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Research Article

Relationship of Stressors and Psychosocial Support with Occurrence of Post-Traumatic Stress Disorder in Patients with Covid-19

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ABSTRACT

Post Traumatic Stress Disorder (PTSD) is common in COVID-19 survivors and can be caused by a variety of stressors, including the duration of infection, severity, and location of isolation when infected with COVID-19. Furthermore, public anxiety caused by the rapid increase in the number of cases and deaths caused by COVID-19 plays a role in the occurrence of PTSD. To reduce the risk of mental disorders, psychosocial support is required. The purpose of this study was to describe the incidence of PTSD in COVID-19 survivors, to describe aspects of psychosocial support for COVID-19 survivors, and to assess the relationship between stressor factors and psychosocial support and the occurrence of PTSD in COVID-19 survivors. This research used an analytical observational research design with a cross sectional approach, involving 149 respondents aged 17-65 years, 52 male and 97 female from the COVID-19 survivor community known as COVID Survivor Indonesia (CSI) in DKI Jakarta. The Medical Outcomes Study-Social Support Survey (MOS-SSS) and The Impact Of Event Scale-Revised (IES-R) questionnaires were distributed via Google Form to collect data. Data was processed and analyzed using the Statistical Package for Social Sciences (SPSS) for Windows version 26.0, and results were analyzed using descriptive univariate and bivariate using Chi Square. There is a significant relationship between stressor factors and the occurrence of PTSD, specifically the duration of infection with COVID-19 (P = 0.026), severity when infected with COVID-19 (P = 0.027), and place of isolation when infected with COVID-19 (P = 0,023). Furthermore, there was a significant relationship between psychosocial support and the occurrence of PTSD (p = 0,001). Management of COVID-19 patients is required to detect stressor factors and provide psychosocial support so that COVID-19 survivors can return physical and psychological health.

Keywords: COVID-19 Survivors, Psychosocial Support, PTSD, Stressor

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Introduction

Coronavirus Disease 2019 (COVID-19), declared by the World Health Organization (WHO) on March 11, 2020 was declared a pandemic because many people around the world are infected with COVID-19. An increase in the rapidly increasing number of cases and deaths caused by COVID-19 emergence anxiety in society, especially among sufferers of COVID-19 (Xiao et al., 2020). Based on WHO data, as of January 2, 2022 there were 281,808,270 confirmed cases of COVID-19 and 5,411,759 total deaths due to COVID-19 worldwide (Yuan et al., 2021). Based on results research by Cai X et al (Yang et al., 2022). patients with COVID-19 can experience mental disorders such as Post Traumatic Stress Disorder (PTSD), anxiety, and depression, even after they get well and get out of the hospital, so that mental health of survivors of COVID-19 requires special attention (Nakamura et al., 2021).

PTSD is disturbance anxiety that occurs in a person after experience or watching something threatening to their soul or physique (Sharif Nia et al., 2021;Chen et al., 2021). Someone who has PTSD can show symptoms like re-experiencing or remembering such traumatic events, avoiding things that can remind them to return to past traumatic events experienced, dream bad, trouble sleeping, having hard concentration, and having excessive alertness (Smith et al., 2022).

Based on a number of results, the latest study show that PTSD is often found in survivors of COVID-19. PTSD in COVID-19 survivors can be caused by level severity illness, forever infected, and place of isolation while infected with COVID-19 (Romulo & Urbano, 2022). According to the survey, the Association of Doctor Specialists in Indonesian Psychiatry (PDSKJI) stated that 80% of respondents have post-traumatic stress symptoms because they have experienced or watched an incident related to COVID-19 (Gonzales Diaz, 2021). Thereby, a results study by Einvik G et al. (Gallagher et al., 2021) prevalence PTSD events based on criteria Diagnostic and Statistical Manual of Mental Disorder 5th Edition (DSM-5) for COVID-19 survivors who are cared for at the hospital as much as 9.5% and those who are not treated at the hospital as much as 7% (Liu, Huang, et al., 2021).

