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## Major causes of negative and positive impacts on mental health during lock-down due to COVID-19 pandemic.

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### Abstract:

**Introduction:** Soon after pandemic of Covid-19; Lockdown across Pakistan led to wide spectrum of problems that includes unemployment, closure of schools & Colleges, shattered economy. Least in focused remained the mental health of the people affected due to different reasons.

**Objective:** To determine the major causes of negative and positive impact on mental health during Covid-19 pandemic. of lock-down on mental health.

**Methodology:** This cross-sectional study was conducted at Dow University of Health Sciences during April-May 2020. Using structured online questionnaire, 362 participants took part in the study. The selection criteria were age above 14 years and resident of Karachi in an area under lock down due to pandemic of COVID-19.

**Results:** Overall, 95.3% participants agreed that lock down is most appropriate strategy to counter the spread of Covid-19. Stress consequent to lock down was attributed as concern for their loved ones and relative by 47% of the participants, social distancing and restrictions by 44.2% and fall in economic situation by 43.4%. When asked for the probable solutions to these problems; provision of grocery items at door steps was stated by 53%, ease on taxes and/or bills by 52.5%; while 51.7% were of the opinion that people should be keep informed about development regarding Covid-19. The positive impacts on mental health were due to having more time for family (63.5%) and break from busy life (47.5%).

**Conclusion:** Different causes of negative and positive impacts of lock-down were acknowledged with people experiencing almost similar causes of stress and anxiety. Almost all of the problems are solvable if people's recommendations are taken into account.

**Keywords:** COVID-19 19, pandemic, Mental health.

### Introduction:

Intra-operative Corona Virus Disease (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) named by World Health Organisation (WHO), on 11<sup>th</sup> February 2020, first emerged in Wuhan city of Hubei province, China, in December 2019.<sup>1,2</sup> It belongs to the same family of viruses which were responsible for Severe Acute Respiratory Syndrome (SARS)

outbreak in 2003 and Middle East Respiratory Syndrome (MERS) in 2012.<sup>3</sup> The virus broke out quickly and after assessment of the dissemination was declared a pandemic by WHO by the mid of march.<sup>4</sup> The symptomology of COVID-19 ranges from being asymptomatic to mild symptoms of common cold to more serious respiratory conditions resembling those of pneumonia and SARS.<sup>5</sup> The number of deaths have also been increasing worldwide with maximum deaths occurring in United States reaching up to 118,283 casualties followed by Brazil, United Kingdom, Italy and

France with collective casualties of 149,661 till 16<sup>th</sup> of June 2020.<sup>6</sup> To counter this rapid spread of disease WHO released guidelines for people focusing on basic cleanliness like frequent hand washing, maintaining physical distance, wearing masks, abstaining from touching face and contacting medical professionals in case if symptoms appears.<sup>7</sup>

Following the guidelines issued by WHO, the government of Pakistan called for a complete lock-down in all provinces and requested the people to maintain "social distancing" in order to minimize the spread of the disease and to limit mass gatherings and movements.<sup>8</sup> Special advices were given to hospitals and healthcare workers to construct isolation wards for the infected individuals. People with history of travel to affected areas and healthcare providers who are most exposed to the virus were asked to stay under quarantine to limit human to human spread. Although the idea behind quarantine and isolation is similar, the quarantine is used for individuals who are asymptomatic and might have been in contact with the virus and could be potential carriers. In contrast, isolation is used for diseased individuals with confirmed reports.<sup>9</sup>

#### Methodology:

This cross-sectional study was conducted at Dow University of Health Sciences between April-May 2020; with the help of an online structured questionnaire developed on Google Forms Informed consent was taken from each participant which was attached to the questionnaire, that comprise of ten multiple choice questions covering the demographic data of age, gender and occupation, response of people if they are under lock-down, opinions of people if the lock-down is appropriate step against the spread of disease, their major concerns while under lock-down during this pandemic, probable solutions and positive impacts of lockdown.

The sample size was calculated by [www.openepi.com](http://www.openepi.com) with confidence interval of 95% and power of 80%. Calculated sample size was 360 participants. To expect few, drop out 362 participants were selected for this study. The selection criteria were age above 14 years and a resident of area under lock-down due to pandemic of COVID-19 in Karachi. We added compulsory questions for inclusion and exclusion criteria in each questionnaire to exclude any individual who does not meet the requirement of the study.

