

## STRESS LEVEL ANALYSIS IN MEDICAL FACULTY ONLINE LEARNING IN SURABAYA

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### ABSTRAK

Penyebaran COVID-19 yang sangat cepat menyebabkan setiap negara harus bertindak cepat untuk menekan angka penyebaran termasuk penggantian model belajar. Pergantian model pembelajaran konvensional menjadi pembelajaran online menyebabkan stress pada beberapa peserta didik sehingga tidak dapat mengikuti proses kegiatan belajar mengajar dengan baik. Penelitian dilakukan untuk mengetahui tingkat stress pembelajaran online pada mahasiswa angkatan 2017 hingga 2020 Fakultas Kedokteran Universitas Surabaya. Penelitian ini merupakan bagian dari penelitian observasional analitik dengan rancangan penelitian cross sectional. Pada penelitian tersebut digunakan data kuesioner dari penerapan model pembelajaran online terhadap tingkat stress mahasiswa Fakultas Kedokteran Universitas Surabaya. Data yang telah diambil kemudian diolah dengan menggunakan aplikasi SPSS versi 22 dengan menggunakan uji chi-square dan besar sampel ditentukan dengan menggunakan rumus Slovin. Dari hasil penelitian menggunakan chi square didapatkan signifikansi sebesar 0.350 yang memiliki arti bahwa tidak adanya hubungan antar keduanya. Dari data yang ada didapatkan 58% responden berada dalam kategori normal, sedangkan 2% responden termasuk dalam kategori stress sangat parah. Tidak adanya hubungan yang signifikan antar stress pembelajaran model online dengan mahasiswa Fakultas Kedokteran di Surabaya. Hal ini dapat terjadi dikarenakan mahasiswa dapat beradaptasi dengan baik sehingga tidak merasakan adanya beban tambahan dengan pembelajaran secara online dan juga perbedaan stress akademik yang dialami oleh para mahasiswa dapat juga disebabkan oleh perbedaan coping mechanism setiap individu.

Kata Kunci: Stress, pembelajaran online, mahasiswa

### ABSTRACT

*Every nation must move swiftly to stop the COVID-19 virus from spreading because of its rapid dissemination. This includes altering learning models. Some students experience stress when switching from traditional classroom models to online learning, which makes it difficult for them to fully engage in the teaching and learning process. A study was done to find out how stressed out students in the University of Surabaya's Faculty of Medicine from the 2017 to 2020 class were about their online coursework. This study uses a cross-sectional research design and is a component of an analytical observational study. In this study, students' stress levels at the University of Surabaya's Faculty of Medicine were assessed using questionnaire data from the online learning model. The chi-square test and the Slovin formula are used to calculate the sample*

*size once the data has been collected and processed using the SPSS version 22 program. Chi square investigation revealed that the significance between the two was 0.350, indicating that there is no association between them. Based on the available information, it was discovered that 58% of participants fell into the normal stress category, and 2% fell into the really severe stress category. Stress from online model learning is not significantly correlated with students at the Surabaya Faculty of Medicine. This is possible because students can adjust to online learning well and because individual variances in coping methods can also contribute to variations in the amount of academic stress that students experience.*

*Keywords: stress, online learning, student*

## INTRODUCTION

The WHO has classified COVID-19, which was present in Wuhan, China at the end of 2019, as a pandemic. This epidemic affects everyone on the planet. Given how quickly COVID-19 is spreading, every nation must move swiftly to stop the incident's spread. A directive has been released by the Ministry of Education and Culture regarding the implementation of online teaching and learning initiatives, which includes university instruction. Universities must so swiftly convert to an online learning environment<sup>1</sup>.

Online learning is a type of instruction that uses local area networks to facilitate interaction and distribute content. When online learning was first introduced, students responded well<sup>2</sup>. But as time passes, students run into a variety of difficulties. Inadequate internet access, a lack of internet allowance, and other issues can make it difficult to focus during teaching and learning activities<sup>3</sup>.

