

Compare the Frequency of Depression and Anxiety in Patients with COVID-19 and Non-COVID Patients

ZAINULLAH KHAN¹, MUAMMAD UMAR MARRI², ALI AHSAN MUFTI³, ZARMINA TAREEN⁴, GHULAM RASOOL⁵

^{1,2,4}Assistant Professor of Psychiatry, Balochistan Institute of Psychiatry & Behavioural Sciences, Quetta

³Assistant Professor of Psychiatry, Jinnah Medical College Peshawar

⁵Executive Director, Balochistan Institute of Psychiatry & Behavioural Sciences, Quetta

Correspondence to Dr. Zainullah Khan, E-mail: zainbazai78@gmail.com Cell 0321-8105050

ABSTRACT

Aim: To determine the frequency of depression and anxiety among COVID-19 patients and without COVID-19.

Study design: Cross-sectional

Place and duration of study: Department of Psychiatry Balochistan Institute of Psychiatry & Behavioural Sciences, Quetta from 1st April 2020 to 30th November 2020.

Methodology: Two hundred and forty patients of both genders were presented in this study. Patients detailed demographics age, gender and body mass index were recorded after taking written consent. Patients aged between 15-60 years of age. Patients were equally divided into two groups. Group A had 120 patients of COVID 19 and group B was without COVID-19. Prevalence of depression and anxiety were measured among both groups.

Results: Mean age of the patients in group A was 25.96 ±6.22 years with mean BMI 24.14±3.43 kg/m² and in group B was 26.96±7.22 years with mean BMI 23.14±3.34 kg/m². The frequency of anxiety in group A was 35% and in group B was observed 18.33%.

Conclusion: The frequency of anxiety and depression among the COVID-19 patients was frequently high as compared to non-COVID 19.

Keywords: COVID-19, Anxiety, Depression, Illness

INTRODUCTION

The reason for the transmission of the novel coronavirus disease-19 (COVID-19) which is linked to the ability to transmit disease from man to man is the severity of acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The disease has severe and life-threatening health issues¹. The first outbreak of a 21st century infectious disease was not the latest, with the emergence of COVID-19 as a pandemic earlier this century².

The World Health Organization described the outbreak as a Public Health Emergency (PHEIC)³. Recently, social disruption and worrisome economic effects have affected the epidemic. These points can lead to disorders of mental santé for the public, and particularly for patients with the disease along with a risk of stigmatization and discrimination⁴⁻⁶.

Many patients may experience psychological distress and physical problems due to the growing number of infected patients and their deaths.⁷ The unpredictability and volatility of the disease state of various epidemiological aspects and successful treatment approaches brings people under stress.⁸ Fear of death and extreme angst and mental distress, which can correlate with insomnia and the physical symptoms of the disease, can establish adverse patient circumstances as mental disorders worsen⁹⁻¹¹.

Hospitalized patients posed questions such as anxiety, solitude, exhaustion and frustration early in the SARS epidemic. Due to fever and the symptoms of insomnia they were concerned¹². Anxiety is seen as the significant impact of epidemics affecting both individuals

actively involved in the disease and among the population with elevated levels of participation and death risk¹³. In addition, this study examined the potential effects on mental health of patients' occupational, economic and social conditions following COVID-19 spread. Another point of discussion is to examine the effects in this field of demographic variations, such as marital status. Because of certain underlying conditions, including high blood pressure, diabetes and mental diseases, interaction^{14,15}.

The mental health status of hospitalized patients with COVID-19 was analyzed in this study. Certain psychological symptoms including depression and anxiety were investigated in these patients following clinically stable conditions.

MATERIALS AND METHODS

This cross-sectional study was conducted at Department of Psychiatry Balochistan Institute of Psychiatry & Behavioural Sciences, Quetta from 1st April 2020 to 30th November 2020 and comprised of 240 patients. Patients detailed demographics age, gender and body mass index were recorded. Patients with any severe illness and those who not agreed for written consent were excluded. Patients aged between 15-60 years of age. Patients were equally divided into two groups. Group A had 120 patients of COVID 19 and group B was without COVID-19. Prevalence of depression and anxiety were measured among both groups. Structural questionnaires were implemented. Descriptive statistical procedures were utilized to estimate the prevalence. Complete data was analyzed by SPSS 24.

