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ORIGINAL ARTICLE

The Phenomenon symptoms experienced of long COVID-19 by students' survivor after confirmed COVID-19

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ABSTRACT

Introduction: *COVID-19 survivors often experience symptoms of recurrence or symptoms similar to those when confirmed positive. COVID-19 also has an impact on the physical, psychological, and spiritual health aspects of its survivors. This research aims to determine the health status of COVID-19 survivors after confirmation.* ***Objectives:*** *This research aims to determine the health status of COVID-19 survivors after confirmation.* ***Methods:*** *This quantitative descriptive research was conducted on 65 nursing students in Malang who were selected using the Accidental Sampling technique. Data was collected by providing an online questionnaire via Google Forms. The instruments used in this research were the post-COVID-19 Recovery Clinic Baseline Questionnaire, DASS-21, and the Spiritual Attitude and Involvement List (SAIL). The data was analyzed using Descriptive Analysis.* ***Results:*** *Research shows that the most common physical signs and symptoms during confirmed COVID-19 are loss of taste and smell, fever, shortness of breath, cough, and fatigue. Meanwhile, the symptoms still felt after recovery are changes in the color of the fingers, rashes, diarrhea, and hoarseness. Cough without phlegm and mucus occurred in 43.1%, and shortness of breath was experienced by 42.9% of respondents in the moderate category. Fatigue in the moderate category was felt by 58.3% of respondents. The results of psychological status showed that depression symptoms in the moderate and very severe category were 46.2%, anxiety in the very severe category was 75.4%, and stress symptoms in the very severe category were 38.5%. Regarding spiritual status, the majority are in the sufficient category, namely 68%.* ***Conclusions:*** *Some of the physical signs and symptoms, psychological changes, and spiritual status at the time of confirmation of COVID-19 are still felt even though they have been declared hostile to COVID-19.*

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1. Introduction

The COVID-19 (Coronavirus Disease-19) pandemic caused by the SARS CoV-2 (Severe Acute Respiratory Syndrome Coronavirus-2), virus is an event that threatens public health in general and has attracted world attention (Yanti et al., 2020). In January 2020, the WHO (World Health Organization) declared the new Coronavirus disease 2019 (COVID-19) an international public health emergency. In March 2020, it was declared a global pandemic (Chen et al., 2022).

Data on positive confirmed cases of COVID-19 has increased globally; on July 4, 2022, it showed 657,482,711 cases, 6,671,235 deaths, and 631,317,788 recovered cases. In Indonesia, 6,708,737 positive cases were reported, with deaths reaching 160,384 cases and a cure rate of 6,517,469 cases (Worldometer, 2022). According to the Ministry of Health of the Republic of

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Indonesia (KEMKES RI), on August 8, 2022, Indonesia reported 6,249,403 confirmed cases of COVID-19, 6,042,657 cases recovered, 157,113 cases died. Meanwhile, on August 8, 2022, in East Java Province, 588,622 confirmed positive cases were reported, 555,958 cases recovered, and 31,694 deaths (Guines et al., 2022). In Malang City, on July 24, 2022, 27,402 confirmed positive cases were reported, 26,108 cases recovered, and 1,246 cases died (Kholifah & Zurinani, 2022).

According to Law Number 36 of 2009 concerning Health, health is a state of physical, mental, spiritual, and social health, allowing everyone to live socially and economically productive lives. Related to COVID-19, apart from affecting the physical and psychological condition, it also affects the sufferer's spiritual condition. People who are exposed to coronavirus and undergo treatment in a Covid isolation room experience and feel COVID-19 symptoms ranging from mild to severe symptoms, experiencing severe psychological situations (Ruhyanudin et al., 2022).

COVID-19 has a very high rate of spread and also has prolonged effects in the form of symptoms that appear after recovery. As for the general symptoms that can appear, such as fatigue, shortness of breath, chest pain, and muscle pain, arise as effects of COVID-19, usually called long COVID-19 signs or prolonged sequelae (Tolba et al., 2021). Residual symptoms after a COVID-19 attack can occur in anyone, both young and older adults. One of the problems that occur in COVID-19 survivors is that this disease can still recur. The most significant complications that can be permanent in COVID-19 survivors are disorders of the heart, blood vessels, and lungs. Some reported persistent neurological disorders, such as persistent joint and muscle pain, fatigue, and psychological disorders (Majdawati, 2021).

COVID-19 survivors often experience chronic complaints in the form of coughing and shortness of breath, body fatigue with unknown causes, cardiovascular-related complaints, chest pain, thromboembolism, cardiac ventricular dysfunction, neurological disorders ranging from mild to severe, complaints related to digestive organs, psychological, mental and spiritual complaints (Setiadi & Dzahabiyyah, 2021).

