Literature Review: Factors Associated with Student Stress Levels in Indonesia During the Covid-19 Pandemic

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Article Information	ABSTRACT
	Introduction: The COVID-19 pandemic has significantly impacted various areas of life, including education; the Ministry of Education and Culture issued circular Number 4 of 2020 by replacing face-to-face learning *online*. Sudden changes cause mental health problems, especially stress in students. This research analyzes factors related to student stress levels during the COVID-19 pandemic. **Method:** This research literature review is from national and international journals that examine risk factors for stress during the COVID-19 pandemic by searching for articles from 2020 to 2023 in Indonesian or English, full text, and free of charge using Google Scholar, Sinta, and ResearchGate databases. Exclusion criteria in article searches are paid articles and not having an ISSN number. **Results**: Factors related to student stress levels are gender, age, number of activities/homework, assignments, and learning load, difficulty in understanding the material, difficulty coordinating group assignments and relationships with classmates, smooth internet access, internet quota requirements, irregular class schedules, different environments between students and lecturers and learning environments, monetary adequacy, history of chronic illness, psychological distress, level of education, semesters, difficulty enjoying free time, feelings of fear that arise for no reason. **Conclusion**: Factors related to student stress levels are from students' internal and external sides. Several research variables show inconsistencies, so further research is needed.

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INTRODUCTION

The COVID-19 pandemic has had a significant impact on society around the world. The COVID-19 outbreak was initially discovered in Wuhan City, China, at the end of 2019 and was identified as having never infected humans. On January 30, 2020, WHO declared the new COVID-19 pandemic a health emergency of international concern (Ministry of Health, 2020). *Coronavirus* is a single-segmented positive-strand RNA virus found in animal species (Daud, 2020). Several sources say this virus originates from bats and can switch

hosts to other mammals, including humans, which can cause mild to severe flu (Asrining, 2020). Symptoms of disease caused by the type of Coronavirus that attacks humans are generally dry cough, shortness of breath, fever, fatigue, aches and pains, stuffy nose, headache, conjunctivitis, sore throat, diarrhea, loss of sense of taste and smell (Wasito, 2020). The health crisis caused by the COVID-19 outbreak has impacted economic, social, educational, and psychological aspects. Various methods have been taken to break the chain of transmission of COVID-19, such as implementing PSBB, changing the school and lecture learning system, and appealing to the public to wear masks. The Ministry of Education and Culture (Kemendikbud) Directorate of Higher Education issued circular Number 4 of 2020 concerning the Prevention of the Spread of Corona Virus Disease (COVID-19), namely that learning which was initially carried out face-to-face (offline) was transferred online, a sudden change. Suddenly, it certainly causes stress. Stress is a human psychophysical phenomenon inherent in every person's daily life (Yusuf, 2018). A person who experiences stress will appear restless, anxious, and irritable, which can interfere with concentration and motivation and trigger depression (Mulyadi, 2017). Continuous stress can drain energy, causing physical, emotional, and psychological fatigue.

Research conducted by Susanti (2021) stated that students' moderate stress level before the pandemic was 68%, and during the pandemic, the stress level was 78% in preparing their final college assignments. The same research conducted by Karyani and Ramadhany (2021) stated that, on the contrary, the stress level of Muhammadiyah University Surakarta students during the pandemic mainly experienced an everyday category of stress of 86%.

Previous research on academic stress levels conducted by Ambarwati (2017) showed that students experienced moderate stress levels at 57.4%, mild levels at 35.6%, and severe stress at 6.9%. Meanwhile, the highest stress was experienced by women, with a moderate stress level of 33.6% and a severe stress level of 4%. Research conducted by Kountul (2018) found that gender has a significant relationship with academic stress, namely a p-value of 0.004 with an OR value of 2.2, meaning that female students experience 2.2 times more stress than men and the influence of peers has a significant relationship to academic stress with a p-value of 0.005 and OR= 2.3.

Hamzah's research (2020) results show a significant relationship between age and academic stress, showing that stress is related to a person's experience in responding to stressors. Meanwhile, course load has a significant relationship with academic stress, with a p-value of 0.045, indicating that students with piling up coursework cause reduced rest time, making them more irritable and dizzy condition. Based on the research background above, several significant factors cause academic stress, and the COVID-19 pandemic conditions add to the psychological pressure on students. So, the author is interested in analyzing themes related to factors related to student stress levels in Indonesia during the COVID-19 pandemic.

