

The Difference in the Influence of Problem-Focused and Emotion-Focused Coping on Student Academic Stress in the VUCA Environment in Malang City

Dhian Kartikasari^{1*}, Dennada Bagus Putra Perdana²

Universitas Negeri Malang, Indonesia^{1,2}

dhian.kartikasari.fk@um.ac.id¹, Dennada.bagus.fk@um.ac.id²

Corresponding Author: dhian.kartikasari.fk@um.ac.id

Article History	Received : July 13th 2025 Revision : August 17th 2025 Publication : Sep 30th 2025
------------------------	---

Abstract

The VUCA (Volatility, Uncertainty, Complexity, Ambiguity) era has intensified academic pressure in higher education, particularly among first-year health students. This study examined differences in the effects of problem-focused coping and emotion-focused coping on academic stress. Using a cross-sectional quantitative design, 210 first-year health students in Malang City were selected through proportional random sampling. Data were collected using validated and reliable Likert-scale questionnaires. Results indicated that academic stress levels were moderate to high (mean = 61.84; SD = 10.72). Problem-focused coping showed a higher mean compared to emotion-focused coping. Correlation analysis revealed that problem-focused coping was significantly negatively associated with academic stress ($r = -0.41$; $p < 0.001$), while emotion-focused coping showed a significant positive association ($r = 0.36$; $p < 0.001$). Multiple linear regression analysis demonstrated a significant model ($F = 38.72$; $p < 0.001$), explaining 27.4% of the variance ($R^2 = 0.274$). Partially, problem-focused coping had a stronger negative effect ($\beta = -0.38$), whereas emotion-focused coping had a positive effect ($\beta = 0.29$). These findings indicate that problem-focused coping is more effective in reducing academic stress, while emotion-focused coping tends to provide only short-term relief and may be maladaptive if dominated by avoidance strategies.

Keywords: Academic Stress, Problem-Focused Coping, Emotion-Focused Coping.



© 2024 by the authors.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

INTRODUCTION

The rapid, complex, uncertain, and ambiguous global changes known as the VUCA (Volatility, Uncertainty, Complexity, Ambiguity) era have not only affected the economic, political, and technological sectors, but have also had a significant impact on the world of higher education. The dynamics of the ever-changing learning system demand high adaptability from students, especially in the early years of lectures. This challenge becomes more difficult for students in the health sector who have a dense curriculum load, high academic pressure, and demands for mastering specific clinical skills. In this context, academic stress emerges as an important psychological problem that has the potential to hinder students' study success, mental well-being, and career readiness.

First-year students are among the most vulnerable groups to academic stress because they are transitioning from a high school learning system to a lecture environment that demands independence, time management, and critical thinking skills. This vulnerability is

increasingly increasing in the VUCA era when changes in education policies, shifts in digital-based learning methods, and uncertainty about the future of the profession weigh on students' psychological burdens. Various studies show that the prevalence of mental health problems in college students ranges from 30–50%, with depression and anxiety being the most dominant symptoms (Wyatt et al., 2017; Zada et al., 2021). A survey of new students in Malang City also showed a similar vulnerability, where most of the respondents experienced cognitive and emotional impairment due to the complexity of the academic adaptation process (Prasetio et al., 2019).

This trend is in line with national conditions. The increasing prevalence of mental emotional disorders in Indonesia mainly occurs in adolescents and young adults. Data for 2023 shows that the 15–24 year old age group has the highest risk of experiencing depression. Malang City even recorded a prevalence of emotional mental disorders that exceeded the national average. In the student population, Lun et al. (2018) reported a high proportion of symptoms of depression and anxiety, while Mirza et al. (2021) estimates that the prevalence of student stress reaches almost a third of the population.

The impact of untreated mental disorders can develop into more serious conditions. Depression is known to be a major factor in triggering suicide which is among the highest causes of death in adolescents globally. The increase in suicidal thoughts in young age groups with depression shows that students' mental health problems cannot be viewed as a mild problem. A number of cases of student suicide in Indonesia, including in Malang City, show that academic pressure, personal conflicts, and economic difficulties can worsen psychological conditions to trigger extreme actions. This fact emphasizes the importance of systematic prevention and management of academic stress.