A study in Italy following up on 143 people after seven weeks of discharge from the hospital found that 53% reported experiencing fatigue, 43% shortness of breath, 27% joint pain, and other complaints. This is stated as post-acute COVID-19 syndrome, defined as a disease described among patients who have recovered from COVID-19 but still have continued or persistent symptoms or those who continue to have symptoms for a longer time than expected. Post-acute COVID-19 syndrome can also be called Long COVID-19. Post-acute symptoms can appear in patients recovering from COVID-19 regardless of the severity of the disease. A study explained that the most frequently reported persistent symptoms at the time of the interview were cough (43%), fatigue (35%), and dyspnea (29%). This happened because they experienced further symptoms, namely fatigue and shortness of breath, which were still felt after being infected with Covid-19 (Devie et al., 2022).

The long Covid phenomenon has been detected since mid-2020. Based on a survey conducted by the World Health Organization (WHO) in September 2020, 35% of patients who had been declared cured of COVID-19 admitted that they had not returned to optimal conditions and reported experiencing prolonged symptoms that persisted. Two weeks after the onset of symptoms, The risk factors that increase the occurrence of long-term COVID-19 are the presence of comorbidities such as hypertension, diabetes mellitus, and mental health conditions. Potential mechanisms contributing to post-acute COVID-19 (long COVID) pathophysiology include virus-specific pathophysiological changes, immunological deviations, and inflammation in response to acute infection, symptoms, and post-critical persistence. The survey results at the Fondazione Policlinico Universitario Agostino Gemelli IRCCS Rome, Italy, in April-May 2020 showed that 143 subjects were reassessed approximately 60 days after COVID-19 symptoms. Of the 143 subjects, only 18 (12.6%) were symptom-free, meaning 87.4% still had persistent symptoms. There were 32% who had 1 or 2 symptoms, and 55% had three or more persistent symptoms. The results of a survey from Persahabatan Hospital in January 2021 regarding long-term COVID-19 obtained data from 463 COVID-19 survivors; there were 294 survivors, or 63.5%, who were still experiencing symptoms of long-term COVID-19. Data from CSI (Covid Survivor Indonesia) in August 2021 of 496 people exposed to Covid-19 found that 349 or 70% experienced symptoms of long Covid (Suparti et al., 2022). In the history of global pandemics, disease outbreaks that spread

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widely and caused many casualties impacted physical, mental, and social health. The Covid-19 pandemic is not free from social stigma. When it first appeared, COVID-19 was called the Chinese virus because it first spread massively in Wuhan, China. Covid-19 first spread massively in Wuhan, but there is no solid evidence to justify that Covid-19 is an engineered virus deliberately spread by certain countries, including China. This kind of social stigma also has an impact on the psychological condition of society, especially patients and survivors (Kurniawan & Susilo, 2021).

College students are among those most affected by COVID-19 due to uncertainty regarding academic success, future careers, and social lives during college, among other issues. Even before the pandemic, students around the world experienced increased levels of anxiety, depressed mood, lack of self-esteem, psychosomatic problems, and suicide. Therefore, students may require additional resources and services to deal with the physical and mental health impacts of Covid-19 disease (Browning et al., 2021).

COVID-19 also impacts social conditions where social interaction is lacking due to social restrictions. One very significant impact is the social impact experienced by COVID-19 survivors who are considered to be carrying an infectious disease. Even though the survivor has been declared cured, he naturally still has a fear of infecting others. COVID-19 survivors are often stigmatized by society as being considered a disgrace in that environment. Stigma is defined as a negative characteristic of a person due to the influence of the surrounding environment (Arifin et al., 2021).

In matters of worship, the COVID-19 pandemic has impacted the worship rituals of religious people. The coronavirus outbreak has hampered the worship of religious people. In smaller groups, strengthening worship becomes very important for teenagers. It is hoped that worship can become an adequate defense for the soul in the COVID-19 pandemic (Azania & Naan, 2021).

Health is a precious need; if someone is unhealthy, all activities will be disrupted. The reality in the field is that most people, especially the younger generation, underestimate and do not practice healthy living behavior. Health problems can attack anyone who has poor lifestyle habits. Under normal conditions, clean and healthy living behavior must always be carried out, especially during the COVID-19 pandemic, which is currently rampant. Everyone, including students, should maintain clean and healthy living (Sunardi & Kriswanto, 2020).

This research aims to understand and find out more about the analysis of the post-confirmed health status of COVID-19 survivors in Nursing students.

2. Methods

2.1 Research Design and Subject

This research is a quantitative descriptive study with a retrospective approach. The population was 410 nursing students at the University of Muhammadiyah Malang. The number of respondents was 65 students selected using the Accidental Sampling technique. Data collection was carried out from March 9 to April 19, 2023. This research received ethical approval from the Health Research Ethics Commission of the University of Muhammadiyah Malang with protocol number E.5.a/062/KEPK-UMM/III/2023. Participants provided written informed consent for participation prior to data collection.

