

## Differences in Depression, Anxiety and Stress Levels of Freshmen after the Covid-19 Pandemic

Elsy Junilia<sup>1</sup>, Supriyati<sup>2</sup>, Vira Sandayanti<sup>3</sup>, Prida Harkina<sup>4</sup>

<sup>1</sup>(psychology, faculty of health sciences/ Universitas Malahayati, Indonesia)

<sup>2</sup>(psychology, faculty of health sciences/ Universitas Malahayati, Indonesia)

<sup>3</sup>(psychology, faculty of health sciences/ Universitas Malahayati, Indonesia)

<sup>4</sup>(psychology, faculty of health sciences/ Universitas Malahayati, Indonesia)

**ABSTRACT:** Mental health is still one of the health problems that is the center of attention in the world, especially Indonesia. New students have a tendency to have difficulty adapting so that they have the risk of experiencing stress, difficulty concentrating, discomfort and other obstacles in carrying out the learning process. The purpose of this study was to determine the level of depression, anxiety, and stress of Malahayati University students in 2022. The population of this study were students of Malahayati University class of 2022, male and female, using accidental sampling technique with a total sample of 150 students. The scale used is the Depression, Anxiety, Stress Scale (DASS-42) which is adapted into Indonesian. The results showed that most students had a mild level of depression as many as 53 subjects (35.3%), then most of the subjects' anxiety was at a mild level as many as 62 subjects (41.3%), and the stress that the subjects had was at a normal level as many as 60 subjects (40%). Then the results of the *t* test found that there were differences in the levels of depression, anxiety and stress between native students and overseas students in the transition period of the Covid-19 pandemic with a Sig. (2-tailed) <0.05, namely 0.000-0.013 <0.05.

**KEYWORDS** - Level of Depression, Anxiety, Stress, university students, after the pandemic

### I. INTRODUCTION

Students are basically adolescent individuals who are growing up who are starting the stages of independence and freedom. On the other hand, students are individuals who experience a transition period and many changes starting from the way of learning, the learning system to the learning load. Students are required to experience changes without any previous experience, where the higher education environment has more complex demands compared to high school (1). therefore it is considered important to have the ability to adapt to values, culture and ethics as well as the ability to understand the consequences to maintain mental health and obtain better academic performance (2).

The higher education environment requires students to carry out an adaptation process with demands for deeper understanding of the material, having a social environment with diverse cultures, preparing all learning needs independently, variations in learning conditions (attitudes, methods and environment), self-management (motivation, learning ability, methods) and the learning environment (3). New students have a tendency to experience difficulties in adapting so that they have a risk of experiencing stress, difficulty concentrating, discomfort and other obstacles in carrying out the learning process. This condition generally shows a significant positive correlation between academic independence, optimism and ability to cope with stress (4).

Researchers conducted a presurvey with new students in 2022 when they had been more than three months into the lecture process. Students generally conveyed difficulties in adapting, difficulty adjusting to the course material obtained. The material is considered difficult to understand while students have the assumption

that the initial semester only gets basic material like in the previous school. From the results of interviews, preliminary data obtained that there is a significant gap between student expectations and the reality that occurs in the implementation of learning, especially in the aspect of how to deliver material that requires active students, academic assignments and a diverse social environment.

Students of class 2022 are students who are experiencing a transition period from distance learning policies due to the covid-19 pandemic and then returning to the offline and blended learning system. Students for two years followed online learning whose implementation was considered not optimal and showed that there was still uncertainty among teachers to be able to adapt to the digital era (5). some students admitted to experiencing stress during the pandemic because online learning was considered boring (6).

There are many studies that describe and measure the level of anxiety, stress and depression symptoms in students undergoing learning during the co-19 pandemic such as Teguh (7) and Hasanah (8). However, research describing differences in the levels of anxiety, depression and stress of students after the pandemic status has been revoked by WHO is still inadequate. Therefore, researchers are interested in conducting research with a quantitative approach to map the mental health profile of freshmen class 2022 of the Psychology Study Program, Faculty of Health Sciences, Malahayati University.

