

Received : 2021-08-28    Revised : 2021-09-25    Accepted : 2021-11-03    Published : 2021-12-27

## The Prevalence of Academic Procrastination among Students at Medicine Faculty Mulawarman University

Deenadearlova Putri Daryani<sup>1\*</sup>, Eka Yuni Nugrahayu<sup>2</sup>, Sulistiawati<sup>3</sup>

<sup>1</sup>Medical Study Program, Faculty of Medicine, Mulawarman University, Indonesia

<sup>2</sup>Mental Health Science Laboratory, Faculty of Medicine, Mulawarman University, Indonesia

<sup>3</sup>Department of Medical Education, Faculty of Medicine, Mulawarman University, Indonesia

\*E-mail: deenadearlovaaaa@gmail.com

---

**Abstract:** Academic procrastination is an act of intentionally postponing completion of assignments and can prevent individuals from starting or finishing assignments. This study aims to describe the prevalence of academic procrastination among students at Medicine Faculty, Mulawarman University. This is a descriptive observational study and the respondents were selected through purposive sampling technique. There were 216 students of 2018, 2019, and 2020 Academic Year at Medicine Faculty selected as the respondents. The primary data were obtained from the questionnaire. The findings revealed that academic procrastination occurred to 55.1% respondents more than the average.

**Keywords:** *Medical students, academic, procrastination, postponing, assignments, university.*

---

### 1. Introduction

Procrastination is an act of intentionally postponing something which can prevent individuals from starting or completing tasks. The general tendency to procrastinate to complete tasks is also known as academic procrastination (Shankar *et al.*, 2017). Students who procrastinate tend to have problems in academic performance. Literature states that procrastination has a negative impact on a student's learning, attitudes, and performance in the academic field (Hayat *et al.*, 2020). Procrastination can also make students lose their competitive spirit in their academic studies (Hussain & Sultan, 2020). Another literature states that procrastination is characterized by the completion of tasks that are past the deadline or low academic scores (Kim & Seo, 2015).

As many as 80-95% of students are involved in academic procrastination (Kim & Seo, 2015). Another study reports a higher prevalence that 97% of students do academic procrastination (Janssen, 2015). The results of a study at Shiraz University of Medical Sciences in Iran showed that procrastination is also occurred in medical students. The most common procrastination involved in writing papers and doing assignments. In this study, it was found that 29.25% of medical students always or nearly always did academic procrastination (Hayat *et al.*, 2020), while the research conducted in Central Park Medical College Pakistan found a higher prevalence of 47% medical students procrastinate their tasks (Shah *et al.*, 2017).

There are two types of factors that can affect the occurrence of procrastination, namely internal and external factors. Internal factors include locus of control and individual personality, while external factors include parenting styles (Reynolds, 2015). In addition, other studies also mention that procrastination can be influenced by an individual's learning environment such as

large degree of freedom in study situation or limited information that can be used by students for self-monitoring which also lead to individual's tendency to procrastinate (Svartdal, 2020). Steel & Ferrari mentions that demographic factors such as gender, residence and age can also influence the occurrence of academic procrastination among individuals (Steel & Ferrari, 2013).

Data on procrastination in medical students are still very limited (Khalid *et al.*, 2019). In Indonesia, research on procrastination in medical students was conducted by Nathasya and Irawaty who found that 45.3% of students engaged in academic procrastination (Nathasya & Irawaty, 2020). However, this study has not explained the correlation between the personality types of medical students and the occurrence of academic procrastination. In East Kalimantan, there has been no research on the relationship of the big five personality with academic procrastination in medical students. At the Faculty of Medicine Mulawarman University, there are five students of the 2014 academic year whose study period ends within six months but still haven't finished their final thesis assignment. This data shows the existence of academic procrastination behavior that occurs in students of the Faculty of Medicine Mulawarman University. This makes the researcher interested in examining the prevalence of academic procrastination in students of the Faculty of Medicine Mulawarman University.