2.2 Questionnaire

Data collection was executed through the questionnaire. This research aims to measure three variables, requiring three questionnaires to measure and collect related data. The instruments used are the Post Covid-19 Recovery Clinic Baseline Questionnaire (PCRC-BQ), Depression Anxiety Stress 21 (DASS-21), and Spiritual Attitude Involvement List (SAIL). Questionnaires were distributed online using Google Forms. Data analysis in this study used Descriptive Analysis.

The Post Covid-19 Recovery Clinic Baseline Questionnaire (PCRC-BQ) questionnaire consists of five sub-variables, namely 1) Medical Status consisting of 10 items with answers to each question "Yes" and "No," 2) History of Covid-19 consisting of 17 question items (validity

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range 0.403-0.846 and Cronbach Alpha 0.925) answers to each question "During Covid-19" and "After Covid-19", 3) cough symptoms consisting of 3 items with the questions "No cough, Cough with phlegm and mucus, "Cough with no phlegm and no mucus," 4) symptoms of shortness of breath after confirmed Covid-19 consists of 21 items (validity range 0.588-0.891, and Cronbach Alpha 0.967). The answer to each item is given 0-5 points with the information (0= no shortness of breath). Breath at all, up to 5 = maximum shortness of breath or too short of breath to carry out activities), 5) and symptoms of fatigue after confirmed COVID-19 consists of 9 items (validity range 0.763-0.908 and Cronbach Alpha 0.948). The answer to each item is given points 1-7 with information (1= strongly disagree, to 7= strongly agree).

The DASS-21 questionnaire is a questionnaire to measure the emotional state of depression, anxiety, and stress, which consists of 21 items (validity range 0.471-0.875 and Cronbach Alpha 0.964). Each of the three subscales consists of 7 items, and the answer to each item is given 0-3 points with the information (0= does not apply to me at all, 1= applies to me to a certain degree or some of the time, 2= applies to me at all to some degree or most of the time, and 3= applies to me very much or most of the time).

The Spiritual Attitude Involvement List (SAIL) questionnaire by Meezenbroek et al. (2012) contains 26 items (validity range 0.504-0.842 and Cronbach Alpha 0.967), and the answer to each item is given 1-6 points with the information (1= not at all, 2= almost not at all, 3= somewhat, 4= to a reasonable degree, 5= to a high degree, 6= to a very high degree) and items 19-26 with the description (1= never, 2= rarely, 3= sometimes, 4= regularly, 5= often, 6= very often).

2.3 Variables, data collecting, and analysis

The variable in this study is the post-confirmed health status of COVID-19 survivors among Nursing Students at the University of Muhammadiyah Malang. The sub-variables are physical, psychological, and spiritual signs and symptoms.

The data collection process begins with the preparation stage. The researcher prepared a research instrument in the form of a valid and reliable questionnaire. Furthermore, after the research design is declared ethically appropriate by the Health Ethics Commission, the researcher prepares the administrative permit for conducting the research. The next step is the implementation stage. The researcher explained the aims and objectives, read the informed consent to the participants, and then distributed questionnaires. Preparation takes 10-15 minutes to read the questionnaire. Incentives were given to participants after completing the questionnaire to increase participation. After all the data has been collected, the next stage is data processing, which includes editing, coding, data entry, and cleaning. All data that has been processed is then analyzed using SPSS (Statistical Package for Social Science) software version 26 (IBM USA). Data analysis in this study used descriptive analysis. Data analysis was conducted to produce appropriate conclusions and answer the problem: "What is the health status of nursing students who are COVID-19 survivors after confirmation, which includes physical signs and symptoms, psychological condition, and spiritual status?". Descriptive analysis is used to analyze data by describing or illustrating the data that has been collected as it is without intending to make general conclusions or generalizations.

3. Results and Discussion

3.1 Student Characteristics

Most respondents were 19-20 years old, namely 34 (52.3%), with an average age of 21 years, with the youngest being 19 years old and the oldest being 23 years old. The majority of respondents were female 55 (84.6%). Meanwhile, based on the length of study, most of them are in their second year, namely entering college in 2021, as many as 28 (43.1%) (table 1). the data in Table 2 shows that there are some students with comorbidities and others who do not have comorbidities, as follows: Twelve respondents (18.5%) had asthma, five (7.7%) had hypertension, and all students had no medical history of diabetes, chronic kidney disease, tuberculosis, and

HIV/AIDS. Only a few respondents had a history of medical status of chronic heart disease, chronic liver disease, chronic lung disease, and cancer (table 2).