## II. HEADING S

Mood disorders are psychological disorders in which there is a major disturbance in the scope of mood (an emotion that colors the overall emotional state of an individual that persists for a long period of time) for mood disorders can take the form of cognitive, behavioral, and physical (somatic) symptoms and difficulties in interpersonal relationships. There are two types of mood disorders: depressive disorder and bipolar disorder. Depression according to (9) is a mental disorder with the main symptom of sadness, which is accompanied by other psychological symptoms, somatic disorders and psychomotor disorders within a certain period of time and is classified into affective disorders. Depression usually occurs when the stress experienced by a person does not subside, and the depression experienced is correlated with a dramatic event that has just happened or befallen someone. In everyday usage, the term is usually associated with feelings of sadness, gloom, despair, anguish and unhappiness. People who experience depression generally experience disorders that include emotional, motivational, functional, and behavioral movements and cognition (10).

Everyone can feel sad at some time influenced by events such as the abandonment of a loved one, or personal failures that can sometimes make a person feel unhappy and unable to find a lesson or reason behind an event. Depressive disorders are mood disorders in which individuals suffer from depression (a prolonged state of lack of joy in life). Major depressive disorder (MDD) involves a major depressive episode and has depressive characteristics such as; discouragement and helplessness felt for at least two weeks. According to the National Institute of Mental Health, MDD is the leading cause of disability in the United States (11) as it can cause an individual's daily functioning to be impaired.

Anxiety comes from Latin (anxius) and from German (anst), which is a word used to describe negative effects and physiological stimuli (12). According to the American Psychological Association (APA), anxiety is an emotional state that arises when individuals are under stress, and is characterized by feelings of tension, thoughts that make individuals feel worried and accompanied by physical responses (heart beats fast, blood pressure rises, and so on). According to Peplau (13) there are four levels of anxiety, namely: mild anxiety, moderate anxiety, severe anxiety, and panic.

Ramaiah (14) mentions several factors that show anxiety reactions, namely: environment, suppressed emotions and physical condition. According to a mental health specialist, Dr. Jiemi Ardian, Sp.KJ. in (15), anxiety is due to ignorance in dealing with something new. Meanwhile, according to Nevid (16) some signs of anxiety are:

- a. Physical signs of anxiety: restlessness, nervousness, trembling or shaking hands or limbs, binding sensation around the forehead, sweating, dizziness or fainting, dry mouth or esophagus, difficulty speaking, difficulty breathing, palpitations, trembling voice, cold limbs, difficulty swallowing, stiff neck or back, nausea, cold heat, frequent urination, flushed face, diarrhea, and feeling sensitive, etc.

- b. Behavioral signs of anxiety: avoidance behavior, clinging and dependent behavior, and shaken behavior.
- c. Cognitive signs of anxiety: worrying about something, feeling distracted, excessive worry about the future, belief that something terrible is about to happen (with no apparent explanation), fixation on bodily sensations, hyper-vigilance to bodily sensations, feeling threatened, fear of losing control, inability to cope, thinking that the world is collapsing, thinking that everything is no longer under control, thinking that everything feels very confusing without being able to cope, worrying about many things, feeling jumbled or confused, unable to eliminate intrusive thoughts, worrying about being left alone, and difficulty concentrating.

Stress is defined by the Big Indonesian Dictionary (17) as mental and emotional disturbance or turmoil caused by extrinsic factors. Meanwhile, according to the American Institute of Stress (18), there is no exact definition for stress because each individual will have a different reaction to the same stress. Based on the above definitions, we can conclude that stress is an individual response that has an impact, both positive and negative impacts if the stress cannot be handled. Stress classification can be categorized into three, namely; mild, moderate and severe stress.

