Relationship between Academic Self-Efficacy with Depression to College Students

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ABSTRACT

This study aims to determine the relationship between academic self-efficacy and depression in college students. The hypothesis proposed is that there is a negative relationship between academic self-efficacy and depression in college students. The subjects of this study amounted to 224 students by taking subjects using the purpose sampling method. Data collection used measuring instruments The Academic Self-Efficacy Scale (TASES) and Depression Anxiety Stress Scale (DASS). The data analysis technique used in this study is Karl Pearson's product-moment correlation. Based on the results of data analysis, the correlation coefficient r was -0.295 with ($p < 0.05$). This shows that there is a significant negative relationship between academic self-efficacy and depression. The coefficient of determination (R^2) is 0.087 with the academic self-efficacy variable showing a contribution of 8.7% to the level of depression and the remaining 61.3% is influenced by other factors not examined by the researcher.

Keywords : *depression, academic self-efficacy, college students*

Introduction

According to the stages of development, university students are in the early adulthood phase of development (Santrock, 2008). During this developmental period, students strive to explore themselves to find their identity, socialize, build relationships, and bear social responsibilities (Hamdanah and Surawan, 2022). University students are individuals who consistently study and deepen their knowledge in a specific discipline, and some are even already involved in student activities or student organizations (Ganda, 2004). A study conducted by Michael et al. (2006) on 145 students found that students experienced symptoms of depression from the beginning of their studies. The causes vary, including academic problems, loneliness, economic issues, and difficulties in building relationships.

Depression among students is very common and occurs nationwide (Frotani in Hasanah, 2020). Lovibond and Lovibond (1995) stated that depression is a condition where individuals experience negative emotions. These negative emotions can include hopelessness, sadness, gloominess, feelings of worthlessness, meaninglessness, lack of desire to engage in activities, and the absence of positive feelings. Depression affects every individual, leading to poor

health, decreased performance, reduced motivation, emotional and cognitive impairments, and ultimately addiction (Sari, 2013).

In the transition from late adolescence to early adulthood, students are not only agents of change but also must play a role as agents of empowerment after change, involved in both physical and non-physical development for the country (Hurlock, 2002). According to Cahyono (2019), students should ideally be role models for society, based on their knowledge, education level, prevailing norms, and mindset. Students' intellectual thoughts and ideas can change the paradigm within a group and integrate it with collective interests (Cahyono, 2019).

However, several studies conducted on students have found that they feel hopeless, overwhelmed by what they need to do, and suffer from mental fatigue such as sadness, anxiety, and depression (Santrock, 2012). According to WHO data (2017), out of 450 million people worldwide, around 264 million people experience depression, 45 million suffer from bipolar disorder, 20 million have schizophrenia, and 50 million have dementia.

In Indonesia, Basic Health Research (2018) shows that more than 19 million people aged 15 years and older experience psycho-emotional disorders, while more than 12 million others suffer from depression. The prevalence of depression among students is higher compared to the general population (Hariyanto, 2010). A study conducted in 2007 at the Faculty of Medicine, Atma Jaya Catholic University, involving 126 students aged 18 to 24 years, found that 36 respondents experienced mild depression and 8 respondents experienced moderate depression (Hariyanto, 2010).

Based on offline and online interviews conducted by researchers from May 23 to 24, 2024, involving 11 students from semesters 6 to 8 at various universities in Indonesia, it was found that they showed symptoms of depression. Two out of the 11 students experienced all symptoms of depression. The details of the interview results are as follows: First, in the Dysphoria subscale, 8 students reported feeling deeply sad and stressed. Second, in the Hopelessness subscale, 6 students reported feeling hopeless to the point where they had no vision for the future. Third, in the Devaluation of life subscale, 5 students reported feeling that their life had lost meaning and value. Fourth, in the Self-deprecation subscale, 4 students reported feeling worthless as a human being. Fifth, in the Lack of interest or involvement subscale, 6 students reported experiencing a lack of interest in doing anything and losing motivation to work. Sixth, in the Anhedonia subscale, 5 students reported not feeling or experiencing any positive emotions and having difficulty appreciating what they had accomplished. Lastly, in the Inertia subscale, all 11 students reported a tendency to rest and always feel in a state of rest.

