Anxiety and Depression among Individuals who are Confined to their Homes due to Covid-19 Pandemic

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Abstract

Objective: Corona virus pandemic has been declared a health emergency worldwide. Millions of people have been affected by it. The objective of this study was to assess anxiety and depression among people who are confined to their homes due to the covid-19 pandemic so that measures can be taken to reduce the frequency and effects of psychological distress during mass lockdowns in the future.

Material and Methods: The study population consisted of educated adults of Rawalpindi and Islamabad who have been under strict lockdown. A non-probability convenience sampling technique was used. Informed consent was taken. Data were collected via a questionnaire based on the HADS scale. For data analysis, SPSS version 25 was used.

Results: This descriptive, cross-sectional study was conducted among 615 individuals, out of which 15 did not meet the inclusion/exclusion criteria. The majority were females (80.2%). The average age was 22.6 years. 37.5% were found to have anxiety, whereas 21% had depression. Borderline cases of anxiety and depression were 27.5% and 28.3%, respectively. The frequency of anxiety and depression was found to be higher in females than males, 39.5% vs 29.4%, and 22.4% vs 11.5% respectively. The correlation of HADS scores with other demographic parameters was studied, but no significant relationship was found.

Conclusions: The study reveals a high prevalence of anxiety and depression among individuals during lockdowns. The development of a comprehensive educational and emotional support system is required for the improvement of the mental health of individuals.

Keywords: Depression, anxiety, pandemic, lockdown.
Introduction

The first case of COVID-19 in Pakistan was reported from Karachi on 26 February 2020. Total confirmed cases at the time of this study are 306,000. Studies have revealed an attack rate of 2.3 per 100,000 people in Pakistan. Federal and provincial governments ordered strict isolation to shrink the risk of infection. The segregation of individuals to their homes to limit the spread of the disease has been employed during the recent COVID-19 outbreak. This isolation was a necessary measure to efficiently control the spread of this disease. In the past centuries, such approaches of isolation were applied to limit the spread of infectious diseases like plague and cholera. Even though such measures were implemented for the betterment of the public, they have triggered severe physical, emotional, psychological, and economic losses.

During the current pandemic, mental health was brutally devastated due to lockdown and isolation. Previous studies revealed that mass quarantines have resulted in the development of severe psychological distress among people. Diverse stressors are involved like quarantine duration, inadequate information, insufficient supplies, social and familial isolation, fear of infection, financial stress, and stigmatization. These factors can give rise to mental health problems such as anxiety, depression, fear, confusion, anger, and post-traumatic stress disorder.

Some protective measures announced for the betterment of the public like social distancing, travel ban, international flight restrictions are also a cause of distress. Whereas the most important factors associated with fear among the healthcare workers included getting infected, quarantined, not getting medical treatment, losing life and infecting family members. WHO officially declared COVID-19 a Global Pandemic on 11th March, 2020. According to the World Health Organization (WHO), 1 in 13 individuals globally suffer from anxiety. WHO reports that anxiety disorders are the most common mental disorders worldwide, affecting 18.1% of the population every year. About half of the people diagnosed with depression are also diagnosed with an anxiety disorder.

Incidence of mental health issues among our population was also found in correlation with various components like gender, age, occupation, lifestyle, and health status. Rapid shifts in daily routine like university closures, rapid transition in jobs, unemployment, foreigners returning, the workload on healthcare workers, loss of freedom, uncertainty, boredom, staying away from loved ones, rumours about the deadly virus, are leading to psychological pressure. National authorities must devise ways to endow the public with clean food, water, and other resources all through this time to reduce Anxiety.

Due to social distancing and isolation, people are dependent on social media platforms (like Facebook, Twitter, etc.). A rush of rumours and information further adds to the distress. Some studies suggested that the suicide rate due to depression was high in this pandemic. The complete shutdown of business which leads to unemployment and socioeconomic distress is also a significant factor behind the suicide cases. National Crime Report Bureau Data from India has revealed that one unemployed person committed suicide every hour in 2018 due to mental health issues.

The objective of this study is to find out the psychological consequences of lockdown due to pandemic. It is aimed to assess anxiety and depression in our society due to this quarantine so that conditions can be improved to decrease the alarming rate of mental health problems.

