



Utilization of Healthcare Services during COVID-19 Lockdown- A Community based Mixed Approach

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Abstract

Background: India reported its first case on January 30th 2020. As the virulence and infectivity of COVID-19 progresses, the Government of India ordered national lockdown from 24th March to break the transmission of viruses. More than 100 days of lockdown created an arduous effect in access to healthcare for various reasons.

Aim: To evaluate the utilization of healthcare services during COVID-19 lockdown.

Methods: It is a community based mixed study. Participants were selected by simple random sampling for quantitative method and convenience sampling is used for the qualitative Method. Univariate and thematic analysis was performed.

Results: Among 246 Participants, only 12.2% had access to healthcare facilities. 86% of respondents were screened for COVID-19 before entering the hospital. Nearly 78% of the respondents haven't followed up their regular health check-ups. About 81.7% worried about their health status and only 17.5% had telephonic and web consultants.

Conclusion: Making proper priority planning and channelization of healthcare facilities for all types the patients and irrespective of the age group can reach out to healthcare foremost during the pandemic crisis. Child and maternal health services, vaccination, immunization, treatment of tuberculosis (DOTS), hemodialysis, and cancer treatment (chemotherapy, radiotherapy) should be handled with proper care and prime concern.

Keywords: COVID-19; Utilization; Health Management; Healthcare

Introduction

In India, COVID-19 has brought a lot of challenges to the government and the people around. The rapid spread of COVID-19 is expected to have a significant impact on healthcare as well as all sectors worldwide. One of the primary challenges is healthcare services, people struggle a lot to access healthcare services. Health care utilization is determined by the need for care and access to health care centers. The World Health Organization states that health is determined by individual characteristics and behaviors, physical environment, and socioeconomic environment (WHO, 2017). The strict lockdown imposed in Chennai made people feel difficult to reach the health care centers, some people have given

up their regular checkups. Middle and low social-economic people use only public transportation for reaching healthcare centers which were paused during this lockdown and the next scenario could bring fear among people to visit health facilities because of the corona virus.

People often avoid seeking medical care even when they suspect it may be necessary [1]. People don't understand the seriousness of their health problems. Avoiding medical care initially may result in late detection of disease which can lead to even reduced survival rates [2]. Preventable diseases are also pushed to non-curable diseases when people fail to get treated initially.

Our study had examined the barriers to utilization of healthcare services which was conducted among those people in a different locality. A conceptual response of reasons from people was analyzed and framed into three themes.

Materials and Methods

The study was conducted from May 15th to June 15th, 2020 in Mudichur, Chengalpattu district of Tamilnadu. It is a Sub-urban close part to Chennai, the capital of Tamilnadu. Both quantitative and qualitative study designs were employed. A total of 246 households were selected. Only residents aged 18 years old and above and the residents for at least three months were selected as samples. Those who refused to participate in the survey and those who were not present during the survey after three visits were excluded from the study.

Data were collected through a Semi-Structured questionnaire and in-depth Interviews. Thematic analysis was used to identify and analyze themes in the data.

For qualitative data analysis, all interviews were audio-recorded and transcribed verbatim and then was translated into English. Once all the interviews were coded, segments of text that were

related to a common theme were placed together. In this manner, emergent themes were identified. Quantitative data were analyzed using SPSS version 19 and Qualitative data were analyzed using NVIVO.

Results

The mean age of our study is 36.63% belongs to the age group of 30 - 49. 85% are married, 31.7% completed their undergraduate, 31.3% work in the private sector, and 22.8% are from Rs16000 to 24000 income categories (Table 1).