Munthe (2007) stated that several factors can influence depression, such as disappointment arising from pressure, physical fatigue, or other reasons, excessive lack of self-esteem to the extreme, feelings of unfair comparison, emotional conflict, experiences of rejection, or limitations in relationships with peers, and the inability to achieve certain goals. Other factors influencing depression include a lack of emotional support from a partner or close family, low income, and education (Loret, 2016). Additionally, other research shows

that factors influencing depression include self-efficacy, body image, social support, and academic achievement.

Moreover, other studies show that factors influencing depression include self-efficacy, body image, social support, and academic achievement. A study conducted by Dapaah and Amoako (2019) on the causes of depression among students and its impact on academic life at Kwame Nkrumah University of Science and Technology, Kumasi, Ghana, revealed that academic problems are the cause of depression among students, such as the inability to study and poor academic performance.

A foreign study conducted by Mirzaei-Alavijeh et al. (2017) aimed to explore the relationship between depression and academic self-efficacy, as well as academic achievement among students at Kermanshah University of Medical Sciences (KUMS) in western Iran. This cross-sectional study was conducted on 373 students. The results of this study showed that academic self-efficacy positively and significantly correlated with academic achievement (r=0.216). On the other hand, academic self-efficacy negatively correlated with depression (r=-0.154). This means that academic self-efficacy positively correlates with academic achievement and negatively correlates with depression.

Academic self-efficacy is a construct rooted in Bandura's (1997) theory of self-efficacy. Baron and Byrne (2004) stated that academic self-efficacy can be defined as an individual's belief that they can complete assigned academic tasks and determine their performance level. Furthermore, Riahi et al. (2015) defined academic self-efficacy as an individual's belief in their ability to complete academic tasks successfully.

According to Sagone and Caroli (in Darmayanti et al., 2021), the aspects of academic self-efficacy include Self-engagement, which encourages students to focus on lessons by actively participating in lecture activities. Self-oriented decision-making, which refers to decision-making centered on oneself, indicating how individuals rely solely on themselves when facing unpleasant lecture processes. Others-oriented problem solving, which relates to the role of others' involvement (such as friends, lecturers, academic staff, etc.) in solving problems faced during lectures. Interpersonal climate, focusing on how individuals can collaborate with their peers.

Social cognitive theory asserts that low academic self-efficacy can lead to anxiety and avoidance behavior in difficult activities, especially those related to academic tasks (Bandura in Hakim, 2021). Low academic self-efficacy can cause students to fear completing tasks, avoid tasks, procrastinate, and give up, while high academic self-efficacy motivates students to persevere and face challenging situations, thus preventing academic burnout and depression (Hitches, Woodcock, & Ehrich 2022).

In addition, a study conducted by Achmad, Fitriawan, Kurniawan, and Chen (2023) examined the determinants of depressive symptoms and the mediating effect of self-esteem on the relationship between academic self-efficacy and depressive symptoms among nursing students participating in blended learning involving 534 nursing students. The results of this

study showed that online learning difficulties and academic self-efficacy were two significant factors related to depressive symptoms.

Similarly, Esteban et al. (2022) found that students with low academic self-efficacy were more likely to experience depression because they attributed their failures to low academic ability. Conversely, students with high academic self-efficacy tend to see failure as an opportunity to improve their efforts to achieve better results. As mentioned, high academic self-efficacy is a protective factor against depressive symptoms among students.

From the previous explanation, the research problem in this study is whether there is a correlation between academic self-efficacy and depression among students.

Methods

This research employs a correlational quantitative approach, where academic self-efficacy is the independent variable and depression is the dependent variable. The criteria for subjects in this study are active university students, both male and female. The data collection method uses a Likert scale, while the sampling method employed is non-probability sampling with a purposive sampling technique.

This study uses two scales: the Depression Anxiety Stress Scale (DASS), translated into Indonesian by Widyana, Sumiharso, and Safitri (2020), which is an adaptation of the DASS-42 by Lovibond and Lovibond (1995) to measure depression, and the Academic Self-Efficacy Scale (TASES) designed by Sagone and Caroli (2014). This measurement tool was translated into Indonesian by Darmayanti et al. (2021) to measure academic self-efficacy. The data analysis method uses Karl Pearson's product-moment correlation statistical method. Data analysis was conducted with the assistance of the SPSS Statistics 25 software.