LITERATURE REVIEW

Table 1. Literatur Review Sources

No	Peneliti, Tahun	Judul	Jurnal, Volume	Terindeks
1	Bedes, Stephanie B., dkk (2021)	Stress and Associated Factors Among French University Students Under the Covid-19 Lockdown: The Results of The Pms-Cov 19 Study	Journal Of Affective Disorders 283 (2021): 108-114	ResearchGate Q1
2	Bhargav, Madhav dan Lorraine Swords (2022)	The Risk Factors for Covid-19-Related Stress Among College-Going Students	Irish Journal of Pshychological Medicine, Firstview (2022): 1-7	ResearchGate Q1

No	Peneliti, Tahun	Judul	Jurnal, Volume	Terindeks
3	Sari, Sulistya Umie Ruhmana, dkk (2022)	*Penerapan Metode Rough-Ordinal Logistic Regression Untuk Pemodelan Faktor-faktor yang Mempengaruhi Tingkat Stres Mahasiswa dalam Pembelajaran Jarak Jauh*	Journal of Holistic Mathematics Education, Vol. 6, No. 1: 17-28, Juni 2022	Sinta Ristekdikti (Sinta 3)
4	Wahyuni, dkk (2022)	*Faktor-faktor Penyebab Stres pada Mahasiswa Fakultas Keperawatan dalam Menjalani Pembelajaran Jarak Jauh Akibat COVID-19*	Jurnal Ners Indonesia, Vol. 12, No. 2, Maret 2022	Sinta Ristekdikti (Sinta 3)
5	Hamzah, B., dkk (2020)	*Faktor- faktor yang Berhubungan dengan Tingkat Stres Akademik pada Mahasiswa STIKES Graha Medika*	Indonesian Journal for Health Sciences, Vol. 4, No. 2, Halaman 59-67, September 2020	Sinta Ristekdikti (Sinta 4)
6	Harahap, Rahmi N., dkk (2021)	*Analisis Faktor-faktor yang Mempengaruhi Tingkat Stres Mahasiswa Statistika UII Terhadap Pembelajaran Daring Selama Pandemi COVID-19*	Lebesgue: Jurnal Ilmiah Pendidikan Matematika, Matematika dan Statistika Vol. 2, No. 3, Halaman 315-332, Desember 2021	Sinta Ristekdikti (Sinta 4)
7	Yanti, Maya P. dan Nurul R. (2021)	*Pengaruh Pembelajaran Daring Terhadap Depresi, Stres dan Kecemasan Mahasiswa*	Jurnal Muara Pendidikan, Vol. 6, No. 1, 2021	Sinta Ristekdikti (Sinta 4)
8	Hutabarat, Nanik S., dkk (2022)	*Faktor- faktor Penyebab Stres Akademik Mahasiswa Keperawatan Tahun Pertama Selama Pembelajaran Jarak Jauh Di Masa Pandemi COVID-19*	Community of Publishing in Nursing (COPING), Vol. 10, No. 5, Oktober 2022	Sinta Ristekdikti (Sinta 5)

METHOD

This research uses data sources in the form of original articles published in Indonesian and international research journals through electronic databases, namely Google Scholar, Sinta Ristekdikti, and ResearchGate. The keywords used are "Stress level factors," "COVID-19 pandemic", and "Students." by using a combination of conjunctions "and", "with", and "against." Articles searched are limited from 2020 to 2023, Indonesian or English language articles in full-text PDF format, unpaid articles, and research article themes during the COVID-19 pandemic, including Sinta-indexed articles for national journals and Scopus-indexed articles for international journals.

Exclusion criteria in searching for articles are research that is not a factor in stress levels, articles have been published more than the last ten years (before 2013), articles cannot be accessed in total, and for a fee, journals do not have an ISSN number. Based on the established criteria, the following article selection flow diagram is obtained in Figure 1.

A total of 46 pieces of literature were identified in a search using databases on Google Scholar (n= 18), Sinta (n= 25) and ResearchGate (n= 3)

A total of 27 pieces of literature were excluded (duplicated articles n= 2 and descriptive articles n= 25)

A total of 19 pieces of literature were screened

A total of 11 pieces of literature were excluded (does not meet inclusion criteria)
− Research articles not related to the COVID-19 pandemic (n= 7)
− Research articles not indexed by Sinta and Scopus (n=4)