### III. INDENTATIONS AND EQUATIONS

This research is descriptive with quantitative methods. The research was conducted at Malahayati University, Bandar Lampung. The research was conducted in June 2023. The population of this study were students who were studying at Malahayati University Lampung. The sample used was 150 samples. Determination of the number of samples in this study using the theory according to Roscoe, 1975 in (19), provides guidelines for determining sample size, namely sample sizes between 30 and 500. The sampling method used is accidental sampling. Samples are students who fill out questionnaires distributed on the researcher's social media. Data collection was carried out with a digital questionnaire instrument using the Google Form platform. The questionnaire used was the DASS (Depression Anxiety Stress Scale) a set of subjective scales established to measure the negative emotional states of depression, anxiety and stress. The DASS 42 was established not only to conventionally measure emotional states, but to further the process of understanding, comprehension, and measurement of any applicable emotional state, significantly usually described as stress. The DASS can be used either by groups or individuals for research purposes. Stress levels on this instrument are normal, mild, moderate, severe, very severe. consists of 42 items, which include 3 sub variables, namely physical, emotional/psychological, and behavioral. The total score of the item statement has a meaning of 0-29 (normal), 30- 59 (mild), 60-89 (moderate), 90-119 (severe), >120 (very severe) (20). The DASS 42 questionnaire is general and can be used on adolescent or adult respondents. The reliability value of this DASS 42 questionnaire is 0.874 (21).

### IV. FIGURES AND TABLES

**Tabel 1**

Demographic Characteristics of Research Subjects

Demografi	n (%)
Gender	
• Male	30 (15%)
• Female	120 (85%)
Place of Residence	
• local students	75 (50%)
• migrant students	75 (50%)

**Tabel 2**  
**Kategorisasi Hasil Penelitian**

<b>categorization</b>	<b>Depression</b>	<b>Anxiety</b>	<b>Stress</b>
Normal	43 (28,7%)	52 (32,7%)	<b>60 (40%)</b>
light	<b>53 (35,3%)</b>	<b>62 (41,3%)</b>	42 (28%)
Medium	45 (30%)	34 (22,7%)	37 (24,7%)
severe	8 (5,3%)	2 (1,3%)	6 (4%)
very severe	1 (0,7%)	0 (0%)	5 (3,3%)
Total	150 (100%)	150 (100%)	150 (100%)

Based on the results of table 1, it shows that most subjects are female, namely 120 subjects (85%). most subjects have a level of depression at a mild level, namely 53 subjects (35.3%), then the subject's anxiety is at a mild level as many as 62 subjects (41.3%), and the stress that the subject has is at a normal level, namely 60 subjects (40%).

## V. CONCLUSION

The transition period not only affects physical health, but also mental health. Most (35.3%) respondents in this study had a tendency to have depression in the mild range. The results of this study are in line with Lameky & Pugesehan's research (22), which shows that most (48.9%) students experience mild depression. Furthermore, based on the results of research on early detection of mental health due to the pandemic in adolescents through the self-reporting questionnaire method (study on the unnes sex care community organization), it was concluded that 63.6% of the total respondents indicated experiencing mental health problems (23). Symptoms of depression in this study are known to increase when compared to the research of Wea et al (24), which showed that 25.6% of STIKES Santu Paulus Ruteng Nursing students experienced mild symptoms of depression. This increase in numbers can be influenced by various factors, one of which is a pandemic that has the potential to have a negative impact on the mental state of students (25). This is supported by Thomas' research (26) which states that 82% of students experience a decrease in mental health conditions due to the implementation of online learning, limited social interaction, and loss of routine.

The results of this study also showed that 62 (41.3%) students experienced mild anxiety. This is in line with Wang et al (27), which states that it is true that students experience anxiety after a pandemic. According to Uliaszek et al (28), that anxiety can be influenced by internal and external factors. Internal factors such as gender, age, education and stressors while external factors such as threats to the self-system and threats to physical integrity. These results are in accordance with the results in the research of Faroh et al (29), namely students still experience anxiety during learning with a percentage of 21.1%. Although the percentage of anxiety is relatively low, anxiety symptoms must be addressed immediately so as not to get worse.

