

The Correlation of Coping Mechanisms with Academic Integrity of Medical Students in the Academic Stage

Addinda Khila Ajnah^{1*}, Hikmah Muktamiroh¹, Anisah², Nurfitri Bustamam¹

¹ Faculty of Medicine Universitas Pembangunan Nasional Veteran Jakarta

² Faculty of Medicine Universitas Pertahanan

*Corresponding author. Email: addindakhilaa@upnvj.ac.id

ABSTRACT

Background: One of the main factors affecting academic integrity is stress. During this pandemic, stressors have increased with online learning. The way to deal with stress is called a coping mechanism.

Aims: To identify the relationship between coping mechanisms and the behavior of students in relation to academic integrity in the academic stages of the medical faculty in Jakarta.

Methods: The research design used was a cross-sectional method. This study was conducted using proportional stratified random sampling with a total sample of 128 medical students from 2nd, 3rd, and 4th year students. The data from this study was collected from questionnaire about coping mechanisms and an adaptation from the Roff questionnaire. Data was analyzed using the Chi-Square test.

Results: The majority of the respondents had a moderate score level of academic integrity behavior and emotion-focused coping mechanisms. The Chi-Square test showed that $P=0.102$, which means it was above $P < 0.05$.

Conclusions and Recommendations: There was no correlation between the coping mechanisms of students and their academic integrity behavior in the academic stage. Training is needed to improve academic integrity behavior and to determine appropriate coping mechanisms. There are many types of coping mechanisms, some that focus on problem-solving and some that are emotion-focused, each can be destructive or constructive and are affected by other factors.

Keywords: coping, academic integrity.

1. INTRODUCTION

Medical students are required to have the knowledge and understanding of quality preventive and therapeutic services and start implementing professional behavior, which will be needed when they become doctors [1]. Professionalism consists of attitudes and ethical behavior [2]. Academic professional behavior is expected to reflect the core values of academic integrity, namely, honesty, trust, fairness, respect, and responsibility. Academic integrity is a fundamental commitment that must be upheld by all academics [3]. The results of Muktamiroh's 2015 research on the behavior of students' academic integrity in a medical faculty in Indonesia elucidated that it was dominated by a moderate score level of academic integrity behavior and that the score level of good academic integrity behavior was greater than the score level of poor [4]. The results of Maharani's research in 2016, the highest percentage of academic integrity behavior of medical

students studied in Jakarta, had a moderate level of 68.4% and the level of poor academic integrity behavior was greater than the level of good academic integrity behavior [5].

Research results by Tiong et al. in 2018, of health and non-health academics in Malaysia elucidated that the prevalence of academic misconduct in health academics was higher than in non-health academics. This violation of academic integrity can lead to unprofessional behavior. One of the factors related to academic disintegration is pressure exemplified time management, peer pressure, and academic ability [6].

The body's response to the stress of a condition or event is known as stress [7]. Medical students compared to non-medical professional students have higher stress levels [8]. The most ubiquitous stressors experienced by medical students are academic stress and psychosocial stress [9]. Academic stress can occur because of several significant stressors perceived by students [10].

According to Shirom in 1986 and Mahardhani et al.'s research in 2020, there are four main sources of academic stress for students, namely, stressors related to exams, classroom assignments, learning activities in class, and challenges in balancing campus affairs with family at home [11]. During the COVID-19 pandemic, medical students have been facing a process of significant transformation in the learning process and are required to become agents of education for the community [12]. Modification of the learning methods and learning environment causes academic stress [13].

Every individual who is experiencing stress will attempt to survive and adjust to situations that can cause stress. The way that each individual uses to deal with stress is called a coping mechanism. Each individual has a different way of using coping mechanisms, which can involve using a coping mechanism that focuses on problems (problem-focused coping) or focuses on emotions (emotion-focused coping). Problem-focused coping aims to make immediate changes in the environment, while emotion-focused coping aims to make these feelings more comfortable by regulating emotional responses [14]. Students need to know that the coping mechanism can be constructive or destructive. Constructive coping mechanisms are beneficial for individuals because they can develop their potential and hone their skills when dealing with a problem, while destructive coping mechanisms can cause negative effects for individuals because they avoid stressors without problem solving [15].

