

Modeling Academic Self Efficacy and Social Support to Increase Academic Engagement of Health Student Through Academic Resilience as an Intervening

Kiftiyah¹, Ika Andrini Farida¹, Bambang Budi Wiyono¹, Imanuel Hitipeuw¹

¹Program Studi S3 Psikologi Pendidikan Universitas Negeri Malang, Malang, Indonesia

kiftivahsugiarto@gmail.com

Abstract: Academic engagement is currently an important focus in education. This is because the academic engagement that students have will have a significant impact on the abilities of nursing students, especially in providing nursing care and services. Some of the impacts of students' lack of academic engagement result in students experiencing decreased learning achievement and not being active in learning activities in class. The aim of this research is to analyze the influence of self-efficacy and social support on nursing students' academic engagement through academic resilience as an intervening variable. The sample in this study was 590 nursing students from health institutions in Mojokerto Regency who were determined using stratified random sampling. The variables in this research are self-efficacy, social support, academic resilience and academic engagement. Data analysis was carried out using confirmatory factor analysis. The results of the research show that self-efficacy and social support contribute significantly to academic engagement, academic resilience has a significant effect on academic engagement, and self-efficacy and social support contribute significantly to academic engagement through academic resilience. The high academic engagement that health students have during their education will help students to be actively involved in academic and non-academic activities.

Keywords: *academic self-efficacy; social support; academic engagement; academic resilience*

1 INTRODUCTION

The nursing education consists of theoretical and practical education to develop the professional skills and knowledge of nurses. These skills and knowledge are traditionally taught through face-to-face lectures, laboratory instruction, and clinical rotations (Cornine, 2020). However, the COVID-19 pandemic requires alternative strategies to maintain high-quality nursing education. Oducado & Estoque (2021) showed that some nursing skills are easier to teach in person than online. However, two years have passed and the government has re-enacted face-to-face learning. This phenomenon will certainly cause challenges not only for lecturers but also for students as participants in the world of higher education. The very rapid changes in learning methods have caused students to experience academic stress. The academic stress felt by students has an impact on engagement which results in decreased learning motivation during the learning process, such as lack of concentration in learning, understanding of the material, piling up assignments, and interactions with lecturers and peers, decreased interaction between lecturers and students, internet connection disruptions, and cancellation of practice or internships (Hill dan Fitzgerald, 2020). In addition, compared to face-to-face teaching, distance teaching greatly reduces self-efficacy and academic engagement in learning behavior (Zhang dkk., 2023).

In general, engagement or involvement is a psychological state of mental and mental connectivity that brings energy, absorption, and dedication. (Christenson & Reschly, 2012). Although the definition of involvement is still being developed, according to Krause and Coates (2008; Perkmann et al., 2021) involvement is summarized into multidimensional aspects (Lester dkk., 2013). Active Academic Engagement among students during the educational process plays an important role in developing their potential and skills, providing a means to access quality education. This perspective is in line with research conducted by Schaufeli et al. (2002) in the context of students. According to Schaufeli dkk (2002; Ma & Wang, 2022) academic engagement is a positive and satisfying attitude towards work related to the mind characterized by vigor, dedication, and absorption. Engagement refers to a more persistent and pervasive affective-cognitive state that is not focused on a particular object, event, individual, or behavior. Vigor refers

to a high level of energy and mental resilience, a willingness to invest effort in one's work, a lack of fatigue, and persistence despite difficulties. Dedication refers to a strong involvement in one's work, accompanied by a sense of significance, enthusiasm, inspiration, pride, and challenge from the study. Absorption refers to a state of total enjoyment in work characterized by time passing quickly and an inability to detach from work. In addition, students' active involvement in the learning process, which includes attention during class, regular attendance, completion of assignments, participation in exams, and participation in various academic activities (Aslamawati et al., 2015; Sengsouliya et al., 2020). This form of involvement fosters positive impact and a satisfying attitude towards their studies or academics (Casuso-Holgado dkk., 2013; Queirós et al., 2022). Engagement is also a predictor of academic success (Hodge dkk., 2018), academic engagement can promote academic achievement and reduce risky behavioral problems (Li dkk., 2020), increasing positive well-being (Serrano & Vaillo, 2016; Barragan Martin et al., 2021), related to positive personal variables including positive emotions (Oriol dkk., 2016; Myint & Khaing, 2020), and in the long term has an impact on subjective well-being, academic variables, and other positive social variables (Queirós et al., 2022).