Results

The subjects involved in this study were active students, both male and female. There were 224 subjects in this study. Below are the demographic data results obtained.

Table 1. Respondent Demographic Data

Characteristics		**Frequency (f)**	**Percentage (%)**
Age	17 – 21 years	118	52,7%
	22 – 26 years	106	47,3%
Gender	Male	75	33,5%
	Female	149	55,5%
University From	Public	74	32,14%
	Private	150	67,86%
Study Program	Sains and Technology (Saintek)	72	31,3%

	Social and Humaniora (Soshum)	152	68,7%
Domicile	Java Island	143	63,8%
	Kalimantan Island	6	2,7%
	Southeast Nusa Island	36	16,1%
	Papua Island	13	5,8%
	Sulawesi Island	9	4%
	Sumatra Island	17	7,6%

Based on the descriptive data results, the researcher applied categorization to both research variables. The purpose of categorization is to place individuals into groups with hierarchical levels based on a continuum according to the measured attributes (Azwar, 2019). The following are the results of the variable categorization

Table 2. Depression Scale Categorization

No	Categories	Skor	Frequency	Percentage (%)
1	Normal	0 – 9	147	65,63%
2	Low	10 – 13	22	9,82%
3	Moderate	14 – 20	26	11,61%
4	Heavy	21 – 27	15	6,7%
5	Very Heavy	27 +	14	6,25%
	Totally		224	100%

The results of categorization using the Depression Anxiety Stress Scale (DASS) on 224 subjects showed that 65.63% (147 subjects) were in the category of no depression or normal, 9.82% (22 subjects) were in the category of mild depression, 11.61% (26 subjects) were in the category of moderate depression, 6.7% (15 subjects) were in the category of severe depression, and 6.25% (14 subjects) were in the category of very severe depression.

Table 3. Academic Self-Efficacy Scale Categorization

No	Categories	Skor	Frequency	Percentage (%)
1	Very Low	$X \leq 43,75$	0	0%
2	Low	$43,75 < X \leq 56,25$	7	3,13%
3	Moderate	$56,25 < X \leq 68,75$	77	34,38%
4	High	$68,75 < X \leq 81,25$	51	22,77%
5	Very High	$81,25 < X$	89	39,73%
	Totally		224	100%

The results of categorization using The Academic Self-Efficacy Scale (TASES) on 224 subjects showed that there were no subjects (0%) in the very low category, 3.13% (7 subjects) were in the low category, 34.38% (77 subjects) were in the moderate category, 22.77% (51 subjects) were in the high category, and 39.73% (89 subjects) were in the very high category.

Table 4. Normality Test Results

	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
Academic Self-Efficacy	.119	224	.000
Depression	.216	224	.000

The table above shows that the depression variable has a KS-Z value of 0.119 with p = 0.000 ($p < 0.05$), and the academic self-efficacy variable has a KS-Z value of 0.216 with p = 0.000 ($p < 0.05$). Therefore, the data obtained from the DASS scale as the depression variable and the TASES scale as the academic self-efficacy variable are not normally distributed.

According to Hadi (2017), if the number of subjects in a study is ($N \geq 30$), the data can be considered normally distributed. When ($N \geq 30$), the data tends to approximate a normal distribution regardless of the initial shape of the distribution. According to Gani and Amalia (2015), if the number of subjects in a study exceeds 30, the data tends to remain normally distributed because the normality or non-normality of the data will not affect the final results of the study. Therefore, the academic self-efficacy and depression variables can be used for subsequent steps, such as linearity testing and hypothesis testing, since the number of subjects in this study is 224 ($N \geq 30$).

After conducting the normality test, the researcher proceeded with the linearity test to determine whether the relationship between the variables is linear or not. The results of the linearity test on both variables showed $F = 24.421$ ($p < 0.050$). This indicates that the relationship between academic self-efficacy and depression is linear.

