

## **An Overview of Stress Levels Among Post Stroke Patients in the Wonoayu Public Health Center Area Sidoarjo Regency**

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### **ABSTRACT**

The long term effects of stroke extend beyond physical limitations, frequently involving psychological challenges such as stress. Persistent stress may interfere with recovery and diminish life quality. This research focuses on identifying stress levels in post stroke individuals served by Wonoayu Public Health Center in Sidoarjo. Research method applied was quantitative with descriptive approach and cross-sectional design. Sampling technique employed purposive sampling, involving 38 respondents. Stress levels were assessed using DASS-42 stress subscale. Results showed most respondents experienced mild stress (27 individuals; 71%), followed by moderate stress (4 individuals; 11%) and severe stress (7 individuals; 18%). The characteristics of respondents who tended to experience stress were young adult females, with a history of one stroke attack, and had suffered from stroke for more than one year. The Conclusion of this study highlights the importance of paying attention to psychological factors in the recovery process of post-stroke patients, especially in vulnerable groups. Nurses are expected to provide appropriate psychological interventions to support optimal recovery.

***Keywords: Stroke, Stress, Post-Stroke***

### **INTRODUCTION**

Stroke is one of the non-communicable diseases that has a major impact on morbidity, disability, and mortality rates worldwide. According to the WHO (2022), stroke is the second leading cause of death and the leading cause of disability in adults. Approximately 70% of cases occur in developing countries, with Asia accounting for 60% of the global burden. In Indonesia, the prevalence of stroke reaches 10.9 per 1,000 population with a mortality rate of 21.1% (Kemenkes RI, 2019). The main risk factors include hypertension, diabetes mellitus, dyslipidemia, and smoking.

In East Java Province, the prevalence of stroke is recorded at 11.8 per 1,000 population, with more than 52,000 cases per year (Dinas Kesehatan Provinsi Jawa Timur, 2023). Sidoarjo Regency ranks high with a prevalence of 12.3 per 1,000 population, with the highest number of cases found in Taman, Waru, and

Sidoarjo Districts. Data from the Wonoayu Community Health Center recorded 383 cases of stroke in 2022 and 226 cases in 2023.

Stroke not only has physical effects but also psychological ones. Many post-stroke patients experience stress as a response to changes in their physical and social conditions. Unmanaged stress can slow down the recovery process, reduce rehabilitation motivation, and increase the risk of psychological complications such as depression and anxiety (Liu et al., 2021). This condition also affects the quality of life and independence of patients.

Based on this, this study aims to determine the level of stress in post-stroke patients in the working area of the Wonoayu Community Health Center in Sidoarjo Regency, as a basis for nurses in providing appropriate psychological interventions to support the overall recovery process of patients.

## RESEARCH METHOD

This study used a descriptive design with a cross-sectional approach to describe stress levels in post-stroke patients in the working area of the Wonoayu Community Health Center in Sidoarjo Regency.

The study population included all post-stroke patients registered in the working area of the Wonoayu Community Health Center. The sample was taken using purposive sampling with 38 respondents who met the inclusion criteria, namely post-stroke patients who were able to communicate, were cooperative, and were willing to be respondents.

The variable in this study was the level of post-stroke stress, which was measured using the Depression Anxiety Stress Scales (DASS-42) questionnaire on the stress subscale. The measurement results were categorized into three levels, namely mild stress (score 0–18), moderate stress (19–25), and severe stress (>26).

Data collection was carried out through interviews and direct questionnaire completion in November–December 2024. The data obtained were then processed through editing, coding, entry, and cleaning stages, and analyzed univariately to display the frequency distribution and percentage of each variable.

All research procedures adhered to nursing research ethics, including the principles of beneficence, respect for human dignity, and justice, by ensuring data confidentiality and obtaining consent from respondents before data collection.

## RESULT

Stress management in post-stroke patients plays an important role in supporting the recovery process and improving quality of life. Efforts that can be made include early detection of psychological problems, social support, physical activity, and integrated rehabilitation. This study was conducted on February 14, 2025, involving 38 respondents in the working area of the Wonoayu Community Health Center.

This study was conducted at the Wonoayu Community Health Center, located at Jalan Raya Wonoayu No. 01, Wonoayu District, Sidoarjo Regency, East Java. Its working area covers ten villages, namely Tanggul, Semabung, Wonoayu, Pagerngumbuk,

Jimbaran Kulon, Popoh, Simo Angin-angin, Panjeng, Jatirejo, and Sewocangkring. The Wonoayu Community Health Center provides various health services, such as a 24-hour emergency room, general services, maternal and child health and family planning, laboratory, nutrition, dental and oral health, immunization, elderly care, TB, HIV and VCT, as well as inpatient and delivery services.

