


# Perceived Social Support, Academic Self-Efficacy, and Anxiety among Final Year Undergraduate Students: A Mediation Analysis

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<p><b>Submitted:</b> 2023-02-07</p> <p><b>Revised:</b> 2023-07-11</p> <p><b>Accepted:</b> 2023-08-15</p> <p><b>Keywords:</b> Anxiety, Academic Self-Efficacy, Perceived Social Support.</p> <p><b>Copyright holder:</b> © Laksmiwati, E. D., &amp; Tondok, M. S. (2023)</p> <p><b>This article is under:</b> </p> <p><b>How to cite:</b> Laksmiwati, E. D., &amp; Tondok, M. S. (2023). Perceived Social Support, Academic Self-Efficacy, and Anxiety among Final Year Undergraduate Students: A Mediation Analysis. <i>Bulletin of Counseling and Psychotherapy</i>, 5(2). <a href="https://doi.org/10.51214/00202305514000">https://doi.org/10.51214/00202305514000</a></p> <p><b>Published by:</b> Kuras Institute</p> <p><b>E-ISSN:</b> 2656-1050</p>	<p><b>ABSTRACT:</b> Students, especially in the final year, often encounter various sources of stress and increasingly high academic demands, which have the potential to cause academic anxiety. This study aimed to determine the effect of perceived social support on academic anxiety through self-efficacy as a mediator. Employing a cross-sectional quantitative research design, this study involved a sample of 80 final-year undergraduate students, comprising 49 females and 31 males. Data were collected via an online questionnaire encompassing three scales: General Anxiety Disorder-7 (GAD-7), Academic Self-Efficacy Scale (ASES), and The Multidimensional Scale of Perceived Social Support (MSPSS). The mediation analysis results revealed that academic self-efficacy acts as a full mediator in the relationship between perceptions of social support and student anxiety. These findings highlight the potential effectiveness of interventions to bolster students' self-efficacy to mitigate the adverse effects of academic-related stressors, ultimately enhancing their overall well-being and academic performance.</p>
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## INTRODUCTION

In the context of higher education, students are often confronted with high levels of pressure and academic demands, which can trigger academic anxiety. Academic anxiety is an emotional experience characterized by fear and physical or behavioral responses resulting from external or internal threats related to the pressures of academic tasks and activities (Jiménez-Mijangos, et al., 2023). Theoretically, academic anxiety can arise due to various factors, such as heavy course loads and tight assignment deadlines (Hamaideh, 2011), high self-expectations or external expectations (Flett, et al., 2014), competition with classmates (Beiter et al., 2015), and a lack of social support (Habibullah, et al., 2019; Sugiharno, et al., 2022; Zivin, et al., 2009). Those experiencing academic anxiety typically exhibit feelings of nervousness, vigilance, fear, restlessness, anxiety, and even insecurity, which can impact their academic performance (Jiménez-Mijangos et al., 2023).

Essentially, anxiety encompasses cognitive, emotional, and behavioral processes aimed at preventing or mitigating the potential effects of threats. When anxiety is experienced at a balanced level, individuals can function adaptively. However, when anxiety occurs excessively or persistently, it may become maladaptive (Mirabito; Rosen & Schulkin, cited in Warshawski, et al. (2019). Furthermore, external situational changes such as the COVID-19 pandemic are one of the factors that can exacerbate students' academic anxiety. This is because the effects of the COVID-19 pandemic have impacted several academic activities, including postponed exams and unfinished coursework (Biswas & Biswas, 2021). Therefore, academic anxiety among students is a matter that cannot be overlooked due to its various negative repercussions. These include potential adverse effects on

academic achievements such as motivation, performance, and declining academic grades (Majali, 2020; Mirawdali, et al., 2018; Shakir, 2014). Academic anxiety can also impact the quality of life (Sahranavard, Esmaeili, Dastjerdi, & Salehiniya, cited in Kayani, et al. (2020). Those afflicted with academic anxiety may experience disrupted thought patterns, a loss of enjoyment in the learning process due to worries about their future, difficulties in concentration, problem-solving, retention of learned material, and a decline in academic abilities (Huerta, et al., 2017; Suputra & Susilawati, 2019). Furthermore, academic anxiety also affects emotional instability, a deteriorating self-concept, declining academic performance, and difficulties in adaptation (Sharma, 2017). It leads to reduced psychological well-being, such as altered sleep patterns or difficulty sleeping (Nihayah, et al., 2021), and can even extend to depression and suicidal thoughts (Beiter et al., 2015).