Table 1 Characteristics of nursing students who are COVID-19 survivors in 2023 (n=65)

Characteristics	Frequency (f)	Percentage (%)
Age (years)		
19 – 20	34	52,3
21 – 22	29	44,6
>23	2	3,1
Mean of age (years old)	**Min-max (years old)**	**STDev**
20,4	19 - 23	0,9
Gender		
Male	10	15,4
Female	55	84,6
Years of college – the year of entering college		
4th – 2019	20	30,8
3rd – 2020	17	26,2
2nd – 2021	28	43,1

Table 2 Status of comorbidities in nursing students who survive Covid 19 in 2023 (n=65)

Comorbid	Frequency (f) and Percentage (%)			
	Yes	%	No	Tidak
Asthma	2	18,5	53	81,5
Hypertension	5	7,7	60	92,3
Diabetes	0	0	65	100
chronic heart disease	1	1,5	64	98,5
chronic kidney disease		1,5	64	98,5
chronic liver disease	0	0	65	100
chronic lung disease	1	1,5	64	98,5
Tuberculosis	0	0	65	100
Cancer	1	1,5	64	98,5
HIV/AIDS	0	0	65	100

3.2.1 Signs and symptoms during confirmed positive coronavirus and after being negative experienced by student survivors of COVID-19

The most common complaint felt by students during COVID-19 was loss of taste and smell at 93.8%, followed by those who complained of shortness of breath and fever, namely 89.2%. The third most common signs and symptoms were cough, sore throat, and weakness, 86.2%. However, the symptoms that the majority of students complained about during COVID-19 (loss of taste and smell, shortness of breath, fever, cough, sore throat, and weakness) are only a few who still experience them after being confirmed or when the survivor has been declared hostile for Covid. -19. Loss of sense of taste and smell was only felt by 6.2% of participants after being declared hostile to COVID-19. Shortness of breath and fever were only felt by 10.8% of students. Signs of rashes and changes in the color of the fingers or toes were the complaints that were least complained of by participants during the coronavirus infection. They persisted for a long time even though they had been declared cured, which occurred in 27.7% of participants. These symptoms and signs are the most common complaints after Covid-19. (table 3).

Table 3 Distribution of signs and symptoms of COVID-19 during positive coronavirus and after negative (long covid 19) nursing students (n=65)

Variable	During Covid-19		After Covid-19	
	Frequency (n)	%	Frequency (n)	%

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Shortness of breath/dyspnea	58	89,2	7	10,8
Cough	56	86,2	9	13,8
Sore throat	56	86,2	9	13,8
Heavy breathing	52	80	13	20
Chest pain	55	84,6	10	15,4
Palpitation	52	80	13	20
Headache	52	80	13	20
Fever	58	89,2	7	10,8
Fatigue	53	81.5	12	18,5
Weakness	56	86,2	9	13,8
Loss of taste and smell	61	93,8	4	6,2
Hoarseness	49	75,4	16	24,6
Nausea and vomiting	55	84,6	10	15,4
Diarrhea	47	72,3	18	27,7
Muscle and joint pain	54	83,1	11	16,9
Rash	47	72,3	18	27,7
Change in color of fingers/toes	47	72,3	18	27,7

3.2.2 Physical symptoms: Cough, Shortness of Breath, and Fatigue Post Covid-19 (long Covid-19)

After being declared hostile to coronavirus, 67.75% of participants still experienced coughing, of which 43.1% had a cough without phlegm and mucus, and 24.6% coughed up phlegm and mucus. Seven participants (10.7%) still experienced shortness of breath after being harmful to coronavirus, with 4.6% having moderate shortness of breath and the remaining 3.1% having mild and severe shortness of breath. Symptoms of fatigue were still experienced by 12 participants (18.5%), where the majority of respondents were in the moderate fatigue category, 7 (58.3%), 4.6% felt mild fatigue, and only 3.1% experienced severe fatigue (table 4).

Table 3 Physical symptoms: Cough, Shortness of Breath, and Fatigue Post COVID-19 (long COVID-19)

Variables	**Category**	**Frequency (n=65)**	**Percentage (%)**
Cough	Cough	44	67,7
	- Cough with phlegm and mucus	16	24,6
	- Cough without phlegm and mucus	28	43,1
	Not Cough	21	32,2
	Total	65	100
Shortness of breath		**n=7**	**10,8**
	Mild	2	3,1
	Moderate	3	4,6
	Severe	2	3,1
Fatigue		**n=12**	**18,5**
	Mild	3	4,6
	Moderate	7	10,8
	Severe	2	3,1

The results of this study show that the symptoms of COVID-19 infection that most frequently appeared among the 65 respondents were loss of taste and smell, fever, shortness of breath, cough, sore throat, and weakness. According to (2021), they found that during infection with COVID-19, the most commonly reported symptoms were fever, loss of taste and smell, headache, cough, and myalgia. This occurs because the virus infects the body by releasing inflammatory mediators to stimulate macrophages, which will cause plasma leakage into the interstitial space, resulting in fluid accumulation and pressing on the surface of the alveoli, resulting in a decrease in surfactant levels, which can cause collapse and failure of gas exchange which causes coughing, difficulty breathing, and hypoxemia (Devie et al., 2022).

