

## Rehabilitation of Depressive Disorders in Persons Having Covid-19

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**Annotation.** This article examines the indicators of anxiety and depression in patients with COVID-19, which is one of the medical and social problems. The degree of anxiety and depression was assessed using modern neuropsychological scales. Based on the results obtained, an early rehabilitation algorithm was developed.

**Key words:** Covid-19, depression, anxiety, rehabilitation

The difficult clinical and epidemiological situation of COVID-19 has led to an increased need to develop rehabilitation programs for patients with this pathology to help them restore physical activity and reduce anxiety and depression. This viral infection caused the death of many patients, and in some patients it aggravated the course of certain diseases, increased disability and, in connection with this, stabilized severe socio-economic problems. COVID-19 infection has greatly affected the central nervous system, as well as all body systems, including cerebrovascular diseases, peripheral nervous system diseases, epilepsy and neurodegenerative diseases, and increased anxiety and depression. In patients, the course of concomitant diseases accelerated and disability stabilized [6,7,11,12]

Covid-19 is increasing anxiety in the population and leading to mental health disorders in individuals. Therefore, experts in the field have realized the unprecedented need to study and recognize these difficult mental states, and have conducted several studies. Evidence shows that individuals with Covid-19 experience anxiety, depression, psychosis, anxiety, trauma, suicidal ideation and panic attacks. It is known that higher than normal levels of anxiety weaken the immune system and consequently increase the risk of contracting the virus [15,16,17].

Studies show that during the Covid-19 pandemic, the news broadcast by various social networks and mass media has caused people to experience more anxiety. A lot of the news is sad, and sometimes it's related to rumours, and it's natural for a person exposed to the news of Covid-19 to have a heightened level of anxiety. Misinformation and false reports about Covid-19 may exacerbate depressant symptoms in the general population [1,2,5]. That said, the number of people recovering from the disease and the drugs and vaccines being developed against the virus can reduce the level of concern. In this regard, mental health experts recommend promoting healthy behavior.

According to statistics, 18% of people infected with Covid-19 develop mental health problems such as depression, anxiety or dementia. Such problems can occur within 3 months after diagnosis. The risk of similar mental illnesses is twice as high in people who have not been infected with Covid-19 [8,9,13]. The relationship between Covid-19 infection and mental illness symptoms is actually very complex. Experts suggest that Covid-19 is associated with higher

mental health problems. Although several studies have shown that Covid-19 patients commonly experience anxiety, insomnia, depression and stress, this process is still ongoing [3,4,10,14]. Noting that the coronavirus infection causes delirium, anxiety, depression, insomnia and memory problems, we must not forget that any other virus that manages to settle in the human body can also attack the central nervous system, causing hypoxic damage to the brain, affecting physical and mental health [1,2,11].

Naturally, a person suffering from a Covid-19 infection experiences stress and anxiety. In particular, the death of one patient with the coronavirus will increase depression and anxiety in another patient. The diagnosis and treatment of Covid-19 can be more psychologically damaging than any other medical condition. Some of the reasons for this are that Covid-19 is likely to become more severe, it is a new disease, and there are uncertainties regarding treatment and isolation. [18,19,20].

According to the results of the study, anxiety (20%) and depression (16%) have increased in people compared to 2018. Women and youth between the ages of 16 and 24 are the most psychologically affected. Thus, it is of practical importance to understand, investigate and correct mass psychological problems in these turbulent times. We can say that following the instructions to prevent the spread of the virus, helping those in need, having a calming effect on others, i.e. helping them to look at the situation from a calm point of view when people around them are panicking, being kind to their loved ones and not getting anxious and depressed and correcting them. is one of the ways to do it. Taking into account the above, it is possible to draw a conclusion about the necessity of this research work.

**The purpose of the study.** Study of levels of anxiety and depression in patients with Covid-19, developing principles of early diagnosis.

**Research material and its methods.** 98 patients with Covid-19 were examined for the research work. 48 of the examined patients were men (48.8%) and 50 were women (51.2%). The 8th variant of the recommendations of the Ministry of Health of the Republic of Uzbekistan on Covid-19 was divided into severity levels of patients: Group I included 41 (41.8%) patients with mild Covid-19 disease; Group II includes 35 (35.8%) patients with moderate Covid-19 disease; There are 22 (22.4%) patients with severe disease in group III. Patients in all groups were analyzed by age and gender, Table 1.