The level of stress experienced by students in this study was at a normal level, namely as many as 60 (40%) students. This is in accordance with the research of Chernomas, & Shapiro (30) which states that the stress level of students is at a normal level, where students in the study show a better maturity of the thinking process which is influenced by coping strategies, internal problems and the ability to manage school life, work and personal problems.

**Tabel 3**  
**Differential Test Results of Depression, Anxiety, and Stress between Students**  
**Native and Migrant Students**

Place of Residence	Mean	T-test	
		df	Sig. (2-tailed)
<b>Depression</b>			
local students	1,81	148	0,013
Migrant student	2,24	147,920	0,013
<b>Kecemasan</b>			
local students	1,63	148	0,000
Migrant student	2,19	145,844	0,000
<b>Stress</b>			
local students	1,87	148	0,000
Migrant student	2,41	147,974	0,000

Based on table 3 shows the level of depression with a sig value of 0.013 <0.05, which means there is a difference in the level of depression between native students and overseas students. In the anxiety and stress variables, the sig value is 0.000 <0.05, which also means that there are differences in anxiety levels and stress levels in native students and migrants. This happens because students experience many changes in their lives such as differences in social environment, differences in cultural background, academic differences. This will have an impact on the psychology of students which can trigger stress. Changes are not only a few hours but can last for days to cause stress, anxiety, and depression (31). Overseas students experience more severe stress than non-migrant students. Overseas students experience difficulties in interacting so that they experience pressure or stressors. This difference includes how to communicate, accent, tone, intonation of speech. This makes anxiety and anxiety when communicating. Students who have anxiety and anxiety will make students less willing to interact with friends of different backgrounds (31). If this continues to happen for a long period of time, it will have an impact on their psychosocial conditions.

Other research also states that local students are more adaptable than overseas students. This is because overseas students tend to have problems in social adjustment, including a lack of desire to recognize the values, norms, or rules of the new environment and a lack of individual acceptance (32). Another study also saw that the degree of stress of new students experienced low stress. This shows that students can minimize the new situation with effective coping (33).

By gender, the proportion of people with poor mental health was found to be higher among females (31%). The results of the above study differ from previous research, which was conducted in Japan in 2019 by Daisuke Nishi. Based on the study, it was found that out of 2450 samples, 27.93% of men had experienced mental disorders, while in women only 16.74% (34). The research is also in line with the results of a previous study conducted on February 2 and 3, 2018 conducted at the Grhasia Yogyakarta Mental Hospital Polyclinic, where the number of visits reached 1919 patients. In research conducted by Stuart in Nofrianto (35), gender differences cause each person to produce different hormones that affect sleep quality which in turn will affect

mental health (36).

Before the pandemic that hit Indonesia, the average number of mental or mental illnesses was more experienced by men, and after the Covid-19 pandemic, it was women who were more vulnerable to mental health problems. In Bimo's 2010 research in (37), gender identity involves awareness, understanding, knowledge, and acceptance as male or female. Women tend to have a better level of sensitivity and sensitivity to a problem experienced compared to a man.

## VI. Acknowledgements

The prevalence of psychiatric problems of freshmen class 2022-2023 at Malahayati University Lampung experienced depression at a mild level of 53 (35.3%), anxiety at a mild level of 62 (41.3%), and stress at a normal level of 60 (40%), with 85% female and 15% male. The groups of psychiatric problems were depressive thinking (77.1%), depressive feeling (65.8%), somatic symptoms (37.3%) and decreased energy (7%). Among the students with psychiatric problems, only 22.5% had come to consult a doctor and only 2.4% had come to a psychologist. Factors associated with seeing a doctor were living in a dormitory (inhibited) and having physical health problems at the time of the health check (1.4 times more frequent). Factors associated with students coming to a psychologist counselor were gender (male 2.2 times more often).

Before the pandemic that hit Indonesia, the average number of mental or mental illnesses was more experienced by men, and after the Covid-19 pandemic, in fact, women were more vulnerable to mental health problems. This is supported by research from Walean et al (38) which found that mental problems, especially anxiety, are more experienced by women than men. Previous systematic review research by Ilyas Mirza in Pakistan also found that the prevalence of mental disorders was more in women (39). In line with systematic review research by Dyrbye who also found that the incidence of psychosocial distress was higher in women (40).