Various demands that lead to academic anxiety in students require them to confront these challenges with confidence and optimism. The anxiety experienced by students appears to be influenced by several factors, one of which is academic self-efficacy. According to Richardson and colleagues (cited Nielsen, et al., 2018), academic self-efficacy is an individual's belief in their ability to master motivation, cognition, emotions, behaviors, and social resources to achieve specific academic outcomes. Students with high levels of academic self-efficacy tend to experience less academic anxiety (Purwanti, et al., 2020; Nie, et al., 2011). Conversely, low academic self-efficacy tends to make students anxious about important tasks (Bandura, cited in Nie et al., 2011). Yang and Wang (2019) explain that academic self-efficacy influences academic behavior in terms of perseverance and determination in facing learning difficulties, as well as affecting emotional states and behavioral initiative.

Furthermore, the anxiety experienced by final-year students is also influenced by the presence or absence of social support from family and friends, as perceived social support can alleviate psychological pressure. Lakey and Cohen (2015) explain that social support can be categorized into two types: received social support and perceived social support. Received social support focuses on the support received by an individual, while perceived social support places greater emphasis on an individual's perception of the social support they receive. Social support can also originate from various sources, including significant others that are family, and friends.

Utami and Sawitri (2016) elucidate that a student's academic life is closely related to the support they receive. Social support from significant figures such as professors and peers are crucial for students in their academic pursuits. The perceived or received social support by students can foster a perception between the provider and recipient of support, potentially triggering an enhancement of students' self-efficacy (Utami & Sawitri, 2016). Adler-Constantinescu, et al. (2013) demonstrate that the perception of social support enhances self-efficacy. However, it's important to note that this research is limited to self-efficacy in a general sense and does not specifically address academic self-efficacy.

### **Rationale of the Study**

Previous studies have predominantly explored the relationship between two variables, such as perceived social support and academic self-efficacy (El-Sayed, et al., 2021; Zhao et al., 2023). Additionally, researchers have investigated the influence of perceived social support on academic anxiety among final-year students in particular (Özmete & Pak, 2020; Purwanti et al., 2020; Zhao et al., 2022). Other researchers have found the impact of academic self-efficacy on academic anxiety among students (Huerta, et al., 2017; Purwanti et al., 2020; Thamrin, et al., 2019). However, there are also previous studies that have examined anxiety as a predictor of students' self-efficacy (Perepiczka, et al., 2011; Morales & Pérez-Mármol, 2019).

While many studies have examined each of the variables separately, there is a lack of research on the underlying mechanisms that govern the relationship between these three variables. In other words, to the best of our knowledge, there have been limited studies that combine all three variables or investigate academic self-efficacy as a mediator between perceived social support and anxiety. Considering that the concept of perceived social support is crucial in various academic issues, including academic anxiety, this study aims to investigate whether perceived social support influences academic anxiety through academic self-efficacy.

### **Study Aim and Hypotheses**

This study aims to examine and explain the influence of perceived social support on student anxiety, with academic self-efficacy serving as the mediator. Therefore, the research hypothesis is formulated as follows: "There is an influence of perceived social support on the anxiety of final-year undergraduate students with academic self-efficacy as a mediator."

## **METHODS**

### **Design**

This study utilized a cross-sectional survey design. With this method, data were collected simultaneously using an online questionnaire to examine the influence of perceived social support on the anxiety of final-year students, with academic self-efficacy as the mediator.

### **Participant and Procedure**

The selection of this research participants was carried out using the purposive sampling method. The participants were chosen based on specific criteria in alignment with the research objectives. The study included 80 undergraduate students from various universities in several cities in Indonesia (Yogyakarta, Surabaya, Semarang, and Jember). The participants consisted of 49 female and 31 male students. Furthermore, the participants varied in terms of their living arrangements (e.g., living in dormitories, with their parents, etc.). Prior to completing an online questionnaire, participants provided their informed consent to participate in this research.

