ORIGINAL ARTICLE

ANNALS OF PUNJAB MEDICAL COLLEGE

Depression Among Survivors of Covid-19 Infection and Its Impact on the Quality of Life

Manzoor Ali[1], Saima Jatoi[2], Sunil Dat Maheshwari[3], Muhammad Adnan Bawany[4], Duaa Bukhari[5]

1 ***Assistant Professor, Department of Psychiatry, Isra University Hospital Hyderabad Pakistan***
Literature search, Introduction of title and discussion

2 ***Assistant Professor, Department of Pulmonology, Isra University Hospital Hyderabad Pakistan***
Methodology including data collection procedure and data analysis procedure

3 ***Assistant Professor, Department of Medicine, Isra University Hospital Hyderabad Pakistan***
Data Analysis, Results including tables and graphs

4 ***Professor, Department of Medicine, Isra University Hospital Hyderabad***
Literature search, Conclusion and proof reading

5 ***Medical officer, Department of Medicine, Isra University Hospital Hyderabad***
Data collection

CORRESPONDING AUTHOR
Dr. Sunil Dat Maheshwari
Assistant Professor, Department of Medicine, Isra University Hospital Hyderabad Pakistan
Email: sgmaheshwari86@gamil.com

Submitted for Publication: 03-02-2022
Accepted for Publication 29-03-2022

How to Cite: Ali M, Jatoi S, Maheshwari SD, Bawany MA, Bukhari D. Depression Among Survivors of Covid-19 Infection and Its Impact on the Quality of Life. APMC 2022;16(1):41-44. **DOI: 10.29054/APMC/2022.955**

ABSTRACT

Background: COVID-19 is one of the most common infections that mostly affects the human respiratory system. It has the potential to induce mental health issues. Survivors of critical illness frequently face stress, exhaustion, anxiety, depression, and long-term health impairments, which can have a detrimental influence on their quality of life. **Objective:** To determine the frequency of depression among survivors of covid-19 infection and its impact on the quality of life. **Study Design:** Descriptive, cross-sectional study. **Settings:** Department of Medicine, Isra University Hospital, Hyderabad Pakistan. **Duration:** Study duration was six months from July 2021 to January 2022. **Methods:** A total of 158 individuals with age of 18 to 65 years old, who had previously acquired COVID-19 infection and then survived as shown by negative PCR findings during less than six months of either gender were included. After takin complete medical history verbal informed consent was taken. All the participants were assessed regarding depression by using the Hamilton Depression Rating Scale (HDRS) and quality of life was assessed by using the 16-item quality of life scale (QOL). All the information was documented by the study proforma and SPSS version 26 was used for the purpose of data analysis. **Results:** A total of 158 covid-19 survivor individuals were studied, their mean age was 33.34 ± 12.3 years and males were 56.3%. Out of all 36.1% of the cases had no depression, while 31.6% had mild depression, 19.0% had moderate depression, severe depression was in 10.8% cases and only 4 cases had profound depression. As per overall quality of life assessment, 55.7% individuals were satisfied, 36.7% were average satisfied and 7.6% were dissatisfied. **Conclusion:** Many of the post covid survivors had mild to moderate depression and many individuals were observed to be the average satisfied by their quality of life. Few individuals have still mild sadness and anxiety.

Keywords: Covid-19, Depression, QOL, Survivors, HDRS.

INTRODUCTION

COVID-19 is one of the most common infections that mostly affect the human respiratory system. Middle East respiratory syndrome (MERS-CoV) and severe acute respiratory syndrome (SARS-CoV-2) were two previous outbreaks of this virus that were previously classified as a public health issue.[1,2]

The epidemic of COVID-19 is a serious health disaster that has affected millions of people around the world. The WHO and worldwide health authorities are working hard to manage the epidemic; yet, such a time of public health risk has major implications for health and well-being of human, along with psychological discomfort and symptoms including stress, fear, and anxiety in the overall population.[3,4] Through the middle of March 2021, there had been around 117 million COVID-19 events globally, resulting 2.6 million deaths. At the same time, almost 66 million people successfully recovered from the disease.[5,6]