Among 246 participants, 91.3% of them found difficulty in getting treatment in any healthcare facilities and only 12.2% had access to healthcare facilities. Nearly 78% of the respondents haven't followed up their regular health check-ups. Nearly 27.8% of respondents went to the hospital for COVID-19 testing, 11.1% went for obstetrics and gynecology care and 11.1% went for diabetes and hypertension. Only 3.4% had difficulty in getting their medications but 87.9% found difficulty in getting their diagnostic tests. The majority of 85.4% of surgeries have been postponed. About 81.7% worried about their health status and only 17.5% had telephonic and web consultants. 86% of them were screened for COVID-19 before entering the hospital.

| S. No | Social and Demographic Variables | Frequency | Percentage | |
|-------|----------------------------------|-------------------------|------------|------|
| 1 | Gender | Male | 157 | 63.8 |
| | | Female | 89 | 36.2 |
| | | Total | 246 | 100 |
| 2 | Age | 16 - 29 | 25 | 10.2 |
| | | 30 - 49 | 155 | 63 |
| | | 50 - 59 | 46 | 18.7 |
| | | Above 60 | 20 | 8.1 |
| 3 | Marital Status | Never Married | 209 | 85 |
| | | Married | 18 | 7.3 |
| | | Widow/Divorce | 19 | 7.7 |
| 4 | Education | Middle school and below | 17 | 6.9 |
| | | Higher School | 30 | 12.2 |
| | | Secondary School | 29 | 11.8 |
| | | Diploma degree | 50 | 20.3 |
| | | Undergraduate | 78 | 31.7 |
| | | Post Graduate and Above | 42 | 17.1 |

| | | | | |
|---|-----------------|---------------------|----|------|
| 5 | Occupation | Student | 20 | 8.1 |
| | | Private sector | 77 | 31.3 |
| | | Public sector | 56 | 22.8 |
| | | Self-employed | 37 | 15 |
| | | Unemployed | 35 | 14.2 |
| | | Retiree | 21 | 8.5 |
| 6 | Income category | Up to Rs 8000 | 47 | 19.1 |
| | | Rs 8001 to Rs 16000 | 36 | 14.6 |
| | | Rs 16001 to 24000 | 56 | 22.8 |
| | | Rs 24001 to 32000 | 31 | 12.6 |
| | | Rs 32001 to 40000 | 14 | 5.7 |
| | | Rs 40001 to 48000 | 21 | 8.5 |
| | | Above 48000 | 41 | 16.7 |

Table 1: Social and demographic variables.

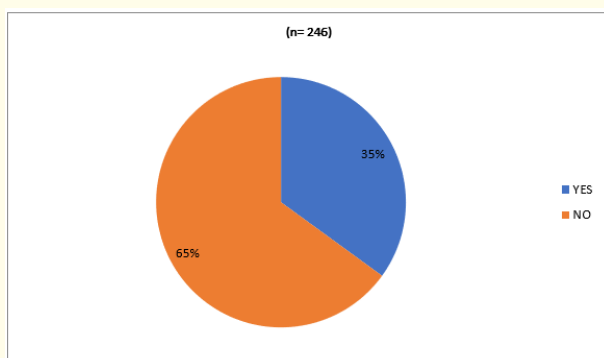


Figure 1: Family members going for a regular checkup for any health problems regularly.

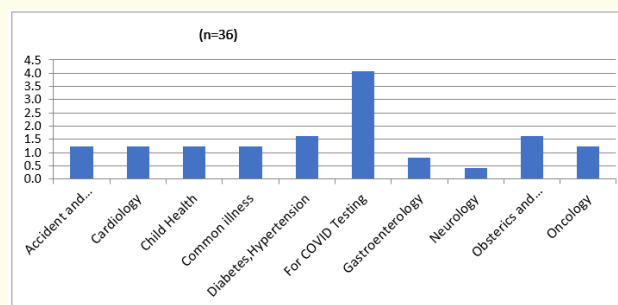


Figure 3: Reason for the last hospital visit.

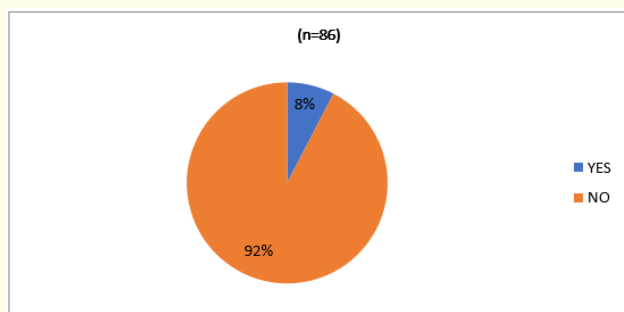


Figure 2: Regular follow-up during this lockdown.