### **Instruments**

#### ***Academic Stress***

Pada In this study, student anxiety was measured using the General Anxiety Disorder-7 (GAD-7) scale developed by Spitzer, et al. (2006). The GAD-7 assesses an individual's level of anxiety, encompassing feelings of restlessness, continuous mental pressure, excessive worry about various things, agitation, easy irritability, and fear. In this research, the GAD-7 was translated independently by the researcher and its content validity was assessed through expert judgment by a psychology professor who provided feedback on the items and the Likert scale adaptation. The GAD-7 employed a Likert scale that was modified from a 4-point scale to a 5-point scale, with values of 1 (not at all), 2 (only a few days), 3 (only 1 week), 4 (more than 1 week), and 5 (almost every day). A higher anxiety score indicates a greater tendency for students to experience anxiety. The anxiety measurement instrument in this study demonstrated good reliability with a Cronbach's Alpha of .878.

#### ***Academic Self-efficacy***

In this study, academic self-efficacy was assessed using the Academic Self-Efficacy Scale (ASES), which was developed by Sachitra dan Bandara (2017) and administered to undergraduate students at the first level (S1). The ASES instrument measures the level of self-confidence pertaining

to academic activities, comprising a total of 20 items. The version of ASES employed in this research is an adapted version in the Indonesian language, previously utilized in a study conducted by Pratiwi in 2020. Examples of items included in the ASES instrument encompass statements such as "I am capable of responding to questions during lectures" and "I am capable of expressing my opinions when I do not understand the course material." Responses were assessed using a 5-point Likert scale, where score 1 = "very unsure", 2 = "unsure", 3 = "neutral", 4 = "sure", and 5 = "very sure." The reliability of this measurement instrument was assessed and yielded a Cronbach's Alpha coefficient of .828.

### ***Perceived Social Support***

The assessment of social support in this study was conducted using The Multidimensional Scale of Perceived Social Support (MSPSS), originally developed by Zimet, et al. (1988). The researchers reviewed the items from the original English-language scale and obtained permission to use the same scale, which had also been validated by Pratiwi (2020). The MSPSS utilized in this research comprises three distinct dimensions, encompassing support from family, friends, and significant others. Examples of items from the family dimension of the MSPSS include statements such as "My family really tries to help me", from the friend's dimension "I can rely on my friends when I have problems," and from the significant others dimension "There are people around me to share my joys and sorrows". Responses to the MSPSS were collected using a 5-point Likert scale, where 1 = "strongly disagree", 2 = "disagree", 3 = "neutral", 4 = "agree", and 5 = "strongly agree". The reliability of this measurement instrument was deemed acceptable, as indicated by a Cronbach's Alpha coefficient of .886.

### **Data Analysis**

Data The data in this study were subjected to quantitative analysis. Data analysis for hypothesis testing employed mediation analysis with bootstrapping due to the limited number of study participants, which did not reach 100 (N = 80). Resampling was conducted 1000 times using bootstrapping to generate new simulated data. The statistical data analysis process comprised three stages: descriptive statistical analysis, assumption testing, and hypothesis testing. We processed the data using an open-source statistical program, namely JASP version 0.14.1.

## **RESULTS AND DISCUSSION**

### **Results**

The participants in this study were categorized based on age, gender, semester, place of residence, and the source of anxiety related to their experience as senior undergraduate students pursuing a undergraduate degree (S1). On average, the participants were 22.087 years old (M = 22.087) and were in 8<sup>th</sup> semester (M = 8.175). Furthermore, there were more female participants (N=49) than male participants (N=31). Most of them experienced anxiety related to their final projects or theses (N=72). Many of the research participants resided either with their parents (N=38) or in rented accommodations (N=35).

We conducted a test of normality using the residual model, as observed from the output of the Standardized Residuals Histogram, to assess the distribution of data. The results of the normality test indicate that the data closely approximate a value of 0, suggesting that the data follows a normal distribution (see Figure 1).