In developing nations, mental problems such as stress, anxiety, and depression typically affect 10–40% of the population. Anywhere can be a stressful place for an individual, and everyone can experience stress, including young people and the old. Stressful situations are very likely to happen to college students. Academic stress can result from curricular modifications, environmental and conditional changes, and new learning environments. A recent development brought forward by the COVID-19 epidemic is online learning. Students may experience confusion

as a result of these brief transitions, and they may also experience stress due to disruptions or other challenges. Students may experience psychological problems as a result of using an online learning system, making it impossible for them to engage in the teaching and learning process appropriately<sup>4</sup>. According to additional studies, during the COVID-19 pandemic, 0.9% of students reported having severe anxiety, 2.7% reported having moderate anxiety, and 21.3% reported having mild anxiety<sup>5</sup>. The study's goal is to ascertain the degree of stress associated with online learning among Surabaya Faculty of Medicine students enrolled in the 2017–2020 class. The researcher's hypothesis is that it is suspected that there is an influence of the application of online learning on stress levels in students at the Faculty of Medicine in Surabaya.

## METHODOLOGY

This study uses a cross-sectional research design and is a component of an analytical observational study. Data from the model's application can be used in this study to examine how stressed out Surabaya Medical Faculty students are online. by utilizing a stress scale and questionnaire that students, including female students, may complete. Owing to space constraints and the ongoing pandemic, this study was conducted by distributing Google Form media surveys, which participants may complete at any location in accordance with their place of

residence. The study was completed in September of 2021.

## RESULTS AND DISCUSSION

### RESULTS

Students who satisfied the inclusion and exclusion criteria from the Surabaya Faculty of Medicine were the research respondents. The following are the findings of this study: a questionnaire to determine the correlation between stress levels in each Surabaya Medical Faculty class.

**Table 1. Distribution of Stress Frequency by Gender, Age, Generation, and Stress Category**

Stress level	Gender		Age						Class				Frequency	Percentage
	Female	Male	18	19	20	21	22	23	2017	2018	2019	2020		
Normal	40	18	2	8	20	18	6	4	9	19	19	11	58	58%
Mild	21	4	1	5	11	7	1	0	1	10	8	6	25	25%
Medium	6	1	0	1	3	1	2	0	2	3	1	1	7	7%
Severe	7	1	1	0	3	4	0	0	2	3	1	2	8	8%
Very severe	2	0	0	1	0	0	1	0	0	0	0	2	2	2%

Next, the chi-square test is applied to the data that already exists using the SPSS (Statistical Product and Service Solution) version 22 application.

The Slovin algorithm was used to calculate the sample size, and a minimum of 63 respondents were obtained. Informed permission forms were completed by 100 respondents in total, indicating their willingness to participate in the study. Of the 76 responses from the class of 2017 to 2020, the majority were female. In the meantime, 24 male responses were from the 2017–2020 class. There were 37 responses in all, all of them were 20 years of age. There were 19 responders between the ages of 18 and 19, and 44 respondents between the ages of 21 and 23 (table 1-2).

Overall frequency and overall % according to the stress category for the class from 2017 to 2020. The remaining replies fell into the mild, moderate, severe, and extremely severe

categories, with the majority falling into the normal range.

Data reveals that stress levels varied from the class of 2017 to the class of 2020. Of the samples that completed the questionnaire, 58% fell into the normal category, and only 2 respondents (2%)—who were only found in the class of 2020—were in the very severe category.

### DISCUSSION

Stress is a product of an individual's interactions with his surroundings and can have an impact on a variety of facets of his life, including his physical, behavioral, social, and emotional well-being<sup>6</sup>.

Those who satisfied the inclusion criteria were given the DASS (Depression Anxiety Stress Scale) 42 questionnaire, which was used to collect data for this study. According to the DASS, a disorder's severity can be categorized as follows: 0–14 falls into the normal category, 15–18 into the mild category, 19–25 into the moderate category, 26–33 into the severe category, and more than 34 into the very severe category<sup>7</sup>.

The criterion for stress can be categorized into multiple groups. Everybody experiences mild stress occasionally, although it usually only lasts a few minutes to many hours. Increased energy but decreased energy reserves, finishing more classes, feeling weary all the time, and occasionally upsetting bodily functions like the brain or digestive system are all signs of mild stress. When compared to

mild stress, moderate stress can last anywhere from a few hours to many days. It can cause disruptions in sleep patterns as well as memory and attention problems. Severe stress is the last category and can last anywhere from a few weeks to a few years. exhibiting reactions to stress that include elevated heart rate, dyspnea, tremors, heightened anxiety and terror, confusion, and panic attacks easily<sup>8</sup>.

According to the study's findings, 58% of students at the Surabaya Faculty of Medicine reported not feeling stressed at all or being in normal condition, 25% reported mild stress, 7% reported moderate stress, 8% reported severe stress, and 2% reported extremely stressed out.

