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Research Article

**EPIDEMIOLOGICAL STUDY TO FIND OUT THE  
PSYCHOSOCIAL STRESS AND MENTAL HEALTH OF  
HEALTHCARE PROFESSIONALS IN THIS COVID-19  
PANDEMIC****Saad Ahmed Khokhar, Rai M. Farooq ur Rehman, Nimra Fatima**  
Nishter Medical University & Hospital Multan**Article Received:** May 2020**Accepted:** June 2020**Published:** July 2020**Abstract:**

**Aim:** The outbreak of the COVID-19 has affected the people of China as well as also the people at international level. The spreading of disease in the globe is affecting not only physical health but also impacting negative effect in the mental health of the people. The lockdown and quarantine situation present in the entire world is creating problems for each people. The educational institutes and offices are close due to which people are free and even taking more stress regarding the situation. The purpose of the study was to determine the effect of psychological stress on the mental health of Healthcare professionals in COVID-19 pandemic.

**Technique:** The study was conducted from January 2020 to May 2020. Epidemiological study was conducted among the healthcare professionals present in government or private people. The effect of stress was determined by preparing a questionnaire for the people and by giving them to fill online. Accurate chi-square test was used to find the range of difference. Furthermore, the review articles were also used to find the real situation in Pakistan as well as in all over the world.

**Results:** The results showed that COVID-19 is not only increasing the mental illness but also leading to the various mental diseases such as anxiety, stress, depression, denial, insomnia, fear and anger in the people present in all over the world. The problems that are leading to the situation are prevention strategies, behavior, decision-making, economy and daily behavior. These situations are the leading cause of mortality and morbidity in the world.

**Conclusion:** COVID-19 is not only problem of people of Pakistan but also influencing people in developed countries such as China. The situation is increasing the psychological stress in healthcare professionals.

**Keywords:** COVID-19, coronavirus, outbreak, mental illness

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**INTRODUCTION:**

From the last few months, the cases of COVID-19 are increasing day by day and various concerns such as national and international media is influencing the problem by its daily activities (1). The result of this condition is that instead of only increasing physical health problems, it also enhancing the mental illness with general people as well as healthcare professionals (2). According to the research, the common symptoms of the disease are fever, cough, fatigue and myalgia but the people who are dealing with normal cough or fever are also taking stress of being affected with virus due to which mental stress and depression is increasing in all over the globe (3). Another reason due to which the situation is being more worse is that no vaccine has been discovered yet due to which people are dealing with fear and anger (4). Medical health professionals are at more risk of begin infected because disease spread by contact due to which medical health professionals and their relatives are facing much depression, stress and anxiety as compare to other people (5).

**METHODOLOGY:**

The research study was conducted from January 2020 to May 2020 by filling online questionnaire by random people and healthcare professionals present in government or private hospitals. According to the report conducted by the study it has estimated that people of Pakistan are being highly affected by the disease and due to its

consequences. Government and Private hospitals were chosen as the important units for the inspections because healthcare professionals are present in the hospitals in large quantity as well as virus affecting people are also present in high number in the hospitals especially in government hospitals because people are mostly belongs to lower class or middle class society who cannot go to private hospitals for the treatment because the treatment procedure of the corona positive patient is very much expensive. The people who were collected for the study were divided into two groups from which one group was of healthcare professionals while second group was of random or corona positive patients. The questionnaire was prepared by experienced people in which 15 questions were present to determine the effect of corona virus on their mental health. The questions present in the questionnaire were simple and easy to understand. The questionnaire was filled by both groups by online platform due to decrease the spread of disease to other people. The indications of the disease are cough, fever, severe headache, and many others. The consequences that were added in the study were effect of corona virus on mental condition as well as the effect of lockdown, enhancement in unemployment and many other related to the disease on both groups. The information obtained from the study was measured by use of standard measureable data set. The effect of COVID-19 on psychological stress has been studies and discussed in detail. P estimate of <0.06 was considered worthy of measurement.

**Table 1: Baseline features of research population:**

| Particulars of the study | Healthcare professional group (n=500) | Random people group (n=500) |
|--------------------------|---------------------------------------|-----------------------------|
| Age                      | 23-57                                 | 20-70                       |
| Males                    | 200                                   | 245                         |
| Females                  | 300                                   | 255                         |
| Symptoms                 | Fever, cough                          | Fever, cough, headache      |
| Stress                   | 359                                   | 400                         |
| Anxiety                  | 389                                   | 365                         |
| Depression               | 276                                   | 456                         |
| Anger                    | 417                                   | 484                         |
| Fear                     | 367                                   | 459                         |
| Unemployed               | 0                                     | 189                         |
| Poor/very poor (%)       | 0                                     | 93                          |

**RESULTS:****Impact of COVID-19 Outbreak**

The mean age of the health professionals was 40 from 23 to 57 while on the other hand the mean age of infected people was 45 from 20 to 70. The results showed that females are more likely to develop the disease due to weak immune system. The disease is highly linked with the immune system of body and it is clear that immune system of women is weaker than men as 300 women were infected with the disease in the group of healthcare professionals while only 200 males were dealing with the disease. Furthermore, the result has showed that the most common symptoms in the people of COVID-19 positive are stress, depression, anxiety, anger and fear. The consequence due to which these symptoms are common in both general people and healthcare professionals

is unemployment in people. Due to lockdown and quarantine situation, the economy of the world is being decreased due to which unemployment rate is increasing in the regions especially in developing countries such as Pakistan due to which stress rate is more increasing.

