

The Relationship Between Stress, Depression, and Suicidal Ideation among Adolescents in Gresik Regency

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ABSTRACT

Background: Mental health disorders have become a serious concern due to their wide-ranging impacts, including the rising incidence of suicide. Suicide is an intentional act to end one's life, influenced by both internal factors such as psychological and biological conditions, and external factors such as economy, environment, and technology. Adolescents and young adults represent vulnerable groups prone to stress and depression triggered by academic and social demands. When left unaddressed, these conditions may lead to the emergence of suicidal ideation. This situation underscores the need for mental health awareness and early prevention efforts among adolescents and young adults.

Purpose: This study aimed to determine the relationship between stress and depression with suicidal ideation among adolescents in one of the districts of Gresik Regency.

Methods: This study employed quantitative cross-sectional design. Data was collected using the *Depression Anxiety Stress Scale* (DASS-42) to assess stress and depression levels, and the *Mini Plus 5.0.0 Questionnaire* to measure suicidal idea. The study population consisted of 462 adolescents, with 215 respondents selected through simple random sampling. Ethical approval was obtained under No. 005/KET/II.3.UMG/KEP/A/2024. Data was analyzed using the Spearman Rank correlation test.

Results: The correlation analysis between stress and suicidal ideation yielded a significance value of 0.01 ($r=0.358$, p -value < 0.05). Similarly, the correlation between depression and suicidal ideation also showed a significant value of 0.01 ($r= 0.376$, p -value < 0.05).

Conclusion: The findings indicate that both stress and depression are significantly correlated with suicidal ideation among adolescents in Gresik Regency. Mental health problems, particularly stress and depression, can severely affect daily functioning among adolescents and young adults, leading to discomfort and vulnerability to suicidal thoughts due to inadequate coping mechanisms and environmental support.

Keywords: depression, stress, suicidal ideation

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BACKGROUND

Mental health disorders have recently become a major public concern, leading to various adverse consequences, one of the most severe being suicide. Suicide is defined as an intentional act committed to end one's life and represents a critical public health issue requiring comprehensive prevention and management strategies (Junnica & Ediyono, 2023). Suicide is a significant mental health disorder that requires comprehensive management (Susanty, 2019). According to (Jatmiko & Fitryasari, 2021) suicidal ideation is influenced by both internal and external factors. Internal factors include biological, psychological, and demographic aspects, while external factors encompass economic conditions, family and peer environments, and exposure to technological or social media influences. Among these factors, psychological conditions particularly stress and depression are consistently identified as major predictors of suicidal ideation, as they significantly impair emotional regulation and coping abilities. Individuals experiencing persistent stress and depressive symptoms often withdraw socially, and when these conditions remain unaddressed, they may escalate into suicidal thoughts. There are several internal factors that contribute to the emergence of suicidal ideation, including biological, psychological, and demographic factors, as well as behavioral deviations and lifestyle patterns. External factors may include economic conditions, environmental influences such as family or peers, and even technological exposure. Among the current leading triggers of suicidal ideation are psychological factors such as anxiety, stress, depression, insecurity, overthinking, and schizophrenia. These conditions often lead individuals to withdraw from their surroundings, and if not properly managed or addressed, they can become significant precursors to suicidal thoughts.

In Indonesia, the suicide rate is estimated at 2.4 per 100,000 population, indicating a substantial public health burden (Kemenkes, 2022) stated that approximately 800,000 people die by suicide each year worldwide. Based on data from the World Health Organization, approximately 800,000 deaths by suicide occur globally each year, corresponding to a suicide rate of around 9.0 per 100,000 population (WHO, 2024), and in East Java, there were 240 reported cases, and data were also obtained from (BPS, 2019) At the provincial level, East Java reported 240 suicide cases in 2023, while regional data from Gresik Regency documented seven suicide cases, reflecting the presence of this issue at the community level. Epidemiological data consistently show that adolescents and young adults represent a high-risk population for suicide and suicidal ideation, emphasizing the urgency of targeted mental health interventions for this age group.

Although suicide can occur across all age groups, early adulthood is recognized as a particularly vulnerable developmental stage. Early adulthood is characterized by the process of establishing social roles, achieving independence, and assuming increasing personal and professional responsibilities (Soumokil-Mailoa et al., 2022). Difficulties in adapting to these developmental demands frequently result in elevated stress levels, especially among individuals who lack effective coping strategies. (Krisnandita, Onyzha & Christanti, 2022) reported that early adults who struggle to fulfill developmental tasks are more likely to experience psychological stress. Stress is defined as an individual's psychological and physiological response to internal or external demands that exceed adaptive capacity (Nur & Mugi, 2021). In early adulthood, stress commonly arises from academic pressures, employment demands, economic challenges, and uncertainties regarding future life roles, which may gradually contribute to emotional exhaustion and psychological distress.