Based on the description above, academic demands are one of the main stressor for medical students. Consequently, efforts are needed to overcome these based on the coping mechanisms, so that students remain committed to the principles of academic integrity. Researchers have not yet found research the relationship between coping mechanisms and academic integrity with academic stage medical student research subjects, as of yet in Indonesia. Therefore, researchers were interested in determining whether there was a relationship between coping mechanisms and academic integrity behavior among medical students in the academic stages in Jakarta in 2020.

2. METHOD

2.1 Research Design

The research design used was a cross sectional study with the aim of finding out the relationship between coping mechanisms and academic integrity behavior possessed by medical students in the academic stage at the Faculty of Medicine.

2.2 Population and Sample

The population used in this study consisted of the 2nd, 3rd, and 4th year academic students of the Faculty of Medicine in Jakarta, and the sample was selected according to the research criteria. The inclusion criteria in this study were 2nd, 3rd, and 4th year students at the academic stage of the Faculty of Medicine, while the exclusion criteria of this study were students who had lost one, some, or all of their family members in the last six months (father, mother, sibling); problems in the family such as separation or divorce from parents, violence at home, fights between parents, and quarrels with siblings; chronic diseases that interfere with daily activities such as cancer, chronic pain, and asthma; students aged 18–24 years; students who have the perception that plagiarism is not an academic violation; students who have not passed an English course.

2.3 Sampling Technique

The sample size was 128 respondents. The sampling technique in this study used a probability sampling type of proportional stratified random sampling. The sampling unit in this study the 2nd, 3rd, and 4th year students.

2.4 Data Collection

The data source used in this research was primary data and was obtained by distributing questionnaires via Google Forms to inquire about the coping mechanisms and the academic integrity behavior.

2.5 Research Instrument

The research instrument for coping mechanism variables used in the coping mechanism questionnaire from Lubis' research in 2015 was adapted from "a Ways of a coping" questionnaire, which was tested and declared valid and reliable [16]. The research instrument for the variable academic integrity used the Roff questionnaire and was adapted by Musharyanti, Rahayu and Prabandari in 2016 and Maharani in 2016 and has been tested and declared valid and reliable [17] [18].

2.6 Research Procedure

The research was conducted after approval and ethical clearance from a committee of ethics and research and informed consent of the subject. Respondents filled in the questionnaires through Google Forms. If the respondent approved the informed consent, data was collected. Questionnaires among the respondents comprised pages of approval of informed consent, characteristics of respondents, the questionnaire coping mechanisms, and the questionnaires academic integrity behavior.

2.7 Data Analysis

Data analysis in the study used computerized statistical programs. The data was analyzed to obtain characteristics of the subject with the univariate test. The hypothesis test used an unpaired categorical comparative hypothesis testing with the scale of the variables being nominal and ordinal. The bivariate test used was the Chi-Square test.

3. RESULTS AND DISCUSSION

3.1 Academic Integrity Behavior

Table 1. Description of Respondents' Academic Integrity Behavior Level

Academic Integrity	Frequency	Percentage (%)
Poor	16	12.5
Moderate	94	73.4
Good	18	14.1
Total	128	100

The results showed that the level of academic integrity behavior among respondents was more dominant by the moderate level of academic integrity behavior. This is in line with the results of the research of Muktamiroh et al. in 2015 showing that the highest percentage of medical students in medical faculties in Jakarta had a moderate score on academic integrity behavior, and the level of good academic integrity behavior was slightly higher than those that had poor integrity [1]. The same results were also shown from research by Maharani in 2016 where most respondents had a moderate level of academic integrity behavior, namely, 68.4% [18]. Research of Muktamiroh, Prabandari, and Sastrowijoto in 2014 at one of the medical faculties in Indonesia shows that most behaviors considered not to violate academic integrity are the most behavior students have ever done in the past and students have intended to do it again as behavior that violates academic integrity [4].