Worries regarding COVID-19 such as height number prevalence, death due to COVID-19, the rapid spread of COVID-19, and having disease comorbid as well as the occurrence of PTSD (Brog et al., 2021). Support psychosocial is one method that can restore impact of psychological and social problems found in survivors of COVID-19 after experiencing an incident infected with COVID-19 and reduce the risk of mental disorders (Park et al., 2020). Support psychosocial, including one recommended way in guidelines support health mental and psychosocial by the Ministry of Health of the Republic of Indonesia (Liu, Liu, et al., 2021;Konwar et al., 2022). However, there is still a little linking research with health soul survivors of COVID-19. Researchers are interested in doing a study about relationship of stressors and psychosocial support with occurrence of post-traumatic stress disorder in patients with COVID-19 (Chamberlain et al., 2021). This study aims to describe the number of PTSD incidents in COVID-19 survivors, describe aspects of psychosocial support for COVID-19 survivors, and assess the relationship between stressors, psychosocial support, and the occurrence of PTSD in COVID-19 survivors. (Flatt et al., 2018).

Methods

The research design observational analytic approach with cross-sectional design used in this study included 149 respondents aged 17-65 years, consisting of 52 male and 97 female in the community of COVID-19 survivors with the name of COVID Survivor Indonesia (CSI) located in DKI Jakarta in September-December 2021. The inclusion criteria for this research include COVID-19 survivors aged 17-65 years who have already recovered from COVID-19 within a period of 1-6 months and who are ready to participate in this research with their informed consent. Meanwhile, the exclusion criteria include COVID-19 survivors who have a history of or are currently in treating mental disorders such as schizophrenia, dementia, and addiction to drugs or alcohol (Kobayashi et al., 2019).

This study uses the technique non-probability sampling with consecutive sampling. Data collection is carried out using a questionnaire. The Medical Outcomes Study–Social Support Survey (MOS-SSS) and The Impact of Event Scale-Revised (IES-R) were distributed through Google Forms (Wang et al., 2021). Statistical Package for Social Sciences (SPSS) for Windows version 26.0 was used to process and analyze the data. Descriptive univariate and bivariate methods with the Chi Square test were used for analysis (Bruckmann et al., 2020).

Result and Discussion

Demographic data respondent

 Table 1. Distribution frequency and characteristics respondent

Variable	Total (n=149)	Percentage (%)				
Age						
17-25 years	29	19.5				
26-35 years	43	28,9				
36-45 years	30	20,1				
46-55 years	23	15,4				
56-65 years	24	16,1				
Gender						
Male	52	34,9				
Female	97	65,1				
Stressor Factor :						
• Duration infected with COVID-19						
< 14 days	65	43,6				
> 14 days	84	56,4				
• The severity of covid-19						
Without symptom	34	22,8				
Mild	51	34,2				
Moderate	34	22,8				
Severe	30	20,1				
Place of isolation						
Self-isolation at home	88	59,1				
Hospitalized	61	40,9				
PTSD Category						
Not PTSD	67	45				
Low	33	22,1				
High	49	32,9				
Psychosocial Support						
Good	87	58,4				
Not good	62	41.6				
• Aspects of psychosocial support:						
a. Emotional-informational sup-						
port						
Good	90	60,4				
Not good	59	39,6				
b. Tangible support		,				
Good	92	61.7				
Not good	57	38.3				
c. Affectionate support		,-				
Good	87	58.4				
Not good	62	41.6				
100 8004	52	11,0				

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Variable	Total (n=149)	Percentage (%)		
d. Positive social interaction				
Good	83	55,7		
Not good	66	44,3		

Based on demographic data, the majority of respondents in the research were aged between 26-35 years (28.9%) and female (65.1%). Based on stressor factors such as the duration of the COVID-19 infection, the severity of the infection, and the location of isolation during the infection, the majority of respondents in the research reported having COVID-19 for more than 14 days (56.4%), mild symptoms (34.2%), and self-isolation at home (59.1%). In addition, 45% of respondents reported not having PTSD. The majority of respondents also received good psychosocial support and aspects of psychosocial support.