SARS-related psychological problems have been documented, mainly amongst healthcare workers and SARS survivors. Although prevalence rates vary widely between research and the literature on the subject is still developing, there is developing evidence suggesting

mental and neuropsychiatric disorders remain following active illness and/or hospitalization.[7] At 6 months after COVID-19 infection, roughly 33% of patients had neurological or psychiatric diagnoses, with 13% receiving their initial diagnosis during this time.[7,8] Furthermore, six months after the injury, moderate or severe disability, critical disease is present in 25% of survivors and is linked to a lower health associated quality of life.[9] The challenging problem now is to figure out what happens once COVID-19 patients leave Intensive Care and what the consequences of PICS are.[9,10]

The intensity of disease was a risk factor for psychiatric symptoms, mobility issues, discomfort/persistent pain, and depression/anxiety among survivors, according to the prolonged clinical follow-up study published regarding COVID-19 participants.[9,11] In recent times, researchers have been extremely interested in health associated quality of life (QoL). Due to lack of the local data, this study was carried out in order to assess the frequency of depression illness among survivors of covid-19 infection and its impact on the quality of life.

METHODS

This was a Descriptive, Cross-sectional study carried out at Medicine Department of Isra University Hospital Hyderabad Pakistan, during a period of six months from July 2021 to January 2022. A total of 158 individuals were selected by using Rao-soft software. All the participants with age of 18 to 65 years old, who had previously acquired COVID-19 infection and then survived as shown by negative PCR findings during less than six months of either gender were included. Individuals having additional systemic and mental diseases, persistent malignancies, age more than 60 years, depression due to any other reason, incapacity to provide permission to participate in the study, and people receiving any sort of psychotherapy were excluded.

After taking complete medical history verbal informed consent was taken. All the participants were assessed regarding depression by using the Hamilton Depression Rating Scale (HDRS) and quality of life was assessed by using the 16-item e John Flanagan quality of life scale (QOL).[12,13] Depression was categories as per its severity by using the HDRS scale as Normal (score 0-7), mild (score 8-13), moderate (score 14-18), severe (score 19-22) and profound (score and ≥23). All the information was documented by the study proforma and for the purpose of data analysis, SPSS version 26 was employed.

RESULTS

A total of 158 covid-19 survivor individuals were studied, their mean age was 33.34 ± 12.3 years and most common age group was 25-35 years. Males were 56.3% and females were 43.7%. Majority of the individuals 74.1% were unmarried and 25.9% were married. 12.0% cases were admitted via emergency, 26.6% were admitted from medicine OPD, 34.2% from surgical OPD and 15.8% from Gynae OPD as shown in table 1.

Table 1: Descriptive statistics of demographic information of the survivors (n = 158)

Variables		Statistics	
Age groups (years)	25-35	125	79.1%
	35-45	32	20.3%
	>45	01	0.6%
Gender	Males	89	56.3%
	Females	69	43.7%
Marital status	Single	117	74.1%
	Married	41	25.9%
Types of health care Facilities	Emergency	19	12.0%
	ICU	04	02.5%
	Medicine	42	26.6%
	Surgery	54	34.2%
	Eye/ENT	08	5.1%
	Gynae/Obs.	25	15.8%
	Other	6	03.8%

Out of all 36.1% of the cases had no depression, while 31.6% had mild depression, 19.0% had moderate depression, severe depression was in 10.8% cases and only 4 cases had profound depression. Table 2

Table 2: Depression among Covid-19 survivors (n = 158)

Depression as per HDRS	Statistics	
0-7 → Normal	57	36.1
8-13→ mild	50	31.6
14-18→ moderate	30	19.0
19-22→ severe	17	10.8
>23 → profound	4	2.5
Total	158	100.0

As per overall quality of life assessment, 55.7% individuals were satisfied, 36.7% were average satisfied and 7.6% were dissatisfied. As shown in table 3 and 4.

Table 3: Quality of life of covid-19 survivors (n = 158)