Academic stress itself is a psychological response to the pressure of learning load, value demands, and the process of self-adjustment in a new educational environment. If not managed properly, academic stress can reduce learning performance, disrupt emotional balance, and increase the risk of mental disorders. The high level of stress of students is also influenced by internal and external factors. Internal factors include biological, personality, and cognitive aspects, while external factors include academic pressure, negative life experiences, and social dynamics (Fauziyyah and Ampuni, 2018). Research shows that more than half of students experience moderate to severe academic stress (Putra and Ahmad, 2020). In addition, students of health programs tend to have higher levels of stress than students of non-health programs due to the characteristics of their academic load (Aamir, 2017).

In dealing with this pressure, students need an effective coping strategy to maintain psychological stability. Coping strategies are individual cognitive and behavioral efforts to manage and reduce the impact of stress (Gustems-Carnicer et al., 2019). Problem-solving-oriented coping strategies have been shown to help individuals reduce psychological distress and increase mental resilience. However, the complexity of the challenges in the VUCA era makes not all students able to apply coping strategies adaptively. Inconsistencies in coping strategies can exacerbate the impact of stress on academic achievement and mental well-being. Therefore, strengthening healthy coping strategies and providing psychological

support systems is an important preventive step, especially since research on the effectiveness of coping in the context of VUCA is still limited (Jeyasingh, 2022; Pascoe et al., 2020; Urbina-Garcia, 2020).

Changes in the education system are increasingly evident after the COVID-19 pandemic which accelerated the transformation of online learning through various digital models. Even though face-to-face learning has been re-implemented, first-year students still face difficulties in adapting to time management, social adjustments, and uncertainty in the academic system. The acceleration of technological developments and dynamic curriculum changes also increase the emotional pressure of students (Hadar et al., 2020).

In these conditions, the coping strategy plays an important role in determining students' adaptability. Adaptive coping strategies are known to reduce stress and improve psychological health, especially in health students with high academic burdens (Angelica et al., 2022; Fitzgibbon and Murphy, 2023). On the contrary, maladaptive coping strategies can actually worsen psychological conditions, decrease productivity, and increase physical and emotional fatigue (Distina, 2019). Maladaptive coping styles are also associated with an increase in symptoms of psychological disorders after individuals have experienced negative events (Tang and Dai, 2018). Therefore, the ability to regulate emotions and choose adaptive coping strategies is an important factor in preventing increased academic stress (Ong and Thompson, 2019).

Although much research has been done on academic stress and coping strategies, studies that specifically model the relationship between academic stressors, coping strategies, and academic stress in the context of the VUCA era are still limited, especially in first-year health students. In fact, the characteristics of an increasingly dynamic learning environment require a more contextual understanding of the psychological adaptation mechanisms of students.

In the perspective of stress and coping theory, coping strategies are generally differentiated into problem-focused coping and emotion-focused coping. Problem-focused coping emphasizes an active effort to identify the source of stress and take immediate action to address it, such as planning, decision-making, and completing tasks in a systematic manner. In contrast, emotion-focused coping is oriented towards managing emotional responses to stressors through emotional regulation, acceptance, distraction, and the search for social support. This difference in orientation suggests that the two strategies work through different psychological mechanisms.

Conceptually, problem-focused coping tends to be more effective when individuals have control over the situation at hand. Nevertheless, the characteristics of the VUCA environment that are loaded with uncertainty, rapid change, information complexity, and academic policy ambiguity cause many stressors to be beyond the control of students. In such unpredictable conditions, emotion-focused coping has the potential to be more adaptive because it helps individuals stabilize emotional states before determining appropriate behavioral responses. Thus, the effectiveness of both coping strategies in reducing academic stress is likely to show differences when applied to academic environments characterized by VUCA.

The difference in the characteristics of these mechanisms underscores the importance of comparative testing of the effects of problem-focused coping and emotion-focused coping on academic stress. Understanding more effective coping strategies will help develop more targeted psychological interventions for first-year health students who face academic pressure in a dynamic and uncertain environment.