**Table 1**  
**Frequency Distribution of Respondents Based on Gender in Post-Stroke Patients in the Wonoayu Community Health Center Area, Sidoarjo Regency, 2025**

Gender	N	%
Male	18	47
Female	20	53
<b>Total</b>	<b>38</b>	<b>100</b>

(Source: Primary Data)

The results in Table 1 show the gender distribution of respondents, with 20 females (53%) and 18 males (47%).

**Table 2**  
**Frequency Distribution of Respondents Based on Age in Post-Stroke Patients in the Wonoayu Community Health Center Area, Sidoarjo Regency, 2025**

Age	N	%
41-58 years old	20	52
>59 years old	18	48
<b>Total</b>	<b>38</b>	<b>100</b>

(Source: Primary Data)

In Table 2, the age characteristics of respondents were dominated by the 41–58 age group (52%), followed by the over-59 age group (48%).

**Table 3**  
**Distribution of Respondents Based on Stroke Attack Frequency in Post-Stroke Patients in the Wonoayu Community Health Center Area, Sidoarjo Regency, 2025**

Frequency of Stroke Attacks	N	%
1 Time	25	66
More Than 1 Time	13	34
<b>Total</b>	<b>38</b>	<b>100</b>

(Source: Primary Data)

Based on Table 3, which shows the characteristics of the number of stroke attacks, most respondents experienced one attack (25 respondents, or 66%), while 13 respondents (34%) experienced more than one attack.

**Table 4**

**Distribution of Respondents Based on Duration of Stroke in Post-Stroke Patients in the Wonoayu Community Health Center Area, Sidoarjo Regency, 2025**

Long-term stroke sufferer	N	%
Less than 1 year	18	47
More than 1 year	20	53
<b>Total</b>	<b>38</b>	<b>100</b>

(Source: Primary Data)

The distribution of stroke duration in Table 4 shows that most respondents (53%) had experienced the condition for more than one year, while the other 47% had experienced it for less than one year.

**Table 5**

**Distribution of Respondents Based on Stress Levels in Post-Stroke Patients in the Wonoayu Community Health Center Area, Sidoarjo Regency, 2025**

Stress Level	N	%
Mild Stress	27	71
Moderate Stress	4	11
Severe Stress	7	18
<b>Total</b>	<b>38</b>	<b>100</b>

(Source: Primary Data)

Of the total 38 post-stroke patients studied at the Wonoayu Community Health Center in 2025, most (71%) experienced mild stress, while 11% experienced moderate stress and 18% experienced severe stress.

**Table 6**

**Cross Tabulation of Stress Levels of Respondents Based on Gender in Post-Stroke Patients in the Wonoayu Community Health Center Area, Sidoarjo Regency, 2025**

Gender	Stress level						Total	
	Mild stress		Moderate stress		Severe stress			
	N	%	N	%	N	%	N	%
Male	13	72	3	17	2	11	18	100
Female	14	70	1	5	5	25	20	100

(Source: Primary Data)

Table 6 shows that the proportion of severe stress is higher among female respondents (25%) than male respondents (11%), although the proportion of mild stress is relatively balanced between the two. This indicates a tendency for severe stress to be more dominant among women.

**Table 7**

**Cross Tabulation of Stress Levels of Respondents Based on Age in Post-Stroke Patients in the Wonoayu Community Health Center Area, Sidoarjo Regency, 2025**

Age	Stress level						Total	
	Mild stress		Moderate stress		Severe stress			
	N	%	N	%	N	%	N	%
41-58	14	70	2	10	4	20	20	100
>59	13	72	2	11	3	17	18	100

(Source: Primary Data)

Table 7 shows that among the 41–58 age group, 14 respondents (70%) experienced mild stress, 2 respondents (10%) moderate stress, and 4 respondents (20%) severe stress. Meanwhile, the age group >59 years showed 13 respondents (72%) with mild stress, 2 respondents (11%) with moderate stress, and 3 respondents (17%) with severe stress. These findings indicate a higher tendency for severe stress in the 41–58 age group.

