Changing landscape of respiratory conduct and its stressful impact during covid-19 crisis

SAHAR MUDASSAR¹, MUDASSAR ALI², BILAL HABIB³, FARUKH BASHIR⁴, SHOAIB AHMED⁵, AMNA MUBEEN⁶, UMBER NISAR⁷

Correspondence to Sahar Mudassar

ABSTRACT

Background: The country was placed under a nationwide lockdown on April 1st, which was then extended twice more until May 9th. When the lockdown came to an end, it was gradually lifted. Following the initial wave, the nation has fought COVID-19 by implementing "smart lockdowns" and enforcing standard operating procedures (SOPs).

Aims: To assess participants' respiratory etiquette, anxiety, and depression in the context of the COVID pandemic after the constraint of lockdown has been lifted.

Methods: From May 2020 to February 2021, a total of 120 participants participated in this cross-sectional study. Data collection is done through the use of a proforma. Anxiety and depression were measured using the GAD-7 and PHQ-9 scales, which were used in conjunction with each other. It was disseminated by a deliberate snowball sampling procedure. Consent was obtained through the use of Google Forms.

Results: Only 30 percent of the 120 participants wore a mask at all times. Anxiety and despair were experienced by 49 percent and 42 percent of those surveyed, respectively. Anxiety and depression were shown to be related with 35-50 year old females, HCPs, and family members who tested positive for COVID-19.

Conclusions: Following the lockdown, participants' respiratory hygiene etiquette may have deteriorated, maybe due to their decreased anxiety about COVID-19 infection. Females, HCPs, and family members who tested positive for COVID-19 were shown to have higher levels of anxiety and sadness than other groups.

Keywords: Anxiety, depression, Covid 19

INTRODUCTION

The COVID-19 pandemic in Pakistan is part of the SARS coronavirus 2 outbreak. (SARS-CoV-2). On February 26, 2020, two incidents were reported in Pakistan (a student in Karachi who had just returned from Iran and another person in the Islamabad Capital Territory). By 18 March 2020, each of the four provinces, two autonomous territories, and Islamabad Capital Territory had at least one confirmed case of COVID-19.

Despite being the world's fifth most populous nation, Pakistan had the 29th highest death toll (about 23,087). (at approximately 1,011,708). The country's COVID-19 infections are undercounted.

In Pakistan, there were three rounds. It began in late May 2020, peaked in mid-June with daily new confirmed cases and deaths, and ended in mid-July. After a low initial mortality rate, the case and death rates continued to diminish. With fewer new deaths and reduced testing positive rates, Pakistan's COVID-19 situation improved. The second wave of cases and deaths began in early November 2020. Weak, largely Sindh in the south, this wave peaked around mid-December 2020. Three waves of testing positive, daily confirmed cases, and deaths began in mid-March 2021. The third wave impacted Punjab and KPK. Positive rates, daily new cases, and daily fatalities have been decreasing since late April 2021.

Provincially, Punjab has had the highest confirmed cases (334,000) and fatalities (9,770). Pakistan's Sindh province has the second-highest number of confirmed cases (308,000) and deaths (4,910), but was hardest hit by the virus's first two waves. Lahore has Pakistan's second-highest death rate, after KPK. With 129,000 confirmed COVID-19 cases, Khyber Pakhtunkhwa has the third-highest death rate (3.03%) and third-highest number of fatalities (3,920). Balochistan, an impoverished and desolate area in southwest Pakistan, had the fewest confirmed cases (24,500) and deaths (270). 1.10% in Balochistan. Islamabad Capital Territory, Pakistan's richest province, had the most confirmed cases and deaths, at 80,300. Lockdown began April 1 and was

Received on 13-09-2021 Accepted on 22-02-2022 extended twice till May 9. Then the lockdown was lifted. After the initial wave, COVID-19 was fought using clever lockdowns and SOPs.COVID-19 is only found in a few areas in Pakistan. On 7 May 2021, Karachi had approximately 189,000 confirmed cases, nearly 22% of Pakistan's total COVID-19 cases. As of 5 September 2020, Lahore has 170,000 COVID-19 cases, about 20% of the country's total. The latest data show roughly 79,000 and 47,000 confirmed cases in ICT and Peshawar District, respectively. About half of Pakistan's confirmed cases are from these four cities.