In this study, changes in the color of fingers or toes, rashes, diarrhea, and shortness of breath were the most common symptoms after being infected with Covid-19. Clinical symptoms involving the gastrointestinal tract have also been reported. Abdominal pain is an indicator of the severity of patients with Covid-19 infection. As many as 2.7% of patients experienced abdominal pain, 7.8% of patients experienced diarrhea, and 5.6% of patients experienced nausea/vomiting (Fitriani, 2020). Fatigue and weakness are symptoms that often appear after being infected with Covid-19 rather than during Covid-19. Likely, fatigue is predominantly caused by changes in the immune system related to viral infections (Devie et al., 2022).

Based on this, this research proves that individuals, after being infected with Covid-19, experience varying persistent symptoms. The persistent symptoms are experienced either the same or differently from the symptoms during infection with COVID-19. This occurs due to dysfunction or residual symptoms in the organ system, low antibody response to COVID-19 infection, prolonged inflammatory response to COVID-19 infection, reconditioning, and reinfection with COVID-19 as possible persistent symptoms after COVID-19 (Devie et al., 2022).

3.3.1 Psychological Status of Covid-19 Survivors After Being Negative for Coronavirus

Participants' psychological status assessed depressive symptoms, anxiety symptoms, and stress symptoms. The highest depression symptom felt was sadness, with an average value of 2.08 (Maximum value = 4). In contrast, the lowest depression symptom felt was no positive feelings, with an average value of 1.80 (Maximum value = 4). The highest anxiety symptom is worrying about the situation, with an average of 2.22 (Maximum value = 4), while the lowest anxiety symptom is difficulty breathing, with an average value of 1.80 ((Maximum value = 4). The highest perceived stress symptom was sensitivity, averaging 2.26 (Maximum value = 4). In contrast, the least perceived symptoms of stress were flustered and difficulty calming down, with an average of 1.95 (Maximum value = 4) (table 4).

Table 4 Psychological Status of Covid-19 Survivors After Being Negative for Coronavirus

Psychological status	Mean
Symptoms of Depression	
- Sad	2,08
- Not enthusiastic about anything	2,02
- Difficult to take initiative	1,97
- Have nothing	1,83
- Worthless	1,83
- Life is meaningless	1,83
- No positive feelings	1,80
Anxiety Symptoms	
- Worried about the situation	2,22
- Fear for no apparent reason	2,09
- Dry mouth	2,05
- Panic	2,03
- Shiver	1,97
- Be aware of the action of the heartbeat	1,92
- Difficulty breathing	1,80
Stress Symptoms	
- Sensitive	2,26
- It is hard to rest	2,20
- Nervous	2,12
- Cannot tolerate distractions	2,08
- Overreacting to something	2,00
- Flustered	1,95
- Difficult to calm down	1,95

3.3.2 Distribution of Psychological Status of Covid-19 Survivors After Negative Coronavirus

The distribution of psychological status shows that 5 (7.7%) respondents experienced severe depressive symptoms; the moderate and very severe categories showed the same number, namely 30 (46.2%). Most respondents experienced anxiety symptoms; 49 (75.4%) were in the very severe category. Regarding stress symptoms, almost the majority experienced stress symptoms in the very severe category, namely 25 (38.5%) (table 5).

Table 5 Distribution of Psychological Status of Covid-19 Survivors After Negative Coronavirus

Variables	Category	Frequency (n=65)	Percentage (%)
Depression	Moderate	30	46,2
	Severe	5	7,7
	Very Severe	30	46,2
Anxiety	Moderate	11	16,9
	Severe	5	7,7
	Very Severe	49	75,4
Stress	not stressed	10	15,4
	Mild	3	4,6
	Moderate	9	13,8
	Severe	18	27,7
	Very Severe stress	25	38,5

Based on the research results show that respondents experienced psychological symptoms such as depression, anxiety, and stress. Covid-19 survivors face psychological pressure due to stigma and discrimination. This negative stigma can add stress to COVID-19 survivors. COVID-19 survivors have several symptoms of depression, such as no positive feelings, no hope, and people who are worthless, sad, uninterested, and lazy to take the initiative (Rahmawati et al., 2019). In this research, there were several categories of depression, such as moderate, and there were 30 people with a percentage of 46.2%; severe, there were five people with a percentage of 7.7%; and very severe, there were 30 people with a percentage of 46.2%. Several psychological pressures can drive an individual to commit suicide, sleep disorders, and other psychological problems (Ratunuman et al., 2021).