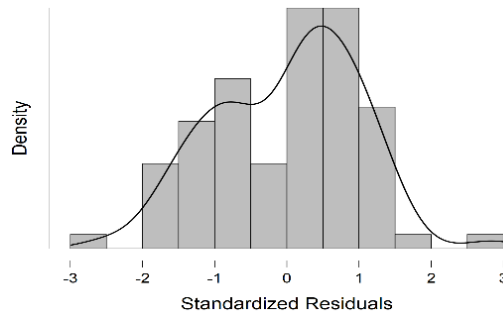


Figure 1. Normality Test

Furthermore, a test for multicollinearity was conducted to assess whether there is any correlation among the independent variables. This was done by examining the Variance Inflation Factor (VIF), and if the VIF values are less than 10 ( $VIF < 10$ ), it can be concluded that multicollinearity is not exist (Hair, et al., 2019). The results of the multicollinearity test indicate that perceived social support and academic self-efficacy have VIF values of 1.295 ( $VIF < 10$ ), thus suggesting that there is no multicollinearity between these two variables, see Table 1.

The results of the mediation analysis (mediator variable) were assessed based on a p-value less than .05 ( $p < .05$ ), indicating a significant influence of the independent variable on the dependent variable. However, because the mediation analysis (mediator variable analysis) was conducted using bootstrapping, determining whether there is a significant change in the relationship between the independent variable and the dependent variable involves examining both the p-value ( $p < .05$ ) and the 95% confidence interval.

Following the bootstrapping resampling (see to Table 2), it can be observed that academic self-efficacy shows a significant mediating role in the influence of perceived social support on student anxiety ( $p = .017$ ,  $p < .05$ ) with the 95% confidence interval for both the lower and upper bounds (-.014 to -.003). Conversely, perceived social support does not have a significant direct effect on student anxiety ( $p = .852$ ,  $p < .05$ ), as the 95% confidence interval for the lower bound is negative (-.022) and for the upper bound is positive (.033) concerning student anxiety.

Additionally, the R-square ( $R^2$ ) value indicates that 10.2% of the variance in anxiety among senior undergraduate students can be explained by perceived social support. This suggests that

Table 1. Multicollinearity Test

Coefficients						Collinearity Statistics		
Model		U	SE	S	t	p	Tolerance	VIF
H <sub>0</sub>	(Intercept)	22.462	.732		30.698	< .001		1.295
H <sub>1</sub>	(Intercept)	37.312	5.307		7.030	< .001		
	Total ASE	-.218	.081	-.330	-2.686	.009	.772	
	Total PSS	.017	.091	.022	.183	.855	.772	

Table 2. Moderating Variable Analysis Using Bootstrapping

Direct effects	Estimate	SE	z-value	p	95% Confidence Interval	
					Lower	Upper
Total PSS→Total Anxiety	.003	.014	.186	.852	-.022	.033
Indirect effects	Estimate	SE	z-value	p	Lower	Upper
Total PSS → Total ASE → Total Anxiety	-.018	.007	-2.386	.017	-.041	-.003
Total PSS → Total Anxiety	-.015	.013	-1.221	.222	-.042	.012

Note. Delta method standard errors, bias-corrected percentile bootstrap confidence intervals, ML estimator

Table 3. Effect Size Perceived Social Support

Variable	R <sup>2</sup>
Total Anxiety	.102
Total ASE	.228

Table 4. Mean, Standard Deviation and Bivariate Correlation Between Variables

Variable	Mean	SD	PSS	ASE	Anxiety
PSS	3.730	.282	-	-	-
ASE	3.578	.430	.478**	-	-
Anxiety	3.209	.411	-.135	-.319**	-

perceived social support does not have a significant impact on student anxiety because it only provides a small effect size on the level of student anxiety (see Table 3).

Table 4 reveals that perceived social support has a p-value of  $< .001$ , indicating a significant correlation between perceived social support and academic self-efficacy. Furthermore, with a correlation coefficient of .478, it is evident that there is a positive correlation between perceived social support and academic self-efficacy among students. Additionally, academic self-efficacy exhibits a p-value of .004 ( $p < .005$ ) and a correlation coefficient of  $-.319$  with anxiety. This implies a negative correlation between academic self-efficacy and student anxiety.

