



The Relationship between Self-efficacy and Suicide Risk among Nursing Students

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Abstract. Suicide is a major global public health concern, particularly among nursing students who face significant academic and clinical demands. Although self-efficacy is recognized as a protective psychological factor that may reduce suicide risk, empirical evidence regarding this relationship among Indonesian nursing students remains limited. This study aimed to examine the relationship between self-efficacy and suicide risk among nursing students at the Faculty of Health Sciences, Universitas Brawijaya. A quantitative cross-sectional study was conducted involving 259 undergraduate nursing students selected using purposive sampling. Self-efficacy was measured using the Indonesian version of the General Self-Efficacy Scale (GSES), and suicide risk was assessed using the Revised Suicide Ideation Scale (R-SIS). Data were analyzed using Spearman's rank correlation test ($\alpha = 0.05$). Most participants demonstrated high self-efficacy (95.4%) and low suicide risk (97.7%). Spearman's rank correlation analysis revealed a statistically significant negative correlation between self-efficacy and suicide risk ($r = -0.217, p < 0.001$), indicating that higher self-efficacy was associated with lower suicide risk, despite a weak correlation strength. Self-efficacy is significantly associated with reduced suicide risk among nursing students. Future studies should investigate additional psychological, social, and environmental factors to provide a more comprehensive understanding.

Keywords: Nursing Students, Self-Efficacy, Suicide Risk, Cross-Sectional Study, Mental Health.

1 Introduction

Suicide remains a major global public health concern and is one of the leading causes of death among adolescents and young adults worldwide. According to the World Health Organization (WHO), more than 700,000 people die by suicide each year, with the majority of cases occurring in low- and middle-income countries [1]. Suicide is a complex phenomenon influenced by biological, psychological, social, and environmental factors. Although suicide prevention has become an international public health priority, identifying modifiable protective factors remains a significant challenge. University students are considered a population vulnerable to mental health problems because they experience multiple academic, financial, and social pressures during their

transition to adulthood [2]. In addition to adapting to new learning environments, students are required to meet academic expectations while managing interpersonal relationships and future career concerns. These stressors may contribute to psychological distress, including depression, anxiety, hopelessness, and suicidal ideation [2], [3].

Among university students, nursing students may face an even greater psychological burden because of the demanding nature of nursing education. Besides completing theoretical coursework, nursing students are required to participate in clinical placements, provide patient care, communicate with multidisciplinary healthcare professionals, and adapt to emotionally challenging situations encountered in healthcare settings [4]. Continuous exposure to academic and clinical stressors may increase vulnerability to emotional exhaustion and suicidal behavior if effective coping mechanisms are lacking [5], [6].

Previous studies have reported that suicidal ideation among university students is associated with various psychological factors, including depression, anxiety, perceived stress, hopelessness, and poor coping ability [3], [6]. However, not all students experiencing similar stressors develop suicidal thoughts or behaviors. This indicates that certain protective psychological factors may reduce the likelihood of suicide risk despite exposure to stressful situations.

One psychological factor that has received increasing attention is self-efficacy. According to Bandura, self-efficacy refers to an individual's belief in their capability to organize and perform actions necessary to achieve desired outcomes [7]. Individuals with high self-efficacy generally perceive difficult situations as challenges rather than threats, demonstrate greater resilience when facing adversity, and are more likely to adopt adaptive coping strategies. Conversely, individuals with low self-efficacy may perceive stressful situations as overwhelming, making them more vulnerable to psychological distress.

Previous research has demonstrated that higher self-efficacy is associated with better psychological well-being, lower perceived stress, reduced depressive symptoms, and improved coping abilities [8],[9],[10]. These findings suggest that self-efficacy may also serve as a protective factor against suicide risk. Individuals who believe in their ability to overcome difficulties are more likely to seek appropriate support, utilize adaptive coping strategies, and maintain hope during stressful experiences. Nevertheless, suicide risk is multifactorial, and self-efficacy represents only one of many psychological factors that may contribute to its occurrence.

Although studies examining self-efficacy and mental health have increased in recent years, evidence specifically investigating the relationship between self-efficacy and suicide risk among Indonesian nursing students remains limited. Most previous studies have focused on depression, anxiety, academic stress, or general psychological well-being, while relatively few have explored suicide risk as the primary outcome. Considering the unique academic and clinical demands experienced by nursing students, understanding psychological factors associated with suicide risk is important to support early prevention strategies within nursing education.

Therefore, this study aimed to examine the relationship between self-efficacy and suicide risk among nursing students at the Faculty of Health Sciences, Universitas Brawijaya. It was hypothesized that students with higher self-efficacy would demonstrate

lower suicide risk. The findings of this study are expected to contribute to the growing body of evidence regarding psychological factors associated with suicide risk among nursing students and provide information for developing mental health promotion strategies in higher education settings.