MATERIALS AND METHODS

This cross-sectional study of 120 participants conducted between May 2020 and February 2021, which was approved by the committee. Data collection is done through the use of a pro forma. The first portion featured demographic information such as age, gender, city of residence, education, family type, career, addiction, and comorbid condition. The second section contained information on the third section. The second portion consisted of questions concerning respiratory etiquette attitudes and practices, which were divided into two categories. The degree to which each question had been practiced was assessed using a 5-point Likert scale (always, often, sometimes, rarely, and never). Measures for anxiety and depression were included in the third section (GAD-7 and PHQ-9). The patient health questionnaire-9 is comprised of nine items in total. Several days, more than 12 days, and almost every day are included in this category. Each question has a score range between zero and one hundred percent. The final score was calculated by adding all of the questions together (ranging from 0 to 27). Depressive symptoms were divided into five categories: minimum (1-4), mild (5-9), moderate (10-14), fairly severe (15-19), and severe (20-27). GAD-7, on the other hand, has seven questions. It was decided that anxiety levels should be classified into five categories: minimum, mild, moderate, and

The survey was completed online, either using a mobile device or a computer. By stating that they freely engaged in the study and completed the questionnaire on the same page, the participants gave their agreement to participate in the study.

^{1,2,3}Associate Professor of Pathology, Rashid Latif Medical College, Lahore

⁴Associate Professor Gynecology, Continental Medical College Lahore

⁵Associate Professor of Biochemistry. Rai Medical College Sargodha.

⁶Associate Professor of Anatomy, Sargodha Medical College Sargodha

⁷Assistant Professor of Computer Sciences, Forman Christian College University, Lahore.

RESULTS

In this study, 120 people agreed to take part. 80 participants (66.6%) were aged 15–35, 76 (63.33%) were male, and 44(36.6%) were female. 75 % of participants have graduated. About 26 (21.66%) were health care workers (HCPs). 26 out of 120 participants (21.66%) were involved in COVID-19 events. 87 participants (72.5%) spent over 8 hours on social media or TV for COVID-19 news. 11 individuals (9.16%) and 11 family members (9.6%) had COVID-19.

Participants in the study used respiratory etiquette. 36 people (30%) always wore a mask. Only 48 people (40%) kept social distance. The majority of 89 participants said they felt better when the lockdown was lifted. 28 individuals (23.3%) experienced moderate (6%) to severe (1.7%) anxiety. Similarly, individuals depression levels were lower. Depression was mild in 6.9%, moderately severe in 2.7% and severe in 0.6%.

Study shows anxiety and depression and sociodemographic factors. Female participation vs. males of various age groups. Anxiety and sadness levels were greater among HCPs and people with COVID-19 positive family members.

Respiratory etiquette among the study participants				
Etiquette	Frequency	Percentage		
Wearing mask during going outside				
	36	30		
Following respiratory hygiene				
	26	21.6		
Maintain social distance				
	48	40		
Felt better after lockdown				
	89	74.16		

Anxiety and Depression level Percentage among Participants				
Variable	Mild	Moderate	Severe	
Anxiety GAD 7	23.3%	6.0%	1.7%	
Depression PHQ-9	6.9%	2.7%	0.6%	

DISCUSSION

Pakistan's biggest health problem since independence. Infected with COVID-19, the virus has inflicted harm Panic and fear undermine social chaos and arbitrary connections. Managing the COVID-19 outbreak demands mental wellness.

During lockdown, the majority of participants (77.1%) reported bad emotions. They stated how the lockout interrupted their typical routines, creating unhappiness and stress. The economic impact of lockdown was reported by more than two-thirds of participants (71.9%). They accepted COVID-19 as part of their 2020 life. A John Hopkins University poll indicated increasing psychological discomfort among people from 3.9% in 2018 to 13.6% in April 2020 due to COVID-19's economic impact. Loneliness climbed from 11% in 2018 to 13.81% in 2020.

Anxiety and sadness were shown to be substantially related with 35–50 year old female HCPs and COVID-19 positive family members. Study showed that over 95 percent of Pakistani HCPs experienced moderate-severe anxiety. The degree of worry among females and HCPs was likewise high in bordering nations.

Illiterate and elderly rural communities have restricted internet access. They couldn't be researched. Thus, the present study's findings could not be generalised. No knowledge or attitude is required, hence it cannot be evaluated. Only 26.2 percent and 10.8 percent of participants kept social distance regularly or sometimes. Compared to the current study, the survey done during lockdown demonstrated higher practicing (94.1%) of sufficient preventative actions while leaving home. Less safe practicing following the lockdown may be due to participants' lessened fear of

COVID-19 infection. Participants in the study used respiratory etiquette. 36 people (30%) always wore a mask. Only 48 people (40%) kept social distance. The majority of 89 participants said they felt better when the lockdown was lifted.28 individuals (23.3%) experienced moderate (6%) to severe (1.7%) anxiety. Similarly, individuals' depression levels were lower. Depression was mild in 6.9%, moderately severe in 2.7%, and severe in 0.6%. Study shows anxiety and depression and sociodemographic factors. Female participation vs. males of various age groups. Anxiety and sadness levels were greater among HCPs and people with COVID-19 positive family members.