Lack of academic engagement is influenced by various factors both within oneself and from the surrounding environment. Such as including social support, self-efficacy in completing academic tasks (Schaufeli & Salanova, 2007; Anwar et al., 2022), Ouweneel dkk (2013; Widowati et al., 2023) put forward several factors that can influence students' academic engagement, namely personal resources, academic self-efficacy, hope, optimism, and social support. Academic resilience are important characteristics that help nursing students, who must engage in intensive learning and clinical practice, to cope with academic stress and adapt to their school and clinical field (Villafañe et al., 2022).

Several research results also show that academic self-efficacy is one of the factors related to academic engagement (Chen et al., 2021). Several research results also show that, academic self-efficacy is because students with high academic self-efficacy have the belief that they are able to complete academic tasks at various levels of difficulty (level), have the belief that their abilities are not limited to a particular activity and situation (generality), and have a strong belief in their strength (strength) to successfully complete the task. Referring to the findings of previous researchers, it can be concluded that self-efficacy has a strong relationship with academic engagement. Academic engagement in several other studies has also been found to correlate with social support. Research conducted by enjadi one of the factors related to academic engagement Galugu dan Baharuddin (2017; Nnadi & Onah, 2023) found a positive and significant correlation between social support and student engagement. Therefore, the higher the social support from parents, teachers, and friends, the higher the student's desire to be actively involved in academic activities. Also supported by the results of research conducted by Sarafino (2002; Anwar et al., 2022) that there is a positive and significant relationship between social support and academic engagement, where the higher the social support received by students, the higher the students' desire to be involved in lecture activities and vice versa.

To overcome obstacles and find solutions throughout their studies and future careers, nursing students are considered to need to have academic resilience (Chow et al., 2020). Research has noted that Academic Resilience is also a potential predictor of learning engagement (Romano et al., 2021). Students with academic resilience tend to demonstrate higher levels of achievement despite risks and adversity (Simões et al., 2021). Romano et al (2021) argued that students with higher levels of academic resilience showed higher levels of learning engagement. Resilient students are those who re-engage and do not give up when faced with difficult academic tasks. However, further research shows that academic resilience is a relevant feature identified in all students who face severe difficulties during their academic path (Agasisti dkk, 2018; Chow et al., 2020). Therefore, the changes and challenges that exist require students to have resilience, where students who have positive resilience can adapt. In addition, positive academic resilience can overcome academic stress and increase engagement.

Based on the results of previous studies as explained above, it shows that academic engagement has a relationship with academic resilience, academic self-efficacy and social support. In addition, it was also found that academic resilience has a relationship with academic self-efficacy and social support. Referring to the findings of previous researchers about the problem of low academic engagement in undergraduate nursing students, it is suspected that it is related to the high and low levels of academic resilience, academic self-efficacy and social support. Therefore, in this study, the researcher wants to test whether academic self-efficacy and social support are significantly related to academic engagement in undergraduate nursing students by placing academic resilience as a mediator.

2 MATERIALS AND METHODS

The method in this study uses a quantitative approach with an explanatory research design and multivariate correlation. The population of this study were all undergraduate nursing students in Mojokerto Regency. The research sample was taken using disproportionate stratified random sampling. with research subjects being 590 students. The research instruments were (1) Academic engagement scale, namely the Utrecht Work Student Survey (UWES-9S) (2) The Academic Resilience Scale (3) Academic Self-Efficacy Scale or ASES (4) Multidimensional Scale Of Perceived Social Support (MSPSS). The data analysis technique used Structural Equation Modeling (SEM) using the AMOS application.