Prolonged stress, when unmanaged, can progress into depression, a condition strongly associated with suicidal ideation. Depression is characterized by persistent feelings of sadness, hopelessness, and loss of interest, which significantly impair daily functioning. Empirical

studies consistently indicate that stress and depression act as significant predictors of suicidal ideation, as individuals experiencing these conditions often perceive suicide as an escape from psychological pain. Not all individuals possess adequate knowledge or resources to manage stress and depression effectively, thereby increasing their vulnerability to suicidal thoughts. The rising prevalence of stress and depression among adolescents and young adults has attracted considerable public attention, particularly through reports of suicide cases in mass media and social platforms. These reports highlight the urgent need for preventive strategies focusing on psychological risk factors. Failure to address stress and depression early may result in an increased incidence of suicidal ideation and suicide attempts in this population, underscoring the importance of early detection and intervention.

To reduce suicidal ideation associated with stress and depression among adolescents and young adults, a comprehensive and multidimensional approach is required. Strengthening social support from family, peers, and the community is essential, as individuals who feel supported demonstrate better coping abilities. Mental health education should also be enhanced to improve awareness of stress and depression symptoms and encourage timely help-seeking behaviors. Furthermore, accessible counseling and psychotherapy services both face-to-face and online are crucial in providing emotional support and preventing the progression of psychological distress into suicidal ideation.

OBJECTIVE

This study aimed to examine the relationship between stress and depression with suicidal ideation among adolescents.

METHODS

This study employed a quantitative research design with a cross-sectional approach. Data were collected using standardized instruments, namely the Depression Anxiety Stress Scale (DASS-42) to assess levels of stress and depression, and the Mini International Neuropsychiatric Interview (MINI) Plus version 5.0.0 to measure suicidal ideation. The DASS-42 has demonstrated good psychometric properties, with reported Cronbach's alpha values ranging from 0.90 to 0.95 for the depression and stress subscales, indicating high internal consistency. The MINI Plus has also shown strong validity and reliability, with inter-rater reliability coefficients exceeding 0.85, supporting its use for assessing suicidal ideation.

The study population consisted of 462 adolescents and young adults aged 18–25 years residing in one of the districts of Gresik Regency. Respondents were recruited using a simple random sampling technique, whereby eligible individuals were randomly selected from the population list to ensure equal opportunity for participation. A total of 215 respondents met the study criteria and completed the questionnaires.

The inclusion criteria were respondents aged 18–25 years, willing to participate voluntarily without any coercion, and able to use Google Forms independently for data completion. The exclusion criteria included respondents who were unable to read and respondents who were currently undergoing outpatient pharmacological treatment for mental disorders, as these conditions could influence self-reported psychological assessments.

The classification of participants as adolescents and young adults was applied to reflect the transitional developmental phase between late adolescence and early adulthood, which is often associated with increased vulnerability to stress, depression, and suicidal ideation.

Ethical approval for this study was obtained from the Health Research Ethics Committee of Universitas Muhammadiyah Gresik under approval number **005/KET/II.3.UMG/KEP/A/2024**. Stress and depression were designated as independent

variables, while suicidal ideation served as the dependent variable. Data analysis was conducted using the Spearman rank correlation test, as the data were not normally distributed.

RESULTS

Table 1. Respondents' Demographic Data

Respondent Characteristic	Frequency	Percentage
Gender		
Female	127	59%
Male	88	41%
Total	215	100%
Age		
18-19	62	29%
20-21	100	46%
22-23	52	24%
24-25	1	1%
Total	215	100%

Table 1 presents the demographic characteristics of the respondents. More than half of the participants were female (59%), while males accounted for 41%. In terms of age, nearly half of the respondents were aged 20–21 years (46%), indicating that the study population was predominantly composed of individuals in the early phase of young adulthood.

Table 2. Respondents' Stress Levels

Stress	Frequency	Total
Normal	89	41.4%
Low	16	7.4%
Moderate	42	19.5%
Severe	35	16.3%
Very Severe	33	15.3%
Total	215	100%

According to Table 2 the largest proportion of respondents reported normal stress levels (41.4%). However, more than one-third of the respondents experienced severe to very severe stress (31.6%), indicating that a substantial proportion of adolescents and young adults were exposed to high psychological stress.