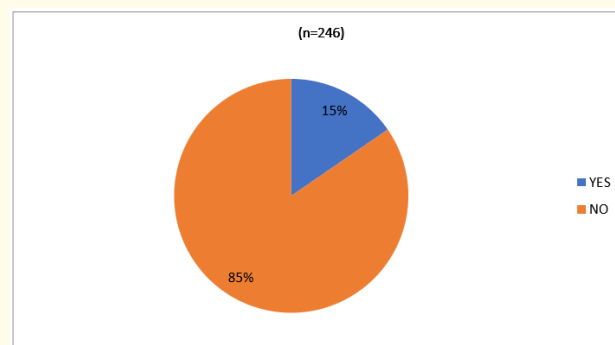


Figure 4: Difficulty in getting medicines.

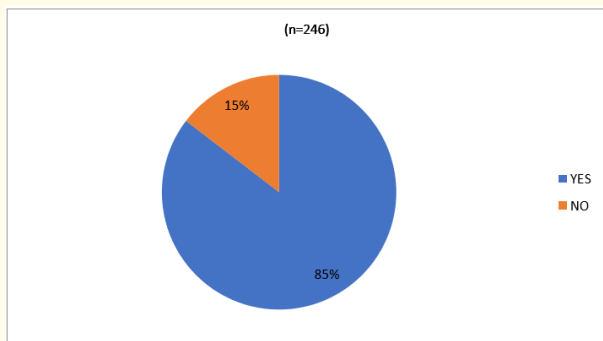


Figure 5: Difficulty in diagnostic tests.

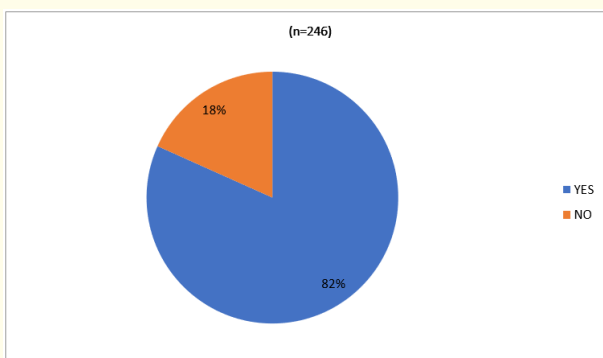


Figure 6: Worried about your health.

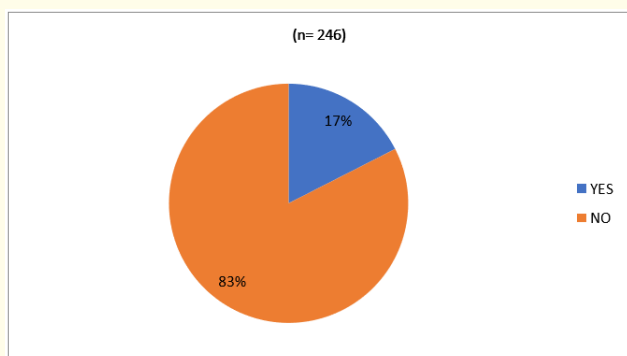


Figure 7: Telephonic or web consultations.

Qualitative analysis

From the analysis of data collected for barriers in the utilization of healthcare facilities, three themes were generated, transportation problem, fear of getting corona virus and lack of doctors in healthcare centers. Transportation issues mainly talks about lock-

down problem, no availability of public transport, e-passes. Lack of doctors could be the unavailability of physicians in the non-COVID patient area. Each theme is explained below.

Transportation problem

Accessibility is the main part of the utilization of health care services. The accessibility depends on two things one is a transportation and another one is the distance to the healthcare center. Only a few peoples were able to obtain passes, and many found it extremely difficult to arrange the documentation. One of our respondents states that: "Government says all healthcare professionals are working for people, but they have to understand that without any means of transport then the hospital for people is of no use".

