Health-Seeking Behavior for Acute Health Problems during COVID-19 Lockdown among the Residents of an Urban Area in Puducherry

Sir,

Multiple factors such as genetics, gender, individual behavior, socioeconomic factors including nutrition and living conditions, and quality and accessibility of health services are responsible for good health. While recognizing the importance of social determinants of health, the role of medical care in restoring and maintaining health cannot be ignored. Utilization of health-care services is influenced by individual and contextual characteristics which include predisposing, enabling, and need components.[1] The predisposing factors include demography, social, and beliefs whereas enabling factors are related to health policy, financing, and organization. Among the enabling factors, the availability and accessibility of health-care services play a major role in protecting and maintaining people's health which was affected to large extent during the COVID-19 lockdown. Even though medical services were exempted from the lockdown, people were unable to utilize it effectively due to various reasons such as nonavailability of transport, closure of non-COVID hospital outpatient services, and financial constraints. Therefore, it is important to know how people took care of their health problems during the lockdown period.

The objectives of this study were (a) to assess the health-seeking behavior of people for acute health problems during the lockdown and (b) to identify the reasons for their choice of health-care services.

A cross-sectional study was conducted in the field practice area of an urban health center under the department of community medicine of a medical college located in Puducherry between July and September 2020. The urban health center is providing health-care services to a population of about 12,000. Health-seeking behavior was assessed for people of all age groups residing in the study area during the lockdown (April and May 2020) due to COVID-19 pandemic. Assuming that 50% of the people would have sought health-care services during the lockdown period, the sample size was calculated to be 440 with an alpha error of 5%, power of 80%, absolute precision of 5%, and nonresponse of 10%. Individuals residing for more than 1 year in the study area and who had at least one acute health problem during the lockdown period were eligible to participate in the study. A door-to-door survey was conducted to recruit the eligible study participants. After obtaining written informed consent, eligible participants were interviewed by a medical doctor using a structured predesigned questionnaire in the local language. All safety precautions such as surgical mask, face shield, social distancing, and hand hygiene were taken to prevent the spread of COVID-19 infections during the interview. The questionnaire consisted of domains such as sociodemographic characteristics, acute health problems during the lockdown, treatment-seeking behavior, and reasons for treatment-seeking behavior. Fever, acute respiratory symptoms, acute diarrheal disease, pain syndromes, injuries, etc., were considered as acute health problems. Choice of health-care options included private clinic, private hospital, government primary health center (Govt. PHC), government hospital, self-medication, pharmacy, and telephonic consultation with a doctor. Severity of disease, availability, accessibility, affordability, quality of care, and fear about COVID-19 were included as underlying reasons for their choice of a health-care destination, during the pandemic. For children, written informed consent and information regarding their acute illnesses and health-seeking behavior were obtained from the parents/guardians. The study protocol was reviewed and approved by the institutional ethics committee. Data were entered in EpiData software and analyzed using IBM SPSS Statistics for Windows, version 21.0 (IBM Corp., Armonk, New York, USA). Proportions were calculated for categorical variables. Chi-square test was used to estimate the *P* value when comparing proportions.

A total of 480 study participants were interviewed. Majority (52.3%) of the study participants were in the age group of 18–60 years and about two-thirds of them were female. The proportion of the married participants was 60.6%. About one-fourth (27.5%) of the participants were illiterate. Two-third (64.6) of the participants belonged to middle class as per the modified BJ Prasad scale (2020).

The total number of episodes of acute health problems reported among 480 study participants was 524. As shown in Table 1, medical consultation was not received from a hospital/clinic for majority of episodes of pain syndromes whereas the study participants visited a hospital or clinic for most of the episodes of fever (78%), acute respiratory symptoms (78.3%), and injuries (91.7%).

The health-seeking behavior of the study participants who had acute health problems during the COVID-19 lockdown is shown in Table 2. About 35% of the study participants with acute health problems did not visit any hospital. Maximum number of them (26.6%) went to the Govt. PHC. The proportion of the participants who received treatment from private clinics was 22.2%. About one-fifth (21.6%) of the study participants resorted to self-medication. Only six participants obtained medical advice through the telephone.