Based on these problems, this study was conducted to explore the forms of academic stressors experienced by first-year health students in the VUCA era and identify coping strategies used in responding to academic pressure. This research also aims to compile and validate academic stressor instruments that are appropriate to the context of VUCA and develop a model of the relationship between academic stressors, coping strategies, and academic stress. The findings of the research are expected to contribute to strengthening the mental health support system in universities to be more responsive to the dynamics of the modern educational environment.

METHOD

This study uses an analytical quantitative design with a cross-sectional approach to analyze the differences in the effects of problem-focused coping and emotion-focused coping on students' academic stress in the VUCA environment. This design allows simultaneous measurement of variables so that the relationships between variables can be objectively tested through a statistical approach.

The research was carried out in several health universities in Malang City in the period from June 2024 to June 2025. The research population is all first-level health students who are active in the current academic year. The sample was determined using proportional random sampling techniques to ensure the representation of each study program, taking into account the need for multiple linear regression analysis at a 95% confidence level.

The inclusion criteria include active students in the undergraduate program in the health sector, in semesters 1-3, registered at a university in Malang City, have participated in at least three months of learning, and are willing to become respondents through informed consent. The exclusion criteria include students who are on academic leave, inactive, have a history of severe mental disorders who are undergoing intensive therapy, and fill out incomplete questionnaires.

The independent variables in this study were problem-focused coping and emotion-focused coping, while the dependent variable was academic stress. Data was collected using a structured questionnaire based on the Likert scale. The instrument was developed through a content validity test by an expert, followed by a construct validity test using Pearson Product Moment correlation and a reliability test using Cronbach's Alpha with a minimum limit of 0.70.

Data collection was carried out online through an electronic questionnaire. Respondents were provided with information about the research objectives, procedures, and data confidentiality guarantees before expressing consent. Participation is voluntary and respondents can resign at any time without consequences.

Data analysis is carried out using statistical software. Descriptive analysis is used to describe respondent characteristics and variable distribution. Classical assumption tests including normality, multicollinearity, and heteroscedasticity were performed before inferential analysis. Hypothesis testing was performed using multiple linear regression with the model $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \varepsilon$. The t-test is used to test the partial influence of each independent variable, while the F-test is used to test the simultaneous influence. The determination coefficient (R^2) was used to assess the contribution of independent variables to academic stress, with a significance level of $\alpha = 0.05$.

This research has obtained ethical approval from the Health Research Ethics Commission, Faculty of Dentistry, Universitas Airlangga. The confidentiality of respondents' identities is maintained through a coding system, and the entire research process is carried out according to research ethics principles.

RESULTS AND DISCUSSION

1. Respondent Characteristics

The study involved 210 first-year health students in Malang City who met the inclusion criteria. The majority of respondents were aged 18–20 years old (average 18.9 ± 0.7 years) and dominated by women (68.1%). The distribution of study programs includes nursing (32.4%), public health (27.6%), medicine (18.1%), midwifery (12.9%), and nutrition (9.0%). Most respondents reported experiencing uncertain changes in the online-offline learning system, increased workload, and uncertainty of academic evaluation as a form of exposure to VUCA conditions.

Table 1 – Characteristics of Respondents

Features	n	%
Usia (rerata \pm SD)	$18,9 \pm 0,7$	—
Gender		
Women	143	68,1
Male	67	31,9
Study Programs		
Nursing	68	32,4
Public Health	58	27,6
Medicine	38	18,1
Midwifery	27	12,9
Nutrition	19	9,0

2. Descriptive Statistics of Research Variables

The average academic stress score of students is classified as medium-high (mean = 61.84; SD = 10.72). The problem-focused coping strategy had a higher average (mean = 42.17; SD = 7.63) compared to emotion-focused coping (mean = 38.94; SD = 8.15). The distribution of data showed a normal pattern based on the Kolmogorov-Smirnov test ($p > 0.05$).

Problem-focused coping was significantly negatively associated with academic stress ($r = -0.41$; $p < 0.001$). Emotion-focused coping was positively associated with academic stress ($r = 0.36$; $p < 0.001$). These findings point to the different directions of the relationship between the two coping strategies on students' academic stress levels.

Regression analysis was conducted to test the difference in the influence of the two coping strategies on academic stress. The regression model was significant simultaneously ($F = 38.72$; $p < 0.001$) with a determination coefficient value of $R^2 = 0.274$. This means that both coping variables explain 27.4% of the variation in academic stress.