3.2 Coping Mechanism

Table 2. Description of Coping Mechanism Types

Coping Mechanism	Frequency	Percentage (%)
Problem-focused	55	43.0
Emotion-focused	73	57.0
Total	128	100

The results showed that the type of coping mechanism most widely used by respondents was the coping mechanism that focuses on emotions as many as 73 people from a total of 128 respondents. This was in line with the Lubis research in 2015 on ners students

who used emotion-focused coping mechanisms (as many as eleven people) and those who used problem-focused coping mechanisms (as many as ten people) [16]. Research by Hanief in 2016 on medical faculty students in Jakarta showed the same results, with 80 people using emotion-focused coping mechanisms [19].

3.3 Coping Mechanism Relationship with Academic Integrity

Table 3. Coping Mechanism Relationship with Academic Integrity

Coping mechanism	Academic Integrity						Total		P value
	Poor		Moderate		Good		n	%	
	n	%	n	%	n	%			
Problem-focused	10	18.2	37	67.3	8	14.5	55	100	0.950
Emotion-focused	12	16.4	51	69.9	10	13.7	73	100	
Total	22	17.2	88	68.7	18	14.1	128	100	

This study found that there is no relationship between coping mechanisms and academic integrity behavior. This means that the behavior of academic integrity can be influenced by other factors that have a greater effect, one of which, according to research by Maharani in 2016, is parenting. Research from Muktamiroh et al. in 2015 showed a correlation of several variables of mental capacity and personality towards perceptions and behavior of academic integrity. According to Evans and Kim in 2013 in Maryam 2017, the type of coping mechanism used depends on the type of stress, and its impact depends on type of stress or problem [20]. Various references have shown that coping mechanisms focusing on emotions can reduce stress levels and are associated with better physical health [10].

4. CONCLUSION

The dominant academic integrity behavior of the Faculty of Medicine in Jakarta was at a moderate level. The most common coping mechanism used by these students was the mechanism that focused on emotions. Therefore, the coping mechanism has no relationship with the academic integrity behavior of students of the Faculty of Medicine in Jakarta.

AUTHORS' CONTRIBUTIONS

Addinda Khila Ajnah conducted the research, analyzed the data, and wrote the journal. Anisah, Nurfitri Bustamam and Hikmah Muktamiroh provided advice on the research and journal writing.

ACKNOWLEDGMENTS

My gratitude goes to the researchers who allowed me to use their questionnaire.