## REFERENCES

- [1.] Salam B. Cara belajar yang sukses di perguruan tinggi. Jakarta: Rineka Cipta; 2004.
- [2.] Xiu-jun Y. The research of feeling of academic success among undergraduates. *China Psychol Sci.* 2009;32(3):718–20.
- [3.] Tian L. The review on learning adaptability of middle and elementary students. *China Psychol Sci.* 2004;27(2):502–4.
- [4.] Chemers MM, Hu L, Garcia BF. Academic Self-Efficacy and First-Year College Student Performance and Adjustment. 2001;93(1):55–64.
- [5.] Charismiadji I. Mengelola Pembelajaran Daring yang Efektif. *Detik News.* 2020;
- [6.] Livana P, Mubin MF, Basthomi Y. Learning task attributable to students stres during the pandemic covid-19. 2020;3(2):203–8.
- [7.] Teguh R, Adji FF, Wilentine V, Usup H, Abertun S. Dampak Psikologis Pandemi COVID-19 Terhadap Mahasiswa di Kalimantan Tengah. *J Teknol Inf.* 2020;10(1):1–10.
- [8.] Hasanah U, Ludiana I, PH L. Gambaran psikologis mahasiswa dalam proses pembelajaran selama pandemi COVID-19. *J Keperawatan Jiwa.* 2020;8(3):299–306.
- [9.] Soetjningsih S. Tumbuh kembang remaja dan permasalahannya. Jakarta: Sagung Seto; 2007. 320.
- [10.] Lubis NL. Depresi dan tinjauan psikologis. Jakarta: Prenada Media Group; 2009.
- [11.] NIMH. National Institute Of Mental Health. 2006;1–2.
- [12.] Muyasaroh H. Kajian Jenis Kecemasan Masyarakat Cilacap dalam menghadapi Pandemi Covid 19. *LP2M UNUGHA Cilacap.* 2020.
- [13.] Peplau E, Rose F De, Reder S, Mittelhäuser M, Scafetta G, Schwaiger M, et al. Development of a chimeric Fab directed against human galectin-3 and validation as an immuno-PET tracer for the sensitive in vivo imaging of thyroid cancer. *Thyroid.* 2020;30(9):1314–26.
- [14.] Ramaiah S. Kecemasan, bagaimana mengatasi penyebabnya. Yayasan Obor Indonesia; 2003.
- [15.] Suminar A. Dokter Jiwa Sebut Kecemasan Terhadap Covid-19 Adalah Adaptasi Normal. [www.suarasurabaya.net](http://www.suarasurabaya.net). 2020.
- [16.] Nevid JS, Rathus SA, Greene B. Abnormal psychology in a changing world. Prentice Hall: Upper Saddle River; 2005.
- [17.] Indonesia KBB. Edisi Ketiga, Pusat Bahasa Departemen Pendidikan Nasional. Jakarta: Balai Pustaka; 2000.