3 RESULTS

1. Validity and Reliability of Instruments

The validity and reliability test of the instrument used is Confirmatory Factor Analysis (CFA). The data analysis techniques used are Path Analysis and Structural Equation Model (SEM). The application used is IBM SPSS Amos. In order to determine the suitability index on the research instrument used, the researcher uses limit criteria based on the chi square value, RMSEA (Root Mean Square Error Approximation), SRMR (Standardized Root Mean Squared Residual), and CFI (Comparative Fit Index)(Kline, 2023).

Tabel 1. Analysis of research instrument reliability

Variable	Significance α
ASE (Academic Self Efficacy)	0,761
SS (Social Support)	0,816
AR (Academic Resilience)	0,772
AE (Academic Engagement)	0,838

Source: Primary research data

From the results of the reliability test, it was found that all research instruments used had good reliability results. The results of the Confirmatory Factor Analysis (CFA) showed that all statements used in each research variable had met the suitability index and there were no omitted research statement items. Hasil analisis jalur

The hypothesis in this study was tested using the IBM SPSS Amos application. This modeling is intended to explain the influence of two independent variables (Academic Self Efficacy and Social Support) on Academic Engagement through Academic Resilience. In order to test this model, the determination of the boundary criteria uses chi square ($p > 0.05$), RMSEA < 0.08 , SRMR < 0.08 , TLI > 0.90 and CFI value > 0.95 (Hair Jr et al., 2021)

Tabel 2. Fit indeks path analysis

Fit Index	
RMSEA	0,072
SRMR	0,022
CFI	0,986
TLI	0,974
X ²	0,068

Source: Primary research data

From the path analysis model, the RMSEA value is $0.072 < 0.08$, the SRMR value is $0.022 < 0.08$, the CFI value is $0.986 > 0.95$, the TLI value is $0.974 > 0.90$, and the chi square value (X²) is $0.068 > 0.05$. Based on these results, the model that has been compiled is stated as appropriate because it has met at least three required criteria. Furthermore, the analysis stage is continued to test the coefficients of each variable.

2. Pengujian koefisien variabel

Tabel 3. Testing the coefficient of each research variable

Variable	Koefisien Jalur	t	P value
Direct influence on academic engagement			
- Academic Self Efficacy	0,226	3,44	0,023
- Social Support	0,283	3,89	0,019
- Academic Resilience	0,350	4,22	0,012
Indirect influence on academic engagement			
- Academic Self Efficacy	0,160	2,88	0,028
- Social Support	0,106	2,16	0,032

Note : $p < 0,05$ = All items were significant

Source: Primary research data

From the coefficient test table of the direct influence variable of academic self-efficacy on academic engagement, the path coefficient value is 0.226, the t value is 3.44 and the p value is 0.023. This shows that there is a positive direct influence between academic self-efficacy in nursing students on academic engagement of nursing students. The higher the academic self-efficacy possessed by nursing students, the more it will affect the academic engagement of nursing students. From the variable coefficient test table, the direct effect of social support on academic engagement obtained a path coefficient value of 0.283, a t value of 3.89 and a p value of 0.019. This shows that there is a positive direct influence between the social support obtained by nursing students on the academic engagement of nursing students. The higher the social support obtained by nursing students, it will have an impact on the academic engagement of nursing students.

From the coefficient test table of the direct influence variable of academic resilience on academic engagement, the path coefficient value is 0.350, the t value is 4.22 and the p value is 0.012. This shows that there is a positive direct influence between academic resilience in nursing students on academic engagement of nursing students. The higher the academic resilience possessed by nursing students, the more it will affect the academic engagement of undergraduate nursing students. From the variable coefficient test table, the indirect effect of social

support on academic engagement through academic resilience as a mediator, the path coefficient value is 0.106, the t value is 2.16 and the p value is 0.032.