CONCLUSIONS

Participants' reduced worry about COVID-19 infection may be attributed to poor respiratory hygiene after lockdown. Anxiety and sadness were comparable to Pakistani study. Females, HCPs, and COVID-19 positive family members were shown to be significant relationships. Mental wellness is vital for immunity, but also for preventing fear and anxiety among medical staff.

Conflict of interest: Nil

REFERENCES

- Wang C. A novel coronavirus outbreak of global health concern. Lancet 2020;395:470–473. doi: 10.1016/S0140-6736(20)30185-9.
- Hawryluck L. SARS control and psychological effects of quarantine, Toronto, Canada. Emerg. Infect. Dis. 2004;10:1206–1212. doi: 10.3201/eid1007.030703. - .
- Nishiura H. The Extent of Transmission of Novel Coronavirus in Wuhan, China, 2020. J. Clin. Med. 2020;9:330. doi: 10.3390/jcm9020330.
- Mahase E. China coronavirus: WHO declares international emergency as death toll exceeds 200. BMJ Clin. Res. Ed. 2020;368:m408. doi: 10.1136/bmj.m408. - DOI - PubMed
- Paules C.I., Marston H.D., Fauci A.S. Coronavirus Infections-More Than Just the Common Cold. JAMA. 2020 doi: 10.1001/jama.2020.0757.
- Huang C. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. Lancet. 2020;395:497–506. doi: 10.1016/S0140-6736(20)30183-5. - .
- Cao Z. Estimating the effective reproduction number of the 2019-nCoV in China. medRxiv. 2020 doi: 10.1101/2020.01.27.20018952.
- Zhao S. Estimating the Unreported Number of Novel Coronavirus (2019nCoV) Cases in China in the First Half of January 2020: A Data-Driven Modelling Analysis of the Early Outbreak. J. Clin. Med. 2020;9:388. doi: 10.3390/jcm9020388. - .
- Li Q. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia. N. Engl. J. Med. 2020 doi: 10.1056/NEJMoa2001316. -
- Rothe C. Transmission of 2019-nCoV Infection from an Asymptomatic Contact in Germany. N. Engl. J. Med. 2020 doi: 10.1056/NEJMc2001468. - .
- Ryu S., Chun B.C. Korean Society of Epidemiology-nCo, an interim review of the epidemiological characteristics of 2019 novel coronavirus. Epidemiol. Health. 2020;42:e2020006. doi: 10.4178/epih.e2020006. - .
- Chen N. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: A descriptive study. Lancet. 2020;395:507–513. doi: 10.1016/S0140-6736(20)30211-7.
- Holshue M.L. First Case of 2019 Novel Coronavirus in the United States. N. Engl. J. Med. 2020 doi: 10.1056/NEJMoa2001191.
- Nishiura H. The Rate of Underascertainment of Novel Coronavirus (2019nCoV) Infection: Estimation Using Japanese Passengers Data on Evacuation Flights. J. Clin. Med. 2020;9:419. doi: 10.3390/jcm9020419.
- Horton R. Offline: 2019-nCoV—"A desperate plea". Lancet. 2020;395:400. doi: 10.1016/S0140-6736(20)30299-3. - .
- Xiang Y.-T. Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. Lancet Psychiatry. 2020;7:228–229. doi: 10.1016/S2215-0366(20)30046-8. - .
- Hall R.C.W., Chapman M.J. The 1995 Kikwit Ebola outbreak: Lessons hospitals and physicians can apply to future viral epidemics. Gen. Hosp. Psychiatry. 2008;30:446–452. doi: 10.1016/j.genhosppsych.2008.05.003. - .
- Rubin G.J., Potts H.W.W., Michie S. The impact of communications about swine flu (influenza A H1N1v) on public responses to the outbreak: Results from 36 national telephone surveys in the UK. Health Technol. Assess. 2010;14:183–266. doi: 10.3310/hta14340-03. - DOI - PubMed
- Van Bortel T. Psychosocial effects of an Ebola outbreak at individual, community and international levels. Bull. World Health Organ. 2016;94:210– 214. doi: 10.247/I/BLT.15.158543. -
- Sim K. Psychosocial and coping responses within the community health care setting towards a national outbreak of an infectious disease. J. Psychosom. Res. 2010;68:195–202. doi: 10.1016/j.jpsychores.2009.04.004.