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Mental problems of patients recovered from COVID-19: Clinical outcomes

The COVID-19 pandemic and its various consequences have raised concerns about the prevalence of mental problems. The preliminary evidence suggests that the prevalence of mental problems in the general population has increased since the COVID-19 outbreak (Nochaiwong et al., 2021; Xiong et al., 2020). In particular, infected patients are highly vulnerable to psychological symptoms due to the annoying symptoms, death anxiety, quarantine, and unpleasant treatment process (Sahoo et al., 2020; Sun et al., 2021). Evidence suggests that COVID-19 recovered patients experience reduced quality of life and increased anxiety and depression (Cai et al., 2020). Also, it is shown that 14–90 days after the diagnosis of COVID-19, the incidence of the first psychiatric diagnosis increased in patients; As many as 56% of those recovered are in the pathological range for at least one mental disorder (Mazza et al., 2020). However, during the crisis of pandemic disease, psychological studies face the challenge of understanding the consequences of the disease and providing reliable evidence (Tandon, 2021a, 2021b). On the one hand, it is impossible to find a framework for action without scientific evidence, and on the other hand, the hasty presentation of information can lead to misinterpretation and misunderstanding. For this reason, the initial evidence needs to be cautiously presented and discussed.

Given that the Islamic Republic of Iran has a high prevalence and mortality rate of COVID-19, it has been suggested that the mental status of Iranian patients during the COVID-19 pandemic be considered (Zandifar and Badrfam, 2020). Also, to better understand the psychological problems of COVID-19 patients after recovery, there is still limited clinical evidence. To this end, the present study examined the psychological problems of Iranian patients that recovered from COVID-19 through clinical interviews.

In this cross-sectional study, the mental status of 656 COVID-19 recovered patients was evaluated who have diagnosed with COVID-19 from March to September 2020 in Bukan County, West Azerbaijan Province, Iran. The recovered patients were categorized into 3 groups. Including quarantined patients group (had mild symptoms of COVID-19 and recovered after at least 2 weeks of home quarantine), previously discharged patients group (had severe symptoms of COVID-19 and discharged from the hospital 1–6 months earlier), and recently discharged patients group (had severe symptoms of COVID-19 and discharged from the hospital in less than a month). Participants were evaluated with the anxiety and related disorders interview schedule for DSM-5: adult version (ADIS-5) (Brown and Barlow, 2014); this interview was conducted in person for the quarantined and previously discharged patients. The telephone-based interview was carried out for recently discharged patients to comply with health protocols. Finally, the results of each group due to clinically significant symptoms and a high clinical severity rating score (CSR ≥ 4) were discussed.

The sample (N = 656) include female [338 (51.5%)], aged 30–60

years [309 (47.1%)], married [592 (90.2%)], unemployed [411 (62.7)], and pre-diploma [394 (60%)]. Moreover, 19.7% reported a history of at least 1 psychiatric disorder. Moreover, 66.3% reported the infection relatives with COVID-19, 24.5% reported the death of relatives due to COVID-19, and 13.4% reported direct exposing to death of COVID-19 patients during the hospitalization. The ADIS-5 showed that 36.9% of the quarantined patients, 39.3% of previously discharged patients, and 48.6% of recently discharged patients suffered from significant clinical symptoms of at least one mental disorder (Table 1).

The quarantine patients group had significant psychological symptoms. In particular, the symptoms of generalized anxiety, obsessive-compulsive, and illness anxiety were diagnosed more than other mental problems. In the previously discharged patients group, obsessive-compulsive symptoms, major depression, and generalized anxiety were more common than other mental problems. Furthermore, in the recently discharged patients group, post-traumatic stress symptoms, major depression symptoms, and obsessive-compulsive symptoms were more prevalent. It seems that although each group has a range of mental problems, they differ in the severity of clinical symptoms. It appears that patients with severe COVID-19 and a history of hospitalization have more severe mental problems than quarantined.

The present study provides supports to prior studies (Cai et al., 2020; Mazza et al., 2020) regarding the prevalence of mental problems among COVID-19 patients clinically. After recovering from COVID-19, various factors seem to be involved in the prevalence of patients' mental problems. These common factors can include negative emotions, hypervigilance, adhering to compulsive health rituals, and remembering traumatic memories of hospitalization can lead to mental problems. Patients who have recovered from COVID-19 are probably exposed to a range of significant mental problems. However, precise mental diagnoses in these patients need to be reviewed and followed up. However, supportive and therapeutic proceedings are needed until the psychological consequences of COVID-19 are appropriately identified. Evidence from the present study was a preliminary phase in evaluating the mental status of Covid-19 patients. The results need to be carefully interpreted and used.

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Conflict of interest

The authors have no conflict of interest to declare.

Table 1-
Frequency of preliminry diagnosis and clinical severity rating scores.

Variables		Status								
		Quarantined			Previously discharged			Recently discharged		
		Frequency	Percent	CSR Mean	Frequency	Percent	CSR Mean	Frequency	Percent	CSR Mean
Preliminry Principal Diagnosis	None	147	63.1	–	128	60.7	–	109	51.4	–
	Panic attack	3	1.3	4.3	4	1.9	4.5	5	2.4	5.7
	Social phobia symptoms	2	0.9	4	3	1.4	4.3	7	3.3	5.5
	Generalized anxiety symptoms	28	12.0	4.75	11	5.2	5.3	–	–	–
	Obsessive-Compulsive symptoms	28	12.0	5.5	33	15.6	6.5	17	8.0	7
	Specific phobia symptoms	3	1.3	4.3	1	0.5	4	–	–	–
	Post-traumatic stress symptoms	4	1.7	4	7	3.3	5.5	45	21.2	7.4
	Major depressive symptoms	4	1.7	4.5	16	7.6	6.3	23	10.8	6.8
	Illness anxiety symptoms	14	6.0	5.2	8	3.8	4.4	6	2.8	4.6

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