This shows that there is a positive indirect influence between social support received by nursing students on academic engagement of nursing students. The higher the social support received by nursing students, the more it will impact the academic engagement of nursing students.

4 DISCUSSIONS

1. The direct influence of academic self-efficacy on academic engagement

From the coefficient test table of the direct influence variable of academic self-efficacy on academic engagement, the path coefficient value is 0.226, the t value is 3.44 and the p value is 0.023. This shows that there is a positive direct influence between academic self-efficacy in nursing students on academic engagement of nursing students. The higher the academic self-efficacy possessed by nursing students, the more it will affect the academic engagement of nursing students. The results of this study are similar to research conducted by Angraini & Chusairi (2022) where the results of the research conducted found a significant influence between academic self-efficacy and academic engagement (p value: 0.000, R²: 0.023). The results of this study are also supported by research conducted by (Putri & Alwi, 2023) where the research results show a positive influence between academic self-efficacy and academic engagement.

Academic self-efficacy is an important thing that nursing students must have. This is because academic self-efficacy will be a driver for nursing students to drive motivation, cognitive abilities, and behavior or actions needed such as choosing activities, situations, and determining how much effort will be exerted and how long the individual will persist in facing problems and academic processes in nursing education. Academic self-efficacy is also one of the factors that influences goals, efforts, activity selection, and persistence in learning activities in class and outside the classroom (practice). When students are confident in their ability to organize and execute steps to achieve their goals (in this case academic achievement) then students will be able to be more committed and tend to maintain their efforts in difficult situations, find the right study partners, a conducive place to study, and be more able to try to create an effective learning environment.

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The results of this study are similar to research conducted by Mulyadi & Saraswati (2020) where the results of the research conducted showed that the social support received by students contributed 9.2% to students' academic engagement

Social support is basically any form of attention that students receive from people around them. Social support from people other than family members of students will be a source of motivation to achieve that students have. Social support can come from fellow students, can come from lecturers or other people around students. This is a normal condition considering that at the age of students, the support given by people around them is a form of attention that students want. Students who are humans in the age category of teenagers will try their best to get the attention of others. When they get this, it is possible for students to achieve good achievements in the lecture process.

2. The direct influence of academic resilience on academic engagement

From the coefficient test table of the direct influence variable of academic resilience on academic engagement, the path coefficient value is 0.350, the t value is 4.22 and the p value is 0.012. This shows that there is a positive direct influence between academic resilience in nursing students on academic engagement of nursing students. The higher the academic resilience possessed by nursing students, the more it will affect the academic engagement of undergraduate nursing students. This research is similar to research conducted by (Marta et al.,

2024) where the results showed a positive influence between academic resilience on academic engagement mediated by achievement motivation.

Nursing students often face a variety of academic challenges, from managing a heavy course load to navigating the complexities of clinical placements. In this context, the concept of academic resilience possessed by students will enable students to face every exam, academic stress and other academic pressures. Academic resilience has effectively become an important factor in determining the academic engagement of undergraduate nursing students and their overall success. Academic resilience is an important quality for nurses, because the nursing profession is inherently stressful. Undergraduate nursing students who have higher academic resilience are less likely to experience stress disorders and are more likely to continue the process of studying as healthy individuals and actively engaged in learning. Academic resilience is also considered the ability to cope with adverse situations, stay focused, and maintain optimism. Academic resilience is an important characteristic for nurses in today's complex health care system.