Relationship of age, gender, and stressor factors with PTSD	
Table 2. Relationship of age, gender, and stressor factors with PTSI)

PTSD							
Variable	Not PTSD		Lo	Low		gh	P value*
	n	%	n	%	n	%	
Age							
17-25 years	19	12,8	6	4	4	2,7	
26-35 years	13	8,7	10	6,7	20	13,4	
36-45 years	12	8,1	6	4	12	8,1	0,044
46-55 years	11	7,4	8	5,4	4	2,7	
56-65 years	12	8,1	3	2	9	6	
Gender							
Male	19	12,8	9	6	24	16,1	0,041
Female	48	32,2	24	16,1	25	16,8	
Stressor Factors:							
 Duration infected with COVID-19 							
< 14 days	37	24,8	13	8,7	15	10,1	0,026
> 14 days	30	20,1	20	13,4	34	22,8	
• The severity of COVID-19							
Without symptom	14	9,4	11	7,4	9	6	
Mild	32	21,5	7	4,7	12	8,1	0,027
Moderate	12	8,1	9	6	13	8,7	
Severe	9	6	6	4	15	10,1	
Place of isolation							
Self-isolation at home	47	31,5	19	12,8	22	14,8	0,023
Hospitalized	20	13,4	14	9,4	27	18,1	

The results of this study showed that high levels of PTSD occurred more frequently in those aged 26–35 years (13.4%) and in females (16.8%). According to the chi square test results, there is a significant relationship between age, gender, and PTSD (p < 0.05) (Byon et al., 2022).

This study found that respondents with high levels of PTSD were more likely to have

been infected with COVID-19 for a long time > 14 days (22.8%), to have severe symptoms (10.1%), and to have been hospitalized (18.1%). Based on the results of the chi square test, there is a significant relationship between the sub-variable stressor factors, duration of infection with COVID-19, severity level, and place of isolation when infected with COVID-19 and PTSD (p < 0.05) (Yıldırım et al., 2022).

Relationship between psychosocial support and PTSD

Table 3. Relationship between psychosocial support and PTSD

	PTSD						
Variable		Not PTSD		Low		igh	P-value *
	n	%	n	%	n	%	
Support psychosocial							
Good	50	33,6	17	11,4	20	13,4	0.001
Not good	17	11,4	16	10,7	29	19.5	
 Aspects of psychosocial support: 							
a. Emotional-informational support							
Good	50	33,6	17	11,4	23	15,4	0.005
Not good	17	11,4	16	10,7	26	17,4	
b. Tangible support							
Good	52	34,9	17	11,4	23	15,4	0.001
Not good	15	10,1	16	10,7	26	17,4	
c. Affectionate support							
Good	47	31.5	19	12,8	21	14,1	0.013
Not good	20	13,4	14	9,4	28	18,8	
d. Positive social interaction							
Good	48	32,3	14	9,4	21	14,1	0.002
Not good	19	12,8	19	12,8	28	18,8	

The relationship between psychosocial support and the occurrence of PTSD showed that psychosocial support was not good for respondents who experienced high levels of PTSD by 19.5%. Based on the chi square test results, there is a significant relationship between psychosocial support and PTSD (p < 0.05).

The relationship between aspects of psychosocial support and the occurrence of PTSD showed that poor psychosocial support in each aspect of psychosocial support occurred in respondents who experienced high levels of PTSD. The results of the chi square test show that there is a significant relationship between aspects of psychosocial support and PTSD (p < 0.05).

Discussion

Post-Traumatic Stress Disorder (PTSD) in COVID-19 survivors can be caused by several factors, like height number prevalence death due to COVID-19, the rapidly contagious nature of COVID-19, duration of infection with COVID-19, the severity of COVID-19, and place of isolation when infected with COVID-19, which causes fears and worries for survivors of COVID-19 (Pistarini et al., 2021).

The results of this study showed that high levels of PTSD occurred more frequently in those aged 26–35 years and females. This is due to the fact that women are more vulnerable to stress-inducing events as they age. Those people who are still looking for stability, like a career, are married and have started families, so at that moment, infected with COVID-19 activity, they become disturbed and stable, not yet reached, which causes the stressor to become more high. The results of this study show that PTSD is influenced by age and gender (Ju et al., 2022).

The study results indicate a relationship between stressor factors and the occurrence of PTSD in COVID-19 survivors. The stressor factor subvariables include the duration of the COVID-19 infection, the severity of the infection, and the location of isolation during the infection. In COVID-19 survivors whose infection lasts >14 days, it causes PTSD because when they are infected with COVID-19, they are far from their family, so they experience loneliness and cause negative feelings such as irritability, worry, and fear, which are symptoms of PTSD. (Martin-Lesende & Blasco-López, 2022). COVID-19 survivor with moderate and severe symptoms currently can experience PTSD because they often remember their situation when they were infected with COVID-19 (Zhong et al., 2022). COVID-19 survivors with severe symptoms, particularly those who experience breathing disturbances, are experiencing PTSD due to their fear of respiratory failure and potential death. Furthermore, the severity of symptoms experienced during a COVID-19 infection increases the risk of prolonged symptoms or long-term COVID-19 after infection completion, which in turn can trigger the stressor occurrence of PTSD (Rofail et al., 2022).