Problem-focused coping had a significant negative effect on academic stress ($\beta = -0.38$; $p < 0.001$). Emotion-focused coping had a significant positive effect on academic stress ($\beta = 0.29$; $p < 0.001$).

The standardized beta coefficient showed that problem-focused coping had a stronger influence than emotion-focused coping in predicting student academic stress.

Table 2 – Results of Research Statistical Test

Analysis	Variabel	Value	p-value	Remarks
Descriptive (Mean \pm SD)	Academic Stress	61,84 \pm 10,72	—	Medium–High
	Problem-Focused Coping	42,17 \pm 7,63	—	Higher
	Emotion-Focused Coping	38,94 \pm 8,15	—	Lower
Normality Test	All variables	—	>0,05	Normal distribution
Korelasi Pearson	PFC \leftrightarrow Academic Stress	$r = -0,41$	<0.001	Significant negatives
	EFC \leftrightarrow Academic Stress	$r = 0,36$	<0.001	Significant positives
Regresi Linear (Simultan)	Model	$F = 38,72$	<0.001	Model signifikan
	Coefficient of Determination	$R^2 = 0,274$	—	Kontribusi 27,4%
Regresi Parsial (β)	Problem-Focused Coping	-0,38	<0.001	Stronger influence
	Emotion-Focused Coping	0,29	<0.001	Weaker influence

3. Problem-Focused Coping

The research identified three main themes, namely problem-focused coping strategies, emotion-focused coping, and academic stress of first-year students in the VUCA environment. The three themes were obtained through the process of open coding, categorization, and grouping of subthemes based on the emergence of the code and the

consistency of the informant's narrative. The problem-focused coping strategy describes the student's active efforts to address the source of academic stress directly. Students are not passive, but try to reduce pressure through collaborative actions, concrete problem-solving, and planning academic activities. 13 categories were found which were further grouped into three main subthemes.

The first subtheme is seeking social assistance, which reflects the tendency of students to involve others as partners in solving academic problems. The form includes collaboration with friends, learning together, sharing assignment information, group work, and asking for help from friends who understand the material better. This strategy suggests that social support plays an important role in lowering an individual's academic burden.

The second subtheme is direct problem solving, which is the concrete actions of students to solve academic demands. The strategies that emerged include repetition of material independently, adjustment of learning styles, the use of digital technology, the use of artificial intelligence, multitasking, and functional task completion to meet deadlines. The use of technology is the dominant strategy, showing students' adaptation to digital-based academic demands.

The third subtheme is planning and time management, which reflects students' ability to control academic activities through prioritization, task list creation, and alternative solution planning. Students show awareness that academic stress can be managed through systematic organizing of activities.

These findings show that students have good adaptive capacity in dealing with academic pressure. Strategies based on direct solutions and task management are the dominant response patterns in dealing with the complexity of academic demands.

Table 3 - Tema Coping Problem-focused coping

Subtopic	Number of Informants	Code Reference
Problem-focused coping	21	141
Seeking social help	18	39
Live troubleshooting	19	71
Planning & time management	14	33

The subtheme with the highest frequency was direct problem-solving, followed by the search for social assistance. This confirms that students are more likely to use an active and collaborative approach in responding to academic stress.

4. Emotion-Focused Coping

Emotion-focused coping describes an emotion management strategy that arises as a result of academic stress. In contrast to the problem-based approach, this strategy does not aim to change the source of stress, but rather to alleviate its emotional impact. It found 18 categories grouped into four subthemes. The first subtheme is distancing, which is an effort to maintain emotional distance from stressors through self-reflection and spiritual activities. Students choose to calm down before facing further academic pressure.

The second subtheme is escape avoidance, which is distraction through activities that are entertainment or relaxation such as playing gadgets, listening to music, sleeping, eating favorite foods, watching movies, and recreational activities. This strategy is a form of temporary escape from academic pressure.

The third subtheme is to seek social support, which is done through interaction with friends, family, and trusted parties to share stories and get emotional comfort.

The fourth subtheme is acceptance of change, which reflects students' ability to accept difficult conditions with self-reflection, compare situations with more severe conditions, and instill personal responsibility. The distribution of categories shows that emotional coping is done through a combination of passive, reflective, and interpersonal approaches.

