

ORIGINAL ARTICLE

Effect of Covid-19 Pandemic on Non-Covid illness in the General population of Pakistan

ZORAIN MUSTAFA KHALIL¹, JANNAT SARDAR SHEIKH², BISMAL RIAZ³, MOHAMMAD SALMAN IMTIAZ⁴, ANUM ARIF⁵, HAMZA JAMIL⁶

^{1,2}Medical student, CMH Medical College, Lahore

^{3,4}MO, CMH Medical College, Lahore

⁵Consultant General Surgeon, Fellow Vascular Surgery, CMH Medical College, Lahore

⁶Medical Office, Army Medical College, Rawalpindi

Correspondence to Dr. Anum Arif, Email: dranumarif@yahoo.com

ABSTRACT

Aim: The goal of this study was to examine the influence of the Covid-19 pandemic 2020 on the health-seeking behavior of the general public in a lower-middle-income nation like Pakistan by looking at the availability, accessibility, and usage of health infrastructure.

Methodology: In this cross-sectional study, 394 Pakistani patients completed an online questionnaire measuring their willingness to seek medical treatment, reporting for follow-up visits, and the ease of getting medical care about their medical condition, both before and after the pandemic. The information was then examined.

Results: During the pandemic, 21.8 percent of patients visited a health center for follow-up. Fear of infection from the health institution kept 20.3 percent of patients from showing up for follow-up. 17.5 percent of patients had significant symptoms from their underlying sickness but delayed going to the doctor due to the fear of the virus. Patients' appointments were canceled or rescheduled in 20.1 percent of cases, while 54.1 percent did not feel the need to visit a health center.

Conclusion: Fear of the virus, lockdowns, limitations, and other reasons have resulted in a substantial proportion of the population avoiding ER/health facility visits while suffering symptoms that necessitate medical attention. The long-term impact on a developing country's healthcare system, such as Pakistan, will be negative unless extraordinary steps are made to provide safe, accessible, and cheap health care during the epidemic.

Keywords: Barrier, comorbidities, COVID-19, healthcare, pandemic

INTRODUCTION

Since the emergence of Coronavirus Disease 2019 (COVID-19) in Wuhan, China, in early December 2019, the illness has expanded to become a pandemic, impacting millions of people globally¹. In Pakistan, over 231,000 people had been infected as of July 6, 2020, with over 4700 deaths². The disease's extraordinary spread has caused a significant shift in worldwide social norms and disrupted the delivery of routine health care^{3,4}. Pakistan is vulnerable to COVID-19 as a middle-income country with weak healthcare infrastructure and a population of about 197 million people⁵. The rapid development of a pandemic has put a strain on the country's already inadequate healthcare facilities, resulting in fewer people having access to treatment for both Covid and non-covid ailments⁶.

The extensive reporting of the COVID-19 pandemic in the social, electronic, and print media has exaggerated the public's and government's anxiety which has led to Pakistan, like many other nations to enforce a national curfew, as well as stay-at-home orders, transport ban, to avoid visiting local clinics and hospitals as much as possible while using more telemedicine-based practice^{7,8}. Moreover, dental, gynecological procedures, and elective surgeries were discontinued as they pose a health risk. Due to these numerous hurdles to healthcare access, hospital admissions for non-covid related illnesses have declined. This might be a significant factor that increases the morbidity and mortality rate, especially amongst those with life-threatening conditions.

People should be more aware of their health since COVID-19 produces a more severe infection in patients with comorbidities⁹. However, evidence suggests that people avoided ED visits for non-coronavirus-related illnesses and delayed their visits as long as possible due to the fear of contracting the virus^{10,11}. The emergency department (ED) is usually the first line of defense, but during the pandemic, due to the enormous crowds and high transmissibility of diseases, the public viewed the ED as the epicentre of all infections¹².

Emergent medical problems continue to arise alongside the present outbreak, and their diagnosis should be established as soon as possible. The risk of significant morbidity from delayed diagnosis and treatment of such prevalent diseases may outweigh the risk of COVID-19 infection.

Thus, we'll look into the impact of COVID-19 on emergency department visits and hospital admissions in a developing country.

METHODOLOGY

A cross-sectional study was carried out at the CMH in Lahore, Pakistan, from March 2020 to August 2020 after permission from Ethical Review Board. This is a tertiary referral center for a large population. Participants were chosen at random from all age categories who agreed to take part in the study. A total of 400 people were questioned in a row. Patients who refused to agree or who had a communication barrier were excluded from the research.