Quality of life (16 items)	Quality of life of covid-19 survivors						
	Delight	Mostly pleased	Satisfied	Mixed	Mostly dissatisfied	Unhappy	Terrible
1. Financial security, material comfort /food conveniences	58	34	42	18	01	03	02
2. Health being physically fit and energetic.	45	25	54	24	05	04	01
3. Parental, sibling, and other relatives' relationships	65	40	38	10	03	02	--
4. Having and raising a family	31	28	31	38	11	06	13
5. Relationships with spouse	42	32	32	28	08	04	13
6. Relationships with friends	48	43	39	15	08	02	03
7. Helping or encouraging others	48	33	47	17	07	04	02
8. Participating in organizations and public affairs	24	28	41	40	13	06	06
9. Intellectual development	31	34	54	27	08	03	01
10. Personal understanding of self	36	39	55	21	05	02	--
11. Occupational role	35	28	53	30	05	04	03
12. Creativity/personal expression	26	32	48	39	08	04	01
13. Socializing	26	29	46	35	11	09	02
14. Passive and observational recreation	47	27	40	34	04	03	03
15. Active and participatory recreation	29	24	49	34	15	05	02
16. Self-sufficiency, self-reliance	49	28	52	15	11	02	01

Table 4: Quality of life of covid-19 survivors (n = 158)

Quality of life	Statistics	
Satisfied	88	55.7
Average satisfied	58	36.7
Dissatisfied	12	7.6
Total	158	100.0

DISCUSSION

According to the evidence so far, a large number of COVID-19 individuals have negative psychological consequences and neuropsychiatric complications.[7] In this study a total of 158 covid-19 survivor individuals were studied to observed the depression and quality of life, their mean age was 33.34+12.3 years and most common age group was 25-35 years, males were 56.3% and females were 43.7%, while majority of the individuals 74.1% were unmarried. Similarly, Al Dhaheri AS *et al*[3] also reported that the majority of the cases were less than 45 years, while inconsistently they found females in majority 67.3%. Inconsistently Pappa S *et al*[7] observed a higher average age of the patients as 57.10 ± 13 years, while consistently they found males in majority 63.64% compared to females 36.36%. On other hand in the study of Mohammadi SM *et al*[14] reported that the patient's average age was 49.16±8.01 years and they also found females in majority 60.2%. This study differs from others in terms of gender and average age, which might be due to study sample selection and environmental differences.

In this study out of all 36.1% of the cases had no depression, while 31.6% had mild depression, 19.0% had moderate depression, severe depression was in 10.8% cases and only 4 cases had profound depression. Similarly, Jafri MR *et al*[15] demonstrated that the majority of COVID-19 survivors had minor depressive symptoms and furthers they observed that the individuals whose survived from COVID-19 had a greater level of post-traumatic stress, particularly those who have been symptomatic and they were also found to have mild sadness and anxiety. On other hand Wahyuhadi J *et al*[16] observed that the COVID-19 survivors had a moderate level of social stigma, as well as a worse quality of life and mental health. They discovered that stigma, sex, and employment all had an impact on quality of life and mental health.[16] Not only have the health repercussions of the COVID-19 pandemic harmed the mental health of the general public, but so has financial vulnerability during the epidemic.

In this study as per overall quality of life assessment, 55.7% individuals were satisfied, 36.7% were average satisfied and 7.6% were dissatisfied. In the study of Algamdi MM *et al*[17] concluded that the many aspects of people's QOL have been affected by COVID-19 and the physical, functional, psychological, and spiritual well-

being of people affected their perceptions regarding the effects of COVID-19 on overall health and history of hospitalization. Recently Hossain MA *et al*[18] observed that during the fourth wave of the COVID-19 worldwide epidemic, even before prolonged duration of the lockdown and quarantine were decided to impose across Bangladesh, there was a significant rise in anxiety and the poor coping strategies, which has been specifically linked to physical, emotional, psychological and behavioral health consequences and impaired quality of life for survey participants across the 8 districts in the country of Bangladesh.[18] Notion of QOL is still being debated, partly due to the fact that it is dependent on individual tastes. Although individual perceptions on QOL may fluctuate, the measurements and instrument-scoring conditions in this study limited people's options.[17]

CONCLUSION

Many of the post covid survivors had mild to moderate depression and many individuals were observed to be the average satisfied by their quality of life. Few individuals have still mild sadness and anxiety. Furthermore, it may be determined that more effective psychological evaluation is required to aid in the development of suitable psychological interventions.

LIMITATIONS

This was a single-center analysis with a modest sample size.

SUGGESTIONS / RECOMMENDATIONS

Survivors of Covid-19 should have been encouraged to seek psychiatric help for a few days until they recovered from their post-traumatic stress disorder.

CONFLICT OF INTEREST / DISCLOSURE

The authors have declared that they have no conflicts of interest.