Received on 23-12-2020

Accepted on 07-03-2021

RESULTS

The mean age of the patients in group A was 25.96±6.22 years with mean BMI 24.14±3.43 kg/m² and in group B was 26.96±7.22 years with mean BMI 23.14±3.34 kg/m². One hundred and forty five (60.42%) were males and 95(39.58%) were females. One hundred and sixty (66.7%) patients were from urban areas and 80(33.3%) were from rural areas. One hundred and ninety (79.17%) were married and 50(20.83%) were unmarried. Majority of patients 195(81.25%) were literate (Table 1).

Prevalence of depression in groups A was among 62(51.7%) patients while in group B was among 30(25%) patients, frequency of anxiety in group A was 35% and in group B was observed 18.33% (Table 2).

Table 1: Demographic information of the patients

Variable	Group A (n=120)	Group B (n=120)
Gender		
Male	73 (30.4%)	72 (30%)
Female	47 (19.6%)	48 (20%)
Mean age (years)	25.96±6.22	26.96±7.22
Mean BMI (kg/m ²)	24.14±3.43	23.14±3.34
Residence		
Urban	80 (33.33%)	80 (33.33%)
Rural	40 (16.67%)	40 (16.67%)
Marital status		
Yes	95 (39.6%)	95 (39.6%)
No	25 (10.4%)	25 (10.4%)
Education status		
Literate	98 (40.83%)	97 (40.4%)
Illiterate	22 (9.17%)	23 (9.6%)

Table 2: Frequency of depression and anxiety among the patients

Variable	Group A (n=120)	Group B (n=120)
Depression	62 (51.7%)	30 (25%)
Anxiety	42 (35%)	22 (18.33%)

DISCUSSION

In the first phase in the WHO guidelines of the COVID 19 confines, an international study of Spanish adults found both a worsening current anxiety and humour with regard to physical activity¹⁶.

In the present study, mean age of the patients was 26.84±9.38 years with mean BMI 25.45±5.34 kg/m². One hundred and forty five (60.42%) were males and 95 (39.58%) were females. One hundred and sixty (66.7%) patients were from urban areas and 80(33.3%) were from rural areas. One hundred and ninety (79.17%) were married and 50(20.83%) were unmarried. Majority of patients 195(81.25%) were literate. These findings were comparable to international literature.^{17,18} The depression and anxiety was higher among COVID 19 patients in this study (51.7%, 35%) as compared to non-COVID (25%¹⁹ and 18.33%²⁰). The direct consequence of this co-morbid medical condition, medications used for the treatment of medical condition, illness or stress linked to longer durations, and the severity of the COVID 19 outcome of individuals with various chronic conditions and longer periods of illness may be the potential cause.

Lee et al²¹ studied the stress and psychological stress levels in 79 and 96 patients in two clinics during the SARS

outbreak and one year thereafter. They were more stressful than the control group when the outbreak occurred. The point of concern of their research was that the results of this study were seen strongly in both classes one year after this survey. In addition, depression, anxiety and post-traumatic stress have remained disturbing one year since the outbreak. The persistence of such manifestations is also reflected in the light of similitude between SARS and COVID-19 causatives, although many specialists say COVID-19 was worse and more severe than SARS²².

A similar high prevalence and severe psychiatric disorder indicates a significant need for commitment to mental wellbeing in hospitalized patients with COVID-19. Health policymakers seem to require coherent screening and management strategies. In the continuum of this disease, patient psychiatric treatments and the implementation of an educating initiative may also be effective at a community level.

CONCLUSION

The frequency of anxiety and depression among the COVID-19 patients was frequently high as compared to non-COVID 19. Medically ill patients should develop techniques for rapid diagnosis and treatment of depression and anxiety.