## **2. Materials and Methods**

This research is a descriptive observational study. This research uses primary data. The collection of primary data through the completion of a questionnaire that will be filled out by respondents based on existing instructions and guidance from researchers. The questionnaire used in this study were the *Holmes and Rahe Stress Scale* to assess stress levels and *Procrastination Assessment Scale for Students* (PASS) by Solomon and Rothblum to assess academic procrastination (Solomon & Rothblum, 1984; Holmes & Rahe, 1967). The PASS questionnaire used has been translated into Indonesian and validated by Dluha (2016). The construct validity test used the first order CFA model and obtained a *P-Value* of 0.066 ( $> 0.05$ ), meaning that this model was fit and the existing items were unidimensional or only measured one factor, namely academic procrastination (Dluha, 2016). PASS included 18 items which measured the level of procrastination in six academic domains. Each of these six domains contains three items rated on 5-point Likert-type scales. Sampling is done by purposive sampling. This research was conducted in the Medical Education Study Program of the Faculty of Medicine Mulawarman University. This research lasted for 5 months starting from May 2021 to September 2021.

The inclusion criteria were that the participants were students of the Medical Study Program, Faculty of Medicine, Mulawarman University batch 2018, 2019, and 2020 who were still actively participating in learning activities and were willing to be respondents. The exclusion criteria were students who were being treated with a psychiatrist, students who are experiencing severe stress based on the results of filling out the *Holmes and Rahe Stress Scale* with a total score  $\geq 300$  and students who do not fill out the questionnaire completely. This research has received an ethical feasibility approval letter from the health research ethics committee of the Faculty of Medicine Mulawarman University. The variable examined in this study was the

academic procrastination. The data obtained is tabulated according to frequency, distribution and percentage. Data processing and data presentation were performed using Microsoft Word 2010, Microsoft Excel 2010 and Statistical Product and Service Solution (SPSS) version 22.

### 3. Results and Discussion

This research was an observational analytic study using data from the filling out a questionnaires (Holmes and Rahe Stress Scale and PASS), conducted by students of the Faculty of Medicine at Mulawarman University who were willingly to be respondents. Respondents will be selected according to the inclusion and exclusion criteria set by the researcher.

**Table 1.** Distribution of Age and Gender

<b>Variables</b>	<b>Total (n=216)</b>	<b>Percentage (%)</b>
<b>Age (Years Old)</b>		
18	33	15,3
19	76	35,2
20	72	33,3
21	30	13,9
22	5	2,3
Total	216	100
<b>Gender</b>		
Male	62	28,7
Female	154	71,3
Total	216	100

Source: Primary data, 2021

Based on table 1, the number of samples obtained in this study according to inclusion and exclusion criteria was 216 respondents. The distribution of respondents by age was dominated by 19 years old with 76 students (35,2%) and the distribution of gender was dominated by female with 154 students (71,3%).

**Table 2.** Academic Procrastination

<b>Procrastination</b>	<b>Total (n)</b>	<b>Percentage (%)</b>
Procrastination less than average	97	44,9
Procrastination more than average	119	55,1
Total	216	100

Source: Primary data, 2021

Based on table 2, the results of the analysis of academic procrastination in medical students of Mulawarman University shows that most students do procrastinate more than average. The number of respondents that have procrastination more than average is 119 students (55,1%) and as many as 97 students (44,9%) have procrastination less than average. This is in

line with the results of other studies on Manipal University Malaysia that also found procrastination phenomenon among medical students, showing 32 of 159 respondents (20,1%) were in the high level of procrastination and 37 of 159 respondents (23,3%) were in the medium level of procrastination (Shuen *et al.*, 2021). Procrastination in medical students can be caused by poor planning and goal settings, difficulty in maintaining attention, lack of perseverance in doing assignments, or the lack of ability of students to manage time and assignment (Rabin *et al.*, 2011). In addition, the more fear that can be generated or the effort required to complete a task, the more likely a person is to procrastinate (Rozental & Carlbring, 2014).