The lockdown was announced on March 23rd. Though the government provides essential goods and services many people were not able to get it due to lack of transportation. Many people in India depend on public transport to reach different locations. Daily movement of transport has collapsed to less than 10 % of normal levels. Though in some areas the government had allowed movement of some vehicles, but many people are not allowed because of passes to reach other locality and few were not allowed to cross their provincial border. Hence struggling with transportation was the biggest problem faced by people to reach healthcare facilities.

A Male participant states: "I am a diabetic patient; I used to go to a government hospital every month for collecting tablets. Because of the transportation issue, I was not able to go to the hospital. I am worried about my health and I was not that much affordable to get medicine outside also".

Fear of getting corona

COVID phobia restricts people to visit health care centers. People with health problems have been struggling to access healthcare since the lockdown was imposed. Many chronic diseased people were afraid to visit hospitals as they are at high risk of contracting COVID 19. Even though people use technologies such as online consultations, the exact problem can't be found out without clinical examination. The fear among people should be pulled out very soon.

"Just before this pandemic I was diagnosed with a small swelling near my neck, initially I was prescribed with medicine for 2 weeks. After that, the swelling began to increase in size so my doctor suggested me to take a scan. I gave samples for tests,

but I am worried to go to the hospital. While comparing COVID my swelling is not bothering me a lot”.

The danger of some chronic problems is extreme than this coronavirus. But people forget their life-threatening condition due to this fear of COVID 19. People who need care are limiting themselves from visiting the hospital.

One of our participants being a doctor quoted “patients are frightened to leave their house because of Coronavirus. What happens if a patient has an emergency with a serious problem?”.

One of our respondent said, “My father was a heart patient and has undergone two bypass surgeries, living with an artificial pacemaker. For the past 4 months, he didn’t go to any hospital because of fear of infection with coronavirus. I just don’t know when this corona will stop and my father will go to the hospital”.

The main reason for the drop off inpatient in hospitals is fear of transmission.

Lack of doctors

The health care services are still developing in India, hence Indians are facing many challenges like manpower, poor infrastructure, and quality of health care. Most of the peoples in India depends on Government hospitals for healthcare. The availability of physicians and nurses varies widely across the country. Now a majority of our government hospitals are designated mainly for COVID patients and other outpatients are in the trouble of lack doctors and healthcare providers for their treatment.

The gap between healthcare resources and the patient’s demand for treatment has not turned down in India. In many parts of the country, all major surgeries have been canceled due to a lack of consultants. One of the main reasons for lack of health care professionals is that they were front line workers during this COVID.

India lacks an adequate healthcare system. They failed to manage people during this emergency period. Even though the government allowed telemedicine and online consultation, but it did not work out well during emergencies.

One of our participants quoted saying, “My sister had a severe dog bite. She was bleeding profusely. We called for the ambulance and they never responded. After getting her in the two-wheeler, we

reached the hospital. There were no doctors to lookup those emergencies. We waited for almost 2 hrs. It was one of the horrible days of my life”.

Discussions

Our survey showed that the majority of the respondents haven’t had access to healthcare during the COVID lockdown. Emergencies such as trauma and other conditions that are qualified for emergent care, most common procedures still being performed but lack of transportation was the major trouble to the patients.

K Jha and Gopalakrishnan S., *et al.* [3] shows that 97% avail maternal services regularly in Tamilnadu. The majority of participants availed gynecology service during the lockdown. A short review by Aarthi Karahda., *et al.* [4] shows that elderly who have comorbidities such as hypertension, cardiovascular diseases, diabetes, etc leading to higher mortality risk and uncertainties due to the pandemic, social distancing practices cause a rise in hypertension and diabetes. Thus 11.1% availed treatment for hypertension and diabetes.

Many diagnostic tests such as laboratory tests, CT scans and MRI have been heavily suspended due to the lockdown and as a percussion. Many pregnant women have been affected to due delay in taking diagnostic tests.

Several studies reported that nearly 70% of the people have psychological problems and an increase in stress and anxiety level. It has impacted every individual’s health, whereas 81.7% of them worried about their health.