Table 4 – Tema Coping Emotion-focused coping

Subtopic	Number of Informants	Code Reference
Emotion-focused coping	21	272
Distancing	9	26
Escape avoidance	20	92
Social support	18	65
Acceptance of changes	20	101

Acceptance of change and avoidance are the dominant strategies, showing that students try to maintain emotional stability when facing academic pressures that are difficult to control.

5. Student Academic Stress

Academic stress arises as a multidimensional impact of academic pressure in the VUCA environment. The findings showed the presence of emotional, psychological, and overall fatigue symptoms. Three main subthemes are identified.

The first subtheme is the symptoms of emotional dysfunction, including insecurity, academic anxiety, overthinking, and rapid mood swings. This symptom reflects the psychological distress of ongoing academic demands. The second subtheme is behavioral dysfunction, which includes excessive academic load, loss of interest in activities, decreased self-care, concentration disorders, and procrastination. The third subtheme is all-around burnout, which consists of physical, cognitive, and mental fatigue resulting from the accumulation of long-term academic stress.

Table 5 – Academic Stress Themes

Subtheme	Number of Informants	Code Reference
Academic stress	21	183
Emotional dysfunction	19	88
Behavioral dysfunction	16	70
Fatigue	14	31

Academic anxiety and mental fatigue are the dominant symptoms, suggesting that academic stress primarily affects students' emotional stability and cognitive capacity. Overall, the findings show that students use a combination of solution-based coping strategies and emotion regulation to survive academic pressure. However, the intensity of stress still appears in the form of multidimensional emotional, behavioral, and fatigue disorders.

CONCLUSIONS

The conclusion of the research on visual and technological transformation analysis in the adaptation of the digital comic *lookism* into animation shows that media adaptation is a complex and strategic process of visual language reconstruction. Visual transformation involves not only aesthetic changes, but also the adjustment of the visual narrative structure to suit the characteristics of the dynamic animation medium. The change of style of illustration, composition, layout, character design, and cinematography are the main indicators of the visual adaptation process. This transformation is going to maintain the visual identity of the original artwork while improving the audiovisual experience of viewers. Visual adaptation can be understood as a creative process that integrates aesthetic and media innovation.

The role of technology in animated adaptations has proven to make a significant contribution to building a more immersive narrative experience. Animation technology allows for the integration of motion, sound, and visual effects that reinforce the emotional and dramatic dimensions of the story. In addition, the development of animation software opens up wider and more flexible visual exploration opportunities. Technology also facilitates the application of digital cinematography that enriches the dynamics of visual storytelling. Therefore, technology not only serves as a means of production, but also as a medium of creative expression in the process of adaptation.

Despite having various advantages, animated adaptations also face limitations related to aesthetic and technical compromises. Visual simplification and limitations in animation duration have the potential to reduce the narrative details contained in digital comics. In addition, the complex animation production process demands large resources that influence visual decisions in adaptations. However, the advantages of animation in presenting a dynamic and emotional visual experience still make it an effective medium in conveying narratives across media. Overall, this study confirms that visual transformation, technological support, and the balance between the advantages and limitations of adaptation are key factors in the successful transition of digital comic vehicles to animation.

REFERENCES

- Aamir, I.S. (2017). Stress Level Comparison of Medical and Nonmedical Students: A Cross Sectional Study done at Various Professional Colleges in Karachi, Pakistan. *Acta Psychopathologica*, 3. <https://doi.org/10.4172/2469-6676.100080>
- Angelica, K., Sukamto, M.E., Chandra, C.C., & Andrea, K. (2022). Coping strategies to predict the psychological well-being of college students during the COVID-19