**Tabel 3.** Tendency to Procrastinate

Tendency to Procrastinate	Never	Almost Never	Sometimes	Nearly Always	Always
	n(%)	n(%)	n(%)	n(%)	n(%)
Writing a term paper	9 (4,2)	39 (18,0)	130 (60,2)	33 (15,3)	5 (2,3)
Studying for an exam	4 (1,9)	19 (8,8)	106 (49,1)	72 (33,3)	15 (6,9)
Keeping up with weekly reading assignments	6 (2,8)	28 (13,0)	114 (52,8)	53 (24,5)	15 (6,9)
Performing administrative tasks	17 (7,9)	58 (26,9)	99 (45,8)	29 (13,4)	13 (6,0)
Attending meetings	104 (48,2)	72 (33,3)	37 (17,1)	1 (0,5)	2 (0,9)
Performing academic tasks in general	40 (18,5)	53 (24,6)	105 (48,6)	13 (6,0)	5 (2,3)

Source: Primary data, 2021

In this study, the distribution of the frequency of procrastination that occurred in each of the six areas of academic functioning was found. Based on table 3, shows as many as 17.6%, 40.2%, 31.4%, 19.4%, 1.4%, and 8.3% of respondents always or nearly always do academic procrastination in the first to sixth domains of the scale respectively. According to the five possible answers available in each academic area, students mostly choose to answer sometimes in almost all academic areas.

Based on table 3 it also can be seen the number of respondents who practice moderate to high levels of procrastination by calculating the amount of answers for the choices of sometimes, nearly always, and always. In the first academic area, writing a term paper, 77.8% of the respondents did moderate to high academic procrastination. As many as 89.3% of respondents did moderate to high academic procrastination in the area of studying for an exam. In the third area, keeping up with weekly reading, as many as 84.2% of respondents carried out moderate to high academic procrastination. In addition, in the fourth area that is performing administrative tasks, 65.2% of respondents carried out moderate to high academic procrastination. In the fifth area, attending meetings, 18.5% of respondents carried out moderate to high levels of procrastination. In general academic activities, 56.9% of respondents did moderate to high academic procrastination.

The highest frequency of academic procrastination found among students of the Faculty of Medicine Mulawarman University is in writing a term paper, studying for an exam, and keeping up with weekly reading assignments, which are 77.8%, 89.3% and 84.2% of the respondents are at moderate to high levels of procrastination in these three academic areas. Gonzales states that individuals are more likely to engage in more procrastination on tasks that are considered less enjoyable for them. The amount of academic burdens that the students have, this can lead to a tendency for students to prioritize one task over another based on the characteristics of the task that is considered more enjoyable. The three academic areas of reading, writing and taking exams are the types of tasks that are often considered the most unpleasant by students. One of the most disliked characteristics of a task is when a task is considered to be unattractive. In addition, procrastination on certain tasks depends on the presence of boredom, frustration or hatred of the given task (Gonzalez, 2014).

**Table 4.** Having Problematic Procrastination

<b>Having Problematic Procrastination</b>	<b>Never</b>	<b>Almost Never</b>	<b>Sometimes</b>	<b>Nearly Always</b>	<b>Always</b>
	<b>n(%)</b>	<b>n(%)</b>	<b>n(%)</b>	<b>n(%)</b>	<b>n(%)</b>
Writing a term paper	27 (12,5)	57 (26,4)	89 (41,2)	34 (15,7)	9 (4,2)
Studying for an exam	5 (2,3)	19 (8,8)	75 (34,7)	68 (31,5)	49 (22,7)
Keeping up with weekly reading assignments	14 (6,5)	33 (15,3)	91 (42,1)	48 (22,2)	30 (13,9)
Performing administrative tasks	30 (13,9)	60 (27,8)	89 (41,2)	29 (13,4)	8 (3,7)
Attending meetings	69 (31,9)	73 (33,8)	38 (17,6)	17 (7,9)	19 (8,8)
Performing academic tasks in general	40 (18,5)	52 (24,1)	85 (39,3)	27 (12,5)	12 (5,6)

Source: Primary data, 2021

This study found the distribution of procrastination problems experienced by respondents in each of the six areas of academic functioning. Based on table 4, it shows that 19.9%, 54.2%, 36.1%, 17.1%, 16.7% and 18.1% of the respondents stated that procrastination was always or nearly always a problem for them in the first to sixth domains of the scale respectively. Based on table 3, studying for an exam occupying answers of always carried out by respondents only 6.9%, but based on table 4 it can be seen that 22.7% of respondents assess procrastination in this academic area as always a problem for them.