2 Methods

This quantitative cross-sectional study was conducted among undergraduate nursing students at the Faculty of Health Sciences, Universitas Brawijaya, Indonesia, in November 2024. The study population consisted of 735 students enrolled in the Regular and Transfer (SAP) bachelor's programs. A minimum sample size of 259 participants was determined using the Slovin formula, and eligible participants were recruited through purposive sampling. Inclusion criteria were active undergraduate nursing students who voluntarily agreed to participate and were able to complete the questionnaire. Students who were no longer actively enrolled or were on academic leave were excluded.

Self-efficacy was assessed using the Indonesian version of the 10-item General Self-Efficacy Scale (GSES) [11],[12] with total scores ranging from 10 to 40; higher scores indicated higher self-efficacy. Suicide risk was measured using the 10-item Revised Suicide Ideation Scale (R-SIS), with scores categorized as low (<15), moderate (15–35), and high (≥ 36).

Data were collected using an online questionnaire administered through Google Forms. Electronic informed consent was obtained before participation. Participant confidentiality was maintained, and information regarding university counseling services was provided after questionnaire completion.

Ethical approval was obtained from the Health Research Ethics Committee, Faculty of Health Sciences, Universitas Brawijaya (Approval No. 13028/UN10.F17.10.4/TU/2024; Protocol No. 24F171111143M). Participation was voluntary, written informed consent was obtained electronically, and participant confidentiality was strictly maintained.

Data was analyzed using IBM SPSS Statistics version 25. Descriptive statistics were used to summarize participant characteristics, and Spearman's rank correlation test was performed to examine the relationship between self-efficacy and suicide risk. A p-value of <0.05 was considered statistically significant.

3 Results

3.1 Demographic Characteristics of Participants

A total of 259 nursing students participated in this study. As shown in Table 1, most respondents were aged 17–25 years (97.3%), female (88.0%), and enrolled in the Regular Bachelor's Program (90.0%). The largest proportion of respondents were in the seventh semester (37.1%). Most respondents reported being satisfied with their GPA (64.5%), identified as having a religious belief (95.0%), and practiced Islam (92.7%).

Most respondents lived in boarding houses (78.0%), were involved in campus organizations (61.4%), and did not report academic achievements (67.6%).

Table 1. Characteristics of Participants

	Characteristic	n	%
Age (Years)	12-16 years old	1	0,4
	17-25 years old	252	97,3
	26-35 years old	2	0,8
	36-45 years old	4	1,5
Sex	Male	31	12
	Female	228	88
Study Program	Reguler Bachelor Program	233	90
	Transfer Program	26	10
Current Semester	1	75	29
	3	46	17,8
	5	42	16,2
	7	96	37,1
Satisfaction with GPA	Satisfied	167	64,5
	Not satisfied	92	35,5
Religious Belief	Yes	246	95
	No	13	5
Religion	Islam	240	92,7
	Protestant	9	3,5
	Catholic	6	2,3
	Hindu	4	1,5
Residence	Living with parents	51	19,7
	Boarding house	202	78
	Living with relatives	6	2,3
Organization Membership	Yes	159	61,4
	No	100	38,6
Achievements	Have Achievements	84	32,4
	No Achievements	175	67,6

3.2 Distribution of Self-Efficacy

As presented in Table 2, most respondents demonstrated high self-efficacy (95.4%), while only 4.6% had low self-efficacy. Regarding the dimensions of self-efficacy, most respondents demonstrated high scores in Magnitude (94.2%), Strength (97.7%), and Generality (88.4%).

Table 2. Distribution of Self-Efficacy and Its Dimensions

Variable	Category	n	%
<i>Self-efficacy</i>	High	247	95,4
	Low	12	4,6
Magnitude	High	244	94,2

	Low	15	5,8
Strength	High	253	97,7
	Low	6	2,3
Generality	High	229	88,4
	Low	30	11,6
Total		259	100

3.3 Distribution of Suicide Risk

Table 3. Distribution of Suicide Risk and Its Dimensions

Variable	Category	n	%
Suicide Risk	High	2	0,8
	Moderate	26	10
	Low	231	89,2
Suicidal Desire	High	2	0,8
	Moderate	9	3,5
	Low	248	95,8
Resolved Plans and Preparation	High	2	0,8
	Moderate	6	2,3
	Low	251	96,9
Total		259	100

As shown in Table 3, the majority of respondents were classified as having low suicide risk (89.2%), whereas 10.0% were categorized as moderate risk and only 0.8% as high risk. For the suicide risk dimensions, most respondents were categorized as low in both Suicidal Desire (95.8%) and Resolved Plans and Preparation (96.9%).

3.4 Relationship Between Self-Efficacy and Suicide Risk

Table 4. Relationship Between Self-Efficacy and Suicide Risk

Self-Efficacy	Suicide Risk						Total	
	High		Moderate		Low		n	%
High	n	%	n	%	n	%	n	%
High	2	0,8	21	8,5	224	90,7	247	100
Low	0	0	5	41,7	7	58,3	12	100
Spearman's rank correlation coefficient (r) = -0.217								
$p < 0.001$								

Table 4 presents the relationship between self-efficacy and suicide risk among nursing students. Most respondents with high self-efficacy were classified as having low suicide risk (90.7%). Among respondents with low self-efficacy, 58.3% had low suicide risk and 41.7% had moderate suicide risk. No respondents with low self-efficacy were categorized as having high suicide risk.