## Impact of the Coronavirus Outbreak

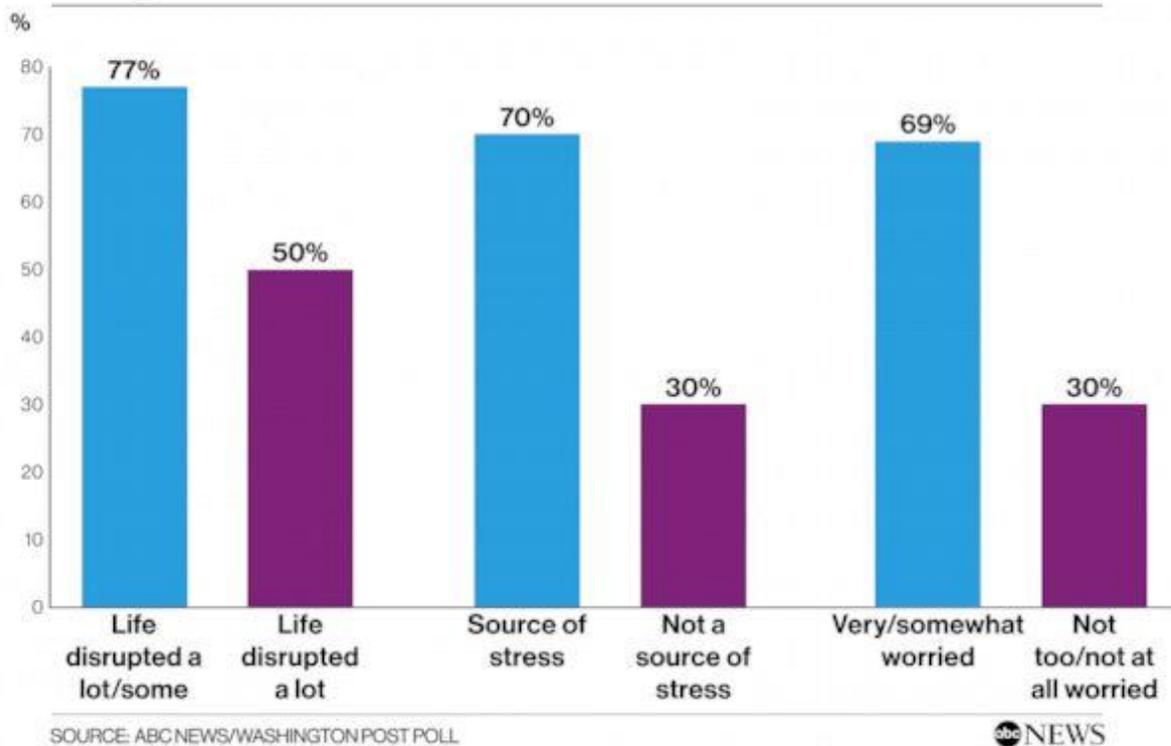


Figure 1: Impact of COVID-19 Outbreak

### DISCUSSION:

The psychological stress to healthcare professionals as well as random people is increasing due to COVID-19 in all over the world. The disease is not only linked with physical illness but mental illness is also associated with the disease and underlying situation. Felipe et al. indicated that the mental happiness is being decreased among the people due to concept of social distancing introduced by COVID-19. These factors are increasing emotional imbalance by triggering the principle of helplessness and loneliness or dysphoric states such as mental fatigue, irritability, stress, despair and physical fatigue (6). Kaushal et al. conducted a study to determine the most common age at which the chances of corona virus infection is high. The results were similar to these results that old people above 40 are at high risk of disease as compare to the young and adult people because the immune system of old people are much weaker than younger one. Therefore, the mean age of infection is 41 in random people according to the results. The study claimed that children are less suspect of the disease (7). The results showed that the rate of

depression is very high in the health professionals as well as random people due to COVID-19 situation. The results were similar to the study conducted by Bo et al. in 2020 to determine the psychological effect of COVID-19 on people. The study found that COVID-19 is developing many mental diseases from which the most common is depression and anxiety. These diseases are related to mental illness that is being highly disturbed by the nowadays situation (8).

The results showed that the situation of quarantine, lockdown and increase in pandemic of COVID-19 leading to the physical as well as mental disturbance of person's life. It has been found that not only random people are being infected instead medical staff is highly stress because they are at higher risk of disease. Huang et al. conducted a study in 2020 to determine the effect and cause of anxiety and stress in the medical staff. The results were similar to the above result obtained from the study that the ratio of disease is higher in medical staff because disease spread from person to person after physical contact. The medical staff has to

directly contact with the patients to facilitate them due to which the risk of disease in turn depression and anxiety in patients (9). WHO is a world leading organization who is responsible for the better health of people. It was claimed by the organization that the disease is not only physical problem but also mental problem related. The economy of the world has been destroyed in very bad manner and now it is impossible to recover all these issues in short time. This thinking is also leading cause of mental stress. While on the other hand, the mental stress in medical staff is due to high chances of spreading of disease to themselves because they have to contact directly with them (10).

### CONCLUSION:

The pandemic situation of COVID-19 is creating a lot of problems to health professionals and other random people. The people think that it is only related to physical disease but the mental illness such as anxiety, anger, fear and depression is also associated with the disease. The observational study was conducted by filling a questionnaire to determine the effect of COVID-19 on mental health of various people. The results has showed that not only random people, the medical staff and other healthcare professionals present in both private and government country are dealing with various mental problems due to COVID-19. Various studies have been analyzed to determine the cause of mental illness and it had been found that the basic cause in medical staff is being directly contacted with the positive patients.

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