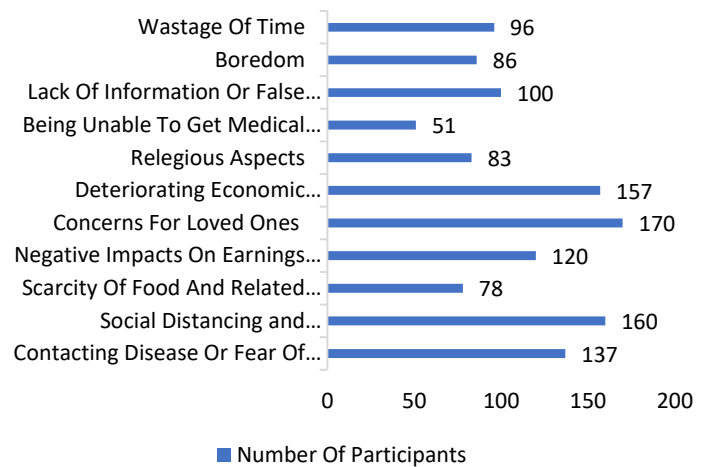
#### Results:

The data obtained from participants showed that 56.9% of participants were between age group of 14 to 24 years, 14.6% from 25 to 34 years, 12.4% from 45 to 60 years, 10.5% from 35 to 44 and 5.5% of participants were over 60 years of age. Overall, 53.9% were females' participants.

In this survey, we asked whether the lock-down is the correct step to control the disease, of which 95.3% of participants agreed on having a lock-down to be the correct step during the pandemic. The major causes of stress and anxiety amongst these participants were due to their concerns for loved ones (47%) followed by social distancing and movement restrictions (44.2%), deteriorating economic condition of country (43.4%), fear of contacting disease

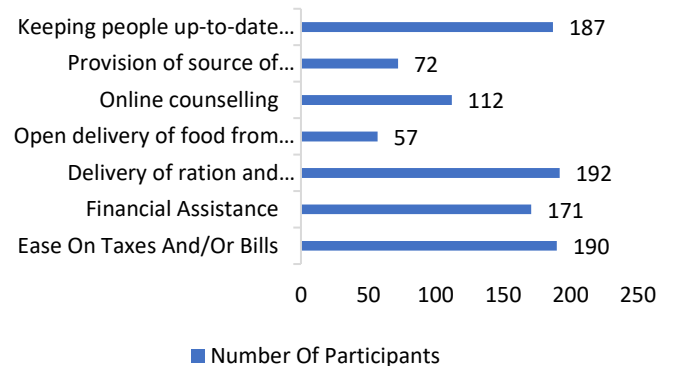
or fear of disease itself (37.8%), negative impacts on earnings or assets (33.1%), lack of information or false information (27.6%), wastage of time (26.5%), boredom (23.8%), religious aspects (22.9%), scarcity of food and related items (21.5%) and then finally the fear of not getting medical attention (14.1%) respectively as shown in figure No 1.

**Fig No.1: Causes of stress during lockdown due to Covid-19**

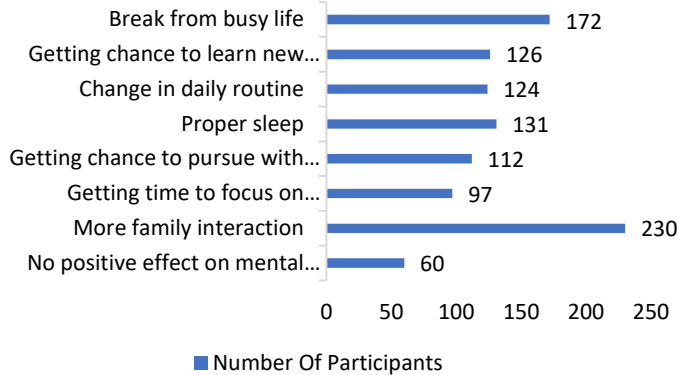


When asked about the probable solution for these negative impacts of lock-down, the results obtained comprised of delivery of ration and necessity items at door-step (53%), ease on taxes and/or bills (52.5%), keeping people informed with the current situation (51.7%) and financial assistance (47.2%) to be the commonest response of the participants as shown in figure No.2

**Fig No.2: Proposed solution to counter bad effects of lockdown.**



On the contrary, majority of people who answered the question of positive impacts of lock-down on their mental health agreed upon having sufficient time for family interaction as major advantage (63.5%), followed by break from busy life (47.5%), getting proper sleep (36.2%), chance to learn new skills (34.8%), change in daily routine (34.3%), getting chance to pursue their hobbies (30.9%) after long time and getting chance to focus on future goals (26.8%) to be the other causes. Nevertheless, 16.6% of people reported to have no positive impacts on their lives due to lock-down as shown in figure No 3.