**Table 5.** Willingness to Decrease Procrastination

Willingness to Decrease Procrastination	Do Not Want to Decrease	Almost Never	A Little	Nearly Always	Definitely Want to Decrease
	n(%)	n(%)	n(%)	n(%)	n(%)
Writing a term paper	1 (0,5)	9 (4,2)	41 (19,0)	45 (20,8)	120 (55,5)
Studying for an exam	1 (0,5)	6 (2,8)	22 (10,2)	40 (18,5)	147 (68,0)
Keeping up with weekly reading assignments	2 (0,9)	9 (4,2)	43 (19,9)	40 (18,5)	122 (56,5)
Performing administrative tasks	5 (2,3)	15 (6,9)	51 (23,6)	39 (18,1)	106 (49,1)
Attending meetings	30 (13,9)	25 (11,5)	22 (10,2)	33 (15,3)	106 (49,1)
Performing academic tasks in general	13 (6,0)	24 (11,1)	33 (15,3)	31 (14,4)	115 (53,2)

Source: Primary data, 2021

In this study also obtained the results of how much the respondent's desire to reduce academic procrastination. Based on table 5, it shows that as many as 55.5%, 68.0%, 56.5%, 49.1%, 49.1%, and 53.2% of respondents in this study definitely want to reduce procrastination in the first to sixth domains of the scale respectively.

Based on table 3, this current study found a total 17.6%, 40.2%, 31.4%, 19.4%, 1.4%, and 8.3% of respondents always or nearly always procrastinated in the six academic areas respectively. The results of the procrastination frequency obtained in this study are smaller than the academic procrastination research on medical students at Sabzevar University in Iran conducted by Mortazavi who found procrastination frequencies of 34.8%, 37.1%, 49.9%, 13.8%, 27.6%, and 44.4% in all six academic areas respectively (Mortazavi, 2016). Table 4 shows that 19.9%, 54.2%, 36.1%, 17.1%, 16.7% and 18.1% of the respondents stated that procrastination was nearly always or always problematic for them, while higher results were found in Mortazavi's research, the corresponding figures were 41.9%, 62.4%, 54.4%, 32.8%, 26.3%, and 18.5% respectively (Mortazavi, 2016). Table 5 shows that as many as 55.5%, 68.0%, 56.5%, 49.1%, 49.1%, and 53.2% of respondents in this study want to reduce the procrastination experienced, while in Mortazavi's research obtained fewer results, 43.1%, 54.6%, 42.6%, 41.6%, 32.3%, and 19.3% of respondents who definitely want to reduce their procrastination respectively (Mortazavi, 2016). It can be concluded that academic procrastination was more common in Mortazavi's research and the desire to reduce procrastination behavior was more visible in students of the Faculty of Medicine Mulawarman University.

The difference in the results obtained in this study can be caused by differences in criteria of the sample. In Mortazavi's research which examined the relationship between psychological well-being and the occurrence of academic procrastination, it was found that 30.7% of medical students showed poor psychological conditions (Mortazavi, 2016). Individual with poor psychological well-being is more prone to academic procrastination. This can happen because

procrastination is seen as a strategy used as a temporary relief from stressful thoughts and situations. However, in the end this strategy makes many procrastinators feel overwhelmed, stressed and creates more difficulties if the task at hand is still not completed (Habelrih & Hicks, 2015). In this study, the Holmes and Rahe Stress Scale questionnaire was used as a screening questionnaire for sample selection to exclude medical students who were experiencing severe stress. Muliani, Imam, and Dendiawan stated that stress can cause procrastination (Muliani *et al.*, 2020). This may explain why the sample of Mortazavi experienced higher academic procrastination than the research conducted at the Faculty of Medicine Mulawarman University.