Anxiety is a condition that makes a person feel uncomfortable, restless, afraid, worried, and uneasy (Walean et al., 2021). Anxiety can make a person feel uncomfortable and afraid of the surrounding environment. A person's physical condition can show how anxious they are (Tiawati, 2021). Moderate stress ranges from hours to days. This stressor causes many symptoms such as fatigue, irritability, difficulty resting, irritability, and this stress is included in stage III stress (Rahmawati et al., 2019).

The findings obtained after conducting this research were that post-COVID-19 respondents experienced symptoms of depression, anxiety, and stress. The research results made respondents who experienced these symptoms avoid socializing with the public to avoid negative stigma. If this situation continues to occur, it will affect the psychological condition of the respondent, resulting in a decline in mental health, a decrease in interest in daily activities, and a decrease in the respondent's educational achievement (Santoso et al., 2020).

3.4.1 Status of the spiritual condition of Covid-19 survivors after recovery

The description of spiritual status is measured by the SAIL questionnaire, which measures spirituality as a seven-dimensional construct, including meaningfulness, trust, acceptance, caring for others, connectedness with nature, transcendent experiences, and spiritual activities. The

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description of spiritual status based on the spiritual attitude involvement list of participants in this study is shown in Table 6

Tabel 6 participants' spiritual status based on the Spiritual Attitude Involvement List (SAIL)

The description of spiritual status	Mean
Meaningfulness	
- Life has meaning and purpose	4,52
- Feel what you do is meaningful	4,43
- Know your position in life	4,12
Trust	
- Living life as it is	4,43
- Able to face life	4,25
- under challenging times, you can maintain inner peace	4,20
- Approach the world with trust	3,69
Acceptance	
- Realize that every life has its tragedy	4,49
- Accept that life sometimes brings pain	4,26
- Accept that you are not in complete control of your life path	3,78
- Accepting that nothing can affect everything	3,46
Caring for others	
- Want to be meaningful to others	4,71
- Striving to make a meaningful contribution to society	4,12
- Can do things for others	4,05
- Accepting other people's suffering	3,14
Connectedness with nature	
- The beauty of nature moves me	4,32
- When you are in nature, you can feel a connection	4,00
Pengalaman transenden	
- Having an experience where the nature of reality becomes clear	3,80
- Having experiences where it seems to transcend oneself	3,75
- Having an experience where everything seems perfect	3,71
- Having an experience where you seem to be at one with a power and strength greater than yourself	3,66
- Having experiences where everything seems to be part of a larger whole	3,63
Spiritual activities	
- There is a God or force in life that gives guidance	4,82
- Meditate or pray to find inner peace	4,26
- Discuss spiritual matters with others	3,78
- Attend sessions, workshops, etc, that are spiritually or religiously focused	3,49

In frequency distribution based on spiritual status for nursing students after experiencing COVID-19, the majority had spiritual status in the moderate spiritual level category, namely 68% (Table 7).

Table 7 Frequency distribution of spiritual levels of nursing students after recovering from COVID-19

Spirituality level	Frequency (n=65)	Percentage%
Low	8	12
Moderate	44	68
Good	12	20

In this study, the spiritual status of research respondents was mainly in the sufficient category, with 44 respondents and a percentage of 68%. COVID-19 survivors provided additional information to allow respondents to get closer to God and learn more deeply about the teachings of the religion they adhere to, as well as reinforcement during difficult times. The results of a spiritual status that is still sufficient can be used as a lesson for COVID-19 survivors to get closer to themselves and the religion they follow.

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Spiritual status is an attitude related to the formation of a loyal and pious character, a manifestation of increasing vertical interaction with God Almighty. Spiritual refers to that which is fundamental and vital and that drives and guides how a person thinks and behaves. The word spiritual means related to the Almighty God and the beliefs held by individuals. The spiritual dimension includes dealing with the unknown or uncertain in life, finding meaning and purpose in life, realizing the ability to utilize one's resources and strengths, and having an interest in oneself in the highest sense (Ruhyanudin et al., 2022; Surono & Ifendi, 2021; Ubaidillah et al., 2023).

In this study, the spiritual status of the respondents was found to be adequate for the majority, where there were supporting factors such as age. There were 34 respondents aged between 19 and 20 years, or 52.3%. In this age range, there is still a range of negative stigma that can be experienced, which can result in a decline in mental health, self-confidence, and education. Spirituality can be used to reinforce problems beyond one's abilities. Spiritual elements are a way for individuals who experience psychological obstacles to resolve their problems. When experiencing discomfort, individuals will seek support from their religious beliefs (Ruhyanudin et al., 2022).