REFERENCES

- [1] Muktamiroh H, Prabandari YS, Sastrowijoto S. Hubungan Antara Kepribadian Dasar dan Kapasitas Mental dengan Persepsi, Perilaku dan Intensi Integritas Akademik. *Hub Antara Kepribadian Dasar dan Kapasitas Ment dengan Persepsi, Perilaku dan Intensi Integritas Akad.* 2015;4(3):101–8.
- [2] Van Luijk SJ, editor. *Professional behaviour: Teaching, assessing and coaching students.* Final report. Project Team Consilium Abeundi. Maastricht: Universitaire Pers Maastricht; 2005.
- [3] Tiong JLL, Kho HL, Mai C-W, Lau HL, Hasan SS. Academic dishonesty among academics in Malaysia: a comparison between healthcare and non-healthcare academics. *BMC Med Educ* [Internet]. 2018 Dec 17 [cited 2020 Jun 22];18(1):168. Available from: <https://doi.org/10.1186/s12909-018-1274-3>
- [4] Muktamiroh H, Prabandari YS, Sastrowijoto S. Eubios journal of Asian and international bioethics. *Eubios J Asian Int Bioeth* [Internet]. 2014 [cited 2020 Oct 6];24(6):125. Available from: http://obssr.od.nih.gov/scientific_areas/methodology/
- [5] Maharani P, Muktamiroh H, Nurhayati L. the Correlation of Parenting Style With Undergraduate Medical Students' Academic Integrity in a Medical School. *J Pendidik Kedokt Indones Indones J Med Educ.* 2018;7(1):14.
- [6] Emmerton L, Jiang H, McKauge L. Pharmacy Students' Interpretation of Academic Integrity. *Am J Pharm Educ* [Internet]. 2014 Aug 15 [cited 2020 Jun 23];78(6):119. Available from: <http://www.ajpe.org/lookup/doi/10.5688/ajpe786119>
- [7] Stress | Mental Health Foundation [Internet]. [cited 2020 Jun 25]. Available from: <https://www.mentalhealth.org.uk/a-to-z/s/stress>
- [8] Amiry A Al. Innovation in healthcare: Exploring mobile apps at pre-hospital and in-hospital settings (with a little focus on Dubai). *Occup Med Heal Aff* [Internet]. 2017 [cited 2020 Jun 24];05(04):38. Available from: <https://www.omicsonline.org/conference-proceedings/health-congress-2017-scientifictracks-abstracts.digital>
- [9] Qamar K, Khan NS, Kiani MRB. Factors associated with stress among medical students. *J Pak Med Assoc.* 2015;65(7):753–5.
- [10] Mahardhani FO, Ramadhani AN, Isnanti RM, Chasanah TN, Praptomojati A. Pelatihan Strategi Koping Fokus Emosi untuk Menurunkan Stres Akademik pada Mahasiswa. *Gajah Mada J Prof Psychol* [Internet]. 2020 May 22;6(1):60. Available from: <https://jurnal.ugm.ac.id/gamajpp/article/view/55253>
- [11] Shirom A. Students' stress. *Higher Education.* 1986; 15. 667-676.
- [12] O'Byrne L, Gavin B, McNicholas F. Medical students and COVID-19: The need for pandemic preparedness [Internet]. Vol. 46, *Journal of Medical Ethics.* BMJ Publishing Group; 2020 [cited 2021 Feb 3]. p. 623–6. Available from: <https://www.bmj.com/lookup/doi/10.1136/medeth-2020-103444>
- [13] Tukayo IJH, Kr Maay J, Sirait P, Nugroho HSW. The Stress Level and its Effect on Learning Achievements of Health Students due to Corona Pandemic in Indonesia. Vol. 11, *Systematic Reviews in Pharmacy.* 2020.
- [14] Nasir, Muhith. *Dasar-dasar keperawatan jiwa: pengantar dan teori.* 2011;
- [15] Thahir A. Andi Thahir. *J Bimbingan dan Konseling* [Internet]. 2014;01(1):11–9. Available from: <https://ejournal.radenintan.ac.id/index.php/konseli>
- [16] Lubis A. Mekanisme Koping, dan Kesiapan Melaksanakan Kolaborasi pada Mahasiswa Profesi Ners dan Mahasiswa Profesi Dokter USU SKRIPSI. 2015 Oct.
- [17] Musharyanti L, Rahayu GR, Prabandari YS. Intervensi Model Pendidikan dan Komunitas tentang Influenza Menurut Mahasiswa Kedokteran dan Keperawatan. *J Pendidik Kedokt Indones Indones J Med Educ.* 2016 Nov 30;5(1):22–8.
- [18] Maharani P. Hubungan Pola Asuh Orangtua terhadap Perilaku Integritas Akademik Mahasiswa Fakultas Kedokteran UPN “Veteran” Jakarta. 2016;
- [19] Hanief GR. Faktor-faktor yang mempengaruhi mekanisme koping pada proses pembelajaran KBK mahasiswa kedokteran Universitas Pembangunan Nasional Veteran Jakarta tahun 2016. *Repository upnvj.* 2016;
- [20] Maryam S. Strategi Coping: Teori Dan Sumberdayanya. *JURKAM J Konseling Andi Matappa.* 2017;1(2):101.