**Fig No.3: Positive impact over mental health during lockdown.****Discussion:**

In this situation of pandemic disease, stress plays a significant role in affecting the mental health of people. Therefore, it is really important for government authorities as well as health care providers to understand the causative factors of the stress during this lock-down.

According to a study “assessing the impacts of coronavirus lock-down on unhappiness, loneliness and boredom using google trends”, the authors compared the web searches for thirteen topic related search terminologies from pre and post coronavirus related lock-downs in different western countries and found a rapid increment of such searches following the announcement of lock-down in respective countries.<sup>10</sup> Due to such studies it is necessary to conduct research to find the causes behind such drastic decline in mental well-being.

After the research, we found that loneliness or boredom due to social restriction was not the only cause of stress during the lock-down. The causes of stress were two-fold, some related to the lock-down and social restrictions and other related to the spread of disease or pandemic. Therefore, a different approach may be required to counter this issue of negative mental health consequences during a lock-down in a pandemic

The most concerned fear that has highest impact on stress level was concern for loved ones, both for contacting disease as well as economic burden. It was followed by social distancing and restrictions probably reflecting friends and peers to be significant part of our life and their important role in helping to combat day to day stress creating factors. This statement can be corroborated by another study indicating a direct relation of loneliness with increased depression and suicide ideation in population of United States.<sup>11</sup>

Another cause of stress was decline in economy of the country following lock-down. A struggling country like Pakistan, having limited resources, restrict people from getting many needed projects which are easily available in other well-established areas of the world. In this setting, closing the economical processes will deteriorate economic conditions and may lead to further lag in development.

People forwarding and disseminating false and fabricated information, without prior research and understanding, is

increasing the confusion and stress among common people. A study conducted regarding misinformation on social media showed that people were willing to share false information about COVID-19 without concern unless being asked about its precision.<sup>12</sup> Furthermore, it is getting difficult for people to acknowledge what is correct and what should be avoided. Breakthrough and advancement in understanding of pathophysiology of disease occurring on day-to-day basis causes regular changes in guidelines and policies. These changes are causing difficulties in understanding correct and up-to-date information regarding the current situation.

Significant number of participants also felt that abandoning all activities is wasting their time and achieving timeline for different projects is getting difficult. It has also produced boredom because of limited number of activities during lock-down. To counter the negative effects of lock-down and to get probable solution for the problems faced by the people, participants were asked about the solutions to the problems. The most common response was to deliver the ration and grocery items to door-step, which is quite understandable since some of the causes of stress were the fear of contacting disease and well-being of their loved ones. Getting the necessary utility items at home would minimise the exposure to disease.

People also suggested ease on taxes and/or bills and financial assistance as a way to help people deal with stress related to finance of the house and businesses. However, there was no proper solution for negative impacts of lock-down on economic condition of the country until or unless the lock-down ceases and the businesses proceed normally, which would only be possible when the disease would get under control. Keeping people up-to-date and informed via different media platforms and disclosing necessary information to people was also found to be the solution to deal with the lock-down stress caused by lack of information. Also, controlling and clarification of false information will also be beneficial for people since it will help in getting correct information with much ease.

Despite all these negative impacts of lock-down there are some positive impacts as well. The most commonly marked responses were spending more time with family and getting break from busy life. Majority of people living in big cities are facing a race in productivity and challenges for survival in extremely competitive environment. Many do part time job as well to meet the social status and liabilities. This forceful break has given them time to relax and reassess their real values and assets in terms of family and time for their own hobbies. Only small number of people have found no positive impact of this lock-down probably because they are too overwhelmed by worries or are still busy in jobs which are excluded from lock-down.

**Conclusion:**

The lock-down has significantly affected the lives of people in both negative and positive way. Concerns for loved ones and social restrictions being the major causes of stress while getting more time for family interactions and to oneself being the major reason

of relief. Financial instability was also pointed out to be the cause of stress and its security should be assured by authorities and government to be its probable solution.

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