Table 3. Respondents' Depression Levels

Depression	Frequency	Total
Normal	81	38%
Low	22	10%
Moderate	33	15%
Severe	39	18%
Very Severe	40	19%
Total	215	100%

Based on Table 3, 38% of respondents were categorized as having normal depression levels. Nevertheless, a considerable proportion experienced moderate to very severe depression (52%), suggesting that depressive symptoms were prevalent among the study population.

Table 4. Respondents' Suicidal Ideation Levels

Suicidal Ideation	Frequency	Total
Low	182	85%
Moderate	4	2%
Severe	29	13%
Total	215	100%

According to Table 4, the majority of respondents reported low levels of suicidal ideation (85%). Despite this, 13% of respondents exhibited severe suicidal ideation, reflecting the presence of a high-risk subgroup that requires serious clinical and preventive attention.

Table 5. Results of the Correlation Analysis Between Stress and Suicidal Ideation

Stress	Suicidal Ideation						Correlation Coefficient (r)	p-value	Total
	Low		Moderate		High				
	F	%	F	%	F	%	F	%	
Normal	85	95.5%	0	0.0%	4	4.5%	89	100,0%	
Low	15	93.8%	0	0.0%	1	6.3%	16	100,0%	
Moderate	38	90.5%	0	0.0%	4	9.5%	42	100,0%	
Severe	25	71.4	3	8.6%	7	20.0%	35	100,0%	
Very Severe	19	57.6%	1	25.0%	13	39.4%	33	100,0%	
Total	182	84.7%	4	1.9%	29	13.5%	215	100.0%	
							0.358	0.01	

Table 5 illustrates the relationship between stress and suicidal ideation. The Spearman rank correlation analysis demonstrated a statistically significant positive correlation between stress and suicidal ideation ($r = 0.358$, $p = 0.01$). A correlation coefficient of 0.358 indicates a moderate relationship, meaning that increased stress levels were associated with higher suicidal ideation. Notably, severe to very severe stress levels were accompanied by a higher proportion of severe suicidal ideation, compared to respondents with normal stress levels. The 95% confidence interval for the correlation coefficient ranged from 0.24 to 0.47, indicating a stable and reliable association.

Table 6. The Relationship Between Depression and Suicidal Ideation

Depression	Suicidal Ideation						Correlation Coefficient (r)	p-value	Total
	Low		Moderate		Severe				
	F	%	F	%	F	%	F	%	
Normal	78	96.3	0	0.0%	3	3.7%	81	100,0%	
Low	20	90.9%	0	0.0%	2	9.1%	22	100,0%	
Moderate	31	93.9%	0	0.0%	2	9.1%	33	100,0%	
Severe	31	79.5%	3	7.7%	5	12.8	39	100,0%	
Very Severe	22	55.0%	1	2.5%	17	42.5%	40	100,0%	
Total	182	84.7%	4	1.9%	29	13.5%	215	100.0%	
Statistic Test:									
Sperman rank									
							0,376	0,01	

As presented in Table 6, the correlation analysis revealed a statistically significant positive correlation between depression and suicidal ideation ($r = 0.376$, $p = 0.01$). This correlation coefficient reflects a moderate relationship, indicating that higher levels of depression were associated with increased suicidal ideation. Respondents with severe to very severe depression demonstrated a markedly higher proportion of severe suicidal ideation, compared to those with normal depression levels. The 95% confidence interval ranged from 0.26 to 0.49, supporting the robustness of this finding.

DISCUSSION

The Relationship Between Stress and Suicidal Ideation

Stress is a response expressed by an individual to changes in a new situation, or even to a situation that the individual perceives as a threat (Nur & Mugi, 2021b). Stress can be categorized into eustress (positive stress) and distress (negative stress). Eustress may enhance motivation and performance, whereas distress, particularly when experienced for a prolonged period without adequate coping strategies, can negatively affect psychological well-being. During adolescence, individuals are more vulnerable to stress due to emotional instability and ongoing developmental changes. According to Lazarus and Folkman's Transactional Model of Stress and Coping, stress arises when individuals perceive that environmental demands exceed their coping resources. Adolescents who are unable to effectively manage stressors may experience emotional distress that contributes to maladaptive cognitive and behavioral responses, including suicidal ideation. From a nursing perspective, this theory highlights the importance of assessing both perceived stressors and coping mechanisms when evaluating adolescent mental health. Stress among adolescents may originate from various sources, including interpersonal, intrapersonal, academic, and environmental factors (Musabiq & Karimah, 2018) which stated that there are four main triggers of stress: interpersonal, intrapersonal, academic, and environmental factors. This finding is also consistent with the study by (Dewi, 2019) which also stated that stress factors include interpersonal, intrapersonal, academic, and environmental aspects. According to (Kemenkes, 2022) Academic pressure, peer relationships, and family expectations are commonly reported stressors during adolescence and may contribute to psychological burden if not adequately addressed. Prolonged or unmanaged stress has been associated with several physical and psychological health problems, such as sleep disturbances, cardiovascular strain, and depressive symptoms. However, stress should be understood as a contributing factor that may exacerbate health problems rather than a direct cause of complex diseases.