Table 5. Hypothesis Test Results

Correlations			
		Academic Self-Efficacy	Depression
Academic Self-Efficacy	Pearson Correlation	1	-.295**
	Sig. (2-tailed)		.000
	N	224	224

Depression	Pearson Correlation	-.295**	1
	Sig. (2-tailed)	.000	
	N	224	224

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the results of the Pearson product-moment correlation analysis of the research data, the correlation coefficient (r_xy) was found to be -0.295 with a p-value of 0.000 ($p < 0.05$), indicating a negative and significant relationship between academic self-efficacy and depression among students. This suggests that the higher the students' academic self-efficacy, the lower their level of depression, and conversely, the lower their academic self-efficacy, the higher their level of depression. Additionally, the data analysis results also showed r = -0.295 with a coefficient of determination (R^2) of 0.087, indicating that the academic self-efficacy variable contributes 8.7% to the level of depression.

Discussions

This study aims to explore the correlation between academic self-efficacy and the level of depression among students. The analysis results using the product-moment correlation show that the hypothesis in this study is proven correct, with a negative relationship found between academic self-efficacy and the level of depression among students. In other words, the higher the academic self-efficacy a student has, the lower their level of depression. Conversely, the lower the level of academic self-efficacy, the higher the level of depression.

According to Self-Efficacy Theory (Bandura, 1994), individuals with high academic self-efficacy tend to manage problems effectively, feel confident in their chances of success, and view challenges as something to be faced rather than avoided. Such individuals believe in their abilities, quickly recover from failures, and have better emotional stability, thus avoiding psychological issues like depression. On the other hand, individuals with low academic self-efficacy typically avoid difficult tasks because they perceive them as threats. These individuals tend to focus on their shortcomings, which increases the likelihood of experiencing psychological problems such as depression.

Social cognitive theory also emphasizes that low academic self-efficacy can lead to feelings of anxiety and avoidance behaviors in difficult activities, especially those related to academic tasks (Bandura in Hakim, 2021). Low academic self-efficacy may cause students to fear completing tasks, avoid assignments, procrastinate, and give up, while high academic self-efficacy motivates students to be persistent and face challenging situations, thus preventing academic fatigue and depression (Hitches, Woodcock, & Ehrich, 2022).

Based on the results of Pearson's product-moment correlation analysis from the research data, a correlation coefficient (r) = -0.295 with a p-value of 0.000 ($p < 0.05$) was obtained, indicating a significant negative relationship between academic self-efficacy and depression among students. This suggests that the higher the academic self-efficacy of the students, the lower their level of depression, and conversely, the lower the academic self-efficacy, the higher

the level of depression. Additionally, the data analysis results also show r = -0.295 with a coefficient of determination (R^2) of 0.087, indicating that the academic self-efficacy variable contributes 8.7% to the level of depression.

The acceptance of the hypothesis in this study shows that academic self-efficacy is related to individual depression levels. According to another study conducted by Avianti, Setiawati, Lutfianawati, and Putri (2021), it was found that there is a significant negative relationship between academic self-efficacy and depression levels among students. Research conducted by Esteban et al. (2022) found that students with low academic self-efficacy are more likely to experience depression because they attribute their failures to low academic ability. Conversely, students with high academic self-efficacy tend to view failure as an opportunity to increase their efforts to achieve better results. As mentioned, high academic self-efficacy is a protective factor against depressive symptoms among students.

In this study, the student population was general, with the limitation being the lack of identification related to the student's current semester. Therefore, it is not possible to determine whether depression is more prevalent among students in the early or later semesters.

Based on the discussion of the research results, it can be concluded that academic self-efficacy significantly predicts the level of depression among students. However, the contribution of academic self-efficacy to the level of depression has a limited influence. This may be due to other factors not examined in this study.

Conclusion

Based on the research results and discussion, it can be concluded that there is a significant negative relationship between academic self-efficacy and the level of depression among students. This means that the higher the academic self-efficacy, the lower the level of depression experienced by students. Conversely, the lower the academic self-efficacy, the higher the level of depression among students.

For future researchers interested in the variable of depression, it is recommended to investigate other factors that cause depression, such as disappointment due to pressure, physical fatigue, excessive low self-esteem to an extreme level, feelings of unfair comparison, emotional conflict, experiences of rejection or limitations in relationships with peers, inability to achieve certain goals, lack of emotional support from partners or close family members, low income, education, self-efficacy, body image, social support, and academic achievement.

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