#### **4. Conclusion**

The obtained research results conclude that students of the Faculty of Medicine Mulawarman University are more likely to procrastinate more than the average reaching 55.1%. The most common procrastination found among students of the Faculty of Medicine Mulawarman University is in writing a term paper, studying for an exam and keeping up with weekly reading assignments which accounted for 77.8%, 89.3% and 84.2% respectively.

#### **Acknowledgements**

The researcher expresses her deepest appreciation to dr. Eka Yuni Nugrahayu, Sp. KJ and dr. Sulistiawati, M.Med.Ed as supervisors for their very important suggestions, guidance, and contributions in improving the results of this manuscript.

#### **Conflict of Interest**

All authors of this manuscript certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

#### **References**

- Dluha, M. S. (2017). Skripsi. Pengaruh Perfeksionisme, Achievement Goal Orientation dan Jenis Kelamin terhadap Prokrastinasi Akademik Mahasiswa. Universitas Islam Negeri Syarif Hidayatullah. Jakarta. <http://journal.uinjkt.ac.id/index.php/tazkiya/article/view/11003>
- Gonzalez, A. D. (2014). Ethnic Differences and Reading Ability as a Predictor of Academic Procrastination among Undergraduate Students. (Master's thesis, California State University, Sacramento). <https://www.semanticscholar.org/paper/Ethnic-differences-and-reading-ability-as-a-of-Gonzalez/4a43d1a1e8fc860596eaf05969719ad5e01e38b1>
- Habelrih, E. A., & Hicks, R. E. (2015). Psychological Well-Being and its Relationships Wwth Active and Passive Procrastination. *International Journal of Psychological Studies*, 7(3), page 25-34. <https://doi.org/10.5539/ijps.v7n3p25>
- Hayat, A. A., Jahanian, M., Bazrafcan, L., & Shokrpour, N. (2020). Prevalence of Academic Procrastination Among Medical Students and its Relationship with their Academic Achievement. *Shiraz E-Medical Journal*, 21(7), page 1-7. <https://dx.doi.org/10.5812/semj.96049>