Based on the results shown in Table 2, most respondents experienced normal to moderate levels of stress. Furthermore, the correlation analysis in Table 5 demonstrated a statistically significant relationship between stress and suicidal ideation ($p = 0.01$), with a correlation coefficient of 0.358. This finding indicates a moderate correlation, suggesting that higher stress levels tend to be associated with increased suicidal ideation among adolescents in one of the districts of Gresik Regency. However, the strength of this relationship also implies that stress alone does not fully explain the emergence of suicidal thoughts. The moderate correlation observed in this study suggests that stress may act as one of several contributing factors to suicidal ideation. Other factors such as family support, socioeconomic status, exposure to trauma, peer relationships, and access to mental health services may influence both stress levels and suicidal ideation. These potential confounding variables were not examined in this study and may partially account for the observed association. This finding is consistent with the study by Kusumayanti et al. (2020), which reported a significant relationship between psychological factors and suicide risk among adolescents, emphasizing the multifactorial nature of suicidal behavior. This result is consistent with the study by (Kusumayanti et al.,

2020) titled "*The Relationship Between Psychological Factors and Suicide Risk Among High School and Vocational Students in Bangli and Klungkung.*" The study found a p-value of 0.001 ($p < 0.05$), indicating a significant relationship between psychological factors and suicide risk.

The Relationship Between Depression and Suicidal Ideation

Depression is a mental health disorder characterized by persistent sadness, loss of interest, sleep disturbances, and appetite changes (Maulida et al., 2020). According to (Nurany et al., 2022) In adolescents, depression may arise from a combination of biological vulnerability, emotional regulation difficulties, and environmental stressors. If left untreated, depression can lead to prolonged psychological distress and impaired daily functioning. If depression is left untreated and not promptly managed, it can lead to prolonged psychological burdens, which in turn may affect an individual's immune system (Azzahro & Sari, 2021). Suicide incidents resulting from depression are also consistent with the study conducted by (Santoso, Budiarty et al., 2017) which stated that depression, as a mental illness that commonly affects many individuals, can be one of the factors leading a person to self-harm. In its most severe form, this mental disorder can cause the sufferer to feel helpless and unworthy of living, ultimately leading to the decision to end their own life through suicide.

Several studies have also stated that depression is associated with the occurrence of suicide (WHO, 2023) which also stated that approximately 700,000 people die by suicide each year, with an even greater number attempting suicide annually. About 70% of those who die by suicide come from low- and middle-income countries. Based on Table 5, the correlation analysis in this study showed a statistically significant relationship between depression and suicidal ideation ($p = 0.01$), with a correlation coefficient of 0.376. This moderate correlation indicates that adolescents with higher levels of depression are more likely to experience suicidal ideation. However, similar to stress, depression alone does not independently determine suicidal thoughts. The moderate strength of the relationship suggests that suicidal ideation is influenced by multiple interacting factors. Variables such as family cohesion, peer support, socioeconomic conditions, history of trauma, and stigma toward mental health may act as confounding factors that affect both depression and suicidal ideation. These findings underscore the importance of comprehensive nursing assessments and holistic interventions that address not only depressive symptoms but also the broader psychosocial context of adolescents. (Ambali et al., 2021) which found a significant relationship between depression and suicidal tendencies among adolescents.

CONCLUSION

Based on the findings of this study, it can be concluded that stress and depression are significantly associated with suicidal ideation among adolescents and young adults in one sub-district of Gresik Regency. These psychological conditions substantially impair emotional regulation and daily functioning, thereby increasing vulnerability to suicidal thoughts, particularly among individuals with limited coping skills and inadequate social support. The findings of this study have important practical implications for mental health prevention and early intervention. School-based mental health screening programs are essential to facilitate the early identification of stress, depression, and suicidal ideation among adolescents. In addition, community-based counseling programs should be strengthened to provide accessible psychological support and reduce mental health stigma. Furthermore, the development and implementation of early intervention policies integrating educational institutions, healthcare services, and community stakeholders are crucial to preventing the progression of stress and depression into suicidal ideation. Overall, the integration of early detection, community counseling, and policy-driven interventions is necessary to effectively reduce suicidal ideation and promote mental well-being among adolescents and young adults.

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CONFLICTS OF INTEREST

The authors declare no conflict of interest. This study is free from plagiarism and has not been previously published elsewhere.

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