Epidemiological and clinical profile of COVID-19 patients with psychiatric disorders admitted to Udayana University Hospital during the first year of the COVID-19 pandemic

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A – Study Design, **B** – Data Collection, **C** – Statistical Analysis, **D** – Data Interpretation, **E** – Manuscript Preparation, **F** – Literature Search, **G** – Funds Collection

Summary **Background.** Not only causing major implications on physical medicine, COVID-19 had changed the landscape in psychiatric medicine. The world is facing an impending surge of psychiatric disorders, and the early signs are now clearer than ever. These early signs might help psychiatrist and physicians, in general, to more accurately analyse, diagnose and treat these psychiatric disorders.
Objectives. To report the epidemiological and clinical characteristics of COVID-19 patients who experience psychiatric symptoms.
Material and methods. The data was collected by secondary data in the form of medical records from patients treated at Udayana University Hospital within the period April 2020 to March 2021.
Results. Patients with psychiatric disorders admitted to this hospital ($n = 94$) had a mean age of 48.5 (SD ± 14.5) years of age, with males constituting 51.1%. The psychiatric diagnoses found were insomnia (44.7%), adjustment disorder (26.6%), anxiety disorder (16.0%), depression (6.4%), psychosis (4.3%), bipolar disorder (3.2%), as well as delirium, acute stress reaction and schizophrenia at 2.1% each. These patients had a mean duration of hospitalisation of 13.2 (SD ± 6.1) days. The hospital recorded a fatality rate of 7.4% in this particular element of patients, higher than the fatality rate observed in those of the whole population.
Conclusions. The first year of the COVID-19 pandemic in Indonesia, though not directly implying, was a warning sign of the impending surge of the number of psychiatric diagnoses in the future. These psychiatric patients are not to be left alone and ignored, as they suggest a possible increase in fatality rate.
Key words: COVID-19, mental disorders, patients.

Background

COVID-19 is a disease caused by the SARS-CoV-2, and this outbreak first appeared in Wuhan, China, and spread rapidly throughout the world. On 11 March 2020, the WHO announced COVID-19 as a pandemic outbreak [1]. Based on world data, until March 2022, infection from COVID-19 caused the death of more than 6 million people. This is one of the most impactful health crises in the world. COVID-19 is a problem that worries all countries because of the mutation of the SARS-CoV-2, which has caused the world to experience the spread of a second or third wave of COVID-19 [2].

SARS-CoV-2 spreads through close contact and droplets. Common symptoms felt by COVID-19 patients include fever, shortness of breath, cough, headache, myalgia, sore throat, diarrhoea, fatigue, nausea, vomiting, impaired consciousness, etc. [1, 3]. Apart from impacting the patient's physique, COVID-19 also has a psychiatric impact on the patient.

Early in the pandemic, a concern that came to attention regarded psychiatric disorders. The increase in COVID-19 cases has also been accompanied by an increase in psychiatric disorders. Psychiatric disorders are experienced by a majority of the public and health workers. Several studies state that COVID-19 patients experience symptoms in the form of anxiety, insomnia, and depression [4, 5]. Patients with psychiatric disorders experience these symptoms after being hospitalised for about one month [5]. This is a concern for health workers to treat psychiatric disorders in survivors of COVID-19 [4].

Material and methods

The data was collected through secondary data in the form of medical records from patients treated at Udayana University Hospital in the period April 2020 to March 2021. There were 94 patients with confirmed COVID-19 who experienced psychiatric symptoms during this period. The patients had no history of psychiatric disorders prior to this period. This study reports on the epidemiological and clinical characteristics of COVID-19 patients who experienced psychiatric symptoms. This study used descriptive analysis on SPSS Statistics 25 to present the final results from the data collected during the research and was ap-

proved by the ethical committee of Udayana University under reference number 1010/UN1422VII14/LT/2020. Information about the subjects was kept highly confidential and only used in line with the ethical guidelines.

Results

A total of 94 subjects were included in the study and were obtained from April 2020 to March 2021. The average age of the subjects was 48.5 (SD ± 14.5) years, with the largest percentage being male (51.1%). The age group 41–60 years had the highest incidence of psychiatric symptoms. Most of the subjects were private employees (30.5%), and the fewest were drivers (1.3%). More complete demographic data can be seen in Table 1.