This is consistent with other studies on online learning analysis of business statistics course data in vocational education, which involved respondents from Bengkalis State Polytechnic applied undergraduate program students majoring in business administration. 52% of respondents fell into the normal stress category, 24% into the mild stress category, 8% into the moderate stress category, 13% into the severe stress category, and 3% into the extremely severe stress category, according to the data. Because students may adjust well and do not experience any additional strain with online learning, a substantial percentage of respondents said they do not feel stressed or are in normal conditions<sup>9</sup>.

Selye claims that the body possesses a universal reaction to stress known as General Adaptation Syndrome, which includes three phases: the alert, resistance, and weariness phases. The body's alert response to a potential threat is known as the alarm phase. A person's reluctance to balance their physiological state against stress-inducing factors is known as the resistance phase. The last phase, known as the tiredness phase, is characterized by prolonged stress that is too great to recover from in order to render the person incapable of handling stress<sup>10</sup>.

When students start to identify the pressures associated with online learning, they enter the alert phase. The second stage is known as the resistance phase; since students are beginning to be expected to learn on their own, social components like face-to-face interaction with professors and other students are becoming less prevalent. But as time goes on, pupils will need to be able to adjust to evolving styles of instruction. There are several ways that students become accustomed to or adjust to using online learning techniques. Fast habituation patterns can also be applied by students to online learning models that instructors or lecturers give. In order to recognize facts, students may be able to make wise decisions. Students' personal social networks can aid in their capacity to filter messages and information. Students need to be able to adapt in order to successfully complete the online model learning process, comprehend it, and choose which knowledge to absorb<sup>11</sup>.

When someone suppresses their stress, they frequently use various coping techniques. Coping is a strategy or endeavor used both behaviorally and cognitively to help a person manage, lessen, and endure their level of stress. When learning online, learners or students may feel stressed. In these situations, they might employ coping strategies to manage or lessen their stress. Psychological and behavioral methods may be involved in this. A person will benefit from and experience less stress if they use an effective stress coping method<sup>12</sup>.

Students at the Faculty of Medicine in Surabaya can achieve 58% of their typical category stress levels from 2017 to 2020 because of the effectiveness of the adaptation approach. Using chi square analysis, the findings of an online learning stress study conducted with Surabaya class 2017–2020 Faculty of Medicine students revealed a significance of 0.350, indicating no association between the two.

Stress in online learning can also result from internal elements specific to each individual, such as the student's beliefs, perspective, and personality. The way that the body reacts to stress can affect a person's behavior, emotions, and thoughts. Reactions may include headaches, sweaty palms, elevated heart rate, and an easy-to-get-tired feeling<sup>13</sup>. Research on students at the Faculty of Medicine in Surabaya demonstrated this; it was shown that 15% (15 respondents) had anxiety nearly often, 18% (18 respondents) experienced anxiety frequently, 43% (43 respondents) experienced anxiety occasionally, and 24% (24 respondents) never experienced anxiety.

The Faculty of Medicine in Surabaya's chi square study on the impact of online learning stress on students' ages revealed a significant result of 0.528, thus it can be determined that the amount of stress associated with online learning was unaffected by the age range of students at the Surabaya Faculty of Medicine, which was 18 to 23 years old.

Previous studies on the stress levels of students taking online courses in business statistics for vocational education provide evidence for this. The findings indicated that there was no correlation between the age of students in the 17–20 age range and their stress levels<sup>9</sup>.

The p-value for the link between the stress level in online learning and the gender of students at the Faculty of Medicine in Surabaya was 0.403. This indicates that there is no statistically significant relationship between the two variables. This is consistent with a 2014 study done at Jember University's Faculty of Medicine that had a p-value of 0.999, indicating that the results are not significant. This is possible because, depending on their particular personalities, both men and women can adjust well to current stressors<sup>14</sup>.

## CONCLUSION

The majority of students at the Faculty of Medicine in Surabaya fall into the normal or not feeling category of stress, according to the results of the data analysis and discussion. Specifically, 58 people (58%), 25 respondents (25%) were classified as having mild stress, 7 respondents (7%) as moderate stress, 8 respondents (8%) as severe stress, and 2 respondents (2%) as very severe stress. Since most students fit into the usual category based on the results, they must make the appropriate adjustments. Effective implementation of the online learning model has resulted in no correlation between the stress level of the students at the Faculty of Medicine in Surabaya

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