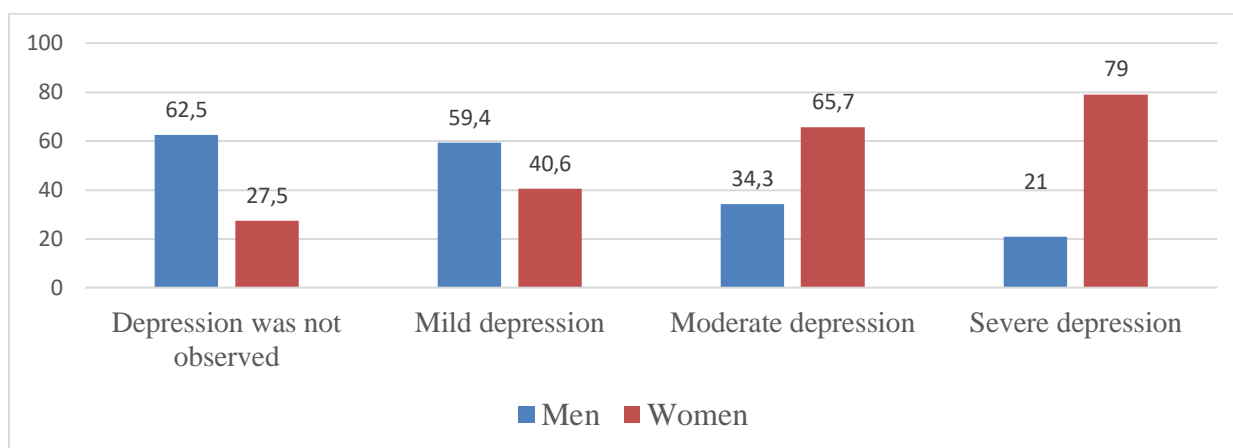
**1-Distribution of patients by age and weight**

Young	Young people (18-44)		Middle aged people (45-59 ём)		The elderly (60-74 ём)		Total	
	n	%	n	%	n	%	n	%
<b>Group I</b>	26	63,4	10	24,4	5	12,2	41	47,6
<b>Group II</b>	9	25,8	12	29,1	14	45,1	35	36,0
<b>Group III</b>	5	21,4	8	35,7	9	42,9	22	16,4
<b>Total</b>	42	42,9	30	30,6	26	26,5	98	100

Patients underwent a comprehensive clinical examination, somatic and neurological condition was assessed, as well as detailed information on complaints, anamnestic data, subjective and objective symptoms of the disease. A 21-item Hamilton scale questionnaire was used to determine depression levels. Anxiety levels were assessed using the Spielberger-Hanin Personality (ShX) and Reactive Anxiety (RX) scales. The Spielberger-Hanin scale consists of 40 questions,

and two parts were used, namely Questionnaire A describing reactive anxiety (RX) and Questionnaire B describing personal anxiety. The obtained results were statistically analyzed.

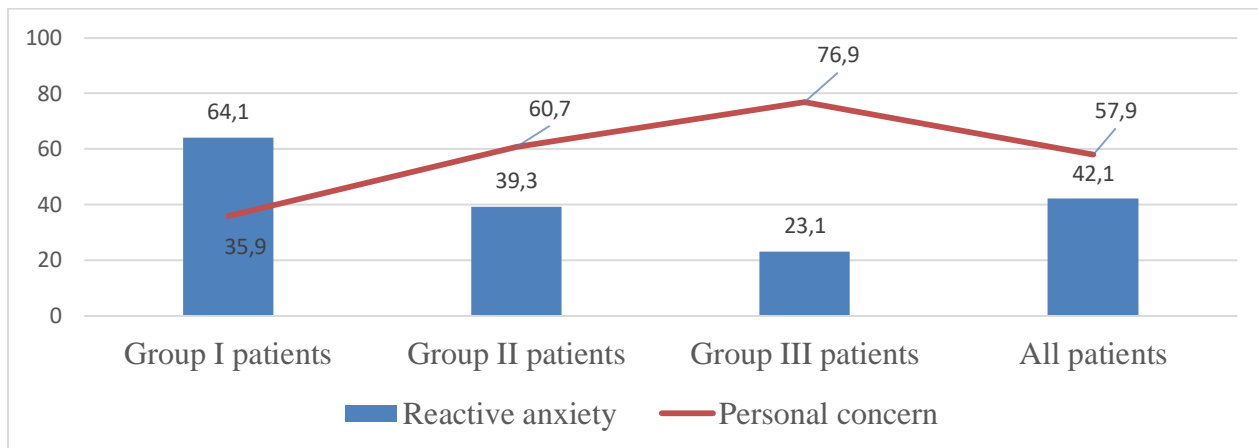
**Research results.** Almost all coronavirus patients show varying degrees of symptoms of anxiety and depression. That's why we first analyzed the levels of depression according to Hamilton's scale in patients with coronavirus. According to the questionnaire, 17 of 98 patients (17,3%) did not have symptoms of depression, i.e. 0-7 points, 43 patients (43,8%) had mild depression, scoring 8-13 points, 26 patients (26,5%) had moderate depression with 14-17 points and Severe depression was observed in 12 patients (12,2%), which was 18 points or more. In 81 patients with depression, this questionnaire averaged  $13,8 \pm 4,2$  points. In men, depression was observed in 38 patients (76,2%), while in women, this indicator was 43 (86,4%). Mild depression (59,4%) prevailed in men, while moderate (65,7%) and severe (79,0%) depression were more common in women, Figure 1.