- [18.] Stress AI of. Stress, Definition of Stressor, and What is Stress?. [Internet]. American Institute of Stress. 2010. Available from: <http://www.stress.org/topic-definition-stress.htm>
- [19.] Wicaksono KA. Etika Penggelapan Pajak (Tax Evasion): Perbedaan Persepsi Mahasiswa Ekonomi, Hukum, dan Psikologi. Dr Diss Univ Gadjah Mada. 2014;
- [20.] Lovibond PF. Pergamon The Structure Of Negative Emotional States : Scales ( DASS ) With The Beck Depression And. 1995;33(3):335–43.
- [21.] Martianingsih D. Pengaruh Intensitas Akses Jejaring Sosial terhadap Penurunan Tingkat Stres pada Mahasiswa Ilmu Keperawatan Universitas Brawijaya Malang. Dr Diss Univ Brawijaya. 2013;
- [22.] Lameky VY, Pugesehan DJ. Gambaran Tingkat Depresi, Kecemasan dan Stres Pada Mahasiswa Keperawatan Universitas Kristen Indonesia Maluku di Masa Pandemi COVID-19. J Penelit Kesehat Suara Forikes. 2021;12:76–80.
- [23.] Yusup RM, Musharyanti L. Kesehatan Mental Dan Strategi Koping Mahasiswa Keperawatan Pada Masa Pandemi Covid-19. J Telenursing. 2021;3:636–50.
- [24.] Wea LD, Eka AR, Danal PH. Tingkat Depresi Pada Mahasiswa Program Studi Keperawatan Stikes Santu Paulus Ruteng Tahun 2017. 2017;18–23.
- [25.] Maia BR, Dias PC. Anxiety, depression and stress in university students: the impact of COVID-19. *Estud Psicol.* 2020;37.
- [26.] Thomas E. Coronavirus: Impact on young people with mental health needs. *YoungMinds.* 2020;
- [27.] Wang Z, Yang H, Yang Y, Liu D, Li Z, Zhang X, et al. Prevalence of anxiety and depression symptom , and the demands for psychological knowledge and interventions in college students during COVID-19 epidemic : A large cross-sectional study. *J Affect Disord* [Internet]. 2020;275(1023):188–93. Available from: <https://doi.org/10.1016/j.jad.2020.06.034>
- [28.] Uliaszek AA, Zinbarg RE, Craske MG, Sutton JM, Griffith JW, Rose R, et al. Anxiety , Stress & Coping : An The role of neuroticism and extraversion in the stress – anxiety and stress – depression relationships. 2010;(June 2013):37–41.
- [29.] Faroh A, Purnawan H, Junaidi MM. Tingkat Depresi , Stres , dan Kecemasan Mahasiswa Teknik Elektro selama Pembelajaran Daring. 2023;10(1):1–11.
- [30.] Chernomas WM, Shapiro C. Stress , Depression , and Anxiety among Undergraduate Nursing Students. 2013;10(1):255–66.
- [31.] Mardolina Y. Pola Komunikasi Lintas Budaya Mahasiswa Asing dengan Mahasiswa Lokal di Universitas Hasanuddin. Universitas Hasanudin. 2015;
- [32.] Vidyanindita AN. Perbedaan penyesuaian diri ditinjau dari konsep diri dan tipe kepribadian antara mahasiswa lokal dan perantau di Fakultas Kedokteran Universitas Sebelas Maret. 2016;
- [33.] Maulina B, Sari DR. Derajat Stres Mahasiswa Baru Fakultas Kedokteran Ditinjau Dari Tingkat Penyesuaian Diri Terhadap Tuntutan Akademik. 2018;4:1–5.
- [34.] Nishi D, Ishikawa H, Kawakami N. Prevalence of mental disorders and mental health service use. 2019;
- [35.] Nofriyanto A. Hubungan Karakteristik Psikologis Jenis Kelamin Dengan Frekuensi Kekambuhan Pada Pasien Skizofrenia Di Poliklinik Rumah Sakit Jiwa Grhasia Yogyakarta. Unisa. 2018;
- [36.] Asghari A, Farhadi M, Kamrava SK, Ghalehbaghi B, Nojomi M. Subjective Sleep Quality in Urban Population. 2012;15(2):95–8.
- [37.] Malfasari E, Febtrina R, Herniyanti R. Kondisi mental emosional pada remaja. *J Keperawatan Jiwa.* 2020;8(3):241–6.
- [38.] Walean CJS, Pali C, Sinolungan JS V. Gambaran Tingkat Kecemasan pada Mahasiswa di Masa Pandemi. 2021;13(28):132–43.
- [39.] Mirza I, Jenkins R. Risk factors, prevalence, and treatment of anxiety and depressive disorders in Pakistan: systematic review. 2004;328(April):1–5.
- [40.] Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among US and Canadian medical student. *Acad Med.* 2006AD;4(81):354–73.