4. Conclusion

Covid 19 has affected public health in general. Coronavirus infection causes physical disturbances during the incubation phase until COVID-19 disease occurs, and even after infection, it still leaves residual symptoms in some nursing students, which are called long COVID-19 symptoms. Likewise, Covid-19 has a psychological impact on sufferers even though they have been declared cured. Even though depression, anxiety, and stress levels will gradually decrease and disappear over time, if asked about it, sometimes it still gives a feeling of psychological trauma. However, someone who has survived death when exposed to COVID-19 has an increased impact from a spiritual perspective. They assume and believe they are still given a second chance at life, which continues to be a matter of self-introspection, always being careful and always trying to get closer to God and be more obedient in carrying out the commandments of their religion.

5. Ethics approval and consent to participate

All nursing students who participated in this study stated:

1. I have understood what is stated in the consent form above, which the researcher has explained
2. I now declare that I am voluntarily willing/unwilling to participate as one of the research subjects entitled "Post-Confirmed Health Status Analysis of COVID-19 Survivors".

This research received ethical approval from the Health Research Ethics Commission of the University of Muhammadiyah Malang with protocol number E.5.a/062/KEPK-UMM/III/2023.

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References

Arifin, M. Z., Ulhaq, A., & Darmansyah, D. (2021). Dampak Psikososial Terhadap Peyintas Covid-19. *Seminar Nasional Pengabdian Masyarakat 2020 Universitas Muhammadiyah Jakarta*, 1–4.

Azania, D., & Naan. (2021). Peran Spiritual Bagi Kesehatan Mental Mahasiswa di Tengah Pandemi Covid-19. *HUMANISTIKA : Jurnal Keislaman*, *7*(1), 26–45. https://doi.org/10.55210/humanistika.v7i1.384

Browning, M. H. E. M., Larson, L. R., Sharaievska, I., Rigolon, A., McAnirlin, O., Mullenbach, L., Cloutier, S., Vu, T. M., Thomsen, J., Reigner, N., Metcalf, E. C., D'Antonio, A., Helbich, M., Bratman, G. N., & Alvarez, H. O. (2021). Psychological impacts from COVID-19 among university students: Risk factors across seven states in the United States. *PloS One*, *16*(1), e0245327. https://doi.org/10.1371/journal.pone.0245327

Chen, Q., Li, W., Xiong, J., & Zheng, X. (2022). Prevalence and Risk Factors Associated with Postpartum Depression during the COVID-19 Pandemic: A Literature Review and Meta-Analysis. *International Journal of Environmental Research and Public Health*, *19*(4). https://doi.org/10.3390/ijerph19042219

Devie, I. G. A. J. A., Suarningsih, N. K. A., Rahajeng, I. M., & Widyanthari, D. M. (2022). Gambaran Post-Acute Covid-19 Syndrome Pada Pasien Pasca Terinfeksi Coronavirus Disease 2019. *Coping: Community of Publishing in Nursing*, *10*(3), 326. https://doi.org/10.24843/coping.2022.v10.i03.p13

Fitriani, N. I. (2020). Tinjauan Pustaka Covid-19: Virologi, Patogenesis, dan Manifestasi Klinis. *Jurnal Medika Malahayati*, *4*(3), 194–201. http://journal.um-surabaya.ac.id/index.php/JKM/article/view/2203

Guines, A., Hutapea, A. N., & Kelmaskosu, R. M. (2022). Gambaran Karakteristik Klinis Penderita Covid-19 di Satu Rumah Sakit Rujukan Covid-19 di Tangerang: Studi Dokumentasi. *Journal of Bionursing*, *4*(2), 92–103. https://doi.org/10.20884/1.bion.2022.4.2.138

Kholifah, S., & Zurinani, S. (2022). Peran Tokoh Agama Dalam Penanganan Pandemi Covid-19 di Kota Malang. *Ganaya : Jurnal Ilmu Sosial Dan Humaniora*, *5*(2), 230–242. https://doi.org/10.37329/ganaya.v5i2.1504

Kurniawan, Y., & Susilo, M. N. I. B. (2021). Bangkit Pascainfeksi: Dinamika Resiliensi pada Penyintas Covid-19. *PHILANTHROPY: Journal of Psychology*, *5*(1), 131. https://doi.org/10.26623/philanthropy.v5i1.3326

Majdawati, A. (2021). Optimalisasi Peran Kader Kesehatan Dalam Pengenalan Status Kesehatan Penyintas Covid-19 Sebagai Upaya Meningkatkan Kualitas Hidup Bagi Long-Covid. *Jurnal Masyarakat Mandiri*, *5*(4), 1–8.