Therefore, it is common for COVID-19 survivors who are hospitalized to experience PTSD, particularly those receiving treatment in the ICU after contracting the virus. The critical and intense nature of the ICU, along with invasive procedures, can significantly stress these survivors and have a significant impact on their psychological well-being. Besides that, COVID-19 survivors who are hospitalized can also experience PTSD because they often remember events before and after they underwent treatment at the hospital; these memories are always in their minds, and they often see other people's conditions getting worse and dying. This is what causes trauma and PTSD in COVID-19 survivors. In contrast to COVID-19 survivors who are self-isolating at home, they do not experience PTSD because the environment is familiar and close to their family, so it is easy to fulfill their needs (Muslu et al., 2022).

Based on the results, a bivariate analysis of psychosocial support and the occurrence of PTSD in COVID-19 survivors shows that there is a significant relationship between psychosocial support and PTSD (p = 0.001). This is consistent with the findings of Cai X et al., who state that COVID-19 survivors who receive good psychosocial support can reduce their PTSD-SS score, including score re-experiencing, hyperarousal, and avoidance, as well as relieve emotional stress related to traumatic incidents, compared to those who receive poor psychosocial support. According to the research conducted by Sun N et al. (Romulo & Urbano, 2022), psychosocial support plays a crucial role in aiding the healing process of COVID-19 survivors. This support, particularly from family members, can foster a sense of calmness and confidence in their recovery from the virus. Therefore, having psychosocial support can prevent the occurrence of PTSD. The negative stigma in society due to the rapidly spreading COVID-19 can become a stressor, so appropriate psychosocial support is needed to help heal. In addition, COVID-19 survivors who are selfisolating require assistance to fulfill their daily needs, which necessitates the provision of good psychosocial support. Continuous and excessive reporting on the negative impacts of COVID-19 can also cause a person to become more stressed and anxious, so direct psychosocial support is needed, which can come from family, friends, relatives, and the community.

Based on the results of this study, aspects of psychosocial support that were still poor were found in the aspect of affectionate support at 18.8% and positive social interaction at 18.8%, so that this aspect of psychosocial support is very necessary for COVID-19 survivors with high levels of PTSD. This is because it is difficult for them to carry out activities together with family, friends, and relatives even though they can be done online, and not all of them understand how to use technology online.

Conclusion

According to the results of this study, 13.4% of COVID-19 survivors experienced high levels of PTSD in respondents aged 26-35 years, and 16.8% were female. The majority of respondents in this study, specifically 45%, did not experience PTSD, and a comparison between low and high levels of PTSD revealed that 32.9% more people experienced high levels of PTSD. Furthermore, aspects of psychosocial support that are still very necessary for COVID-19 survivors include affectionate support and positive social interaction. This research also shows that there is a significant relationship between stressor factors, psychosocial support, and the occurrence of PTSD in COVID-19 survivors (p < 0.05).

It is recommended that the head of the Covid Survivor Indonesian community coordinate with the government or other parties to Ellyamurti & Hartanti, 2023 / Relationship of Stressors and Psychosocial Support with Occurrence of Post-Traumatic Stress Disorder

request assistance from a psychiatrist as a companion for COVID-19 survivors who experience PTSD, in order to reduce the incidence of Post Traumatic Stress Disorder in COVID-19 survivors. This recommendation is based on the results of research regarding the relationship between stressor factors and psychosocial support and the occurrence of PTSD in COVID-19 survivors. Furthermore, it is recommended that family, friends, and relatives provide affectionate support and positive social interaction to COVID-19 survivors by participating in activities together, including online, to create the impression that they have someone close by, thereby alleviating feelings of isolation. It is advised that family, friends, relatives, and healthcare professionals provide psychosocial support to COVID-19 survivors from the time of infection until they have recovered from the disease in order to prevent the development of PTSD.

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