Materials and Methods

This descriptive, cross-sectional study was conducted for three months. From 1st April to 1st July 2020, we conducted an online survey and collected data using non-probability convenience sampling techniques. The study population consisted of well-educated individuals of Rawalpindi and Islamabad, by which we mean those who could use basic computers. Informed consent was taken from the participants. People who were confined to their homes during lockdown due to the COVID-19 pandemic were included, while those who still went to offices/work were excluded. Similarly, people with pre-existing mental illness and positive family history of mental illness were excluded.

The online survey collected information on demographic details and social parameters including age, gender, marital status (unmarried and married), occupation (those who used to work from home and those who worked outside the homes) and residency, concerns about COVID-19, the extent of lockdown and impact of the lockdown on their psychological status. Data were collected via a questionnaire based on the Hospital Anxiety and Depression Scale (HADS),
proven reliable through studies. Symptoms of Anxiety and depression were scored using HADS and then classified as normal (score 0-7), borderline (8-10) or cases (11-21). The methods of descriptive and analytical statistics were applied. For the analysis of data, SPSS version 25 was used. The categorical variables were presented in percentages. Comparisons of categorical data were performed using chi-square tests, and any p-value less than 0.05 was considered statistically significant.

Results

The study included 615 participants, out of which 15 did not satisfy the inclusion/exclusion criterion. Of the remaining 600 participants, 481 (80.2%) were female. The average age was 22.6 years. 513 (85.5%) participants were those who used to work outside their homes before the pandemic and lockdown. 406 (67.7%) were unmarried, and 430 (71.7%) lived in urban areas. On the evaluation of the frequency of anxiety, 37.5% were cases, 27.5% were borderline, and 35% were normal. On the assessment of depression, 21% were cases, 28.3% were borderline, and 50.7% were normal. The relation of anxiety and depression to the selected socio-demographic parameters is presented in Table 1 and Table 2, respectively. There was no significant association of anxiety or depression with gender, age, and occupation.

The correlation of HADS scores with social and demographic parameters was studied by Pearson correlation, and no significant relation was found. The frequency of anxiety was found to be higher in females than males (39.5% Vs 29.4%). Similarly, the frequency of depression was also higher among females than males (22.4% Vs 15.1%). The frequency of anxiety was higher among participants above 40 years of age (47.6%) whereas the frequency of depression was higher among participants below 40 years (23.3%). On comparing means, it was found that women had a higher average anxiety score compared to the males (10.4 ± 4.2 vs 9.8 ± 4.5). On the contrary, males had a higher average depression score compared to the females (9.6 ± 4.3 vs 9.3 ± 4.4).

Table 1: Anxiety relative to social and demographic parameter

| Social and demographic parameters | Normal N (%) | Borderline N (%) | Case N (%) | P-value |
|-----------------------------------|-------------|-----------------|----------|--------|
| Gender Males                      | 52 (43.7%)  | 32 (26.9%)      | 35 (29.4%) | >0.05  |
| Females                           | 158 (32.8%) | 133 (27.7%)     | 190 (39.5%) |        |
| Age <40 years                     | 194 (37.4%) | 138 (26.6%)     | 186 (35.9%) | >0.05  |
| >40 years                         | 16 (19.5%)  | 27 (32.9%)      | 39 (47.6%)  |        |
| Occupation Work from home         | 22 (25.3%)  | 22 (25.3%)      | 43 (49.4%)  | >0.05  |
| Work outside                      | 188 (36.6%) | 143 (27.9%)     | 182 (35.5%) |        |
| Marital status Single             | 160 (39.4%) | 88 (21.7%)      | 158 (38.9%) | >0.05  |
| Married                           | 50 (25.8%)  | 77 (39.7%)      | 67 (34.5%)  |        |
| Residency Urban                   | 148 (34.4%) | 139 (32.3%)     | 143 (33.2%) | >0.05  |
| Rural                             | 62 (36.5%)  | 26 (15.3%)      | 82 (48.2%)  |        |

