Original Article

PSYCHOLOGICAL IMPACT OF COVID-19 ON GENERAL POPULATION IN PAKISTAN

Asad Amin[1], Javeria Ahmad Farooka[2], Fauzia Sadiq[3]

ABSTRACT:

Background: Pakistan confirmed its first two cases of COVID-19 on 26th February 2020 with both having a common history of returning from Iran. Since then, an increase has been observed in cases. Social distancing, isolation, and complete lockdown have affected a large number of people physically and emotionally.

Material and Methods: The current study aims to evaluate the psychological impact of COVID-19 among the public of Pakistan. In order to conduct this study, internationally validated scales were used, naming Depression, Anxiety, and Stress Scales (DASS-21) and the Impact of Events Scale-Revised (IES-R**).** Four hundred and fifty-eight (458) responses were taken from the general population including students (both medical and non-medical field), teachers, business owners, employees and housewives. A brief bio-data about gender, age range and education status was taken. Complete confidentiality was maintained during this study.

Results: The study included 458 respondents from the general population. The analysis of psychological impact using the IES-R scale showed that 268(58.5%) recorded minimal psychological impact, 58(12.6%) recorded mild psychological impact, 132(28.8%) had moderate to the severe psychological impact. According to DASS-21, 33% reported to have moderately to the extremely severe depression, 34.9% reported to have moderately to extremely severe anxiety and 17.9% were reported to have moderately to the severely stress.

Conclusion: People are suffering from psychological pressure due to COVID-19. Depression, anxiety, stress, and PTSD are our concern for this study.

Key Words: COVID-19, Pakistan, Depression, Anxiety

INTRODUCTION:

The upsurge of COVID-19 has caused unprecedented psychological stress to the general population. This disaster emerged in Wuhan city, Hubei province, China. WHO declared coronavirus disease a pandemic in March 2020, which has till now affected 210 countries and territories around the globe. The predominant symptoms experienced are cough, fever, fatigability, and difficulty in breathing. Predominantly, its spread is via aerosols and thus persists on various surfaces. People suffering from cardiovascular complications, respiratory tract infirmity, immunosuppressed states (pregnant females, patients on steroids, and chemotherapy), diabetes are at a considerable risk.[1] UNESCO (2020), in one of the recent reports, has revealed that "over 420 million children and youth affected in 39 countries as they have to close schools, colleges and universities". Many of the festivals, religious and social ceremonies have been canceled. There are a lot of challenges, including financial and psychological problems which people are facing at present and will continue to face in the near future. In this pandemic, not only the patients were infected with COVID-19 but also the healthy individuals have experienced intense emotional and behavioral reactions like fear, anxiety, rage, isolation, and insomnia.[2] During this time, the treatment and preventive protocols have not laid

[1,2]Final Year MBBS students, LMDC, Lahore.
[3]Associate Professor Chemical Pathology, LMDC, Lahore.

enough emphasis on psychological problems being faced by the people. Psychological first aid is extremely important for the maintenance of emotionally unstable individuals.[3] The majority of old age people, immunocompromised individuals, and relatives of infected patients with COVID19 are at a high risk of facing social dismissal.[4] In context to the previous tragedies, probations depict that mental health challenges pose a more serious threat to individuals leading to tremendous psychosocial and non-profitable influences.[2,5] Another study has reported that extreme emotional instability can transform into clinical tumble like depression, panic, anxiety, psychotic, Post-Traumatic Stress Disorder (PTSD), and paranoia, which may ultimately result in suicidal attempts. In certain cases, lack of adequate knowledge about coronavirus and thus concerns infecting the loved ones can superimpose dejected mental states.[4,6]

MATERIAL AND METHODS:

This study included 458 respondents from the general population. Our subjects included a variety of categories; students, teachers, employees, business owners, and housewives. This allowed us to acquire and classify substantial data that brackets gender, age, educational status, and area of residency. We evaluated the psychological impact among them using the internationally validated scales naming DASS-21 and IES-R. Assessment of psychological effects has been a challenging role as it encloses a wide variety of emotions and reactions. Many different scales have been designed by professionals to serve the purpose. For our survey, we used Depression, Anxiety, and Stress Scales (DASS-21)[7] and the Impact of Events Scale-Revised (IES-R**)**.[8] Originally DASS comprises 42 questions. It is designed to clearly differentiate among the factors resulting in depression, anxiety and stress.[7] A brief but comprehensive interpretation (DASS-21), composed of 21 questions, was designed to reach globally with ease. The normal scale for DASS-21 is given in Table-1. Results have depicted DASS to hold acceptable psychometric attributes.[9] Likewise, a scale was devised to assess the severity of PTSD. IES-R is the system that is composed of 22 items, among which 5 items were included in the prior Horowitz (IES). This scale has been restated into a number of dialects, including German, Japanese, French, Spanish, and Chinese.

