. Maximum patients have to wait 1-2 hours for visiting with doctors; 63 percent in H2, 50 percent in H3, 47 percent in H1 and 37 percent in both H4 and H5. Many patients have waited more than 2 hours.

Table 3: Features of out-patient and in-patient healthcare

Hospitals	Out-patient care		In-patient care	
	Number of hospital visits (first time visitors)	Waiting time to visit doctor (maximum had to wait 1-2 hrs)	Waiting time for admission (one week wait)	Number of days admitted in hospital (less than 5 days)
H1	60	47	62	57
H2	63	63	76	50
H3	77	50	71	53
H4	53	37	66	48
H5	70	37	65	51

Source: Primary survey, 2019.

Lengthy waiting time is also associated with other medical examination procedures. The outdoor patients have to spend a long time to make outdoor cards. Not only that they also have to spend few hours to get medicines from the specific counters of the hospital as well as price shop of the hospitals which accounts to whole day time spending to visit a doctor (Table 3).

Inpatient care

The waiting time for admission is crucial for patients to transform from acute to critical, instances of which are always heard. Majority of the patients of all hospitals have to wait for

minimum one week to get admission in the hospitals. It is seen, on an average 68 percent of patients has experienced minimum one week wait in case of admission due to hospitalization.

In case of hospitalization, the patients are mainly admitted for less than 5 days. The duration of admission pattern is different for each hospitals, 57 percent patients have been admitted in H1 for below 5 days, 33% in H2 admitted for 5-10 days, 13% in both H3 and H5 admitted for 10-20 days. To observe, the patients are not admitted for excess number days due to the pressure of waiting patients. Doctors or the hospital authority has an intention to discharge the patients as soon as possible to provide opportunity for the next waiting patients (Table 3).

Medical expenditure

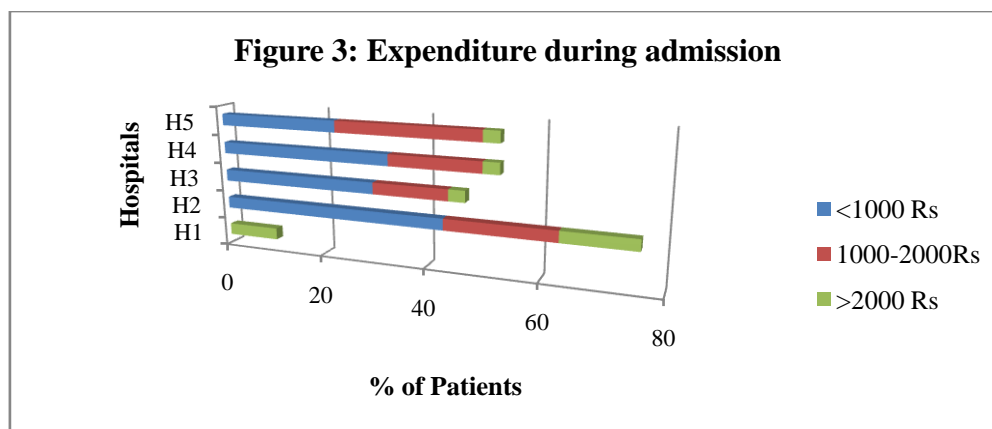
A major component of healthcare cost involves surgery, test and medicines. The significant issue of this cost is provision of free cost for medical expenses. Funding from the government is inadequate to address the costs of health care and thus heavy out-of-pocket expenses are made by patient family. Most Indians while seeking curative public and private health care facilities are burdened with heavy financial expenses in the form of out-of-pocket expenses for health care services which are often catastrophic since financial assistance in the health sector is poorly provided by the government and most of the health spending is private (Ellis *et al.*, 2000)¹. In this section, expenditure during hospitalization and monthly medical expenses are being considered.

Expenditure during admission

The patients who are admitted in the hospital spend money for tests, medicines or miscellaneous items. Though all the public hospitals are providing free health care services to the patients but patients have incurred expenses out-of their pocket. Around 37 percent patients who are admitted in SSKM Hospital among them 10 percent have to spend Rs 2000 and above. Nearly nine-tenth patients admitted in NRS Hospital among them 43percent have spent below Rs 1000, 20 percent have spent Rs 1000-2000 and Rs above 2000 each. In all of the rest hospitals the patients have to spend around Rs 1000- 2000 during the time of admission. These costs include amount spent during the period of admission when patients

¹ Health Insurance in India: Prognosis and Prospectus Author(s): Randall P. Ellis, Moneer Alam and Indrani Gupta Source: Economic and Political Weekly, Vol. 35, No. 4 (Jan. 22-28, 2000), pp. 207-217

required buying medicine during emergency situation and when required medicine stock was not available in the hospital. Apart from this, some expensive and emergency medical test has to be done from the private clinics (Figure 3).