**Figure 1. Distribution of depression levels by gender of patients**

Next, we analyzed the types of anxiety in men and women. Anxiety was observed in 81 of 98 patients, in 92,8% of men and 93,1% of women. Reactive and personal anxiety types were compared in men and women. Among 39 anxious men, 74,3% had reactive anxiety and 25,7% personal anxiety, while 31,8% reactive anxiety and 68,2% personal anxiety were observed in women.

In the next step, we analyzed depression and anxiety scores by disease severity. Depression was not observed in 6 out of 41 patients (14,6%) in group I, i.e. 18-44 years old, 3 out of 31 patients in group II, i.e. 3 out of 45-59 years old (3,2%) and 14 out of 60 in group III - 1 out of 74 patients (7,1%) had no symptoms of depression. Depression was more common in group II and III patients, that is, older patients had moderate and severe depression, and mild depression prevailed in patients aged 18-44 years. When the types of anxiety were compared for each group, reactive anxiety scores were higher in group I, while personality anxiety was higher in group III patients. 42,1% reactive anxiety and 57,9% personal anxiety were shown in the general group of patients. However, when comparing patients by gender, reactive anxiety ( $41,8 \pm 2,7$ ) was more common in men, while personal anxiety ( $45,6 \pm 4,3$ ) prevailed in women. In patients of group II and III, reactive and personal anxiety prevailed in women compared to men, Figure 2.



**Figure 2. Frequency of occurrence of anxiety manifestations by groups**

Thus, as the average age of patients increases, so does the severity of the illness, the levels of depression deepen, and personal anxiety becomes more prevalent than reactive anxiety.

### Conclusions.

Depression and anxiety are more common in patients with Covid-19, depending on the gender of the patients. Depression is more common in women than men, while anxiety is more prevalent in men.

In patients with Covid-19, mild and moderate depression predominated in men, while moderate and severe depression was more common in women, and this was inversely related to the severity of the disease.

In patients with Covid-19, reactive and personal anxiety are closely related to the gender and age of the patients, while reactive anxiety predominates in relatively young people, personal anxiety begins to manifest more in older people, and this condition is associated with secondary diseases in patients.

### Used literature.

1. Матмуродов Р.Ж., Умирова С.М. Коронавирус инфекциясининг диабетик полинейропатия ривожланишидаги роли ва унинг комплемент тизимида таъсири. Тошкент-2021. Биомедицина ва амалиёт журналі 6 жилд, 3 сон, 256 бет.
2. Матмуродов Р.Ж., Умирова С.М. Результаты применения комбилепена табса в лечении диабетической полинейропатии у лиц молодого возраста. Journal of cardiorespiratory research. №SI-1 (2021)/187p. DOI <http://dx.doi.org/10.26739/2181-0974-2021-SP-1.1>
3. Alberti P, Beretta S, Piatti M, Karantzoulis A, Piatti ML, Santoro P, et al. Guillain-Barré syndrome related to COVID-19 infection. *Neurol Neuroimmunol Neuroinflamm.* 2020;7(4):e741. (28).
4. Alipoor SD, Mortaz E, Varahram M, Garssen J, Adcock IM. The immunopathogenesis of neuroinvasive lesions of SARS-CoV-2 infection in COVID-19 patients. *Frontiers in Neurology* 2021 Jul;12:697079.
5. Artusi CA, Romagnolo A, Ledda C, Zibetti M, Rizzone MG, Montanaro E, Bozzali M, Lopiano L. COVID-19 and Parkinson's disease: what do we know so far? *Journal of Parkinson's Disease* 2021;11(2):445-54.
6. Beauchamp LC, Finkelstein DI, Bush AI, Evans AH, Barnham KJ. Parkinsonism as a third wave of the COVID-19 pandemic? *Journal of Parkinson's Disease* 2020;10(4):1343-53.