Table 1. Demographic profile of COVID-19 patients (n = 94)		
	Frequency	%
Age Group (years)		
18–20	1	1.1
21–40	23	24.5
41–60	52	55.3
61–80	17	18.1
≥ 81	1	1.1
Gender		
male	47	51.1
female	45	48.9
Occupation		
private corporation employee	20	21.3
housewife/household assistant	13	13.8
state worker	9	9.6
entrepreneur	8	8.5
university student	7	7.4
sailor	5	5.3
farmer	5	5.3
teacher	5	5.3
healthcare worker	5	5.3
merchant	4	4.3
policemen	4	4.3
hotel employee	3	3.2
retired/unemployed	3	3.2
driver	3	3.2

Table 2. Clinical profile of COVID-19 patients		
	Frequency	%
Symptoms		
fever	88	93.6
cough	86	91.5
chest tightness	45	47.9
sore throat	38	40.4
myalgia	36	38.3
headache	35	37.2
cold	19	20.2
dizziness	19	20.2
anosmia	14	14.9
diarrhoea	3	3.2
Psychiatric diagnosis		
insomnia	42	44.7
adjustment disorder	25	26.6
anxiety disorder	15	16.0
depression	6	6.4
psychosis	4	4.3
bipolar disorder	3	3.2
delirium	2	2.1
acute stress reaction	2	2.1
schizophrenia	2	2.1
Duration of hospitalisation		
≤ 14 days	992	65.4
14–20 days	370	24.4
21–28 days	117	7.7
> 28 days	39	2.6

During the April 2020 – March 2021 period, the complaints that were usually experienced by subjects with confirmed COVID-19 who were treated at Udayana University Hospital were fever (93.6%), followed by cough (91.5%), shortness of breath (47, 9%) and diarrhoea (3.2%). In addition to the general symptoms felt, psychiatric symptoms were also found in confirmed COVID-19 patients. Most of the subjects experienced psychiatric symptoms in the form of insomnia (44.7%). Other psychiatric disorders included adjustment disorder (26.6%), anxiety disorder (16.0%), depression (6.4%), psychotic symptoms (4.3%), bipolar (3.2%), followed by delirium, acute stress reactions and schizophrenia (2.1%). Details on the clinical profiles are shown in Table 2.

Discussion

Mental health has always been a challenge, even before the COVID-19 pandemic. The fact that it has always been stigmatised and always present under the effect of the *'iceberg phenomenon'* has always led to mental health issues being underdiagnosed in modern society. Had COVID-19 been a part of history, health experts may have perceive this pandemic as a chance to experience an accurate cross-sectional situation of its people's mental health status: COVID-19 patients never chose to contract COVID-19; therefore, 'accidental' psychiatric diagnosis diagnosed in patients going through mandatory isolation in hospitals may be a close representative of what is going on in the local community. On the other hand, these numbers will only exponentially grow as the pandemic goes on, causing long-lasting mental damage, irreversible in a short amount of time [6].

As Udayana University Academic Hospital has served as a tertiary referral COVID-19 dedicated hospital from the early stages of the pandemic, it must be noted that the patients referred to this hospital during the peak waves of infection were only those showing moderate to critical COVID-19 symptoms. We recorded a high proportion of insomnia (44.7%), adjustment disorder (26.6%) and anxiety disorder (16.0%) from all patients admitted with psychiatric diagnosis.

Insomnia is defined in ICD-10 as a disorder characterised by difficulty in falling asleep and/or remaining asleep [7]. Owing to some predisposing factors, studies have shown higher levels of intolerance to uncertainty, including COVID-19-related wariness, loneliness due to physical distancing, as well as previous diagnoses of depression, which were all predictive of insomnia [8]. Another study added that education status and being infected by SARS-CoV-2 itself may cause insomnia [9]. Wariness about social stigma and loss of opportunity to earn money during unstable economic times may fuel the process of overthinking, leading to restlessness and insomnia. This was heavily linked with adjustment disorders, the second most prevalent diagnosis in our study. Adjustment disorder is characterised by emotional or behavioural symptoms that develop within 3 months of a stressor and do not persist for more than an additional 6 months after the stressor is no longer present [7]. As, up until the time of this study, COVID-19 infection is generally stigmatised in Indonesia, patients isolated in the ward may feel a certain degree of emotional distress and guilt; more so if, during the pre-isolation period, they were in contact with other people. Anxiety disorder is also highly correlated with the previous two most prevalent diagnosis. Anxiety may even be seen as a manifestation of emotional distress or as a reason for insomnia and wariness. A study by Mirhosseini et al. showed that 49.1% of COVID-19 patients had anxiety about death at a young age and the death of a family member due to COVID-10, which were significantly correlated with this [10].

Conclusions

In our study, we found that males, being 41–60 years of age and private corporation employees has the highest incidence

of psychiatric symptoms, with the most common psychiatric disorder being insomnia. COVID-19 has various implications for survivors, one of which is a psychiatric disorder. In this study, it was found that COVID-19 patients experienced psychiatric disorders including insomnia, adjustment disorder, anxiety disorder, depression, psychotic symptoms, bipolar, delirium, acute stress reaction and schizophrenia. The patients had a hospitalization period of less than 14 days. Clinicians may use this data to prepare for the coming surge of patients with undiagnosed psychiatric illnesses.

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