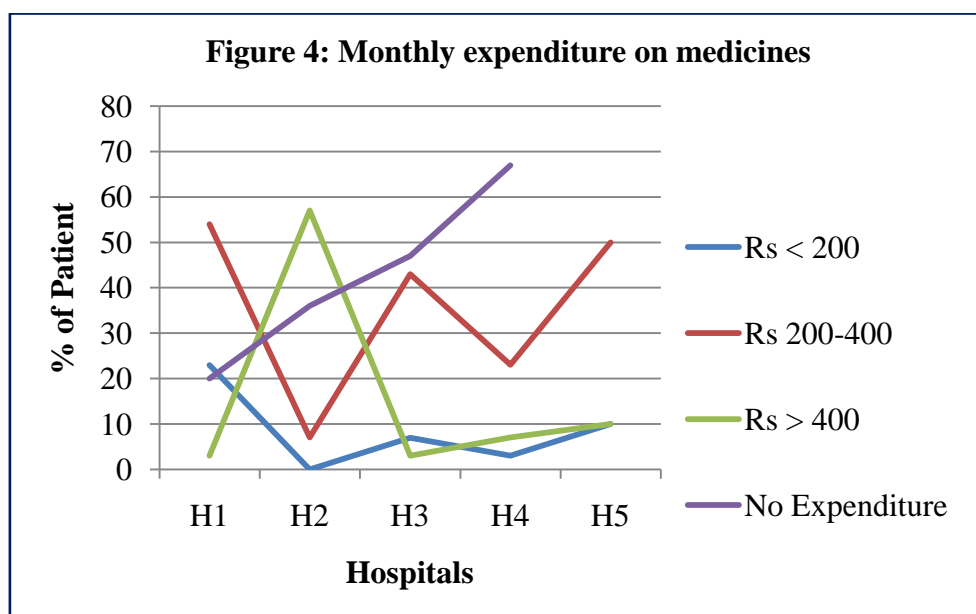


Monthly expenditure on medicines

In India, expenditure on medicines accounts for 50 percent to 80 percent of the total cost of treatment. In addition patients end up paying for a variety of tests (Srinivasan, 2011)². The same study estimates show that it will cost the central and state governments around Rs 30,000 crore per year if medicines are given free to all from the primary to tertiary levels, subject to various assumptions.

Figure 4 shows, among the surveyed patients, on an average 50 percent do not spend any money for buying medicine on monthly basis. Rest of the patient has a monthly expenditure of Rs below 200, and sometimes within Rs 200 to 400 and also above Rs 400. In SSKM Hospital 47 percent patients, 50 percent in R.G.Kar, 43 percent in Medical College have spend Rs 200 prior to survey. In NRS hospital majority (57 percent) spend of Rs 400 and above. Though around 50 percent patients get medicine from the hospitals, there are also a huge number of patients who are not getting user-free medicine charges from hospitals. Thus, in all the surveyed hospital 50 percent patients have to spend money for buying medicine, among which 20 percent reported to have paid to the service provider.

² “Medicines for All’, the Pharma Industry and the Indian State Author(s): S Srinivasan Source: Economic and Political Weekly, Vol. 46, No. 24 (JUNE 11-17, 2011), pp. 43-50 Published by: Economic and Political Weekly



Conclusions

Residential geographical location is important as it is one of the determinants of access to essential goods and services. It is widely accepted that, inclusive access to health services is a necessity in spite people choose to use it or not. However, it has been observed that even where economic and social access are ensured, perceived trust and quality of services has been an important barrier to the utilisation of health care services.

Economically, the patients with lower income seek public health facilities to reduce medical expenses. Besides income, these hospitals are referred to the patients by their local primary health centres or district hospitals, when treatment is not completely possible in such healthcare centres. Moreover, there are also patients who rely more on the Kolkata hospitals than their nearby facilities. The public hospitals in Kolkata offer low cost treatment and other medical expenditure, and further offer better treatment unlike many other public hospitals. This whole scenario highlights the pressure on the hospitals in Kolkata as also reflected by the number of waiting days the patient has to experience.

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