ACKNOWLEDGEMENTS

Authors acknowledge the friends and staff members for their contribution in this research work

REFERENCES

1. Jafri MR, Zaheer A, Fatima S, Saleem T, Sohail A. Mental health status of COVID-19 survivors: a cross sectional study. Virology journal. 2022 Dec;19(1):1-5.
2. Bogoch II, Watts A, Thomas-Bachli A, Huber C, Kraemer MU, Khan K. Pneumonia of unknown aetiology in Wuhan, China: potential for international spread via commercial air travel. Journal of travel medicine. 2020 Mar;27(2):taaa008.
3. Al Dhaheri AS, Bataineh MA, Mohamad MN, Ajab A, Al Marzouqi A, Jarrar AH, Habib-Mourad C, Abu Jamous DO, Ali HI, Al Sabbah H, Hasan H. Impact of COVID-19 on mental health and quality of life: Is there any effect? A cross-sectional study of the MENA region. PloS one. 2021 Mar 25;16(3):e0249107.
4. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. International journal of environmental research and public health. 2020;17(5):1729
5. Zhao YJ, Zhang SF, Li W, Zhang L, Cheung T, Tang YL. Mental health status and quality of life in close contacts of COVID-19 patients in the post-COVID-19 era: a comparative study. Translational psychiatry. 2021 Oct 2;11(1):1-7.
6. Johns Hopkins University. COVID-19 dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU). 2020. https:// coronavirus.jhu.edu/map.html. Accessed 10 Mar 2021.
7. Pappa S, Barmparessou Z, Athanasiou N, Sakka E, Eleftheriou K, Patrinos S, Sakkas N. Insomnia and Post-Traumatic Stress Disorder in COVID-19 Survivors: Role of Gender and Impact on Quality of Life. Journal of Personalized Medicine. 2022 Mar 17;12(3):486.
8. Taquet, M.; Geddes, J.R.; Husain, M.; Luciano, S.; Harrison, P.J. 6-month neurological and psychiatric outcomes in 236 379 survivors of COVID-19: A retrospective cohort study using electronic health records. Lancet Psychiatry 2021, 8, 416–427
9. Fernandes J, Fontes L, Coimbra I, Paiva JA. Health-Related Quality of Life in Survivors of Severe COVID-19 of a University Hospital in Northern Portugal. Acta Médica Portuguesa. 2021 Aug 31;34(9):601-7.
10. Jaffri A, Jaffri UA. Post-Intensive care syndrome and COVID-19: crisis after a crisis? Heart Lung. 2020;49:883-4
11. Huang C, Huang L, Wang Y, Li X, Ren L, Gu X, et al. 6-month consequences of COVID-19 in patients discharged from hospital: a cohort study. Lancet. 2021;397:220–32
12. Burckhardt CS, Anderson KL. The Quality of Life Scale (QOLS): reliability, validity, and utilization. Health and quality of life outcomes. 2003;1(1):1-7.
13. Samba Conney C, Akwo Kretchy I, Asiedu-Danso M, Allotey-Babington GL. Complementary and alternative medicine use for primary dysmenorrhea among senior high school students in the Western region of Ghana. Obstetrics and Gynecology International. 2019 Nov 25;2019.
14. Mohammadi SM, Ashtari S, Khosh Fetrat M. The psychological impact of COVID-19 pandemic on mental health of Iranian population. International Journal of Travel Medicine and Global Health. 2020 Dec 8;9(1):19-24.
15. Jafri MR, Zaheer A, Fatima S, Saleem T, Sohail A. Mental health status of COVID-19 survivors: a cross sectional study. Virology journal. 2022 Dec;19(1):1-5.
16. Wahyuhadi J, Efendi F, Al Farabi MJ, Harymawan I, Ariana AD, Arifin H, Adnani QE, Levkovich I. Association of stigma with mental health and quality of life among Indonesian COVID-19 survivors. Plos one. 2022 Feb 23;17(2):e0264218.
17. Algamdi MM. Assessment of Post-COVID-19 Quality of Life Using the Quality of Life Index. Patient preference and adherence. 2021;15:2587.
18. Hossain MA, Shafin R, Ahmed MS, Rana MS, Walton LM, Raigangar V, A. Health-Related Quality of Life and Coping Strategies adopted by COVID-19 survivors: A nationwide cross-sectional study in Bangladesh. Med Rxiv. 2022 Jan 1.