Results:

This method, not a diagnostic tool, is an applicable means to analyze the personalized response to psychological or emotional stress leading to PTSD. Values of 24 or higher on IES-R scale are considered significant. Whereas, the normal range will be less than 24 as shown in Table-3.

Table-1: The 21 item DASS scale (DASS-21)

	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-35
Extremely severe	28+	20+	34+

The results regarding DASS-21 in this study are as follows:

Table-2: Results of DASS-21

	Depression		Anxiety		Stress	
Normal	255		256		248	
Mild	49		42		117	
Moderate	75	33%	77	34.9%	57	17.9%
Severe	45		22		22	
Extremely severe	32		61		3	

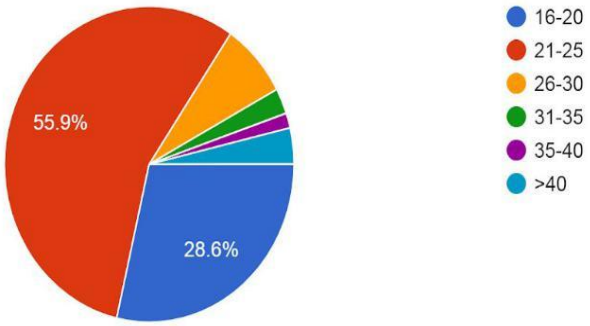

Figure-1: A graphical presentation of age ranges of 458 respondents evaluated for psychological impact of COVID-19.

Table-3: Impact of Events Scale-Revised (IES-R) scale.

Scale	Interpretation	Results n (%)	
Less than 24	Not significant	268 (58.5%)	
24-32	Subjects will have partial PTSD or a few symptoms	58 (12.6%)	
33-38	Best suggestive value for declaring PTSD	16	132 (28.8%)
39 and above	This value is significant in suppression of immune system	116	
Total		458	

268 responses were recorded to be under 24 scores**.** Above 24 scores, the values are considered to be significant to label as PTSD.

DISCUSSION:

The above numbers show that COVID-19 has struck the general population in a very impactful manner. As shown above, the number of people facing moderate to the extreme severity of depression, anxiety, and stress are noteworthy. Factors such as home isolation, social distancing, and a daily spike in the number of new cases have surely made it difficult for people to manage their behavioral changes. A study was conducted to ascertain the psychometric properties of the Malay interpretation of DASS-21 among paramedic staff (nurses).[10] Similar studies have been conducted in younger people showing that the crux evident reaction of Depression and Anxiety are similar in elderly people and nonage.[11] A number of studies are being conducted using this scale due to its veracity and reliability in both health care and non-healthcare subjects[9] and in territories such as England,[12] Canada,[13] Australia,[14] Bahasa-Malaysia,[15] Spain,[16] China[17] and Singapore.[18] The Pakistan administration has devised strategies amid this pandemic suggesting prompt diagnosis, tracing and locating holds, high-risk groups, social disparity, quarantine, and home solitude.[19] The government has launched helplines for the aid of the general population in 7 local languages.[20] These necessary restrictions have brought some serious psychological challenges as well. The analysts from the Pakistan Ministry have predicted 12.3 million to 18.5 million inhabitants going unemployed because of COVID-19.[21] Medical students were found worrisome regarding the probability of

getting infected during medical rotations.[22] Recreational activities have dropped by 70%, affecting cafés, diners, grills, eateries, malls, amusement parks, libraries, museums and monuments.[23]

CONCLUSION:

It is concluded that COVID-19 has caused moderate to extremely severe depression, anxiety and stress. It is recommended to look out for both bodily and psychological health side by side. Effective strategies can be promoted by social media during the COVID19 pandemic. Contact your friends and family, consume befitting meals, have sufficient sleep hours, and some exercise daily. Approaching online psychological helplines may bring ease of access to psychologists. This is a difficult time the world is facing. Only by prevention and helping one another, we can coup win this crisis.