A self-designed questionnaire with two parts was used: the first part included consent, demographics, level of education, and any comorbidities, and the second part included questions about their follow-up visits before and during the COVID-19 epidemic. The participants were subsequently questioned in-depth about their reasons for not attending follow-up appointments, as well as how the limitations imposed during the epidemic affected their visits to healthcare facilities and the availability of medicines. The different issues were then classified to determine which variables had the greatest impact on people. To avoid any misinterpretation of the questionnaire, the interview was conducted by one of the authors, making sure any ambiguity was cleared out then and there.

Before the initiation of the study, approval was sought from the hospital's ethical review board and informed consent was sought from all patients when inviting them to participate in the study. The study was conducted following the principles laid down in the declaration of Helsinki. Data were analyzed using SPSS version 22. The Chi-square test was used to determine any statistical significance and $p < 0.05$ was considered significant. Numerical data were represented as percentages.

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RESULTS

We managed to collect data from 394 patients, 262(66.5%) males, 132(33.5%) females. Age ranged from 14-75, with the mean age of subjects as 32.77 with an STD of 12.856. Only 28(7.1%) were from a rural setting, while the rest 366(92.9%) were from urban settings. On inquiry, 30(7.6%) had inadequate income and the rest 364(92.4%) had a stable income. On asking about chronic diseases, 105(26.6%) had one at least, and 289(73.4%) had none. On further inquiry, 118(29.9%) said they visited clinics before, 65(16.5%) said government hospitals, 172(43.7%) said private hospitals, and 39(9.9%) stated other sources. On asking if they feared getting covid from these hospital settings, 69(17.5%) said yes, and 325(82.5%) answered no. On asking about the availability of medicine was affected due to covid pandemic, 282(71.6%) said there was no change, 91(23.1%) said it got difficult for them, and 21(5.3%) said it got easier for them.

On asking the question that did they visit any clinic or healthcare professional for routine follow-up in the past 2 months of the pandemic, 308(78.2%) answered no, and 86(21.8%) answered yes. Inquiring about the reasons for not going revealed that out of 394, 213(54.1%) did not feel the need to go in the first place, 80(20.3%) did not go due to fear of covid, 15(3.8%) wanted to go but couldn't get their follow-up done due to closed clinics and other facilities (n=8), busy schedules (n=3), congested health facilities (n=2), non-availability of doctors (n=1) and transport issues (n=1). While 86(21.8%) did successfully go for their follow-up.

Along with this, 79 people out of 394 (20.1%) had their scheduled appointments canceled or rescheduled during the last two months. On further questioning, 69 people (17.5%) out of 394 experienced symptoms during the last 2 months for which they did not get checked by a doctor due to fear of the contracting virus.

Figure 1: Reasons why individuals decided not to opt for their respective follow-ups. (Note: the non-applicable subgroup includes people who did go)

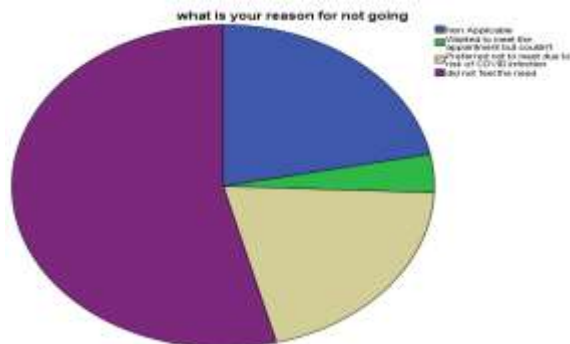


Figure 2: How the availability of medicine was affected by the lockdowns imposed due to COVID-19.

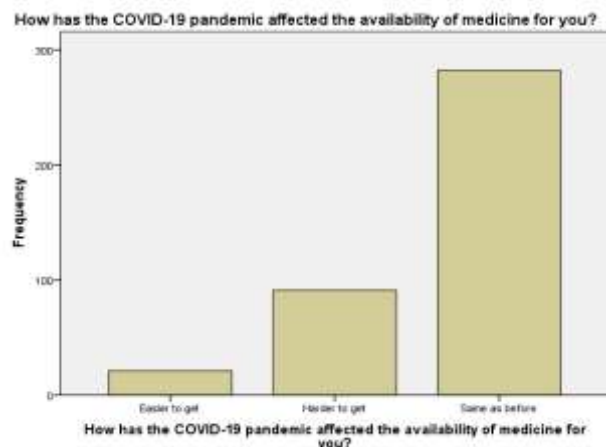


Table 1: The frequencies of problems faced by people while going for their follow-ups during the lockdown. (Note: non-applicable subgroup includes all those individuals who decided not to go)

Difficulties faced by patients	n	%age
Not applicable	379	96.2
Transport Issues	1	.3
Congested health facilities	2	.5
closed clinics/other facilities	8	2.0
Doctor unavailable	1	.3
Busy schedule	3	.8

DISCUSSION

Pakistan has a high prevalence of both infectious and non-infectious diseases^{13,14}. It is already at a disadvantage while fighting against the current COVID-Pandemic as studies are now showing that the Novel Coronavirus causes a much severe infection in patients with co-morbidities and leads to higher fatality rates^{15,16}. This means that the population of Pakistan should be extra cautious and focus more on managing their co-morbidities to reduce their chances of developing a serious illness in case they contract the extremely infectious virus.