Table 2: Depression relative to social and demographic parameters

| Social and demographic parameters | Normal N (%) | Borderline N (%) | Case N (%) | P-value |
|-----------------------------------|-------------|-----------------|----------|--------|
| Gender Males                      | 69 (57.9)   | 32 (26.9)       | 18 (15.1) | >0.05  |
| Females                           | 235 (48.8)  | 138 (28.7)      | 108 (22.5) |        |
| Age <40 years                     | 273 (52.7)  | 124 (23.9)      | 121 (23.3) | >0.05  |
| >40 years                         | 31 (37.8)   | 46 (56.1)       | 5 (6.1)   |        |
| Occupation Work from home         | 34 (39.1)   | 29 (33.3)       | 24 (27.6)  | >0.05  |
| Work outside                      | 270 (52.6)  | 141 (27.5)      | 102 (19.9) |        |
| Marital status Single             | 193 (47.5)  | 125 (30.8)      | 88 (21.7)  | >0.05  |
| Married                           | 111 (57.2)  | 45 (23.2)       | 38 (19.6)  |        |
| Residency Urban                   | 224 (52.1)  | 139 (32.3)      | 67 (15.6)  | >0.05  |
| Rural                             | 80 (47.1)   | 31 (18.2)       | 59 (34.7)  |        |
Discussion

The previous researches on the assessment of psychological distress were usually based on particular events like wars, natural calamities, social awkwardness, and interpersonal violence\textsuperscript{17} with minimum knowledge of the effect of a Pandemic on the physical/mental health of people. COVID-19 is a fast-spreading, deadly virus with no known cure or vaccine so far, and therefore the implementation of lockdown to prevent its spread is inevitable. However, the effect of such measures on humans' physical and mental health also holds significant importance which motivated us to carry out this study.

The important finding of this study is the high frequency of anxiety and depression, 37.5% and 21% respectively in people confined to their homes during mass lockdown due to the COVID-19 pandemic. A study in Italy showed that 32.1% of people suffered from anxiety during lockdown due to COVID-19, while 41.8% suffered from depression.\textsuperscript{18} A study in China revealed the frequency of anxiety and depression to be 70.78% and 26.4% \textsuperscript{17} whereas, in Germany, it was 21.2% and 31.1% respectively.\textsuperscript{19} In Ireland, the frequency of anxiety was 20% whereas that of depression was 22.8% during lockdown due to the COVID-19 pandemic.\textsuperscript{5} In a study in the U.K., the frequencies of anxiety and depression were found to be 21.6% and 22.1% respectively. In our study, we found that the frequency of anxiety was higher among females, including those who are not married, in concurrence with the past studies. Whereas the frequency of depression was also higher among females, unmarried people, and those below 40 years of age, which is comparative to the previous studies.

Our study showed a higher frequency of anxiety among people above 40 years of age, whereas all the previous studies have found it to be lower in older age groups. Furthermore, we found that 98.7% of participants agreed that lockdown implementation was a crucial step in controlling the spread of the Coronavirus. 82.2% of participants thought that they could cope up with their mental problems. The different causes of distress among people were the Coronavirus itself (30.1%), loss of work/studies (13.2%), the first experience of lockdown (12.7%), feeling of helplessness (12.2%), the worry of those infected (12.2%), lack of inadequate health facilities (8.6%), the worry of doctors and paramedics working against COVID-19 (8.2%), worry of lack of food and groceries (2.8%). 91% were hopeful that the situation would resolve soon. The study employed a HADS scale for detecting anxiety and depression. The use of this scale limits the diagnosis to a probable diagnosis instead of a definite diagnosis. Moreover, as the study employed non-probability sampling and was based in Rawalpindi and Islamabad, the findings cannot be generalized to all the people around the globe, confined to their homes during lockdown due to COVID-19. The development of a comprehensive educational and emotional support system is required for the improvement of the mental health of individuals if such lockdowns are indispensable in the future so that their consequences can be minimized.

Conclusion

Pandemics are capable enough to aggravate human tendencies towards cognitive distortion, and this study reveals a high percentage of adverse psychological effects, particularly anxiety and depression, among individuals during the lockdown. Providing detailed information about the virus, contagious risks, the rationale for quarantine, along with adequate supplies and means of social connections, are the antidotes to tamper an individual's anxiety.

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