Table 1: Proportion of episodes of acute health problems for which medical consultation was obtained from a hospital/clinic (*n*=524*)

Acute health problems	Visit to hospital/clinic		Total, *n* (%)	*P*
	Yes†, *n* (%)	No‡, *n* (%)		
Fever	39 (78.0)	11 (22.0)	50 (100.0)	0.02
Acute respiratory symptoms	166 (78.3)	46 (21.7)	212 (100.0)	0.00
Acute diarrheal diseases	11 (68.8)	5 (31.3)	16 (100.0)	0.64
Pain syndromes	105 (47.3)	117 (52.7)	222 (100.0)	0.00
Injuries	22 (91.7)	2 (8.3)	24 (100.0)	0.00
Total	343 (65.5)	181 (34.5)	524 (100.0)	

*Some study participants reported more than one health problems, †Yes: Visit to private hospital/clinic and government primary health center/hospital, ‡No: Visit to pharmacist, self-medication, and telephone consultation

Table 2: Reasons for choosing a particular health-seeking behavior by the study participants during the COVID-19 lockdown (*n*=480)

Health-seeking behavior	Reasons						Total	*P*
	Mild symptom, *n* (%)	Available, *n* (%)	Near to home, *n* (%)	Cheaper, *n* (%)	Quality care, *n* (%)	Fear of COVID-19, *n* (%)		
Private clinic	1 (0.9)	6 (5.6)	13 (12.2)	0	86 (80.4)	1 (0.9)	107	0.00
Private hospital	0	0	3 (16.7)	15 (83.3)	0	0	18	
Govt. PHC	0	17 (13.4)	91 (71.0)	15 (11.7)	5 (3.9)	0	128	
Government hospital	1 (2.0)	11 (20.0)	6 (10.9)	6 (10.9)	31 (56.2)	0	55	
Pharmacist	2 (3.3)	11 (17.7)	34 (54.8)	0	1 (1.6)	14 (22.6)	62	
Self-medication	9 (8.7)	22 (21.2)	4 (3.8)	1 (1.0)	4 (3.8)	64 (61.5)	104	
Telephone	0	4 (66.6)	0	0	0	2 (33.4)	6	

Govt. PHC: Government primary health center

Table 2 displays the reasons for choosing a particular health-care facility by the study participants during the COVID-19 lockdown. The most common reason for choosing a private clinic was quality of care (80.4%). Majority (54.8%) of the study participants who took treatment from a pharmacist said that the pharmacists were close to their homes which made it convenient for them. Fear of COVID-19 (61.5%) was the most common reason for self-medication.

In our study, one-third of the subjects with acute health problems did not visit any hospital or clinic. Govt. PHC followed by private clinics was the preferred health-care destination for most of the participants. Common factors that determine the health-seeking behavior in this study were accessibility, quality, and COVID-19 fear.

Yang *et al*. conducted a telephonic study and online survey among individuals with acute respiratory illness in China, and found that only 36.5% sought medical care from hospitals during the lockdown.[2] However, the percentage was much higher (64.2%) in our study which was conducted through a door-to-door survey for all acute health problems. Similar to our study findings, fear of COVID-19 infection was reported by majority of the participants for not seeking medical care at all.

Similarly, another study showed that the proportion of patients with cardiovascular emergencies reporting after the window period of 12 h increased by 7.6% during the lockdown period compared to prelockdown times and there was also a 60% drop in patients with ST-elevation myocardial infarction who underwent emergency catheterization compared to pre-COVID period.[3] These studies clearly indicate that lockdown not only affected the care for minor ailments and routine checkups but also the timely management of medical and surgical emergencies. Medical experts also have a concern that the lockdown would have affected the health-seeking behavior of cancer patients, particularly those who are at early stages. This could lead to late diagnosis and poor prognosis and ultimately an increase in cancer-related mortality.[4]

The present study was conducted in the community whereas other reported studies are from hospital settings. Our study was conducted immediately after the lockdown which would have minimized the recall bias. One of the limitations of our study is that the health-seeking behavior was assessed for acute health problems only.

During the lockdown period, one-third of our study participants did not visit a hospital for their acute health problems. Instead, self-medication and advice from a pharmacist were the preferred approaches. Fear of COVID-19, quality of care, and accessibility were the key factors which influenced their health-seeking behavior.

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Conflicts of interest

There are no conflicts of interest.

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