Rahmawati, M. N., Rohaedi, S., & Sumartini, S. (2019). Tingkat Stres Dan Indikator Stres Pada Remaja Yang Melakukan Pernikahan Dini. *Jurnal Pendidikan Keperawatan Indonesia*, *5*(1), 25–33. https://doi.org/10.17509/jpki.v5i1.11180

Ratunuman, R. A., David, L. E. V., & Opod, H. (2021). Dampak Psikologis Pandemi COVID-19 Pada Mahasiswa. *Jurnal Biomedik (Jbm)*, *13*(2), 227. https://doi.org/10.35790/jbm.13.2.2021.31836

Ruhyanudin, F., Sunardi, S., Efendi, H. S. F., & Azalia, N. R. (2022). Nurses' Experiences Confirmed Positive Covid-19: Qualitative Study. *Media Keperawatan Indonesia*, *5*(1), 1. https://doi.org/10.26714/mki.5.1.2022.1-13

Santoso, A., Ardi, W. R., Prasetya, R. L., Dwidiyanti, M., Wijayanti, D. Y., Mu'in, M., Ulliya, S., Handayani, F., Sulisno, M., Ni'mah, M., & Aisah, N. A. (2020). Tingkat Depresi Mahasiswa Keperawatan di Tengah Wabah COVID-19. *Holistic Nursing and Health Science*, *3*(1), 1–8. https://doi.org/10.14710/hnhs.3.1.2020.1-8

Setiadi, T. H., & Dzahabiyyah, T. Y. (2021). Penyuluhan Kesehatan Rehabilitasi Medik Pasca Covid 19. *Prosiding SENAPENMAS*, 647. https://doi.org/10.24912/psenapenmas.v0i0.15071

Stavem, K., Ghanima, W., Olsen, M. K., Gilboe, H. M., & Einvik, G. (2021). Persistent symptoms 1.5-

P- ISSN: 2086-3071 | E-ISSN: 2443-0900

6 months after COVID-19 in non-hospitalised subjects: A population-based cohort study. *Thorax*, *76*(4), 405–407. https://doi.org/10.1136/thoraxjnl-2020-216377

Sunardi, J., & Kriswanto, E. S. (2020). Perilaku hidup bersih dan sehat mahasiswa pendidikan olahraga Universitas Negeri Yogyakarta saat pandemi Covid-19. *Jurnal Pendidikan Jasmani Indonesia*, *16*(2), 156–167. https://doi.org/10.21831/jpji.v16i2.35082

Suparti, L. T., Indriarini, M. Y., & Wijaya, Y. M. (2022). Karakteristik Penderita Long Covid. *Jurnal Kesehatan*, *10*(1), 60–66. https://doi.org/10.55912/jks.v10i1.53

Surono, S., & Ifendi, M. (2021). Pendidikan Islam Klasik : Model Dan Karakteristik. *Thawalib | Jurnal Kependidikan Islam*, *2*(2), 79–94. https://doi.org/10.54150/thawalib.v2i2.23

Tiawati, S. (2021). Kecemasan pada pasien COVID-19. *Jurnal Ilmiah Kesehatan Keperawatan*, *17*(1), 21. https://doi.org/10.26753/jikk.v17i1.503

Tolba, M., Abo Omirah, M., Hussein, A., & Saeed, H. (2021). Assessment and characterisation of post-COVID-19 manifestations. *International Journal of Clinical Practice*, *75*(3), 0–2. https://doi.org/10.1111/ijcp.13746

Ubaidillah, Z., Al Husna, C. H., Ningrum, W. W., Rahayu, H. T., Ruhyanudin, F., Purwanto, E., Agustiyaningsih, T., & Rohmah, A. I. N. (2023). Korelasi Tingkat Spiritualitas Dengan Tingkat Stress Pada Klien Diabetes Tipe 2. *Jurnal Ilmiah Ilmu Kesehatan*, *11*(1), 1–23.

Walean, C. J. S., Pali, C., & Sinolungan, J. S. V. (2021). Gambaran Tingkat Kecemasan pada Mahasiswa di Masa Pandemi COVID-19. *Jurnal Biomedik (Jbm)*, *13*(2), 132. https://doi.org/10.35790/jbm.13.2.2021.31765

Worldometer. (2022). *COVID-19 Coronavirus Pandemik: Reported Cases and Deaths by Country or Territory*. Worldometers.Info. https://www.worldometers.info/coronavirus/

Yanti, N. P. E. D., Nugraha, I. M. A. D. P., Wisnawa, G. A., Agustina, N. P. D., & Diantari, N. P. A. (2020). Public Knowledge about Covid-19 and Public Behavior During the Covid-19 Pandemic. *Jurnal Keperawatan Jiwa*, *8*(4), 491. https://doi.org/10.26714/jkj.8.4.2020.491-504

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