AUTHOR'S CONTRIBUTION:

AA: Conception of idea and study design
JAF: Data collection and data analysis
FS: Drafting article

REFERENCES:

1. WHO official Updates- Cronovirus Disease 2019. Available from https://www.who.int/.
2. Shigemura J, Ursano RJ, Morganstein JC, Kurosawa M, Benedek DM. Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. Psychiat Clin Neuros. 2020 Apr;74(4):281-2.
3. Dieltjens T, Moonens I, Van Praet K, De Buck E, Vandekerckhove P. A systematic literature search on psychological first aid: lack of evidence to develop guidelines. Plos one. 2014 Dec 12;9(12):e114714.
4. Xiang YT, Yang Y, Li W, Zhang L, Zhang Q, Cheung T, Ng CH. Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. Lancet Psychiat. 2020 Mar 1;7(3):228-9.
5. Reardon S. Ebola's mental-health wounds linger in Africa: health-care workers struggle to help people who have been traumatized by the epidemic. Nature. 2015 Mar 5;519(7541):13-5.
6. 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 May 13;168(10):1245-51.
7. Jacobson NC, Newman MG. Anxiety and depression as bidirectional risk factors for one another: A meta-analysis of longitudinal studies. Psychol Bull. 2017 Aug 14;143(11):1155-200.
8. Creamer M, Bell R, Failla S. Psychometric properties of the impact of event scale-revised. Behav Res Ther. 2003 Dec 1;41(12):1489-96.
9. Saricam H. The psychometric properties of Turkish version of Depression Anxiety Stress Scale-21 (DASS-21) in health control and clinical samples. JCBPR. 2018 Jan 2;7(1):19-30
10. Azma NB, Rusli BN, Quek KF, Noah RM. Psychometric properties of the Malay version of the Depression Anxiety Stress Scale-21 (M-DASS21) among nurses in public hospitals in the Klang Valley. Int J Collab Res Intern Med Public Health. 2014 May 1;6(5):109-120.
11. Szabo M. The short version of the Depression Anxiety Stress Scales (DASS-21): Factor structure in a young adolescent sample. J Adolesc. 2010 Feb 1;33(1):1-8.
12. Henry JD, Crawford JR. The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. Br J Clin Psychol. 2011 Jan 13;44(2):227-39.
13. Yıldırım A, Boysan M, Kefeli MC. Psychometric properties of the Turkish version of the Depression Anxiety Stress Scale-21 (DASS-21). Brit J Guid Couns. 2018 Sep 3;46(5):582-95.
14. Nordin RB, Kaur A, Soni T, Por LK, Miranda S. Construct validity and internal consistency reliability of the Malay version of the 21-item depression anxiety stress scale (Malay-DASS-21) among male outpatient clinic attendees in Johor. Med J Malaysia. 2017 Oct 1;72(5):265-70.
15. Musa R, Fadzil MA, Zain ZA. Translation, validation and psychometric properties of Bahasa Malaysia version of the Depression Anxiety and Stress Scales (DASS). ASEAN Journal of Psychiatry. 2007 Jan 1;8(2):82-9.

16. Bados A, Solanas A, Andrés R. Psychometric properties of the Spanish version of depression, anxiety and stress scales (DASS). Psicothema. 2005;17(4):679-83.
17. Chan RC, Xu T, Huang J, Wang Y, Zhao Q, Shum DH, O'Gorman J, Potangaroa R. Extending the utility of the Depression Anxiety Stress scale by examining its psychometric properties in Chinese settings. Psychiatry Res. 2012 Dec 30;200(2-3):879-83.
18. Tan BY, Chew NW, Lee GK, Jing M, Goh Y, Yeo LL, et al. Psychological impact of the COVID-19 pandemic on health care workers in Singapore. Ann Intern Med. 2020 Apr 6.;173(4):318-20.
19. COVID-19-National institute of health (NIH). Available at :https ://www.nih.org.pk/ novel-coranavirus-2019-ncov/, Accessed 4th Apr 2020
20. COVID-19 outbreak: current scenario of Pakistan. Available at: https://doi.org/10.1016/j.nmni.2020.100681
21. "Coronavirus forecast to render 18.5m jobless in Pakistan". The Express Tribune. 3 April 2020.
22. Concerns of undergraduate medical students towards an outbreak of covid-19. CMPR. 2020 Mar 28 ;6(3A): Page No. 5055-62.
23. Hammami A, Harrabi B, Mohr M, Krustrup P. Physical activity and coronavirus disease 2019 (COVID-19): specific recommendations for home-based physical training. Managing Sport and Leisure. 2020 Apr 20;25(5):1-6.