- Holmes, T. H. & Rahe, R. H. (1967). The social readjustment rating scale. *Journal of Psychosomatic Research*, 11(2), page 213-221. [https://doi.org/10.1016/0022-3999\(67\)90010-4](https://doi.org/10.1016/0022-3999(67)90010-4)
- Hussain, I., & Sultan, S. (2010). Analysis of Procrastination Among University Students. *Procedia - Social and Behavioral Sciences*, 5, page 1897-1904. <https://doi.org/10.1016/j.sbspro.2010.07.385>
- Janssen, J. (2015). Academic Procrastination: Prevalence Among High School and Undergraduate Students and Relationship to Academic Achievement [Dissertation, Georgia State University]. [https://scholarworks.gsu.edu/epse\\_diss/103/](https://scholarworks.gsu.edu/epse_diss/103/)
- Khalid, A., Zhang, Q., Wang, W., Ghaffari, A. S., & Pan, F. (2019). The Relationship between Procrastination, Perceived Stress, Saliva Alpha-Amylase Level and Parenting Styles in Chinese First Year Medical Students. *Psychology research and behavior management*, 12, page 489-498. <https://doi.org/10.2147/PRBM.S207430>
- Kim, K. R., & Seo, E. H. (2015). The Relationship between Procrastination and Academic Performance: A Meta-Analysis. *Personality and Individual Differences*, 82, page 26-33. <https://doi.org/10.1016/j.paid.2015.02.038>
- Mortazavi, F. (2016). The Prevalence of Academic Procrastination and its Association with Medical Students' Well-Being Status. *International Journal Of Humanities and Cultural Studies*, 3(2), page 1256-1269. <https://www.ijhcs.com/index.php/ijhcs/article/view/1835>
- Muliani, R., Imam, H., & Dendiawan, E. (2020). Relationship Between Stress Level and Academic Procrastination Among New Nursing Students. *The Malaysian Journal of Nursing (MJN)*, 11(3), page 63-67. <https://doi.org/10.31674/mjn.2020.v11i03.010>
- Nathasya, P. P., & Irawaty, E. (2020). Hubungan Tekanan Psikologis dan Penundaan Akademik (Academic Procrastination) terhadap Prestasi Belajar Mahasiswa Fakultas Kedokteran Universitas Tarumanagara. *Tarumanagara Medical Journal*. 3(1), page 180-187. <https://www.semanticscholar.org/paper/Hubungan-tekanan-psikologis-dan-penundaan-akademik-Nathasya-Irawaty/b9177faa46ff8228536cb68ddc1ac4a13013b551>
- Rabin, L. A., Fogel, J., & Nutter-Upham, K. E. (2011). Academic procrastination in college students: the role of self-reported executive function. *Journal of clinical and experimental neuropsychology*, 33(3), page 344-357. <https://doi.org/10.1080/13803395.2010.518597>
- Reynolds, J., P. (2015). Factors Affecting Academic Procrastination. [Master's thesis, Western Kentucky University]. <https://digitalcommons.wku.edu/cgi/viewcontent.cgi?article=2516&context=theses#:~:text=The%20researchers%20found%20that%20motivation,to%20procrastinate%20on%20academic%20tasks>
- Rozental, A., & Carlbring, P. (2014). Understanding and Treating Procrastination: A Review of A Common Self-Regulatory Failure. *Psychology*, 5(13), page 1488–1502. <https://doi.org/10.4236/psych.2014.513160>
- Shah, S. I., Mumtaz, A., Chughtai, A. S. (2017). Subjective Happiness and Academic Procrastination Among Medical Students: The Dilemma of Unhappy and Lazy Pupils. *PRAS Open*, 1, page 1-7. [https://www.researchgate.net/publication/319036041\\_Subjective\\_Happiness\\_and\\_Academic\\_Procrastination\\_Among\\_Medical\\_Students\\_The\\_Dilemma\\_of\\_Unhappy\\_and\\_Lazy\\_Pupils](https://www.researchgate.net/publication/319036041_Subjective_Happiness_and_Academic_Procrastination_Among_Medical_Students_The_Dilemma_of_Unhappy_and_Lazy_Pupils)



- Shankar, P., Bhat, S., Dwivedi, N., Nandy, A., & Barton, B. (2017). Procrastination Among Basic Science Undergraduate Medical Students in a Caribbean Medical School. *MedEdPublish*, 6, Page 1-11. <https://doi.org/10.15694/mep.2017.000055>
- Shuen, N. S., Goonesinghe, V. U., Le, D. C. W., Sreedran, D., Jayaram, S., & Weeraratne, L. D. (2021). Procrastination and Achievement Motivation Among Undergraduate Medical Students During COVID-19 Pandemic in Malaysia. *Advances in Applied Psychology American Institute of Science*, 4(1), page 15-23. <http://www.aiscience.org/journal/paperInfo/aap?paperId=5310>
- Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, 31(4), page 503–509. <https://doi.org/10.1037/0022-0167.31.4.503>
- Steel, P. and Ferrari, J. (2013), Sex, Education and Procrastination: An Epidemiological Study of Procrastinators' Characteristics from a Global Sample. *Eur. J. Pers*, 27, page 51-58. <https://doi.org/10.1002/per.1851>
- Svartdal, F., Dahl, T. I., Gamst-Klaussen, T., Koppenborg, M., & Klingsieck, K. B. (2020). How Study Environments Foster Academic Procrastination: Overview and Recommendations. *Frontiers in Psychology*, 11, page 1-45. <https://doi.org/10.3389/fpsyg.2020.540910>