However, this is not simple at the time because the COVID Pandemic has created multiple barriers to obtaining healthcare, as seen by our findings that only 21.8% of patients were able to effectively complete their follow-ups for their persistent chronic diseases. In reality, the pandemic has resulted in fewer hospital admissions for non-covid-related diseases worldwide^{17,18}. In this study we assessed how much of an impact has COVID Pandemic had on the utilization of healthcare resources by the general population of Pakistan during the first wave of the virus which led to a nationwide lockdown¹⁹. Although most hospitals were open and functioning during that period, people still reported barriers to accessing healthcare.

The first hurdle most people face in a pandemic is health anxiety. Hypochondriasis (health anxiety) manifests itself in two faces; health avoidance or excessive assurance-seeking behavior²⁰. Cognitive or health avoidance expresses itself as reluctance to seek medical help for fear of contracting an illness, considering hospitals or health workers as hubs of infection²¹. On the other end of the spectrum, health assurance precipitates from a fear of having contracted an illness and results in the swarming of medical facilities to seek immediate attention²².

Fear of getting the Coronavirus is understandably widespread around the world, causing individuals to be hesitant to visit any type of healthcare institution²³. The similar pattern was shown in this study, as 20.3% of those surveyed opted not to attend their routine check-ups because they were afraid of being infected. Second, the idea that the dangers of developing covid exceed the patient's existing condition led to 17.5 percent of participants not seeing a doctor at all, although suffering substantial symptoms. In comparison, just 3.8 percent decided to pursue follow-ups but were unable to do so for a variety of reasons.

Since Pakistan is a middle-income country, the emergence of a sudden pandemic has put a strain on its already limited healthcare facilities leading to fewer people being able to access healthcare for both covid and non-covid illnesses⁵. Along with this, challenges were also faced due to the closing of select OPD departments throughout the country²⁴.

Pakistan already has insufficient numbers of all categories of healthcare personnel, with the following numbers per 1000 population: 0.06 for community health workers, 0.57 for nurses and midwives, and 0.82 for physicians. This equates to a total workforce of 1.45 per 1000 people when WHO recommends 2.5²⁵. This scarcity was exacerbated by the COVID pandemic, which resulted in some patients being unable to obtain routine healthcare owing to a staff shortage.

During the first wave of COVID, Pakistan also implemented a strict ban on transportation starting from public transports and then later shutting down even flights and trains²⁶. This is another

factor that may have contributed to the difficulty in reaching for follow-ups. Despite all these difficulties, 86(21.8%) of people still managed to get their follow-ups done while the majority 54.1% did not feel the need of going to hospitals indicating the either absence of reason or lack of interest in showing up for regular follow-ups for their comorbidities.

There is also general worldwide discontinuation of services deemed unessential or posing health risks such as dental, surgical, and gynecological practices amongst many²⁷. Same has been the case in Pakistan which is supported by the fact that 79(20.1%) out of 394 people in this study had their appointments canceled or rescheduled during the first two months of lockdown.

According to a 2009 WHO research, Pakistan has a remarkably low availability of medication in the public sector²⁸. The continuing pandemic may have exacerbated this obstacle, as 23.1% of those in this research indicated that COVID has made it difficult for them to acquire medications. These problems that Pakistan is now facing as a result of a worldwide pandemic may be unexpected and appear insignificant, but they require proper attention and action to properly fight the COVID outbreak that the entire globe is currently confronting.

To our knowledge, this will be the first study that explores and assesses the effects of this pandemic and its associated lockdown on healthcare follow-up in Pakistan and we, therefore, found very scarce researches during our literature review to compare our results with. A more statistical study is required on a larger scale to assess with better accuracy about the said impact.

CONCLUSION

Disease outbreaks pose a significant threat to the healthcare system especially in a developing country like Pakistan. Lack of basic health facilities, poor health policies, weak administration, and a population that is indifferent towards general protective measures aggravate the situation. The limitations put in place during the epidemic have significantly decreased the number of patients with comorbidities who visit the hospital for follow-up. As a result, with Covid-19 in our midst, it's past time to examine and implement public health legislation that emphasizes support rather than restriction.

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Conflict of interest: Nil

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