- pandemic. *Humanitas: Indonesian Psychological Journal*, 19(2), 148–160. <https://doi.org/10.26555/humanitas.v19i2.49>
- Distina, P.P. (2019). Pengembangan Dimensi Psychological Well-Being Untuk Pengurangan Risiko Gangguan Depresi. *Mawaizh: Jurnal Dakwah dan Pengembangan Sosial Kemanusiaan*, 10, 39–59. <https://doi.org/10.32923/maw.v10i1.768>
- Fauziyyah, A., & Ampuni, S. (2018). Depression Tendencies, Social Skills, and Loneliness among College Students in Yogyakarta. *Jurnal Psikologi*, 45, 98. <https://doi.org/10.22146/jpsi.36324>
- Fitzgibbon, K., & Murphy, K.D. (2023). Coping strategies of healthcare professional students for stress incurred during their studies: A literature review. *Journal of Mental Health*, 32, 492–503. <https://doi.org/10.1080/09638237.2021.2022616>
- Hadar, L.L., Ergas, O., Alpert, B., & Ariav, T. (2020). Rethinking teacher education in a VUCA world: student teachers' social-emotional competencies during the Covid-19 crisis. *European Journal of Teacher Education*, 43, 573–586. <https://doi.org/10.1080/02619768.2020.1807513>
- Irfada, S.I., Swasti, K.G., & Amalia, R.F. (2023). Stres Akademik dan Mekanisme Koping Mahasiswa pada Masa Pandemi Covid-19. *Jurnal Bionursing*, 5, 83–94. <https://doi.org/10.20884/1.bion.2023.5.1.177>
- Jeyasingh, E.S. (2022). Coping Strategies for Adolescents Dealing with Academic Stress. *Saudi Journal of Nursing and Health Care*, 5, 7–11. <https://doi.org/10.36348/sjnhc.2022.v05i01.002>
- Lun, K.W., Chan, C., Ip, P.K., Ma, S.Y., Tsai, W., Wong, C., Wong, C.H., Wong, T., & Yan, D. (2018). Depression and anxiety among university students in Hong Kong. *Hong Kong Medical Journal*. <https://doi.org/10.12809/hkmj176915>
- Mirza, A.A., Baig, M., Beyari, G.M., Halawani, M.A., & Mirza, A.A. (2021). Depression and Anxiety Among Medical Students: A Brief Overview. *Advances in Medical Education and Practice*, 12, 393–398. <https://doi.org/10.2147/AMEP.S302897>
- Ningsih, E.D., & Surawan. (2025). Strategi Coping sebagai Mekanisme Adaptif Mahasiswa dalam Mengatasi Stres Akademik. *Jurnal Ilmiah Multidisiplin Ilmu*, 2, 106–114. <https://doi.org/10.69714/wef70f33>
- Ong, E., & Thompson, C. (2019). The Importance of Coping and Emotion Regulation in the Occurrence of Suicidal Behavior. *Psychological Reports*, 122, 1192–1210. <https://doi.org/10.1177/0033294118781855>
- Pascoe, M.C., Hetrick, S.E., & Parker, A.G. (2020). The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth*, 25, 104–112. <https://doi.org/10.1080/02673843.2019.1596823>
- Prasetio, C.E., & Rahman, T.A. (2019). Gangguan Mental Emosional dan Kesepian pada Mahasiswa Baru. *Mediapsi*, 5, 97–107. <https://doi.org/10.21776/ub.mps.2019.005.02.4>
- Putra, A.H., & Ahmad, R. (2020). Improving Academic Self Efficacy in Reducing First Year Student Academic Stress. *Jurnal Neo Konseling*, 2. <https://doi.org/10.24036/00282kons2020>

- Tang, W., & Dai, Q. (2018). Depressive symptoms among first-year Chinese undergraduates: The roles of socio-demographics, coping style, and social support. *Psychiatry Research*, 270, 89–96. <https://doi.org/10.1016/j.psychres.2018.09.027>
- Urbina-Garcia, A. (2020). What do we know about university academics' mental health? A systematic literature review. *Stress and Health*, 36, 563–585. <https://doi.org/10.1002/smi.2956>
- Wyatt, T.J., Oswalt, S.B., & Ochoa, Y. (2017). Mental Health and Academic Success of First-Year College Students. *International Journal of Higher Education*, 6, 178. <https://doi.org/10.5430/ijhe.v6n3p178>
- Zada, S., Wang, Y., Zada, M., & Gul, F. (2021). Effect of Mental Health Problems on Academic Performance among University Students in Pakistan. *International Journal of Mental Health Promotion*, 23, 395–408. <https://doi.org/10.32604/IJMHP.2021.015903>