A study by Bokolo Anthony Jnr revealed that the use of telemedicine can be the best remedy for the current pandemic situation and even for regular practice in developing and low-income countries. They should also provide implications on the potentials of consolidating virtual care solutions shortly towards digital technologies into healthcare.

A research article by Giuseppe Tarantini., *et al.* reveals that 41% of COVID-19 cases in Wuhan are resulted by hospital transmission. Screening of patients for COVID cuts down the transmission of COVID. On the other hand, it had serious issues in emergency care. Many hemodialysis and other critical care patients severely suffered due to the screening [5-15].

The only limitation of our study is that it is a community-based study and it covers only a certain geographic area. The authors felt it necessary to keep the survey open only for a particular area and a short period due to the lockdown.

Conclusion

Making proper priority planning and channelization of healthcare facilities for all types the patients and irrespective of the age group can reach out to healthcare foremost during the pandemic crisis. Child and maternal health services, vaccination, immunization, treatment of tuberculosis (DOTS), hemodialysis, and cancer treatment (chemotherapy, radiotherapy) should be handled with proper care and prime concern.

Recommendations and Way Forward

There is a need to develop health care models for the aged population, particularly during emergencies. These models should identify individual demands of geriatric patients, create new health services like mobile clinics, and provide integrated care like basic health services and for chronic diseases. Ambulance services should be further strengthened both in terms of more allocation of resources, as well as ensuring outreach and community-based services.

Bibliography

- Byrne SK. "Healthcare avoidance: a critical review". *Holistic Nursing Practice* 22 (2008): 280-292.
- Ohl M., et al. "Rural residence is associated with delayed care entry and increased mortality among veterans with human immunodeficiency virus infection". *Medical Care* 48 (2010): 1064-1070.
- K Jha and Gopalakrishnan S. "Utilization of Maternal Health care Services in Kancheepuram District, Tamil Nadu". *Indian Journal of Maternal and Child Health* 12 (2010): 1-7.
- Karahda A., et al. "Effect of healthcare burden and resource re-allocation on elderly during COVID-19 pandemic". *Journal of Geriatric Care and Research* 7.2 (2020): 89-92.
- Lai THT., et al. "Stepping up infection control measures in ophthalmology during the novel coronavirus outbreak: An experience from Hong Kong". *Graefe's Archive for Clinical and Experimental Ophthalmology* 258.5 (2020): 1049-1055.
- Zhou P., et al. "A pneumonia outbreak associated with a new coronavirus of probable bat origin" (2020).
- Dong E., et al. "An interactive web-based dashboard to track COVID-19 in real time". *The Lancet Infectious Diseases* (2020).
- Zhang T., et al. "Probable pangolin origin of SARS-CoV-2 associated with the COVID-19 outbreak". *Current Biology* (2020): 1346-1351.
- Khan Y., et al. "Public health emergency preparedness: a framework to promote resilience". *BMC Public Health* 18.1 (2018): 1344.
- Seeger MW., et al. "A Conceptual Model for Evaluating Emergency Risk Communication in Public Health". *Health Security* 16.3 (2018): 193-203.
- Gostin LO., et al. "Responding to Covid-19: How to Navigate a Public Health Emergency Legally and Ethically". *Hastings Center Report* 50.2 (2020): 8-12.
- Portnoy J., et al. "Telemedicine in the Era of COVID-19". *The Journal of Allergy and Clinical Immunology: In Practice* 8.5 (2020):1489-1491.
- Contreras CM., et al. "Telemedicine: Patient-Provider Clinical Engagement During the COVID-19 Pandemic and Beyond". *The Journal of Gastrointestinal Surgery* 24.7 (2020): 1692-1697.
- Bashshur R., et al. "Telemedicine and the COVID-19 Pandemic, Lessons for the Future". *Telemedicine Journal and e-Health* 26.5 (2020): 571-573.
- Gadzinski AJ., et al. "Implementing Telemedicine in Response to the COVID-19 Pandemic". *The Journal of Urology* 204.1 (2020): 14-16.

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