Spearman's rank correlation analysis showed a statistically significant negative correlation between self-efficacy and suicide risk ($r = -0.217$, $p < 0.001$). The negative coefficient indicates that higher self-efficacy tends to be associated with lower suicide risk. However, the strength of the correlation was weak, suggesting that self-efficacy explains only a small proportion of the variation in suicide risk.

4 Discussion

4.1 Self-Efficacy Among Nursing Students

The present study found that most nursing students demonstrated high self-efficacy (95.4%). This finding suggests that the majority of respondents perceived themselves as capable of managing academic demands and overcoming challenges encountered during their studies. Nursing education requires students to complete theoretical learning, clinical practice, and professional responsibilities, which may gradually strengthen confidence in their abilities.

The findings are consistent with previous studies reporting that nursing students generally have high levels of self-efficacy because repeated learning experiences, clinical exposure, and successful task completion contribute to confidence in handling academic and clinical situations [9],[10].

Analysis of the self-efficacy dimensions also showed that most respondents scored high in Magnitude, Strength, and Generality. These findings indicate that respondents generally believed they were capable of completing difficult tasks, maintaining confidence when facing obstacles, and applying their abilities across different situations. However, these dimensional findings were described only to provide an overview of respondents' characteristics and were not statistically analyzed in relation to suicide risk.

4.2 Suicide Risk Among Nursing Students

Most respondents were categorized as having low suicide risk (89.2%), while only two respondents (0.8%) were classified as having high suicide risk. Similar findings have been reported in previous studies indicating that although university students experience considerable academic stress, the majority do not experience high suicide risk because various protective factors may be present, including social support, coping ability, and psychological resilience [3],[5],[13].

In this study, the dimensions of Suicidal Desire and Resolved Plans and Preparation were also predominantly categorized as low. These results suggest that most respondents did not report strong suicidal thoughts or specific suicide plans during the data collection period.

Because this study did not statistically examine factors such as organizational involvement, spirituality, academic achievement, or GPA satisfaction in relation to suicide risk, these characteristics cannot be interpreted as explaining the observed suicide risk. Future studies are needed to investigate these factors using multivariable analyses.

4.3 Relationship Between Self-Efficacy and Suicide Risk

The present study identified a statistically significant negative relationship between self-efficacy and suicide risk among nursing students ($r = -0.217$, $p < 0.001$). The negative correlation indicates that students with higher self-efficacy tended to report lower suicide risk.

However, the correlation coefficient indicates that the strength of this relationship was weak. The coefficient of determination ($r^2 \approx 0.047$) suggests that self-efficacy accounted for approximately 4.7% of the variation in suicide risk within this sample. Therefore, although statistically significant, self-efficacy alone cannot adequately explain suicide risk among nursing students.

Suicide risk is recognized as a multifactorial phenomenon influenced by biological, psychological, social, environmental, and cultural factors. Variables such as depression, anxiety, hopelessness, social support, family relationships, previous traumatic experiences, and coping strategies may contribute substantially to suicide risk and were not examined in the present study [6],[14].

These findings suggest that self-efficacy may function as one of many protective psychological factors rather than the primary determinant of suicide risk. This finding is consistent with previous studies demonstrating that higher suicide coping self-efficacy is associated with lower suicidal ideation and a reduced likelihood of suicidal behavior. Individuals who believe they are capable of coping with stressful situations are more likely to adopt adaptive coping strategies and seek appropriate support during psychological crises [15],[16].

Several limitations should be considered when interpreting the findings of this study. First, cross-sectional design does not allow conclusions regarding causal relationships between self-efficacy and suicide risk. Second, the study relied on self-administered questionnaires, making the results susceptible to response bias and social desirability bias. Third, participants were recruited from a single nursing program at one university, limiting the generalizability of the findings to other student populations. Finally, only self-efficacy was analyzed as an independent variable. Other psychological, social, and environmental factors that may influence suicide risk were not included in the present study. Future studies are recommended to include multiple predictors and longitudinal designs to better understand factors associated with suicide risk among university students.

5 Conclusion

This study found that most nursing students at the Nursing Science Programme, Universitas Brawijaya, demonstrated high self-efficacy and low suicide risk. A statistically significant negative correlation was identified between self-efficacy and suicide risk ($r = -0.217$, $p < 0.001$), indicating that students with higher self-efficacy tended to report lower suicide risk.

However, the strength of this relationship was weak, suggesting that self-efficacy represents only one of several factors associated with suicide risk. Therefore, self-efficacy

should not be interpreted as the sole or primary protective factor against suicide risk among nursing students.

These findings contribute to the understanding of psychological factors associated with suicide risk among university students. Future studies are recommended to investigate additional psychological, social, and environmental factors using longitudinal or multivariable research designs to provide a more comprehensive understanding of suicide risk.

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