## Discussion

This study examined the role of academic self-efficacy as a mediator in the relationship between perceived social support and anxiety levels among senior undergraduate students pursuing their undergraduate's degrees. The findings of this study indicate that academic self-efficacy can act as a full mediator in the relationship between perceived social support and the anxiety levels of senior undergraduate students. In other words, perceived social support significantly influences the anxiety levels of senior undergraduate students through their academic self-efficacy. This result can be explained through the lens of social cognitive theory. This theory posits that an individual's evaluation of their external environment can impact their self-efficacy, as elucidated by (Yang & Wang, 2019). In this context, the perceived social support received from the external environment, such as family, school, or friends, can affect an individual's cognition regarding their capabilities, i.e., their academic self-efficacy. When someone believes that they can receive support in overcoming learning difficulties from school, family, or friends, they will have higher self-confidence in facing academic challenges (Yang & Wang, 2019).

This study also indicates that the lack of a significant relationship between perceived social support and academic anxiety may be attributed to several factors. The type or source of social support received can have varying effects on academic anxiety. Situmorang (2019) explained that social support from the family has a more significant influence on reducing students' academic anxiety, whereas peer support does not significantly affect academic anxiety. Additionally, there are other factors beyond social support that can influence academic anxiety. Rahmawati, (2019) pointed out that some students still exhibit anxiety symptoms because they lack self-confidence, experience restlessness, and excessive fear, even though they receive support from friends, romantic partners, and even their families. Pamungkas (2020) demonstrated a correlation between personality types and academic anxiety. Introverted students tend to experience more academic anxiety compared to extroverted students. This is because introverted students are often more reserved, have difficulty adapting to change, and tend to overthink. On the other hand, extroverted students are more adaptable and open to change, particularly when facing challenges related to their final projects.

Although social support may not directly reduce anxiety in students, it does influence their self-efficacy (Situmorang, 2018). When students have strong academic self-efficacy, their levels of anxiety can decrease (Purwanti et al., 2020; Warshawski, et al., 2019). High academic self-efficacy, or confidence in their abilities, enables them to face challenging situations with optimism and resilience because they believe they can handle them (Latif & Efendi, 2017). Good or high self-efficacy leads them to confront task demands continuously. In contrast, students with low self-efficacy tend to avoid challenges because they are uncertain about their ability to cope, which can lead to anxiety (Rustika, 2016). Students with low self-efficacy tend to avoid demands or problems because they perceive the challenges they face as threats and focus more on the possibility of failure (Shofiah & Raudatussalamah, 2015; Purwanti et al., 2020).

### **Implications**

This research provides implications both theoretical and practical significance. From a theoretical standpoint, the study illustrates that perceived social support plays a substantial part in shaping academic self-efficacy. Moreover, academic self-efficacy has a role in mitigating academic anxiety. On a practical level, the study's outcomes carry significant implications within the realm of higher education. Institutions of higher learning can play a role in augmenting perceived social support for students by implementing supportive programs and orientation strategies that facilitate students' adjustment to the academic milieu. Additionally, efforts aimed at enhancing academic self-efficacy should encompass approaches centered around student learning, positive feedback provisions, and the cultivation of academic skills.

### **Limitations and Future Research**

This study has several limitations which can then be used as directions for future research. First, the generalizability of the findings may be limited due to the study's focus on a relatively small sample size, which may not adequately represent the broader student population. To enhance the generalizability of findings, future research can involve a more diverse and larger sample size, encompassing various demographic groups, educational levels, and institutions. Second, the utilization of a quantitative survey cross-sectional design in this study may restrict the ability to establish causal relationships among variables. Therefore, conducting longitudinal studies would be valuable to explore the causal connections and the relationships among variables over time that offer a more dynamic understanding of the phenomenon. Third, while the study reveals a full-mediating role of academic self-efficacy in the relationship between perceived social support and academic anxiety, the complex nature of psychological factors involved may not be fully captured in this study, indicating a need for complementary qualitative investigations to provide a more comprehensive understanding of the underlying mechanisms.

### **CONCLUSION**

In summary, this study establishes that academic self-efficacy plays a pivotal role as a full mediator in the connection between perceived social support and academic anxiety within the student population. These findings highlight the intricate interplay of psychological factors that underlie the relationship, emphasizing the significance of bolstering students' self-belief to alleviate academic stress. Therefore, enhancing self-efficacy could hold the key to fostering a more supportive and resilient student academic environment.

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## AUTHOR CONTRIBUTION STATEMENT

All authors have read and approved the final version of the manuscript.

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