**Table 8**

**Cross Tabulation of Stress Levels of Respondents Based on Stroke Frequency in Post-Stroke Patients in the Wonoayu Community Health Center Area, Sidoarjo Regency, 2025**

Frequen cy of Stroke Attacks	Stress level						Total	
	Mild stress		Moderate stress		Severe stress			
	N	%	N	%	N	%	N	%
1 Time	17	68	3	12	5	20	25	100
>1 Time	9	69	1	31	8	23	13	100

(Source: Primary Data)

In Table 8, respondents with a history of one stroke showed a proportion of severe stress of 20% (n=5), while those who experienced more than one stroke had a much higher proportion of severe stress, namely 62% (n=8). This shows that the frequency of attacks is associated with increased stress levels.

**Table 9**  
**Cross Tabulation of Stress Levels of**  
**Respondents Based on Duration of Stroke in**  
**Post-Stroke Patients in the Wonoayu**  
**Community Health Center Area, Sidoarjo**  
**Regency, 2025**

Duration of suffering	Tingkat Stres						Total	
	Mild stress		Modera te stress		Severe stress			
	N	%	N	%	N	%	N	%
<1 year	15	83	1	6	2	11	18	100
>1 year	12	60	3	15	5	25	20	100

(Source: Primary Data)

Table 9 shows that stroke patients who had suffered a stroke less than 1 year ago experienced mild stress in 15 individuals (75%), moderate stress in 2 individuals (10%), and severe stress in 3 individuals (15%). Meanwhile, respondents who had suffered a stroke for more than 1 year experienced mild stress in 12 respondents (60%), moderate stress in 3 respondents (15%), and severe stress in 5 respondents (25%). From the table, it can be concluded that respondents who had suffered a stroke for more than 1 year had a higher tendency to experience severe stress.

## DISCUSSION

The results of the study show that most post-stroke patients in the Wonoayu Community Health Center area experience mild stress. This may be due to family support, acceptance of their health condition, and enthusiasm for recovery. Mild stress is generally characterized by mild anxiety and sleep disturbances that are still manageable. These findings are in line with the research by Fitriyani and Susilowati (2021), which states that the majority of post-stroke patients experience mild stress due to good psychological adaptation abilities.

Women tend to experience higher stress levels than men. Emotional factors, dual roles, and limitations in activities after a stroke can exacerbate psychological pressure. This is in line with the research by Bragdon et al. (2019), which states that women are more sensitive to emotional stress after a stroke.

Patients aged 41–58 years are also more prone to severe stress than the elderly. During their productive years, individuals have significant responsibilities toward work and

family, so the loss of physical abilities due to stroke can cause high psychological pressure (Wang et al., 2022).

In addition, patients with a history of more than one stroke or who have suffered for more than a year show higher levels of stress. This is due to long-term dependence on others, limited activity, and a sense of loss of control over life (Gyawali et al., 2022).

Overall, stress levels in post-stroke patients are influenced by factors such as gender, age, frequency of attacks, and duration of stroke. Social support, counseling, and appropriate psychological approaches are essential to help patients manage stress and improve their quality of life.

## CONCLUSION AND SUGGESTION

### Conclusion

1. The majority of post-stroke patients at the Wonoayu Community Health Center experienced mild stress, namely 27 out of 38 respondents.
2. Women are more likely to experience severe stress than men due to emotional factors and the burden of dual roles.
3. Respondents aged 41–58 years experienced more severe stress than those aged >59 years due to their productive period with greater responsibilities towards work and family.
4. Severe stress is more common in patients with a first stroke because they are not mentally and emotionally prepared to deal with the condition.
5. Patients who have suffered a stroke for more than a year tend to experience severe stress due to the long recovery process and limited activities.

Overall, the stress levels of post-stroke patients are influenced by gender, age, frequency of attacks, and duration of stroke, with the main factors being emotional pressure, burden of responsibility, mental unpreparedness, and lack of social support.

### Suggestion

1. For respondents

It is hoped that post-stroke patients will better recognize and manage the stress they experience by actively seeking social support from family and health workers, as well as undergoing therapy or counseling if necessary.

2. For research sites (Wonoayu Community Health Center)

It is hoped that a psychological support and stress management education program can be developed for post-stroke patients to support a comprehensive recovery process.

3. For healthcare professionals

Nurses are expected to be able to identify patients' stress levels early on and provide appropriate nursing interventions to help reduce stress and increase patients' motivation for rehabilitation.

4. For educational institutions

The results of this study can be used as a reference and learning material for nursing students regarding the importance of psychological aspects in the care of post-stroke patients.

5. For future researchers

It is recommended to conduct further research with a larger sample size and an analytical approach in order to identify factors related to stress levels in post-stroke patients.

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