Academic resilience can play a significant role in undergraduate nursing students' academic engagement, which is a multidimensional construct that encompasses students' cognitive, emotional, and behavioral investments in their studies. Students with high academic resilience are better prepared to meet the challenges of nursing education, demonstrating greater commitment, persistence, and enthusiasm in pursuing their academic achievement. Strategies to enhance academic resilience in nursing students may include developing supportive learning environments, providing access to mentoring and counseling resources, and implementing targeted interventions to build coping mechanisms and promote self-regulated learning. By fostering academic resilience, nursing programs can better prepare their students to thrive in the demanding healthcare field, ultimately contributing to their long-term success and retention in the nursing workforce.

3. Indirect influence of self-efficacy on academic engagement

From the coefficient test table of the indirect influence variable of academic self-efficacy on academic engagement through academic resilience as a mediator, the path coefficient value is 0.160, the t value is 2.88 and the p value is 0.028. This shows a positive indirect influence between academic self-efficacy in nursing students on academic engagement of nursing students. The higher the academic self-efficacy possessed by nursing students, the more it will impact the academic engagement of nursing students.

The results of this study are supported by research conducted by (Yudiani et al., 2023) where the results of the research showed a positive influence between self-efficacy and academic engagement. Similar research conducted by Khoirunnisa & Purwandari (2023) where the research results conclude that the self-efficacy possessed by students will have an influence on the academic engagement possessed by students.

Self-efficacy, as an individual's belief in their own abilities, has been recognized as an important factor in the academic success of nursing students. Research results consistently show that students with higher self-efficacy tend to set ambitious goals, exert greater effort, and persist in the face of challenges. Academic self-efficacy, defined as an individual's belief in their ability to successfully complete academic tasks, has been shown to be positively related to motivation, intrinsic motivation, and academic achievement. Nursing students with high academic self-efficacy tend to face academic challenges with confidence, utilize effective learning strategies, and develop positive attitudes toward learning. The impact of self-efficacy on academic engagement can be understood through its influence on cognitive and behavioral processes. Self-efficacy beliefs contribute to motivation in several ways, including determining the goals people set for themselves, the amount of effort they expend, their persistence in the face of adversity, and their academic resilience to failure. Furthermore, self-efficacy beliefs can foster positive social relationships and support, which can help reduce anxiety and improve stress management. This, in turn, may enhance nursing students' ability to fully engage in academic activities, leading to improved academic performance and a greater sense of academic engagement.

4. Indirect influence of social support on academic engagement

From the coefficient test table of the indirect influence variable of social support on academic engagement through academic resilience as a mediator, the path coefficient value is 0.106, the t value is 2.16 and the p value is 0.032. This shows that there is a positive indirect influence between social support obtained by undergraduate nursing students on the academic engagement of undergraduate nursing students. The higher the social support obtained by undergraduate nursing students, the more it will affect the academic engagement of undergraduate nursing students.

The results of this study are supported by research conducted by (Kusdiyati et al., 2019) where the research results concluded that the social support that students have or receive will help students in their efforts to increase academic engagement while in class.

Nursing students are often faced with various challenges during their academic journey, which can affect their overall performance and success. One important factor that has been shown to play a significant role in nursing students' academic outcomes is their social support. Several studies have highlighted the various sources of stress experienced by nursing students, including academic issues, clinical practice, and social factors. These

stressors can have a detrimental effect on nursing students' physical and mental health, leading to problems such as anger, anxiety, depression, and learning difficulties. However, the presence of a strong social support system can act as a buffer against the negative consequences of stress, ultimately improving nursing students' academic engagement and performance. Social support can come from family, friends, peers, and faculty, which have been shown to play a significant role in helping nursing students cope with the challenges they face. Students who perceive higher levels of social support tend to demonstrate better coping mechanisms, higher levels of academic engagement, and better academic outcomes.

5 CONCLUSIONS

1. From the results of the research conducted, it was found that academic self-efficacy, social support and academic resilience have a direct effect on the academic engagement of undergraduate nursing students.
2. From the results of the research conducted, it was found that academic self-efficacy and social support have an indirect effect on the academic engagement of undergraduate nursing students.

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