7. Boesl F, Audebert H, Endres M, Prüss H, Franke C. A neurological outpatient clinic for patients with post-COVID-19 syndrome – a report on the clinical presentations of the first 100 patients. *Frontiers in Neurology* 2021 Sep;12:738405.
8. Brundin P, Nath A, Beckman JD. Is COVID-19 a perfect storm for Parkinson’s disease? *Trends in Neurosciences* 2020 Dec;43(12):931-3.
9. Kamalova Y. A., Umirova S. M., Naimova H. A. The influence of various dosing methods on the physical performance of children in the city of Samarkand // *Materials of the XXIII Congress of the Physiological Society named after. IP Pavlova with international participation.* 2017; 2248-2250.
10. He F, Deng Y, Li W. Coronavirus disease 2019: what we know? *J Med Virol.* 2020;92(7):719–25. <https://doi.org/10.1002/jmv.25766>. (1)
11. H.M. Khalimova., Z.Yu. Khalimova., A.A. Khodjimetrov., R.J. Matmurodov., S.M. Umirova. The role and significance of complement C3 factor in the clinical course of diabetic polyneuropathy. *American journal of medicine and medical sciences* 2022, 12(11): 1166-1170
12. Mavlyanova Z. F. Reflexotherapy and aromatherapy in the treatment of patients with discirculatory encephalopathy // *Modern pharmacy: problems and development prospects.*2015;428-431.
13. Jin H., Hong C., Chen S. et al. Consensus for prevention and management of coronavirus disease 2019 (COVID-19) for neurologists. *Stroke & Vascular Neurology* 2020. DOI:10.1136/svn-2020-000382.
14. Khalimova Kh.M., Umirova S.M., Matmurodov R.J., Clinical course characteristics of diabetic polyneuropathies in patients with coronavirus // *Journal of Pharmaceutical Negative Results*, Vol.13. Special issue 02, 2022, 2420-2426 p.
15. Rejdak K, Grieb P. Adamantanes might be protective from COVID-19 in patients with neurological diseases: multiple sclerosis, parkinsonism and cognitive impairment. *Multiple Sclerosis and Related Disorders* 2020 Jul; 42:102163.
16. Anatolevna, Kim Olga, Abdusalomova Maftuna Akbarovna, and Makhmudov Sardor Mamasharifovich. "Zhalolitdinova Shaxnoza Akbarzhon kizi, & Ibragimova Leyla Ilxomovna, the influence of risk factors on the development of cerebral strokes in children. open access repository. 2022;8 (04): 179–182.
17. Umirova S.M., Matmurodov R.J. Features of early diagnostics and treatment of the diabetic polyneuropathy in adults. *Tibbiyotda yangi kun. Avicenna-med.uz* 6(44)2022:162-166.
18. Farkhadovna M. Z. et al. Optimization Of Organization and Conducting of Telerehabilitation of Patients After Stroke // *Rivista Italiana di Filosofia Analitica Junior.* – 2023. – T. 14. – №. 2. – С. 653-656.
19. Hayitovich S. R. et al. Development of a Personalized Rehabilitation Program: A Clinical Case // *Rivista Italiana di Filosofia Analitica Junior.* – 2023. – T. 14. – №. 2. – С. 668-672.
20. Абдусаломова М. А., Мавлянова З. Ф., Ким О. А. Орқа мия ва умуртқа поғонасининг бўйин қисмининг туғруқ жароҳатлари билан беморларнинг диагностикасида электронейромиографиянинг ўрни // *журнал биомедицины и практики.* – 2022. – Т. 7. – №. 2.