REFERENCES

- Li W, Yang Y, Liu ZH, Zhao YJ, Zhang Q, Zhang L, et al. Progression of mental health services during the COVID-19 outbreak in China. *Int J Biol Sci* 2020;16(10):1732.
- World Health Organization. WHO Director-General's statement on IHR Emergency Committee on Novel Coronavirus (2019-nCoV). Geneva: WHO, 2020.
- World Health Organization. COVID-19 Public Health Emergency of International Concern (PHEIC) Global research and innovation forum. Geneva: WHO, 2020.
- Ransing R, Adiukwu F, Pereira-Sanchez V, Ramalho R, Orosolini L, Teixeira ALC, et al. Early career psychiatrists' perspectives on the mental health impact and care of the COVID-19 pandemic across the world. *Asian J Psychiatr* 2020;102085.
- Badrfam R, Zandifar A. Stigma Over COVID-19; New conception beyond individual sense. *Arch Med Res* 2020;51(6):593-4.
- Badrfam R, Zandifar A. COVID-19 and melancholia; Different perception of the concept of stigma and loss. *Iran J Psychiatry* 2020;15(3):264-5.
- Bo HX, Li W, Yang Y, Wang Y, Zhang Q, Cheung T, et al. Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. *Psychol Med* 2020;1-2.
- Zandifar A, Badrfam R. Iranian mental health during the COVID-19 epidemic. *Asian J Psychiatr* 2020;51:101990.
- Xiang YT, Yang Y, Li W, Zhang L, Zhang Q, Cheung T, et al. Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *Lancet Psychiatry*. 2020;7(3):228–9.
- Zandifar A, Badrfam R, Khonsari NM, Assareh M, Karim H, Azimzadeh M, et al. COVID-19 and medical staff's mental health in educational hospitals in Alborz Province, Iran. *Psychiatr Clin Neurosci* 2020;74(9): 499-501.
- Zandifar A, Badrfam R, Khonsari NM, Mohammadi MR, Asayesh H, Oorbani M. Prevalence and associated factors of posttraumatic stress symptoms and stigma among health

- care workers in contact with COVID-19 patients. *Iran J Psychiatr* 2020;15(4):355-65.
12. Maunder R, Hunter J, Vincent L, Bennett J, Peladeau N, Leszcz M, et al. The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. *CMAJ* 2003;168(10):1245-51.
 13. Lima CKT, Carvalho PMM, Lima IAAS, Nunes JVA, Saraiva JS, Souza RI, et al. The emotional impact of Coronavirus 2019-nCoV (new Coronavirus disease). *Psychiatry Res* 2020;287:112915.
 14. Sandström YK, Liunggren G, Wändell P, Wahlström L, Carlsson AC. Psychiatric comorbidities in patients with hypertension – a study of registered diagnoses 2009-2013 in the total population in Stockholm County, Sweden. *J Hypertens* 2016;34(3):414-20.
 15. Lankarani MM, Assari S. Association between number of comorbid medical conditions and depression among individuals with diabetes; race and ethnic variations. *J Diabetes Metab Disord* 2015;14(1):56.
 16. López-Bueno R, Calatayud J, Ezzatvar Y, Casajús JA, Smith L, Andersen LL, et al. Association between current physical activity and current perceived anxiety and mood in the initial phase of COVID-19 confinement. *Front Psychiatry* 2020;11:729.
 17. Zhou SJ, Zhang LG, Wang LL, Guo ZC, Wang JQ, Chen JC, et al. Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. *Eur Child Adolesc Psychiatry* 2020; 29(6): 749-58.
 18. Cao C, Li Y, Liu S, Fan H, Hao L. Epidemiologic features of 135 patients with coronavirus disease (COVID-19) in Tianjin, China. *Disaster Med Public Health Prep* 2020;1:1-5.
 19. Picaza M, Eiguren Munitis A, Dosil Santamaria M, et al. Stress, anxiety, and depression in people aged over 60 in the COVID-19 outbreak in a sample collected in Northern Spain. *Am J Geriatr Psychiatr* 2020;28(9):993-8.
 20. CDC COVID-19 Response Team. Preliminary estimates of the prevalence of selected underlying health conditions among patients with coronavirus disease 2019 – United States, February 12 – March 28, 2020. *Morbid Mortl Wkly Rep* 2020; 69(13): 382-6.
 21. Lee AM, Wong JGWS, McAlonan GM, Cheung V, Cheung C, Sham PC, et al. Stress and psychological distress among SARS survivors 1 year after the outbreak. *Can J Psychiatry* 2007;52(4):233-40.
 22. Peeri NC, Shreshtha N, Rahman MS, Zaki R, Tan Z, Bibi S, et al. The SARS, MERS and novel coronavirus (COVID-19) epidemics, the newest and biggest global health threats: what lessons have we learned? *Int J Epidemiol* 2020;49(3):717-26.