A total of 8 full text pieces of literature were assessed for their suitability for inclusion in the literature review
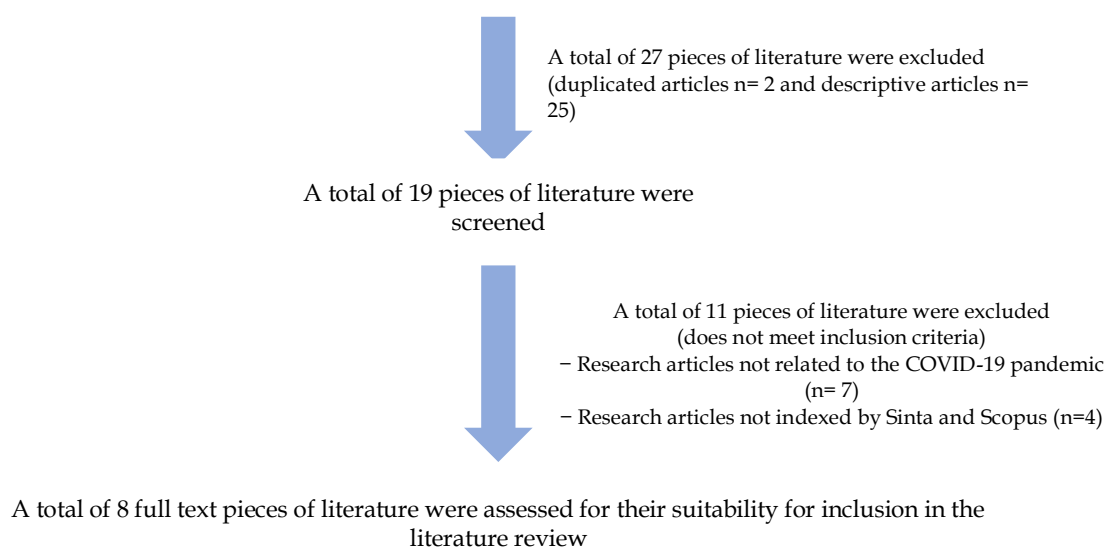
Figure 1. Article selection flow diagram

RESULT AND DISCUSSION

Based on the literature review, eight articles met the research inclusion and exclusion criteria. The selected articles are then analyzed based on the respondent's criteria. The following table shows the results of the analysis of respondent characteristics.

Table 2. Results of Analysis of Respondents' Demographic Characteristics

Characteristics	Researchers							
	Bedes, Stephanie B., dkk (2021)	Bhargav, Madhav dan Lorraine Swords (2022)	Sari, Sulistya Umie Ruhmana, dkk (2022)	Wahyuni, dkk (2022)	Hamzah, B., dkk (2020)	Harahap, Rahmi N., dkk (2021)	Yanti, Maya P. dan Nurul R. (2021)	Hutabarat, Nanik S., dkk (2022)
Gender								
Female	2656	253	*None*	478	160	39	60	120
Male	1097	58	*None*	44	44	8	46	14
Genderqueer	*None*	5	*None*	*None*	*None*	*None*	*None*	*None*
Female-transgender	*None*	3	*None*	*None*	*None*	*None*	*None*	*None*
Male-transgender	*None*	1	*None*	*None*	*None*	*None*	*None*	*None*
Un-answered	*None*	1	*None*	*None*	*None*	*None*	*None*	*None*
Age								
15-20 year	*None*	176	*None*	298	112	40	*None*	134
21-25 year	*None*	145	*None*	224	79	7	*None*	*None*
>25 year	*None*	*None*	*None*	*None*	13	*None*	*None*	*None*
Rata-rata Usia	21,7	*None*	*None*	*None*	*None*	*None*	19	*None*
Education Level								
Diploma-1/2	*None*	132	*None*	*None*	*None*	*None*	*None*	*None*
Diploma-3/4	*None*	113	*None*	*None*	*None*	*None*	*None*	*None*
Master Degree	*None*	49	*None*	*None*	*None*	*None*	*None*	*None*

Characteristics	Researchers							
	Bedes, Stephanie B., dkk (2021)	Bhargav, Madhav dan Lorraine Swords (2022)	Sari, Sulistya Umie Ruhmana, dkk (2022)	Wahyuni, dkk (2022)	Hamzah, B., dkk (2020)	Harahap, Rahmi N., dkk (2021)	Yanti, Maya P. dan Nurul R. (2021)	Hutabarat, Nanik S., dkk (2022)
Doktoral Degree	*None*	27	*None*	*None*	*None*	*None*	*None*	*None*
Academic Program								
Sports, Medical science, Science and Technology	2186	*None*	*None*	*None*	*None*	*None*	*None*	*None*
Law, Economics, Management	645	*None*	*None*	*None*	*None*	*None*	*None*	*None*
Arts, Literature, Language	318	*None*	*None*	*None*	*None*	*None*	*None*	*None*
Social Sciences and Humanities	601	*None*	*None*	*None*	*None*	*None*	*None*	*None*
Semester								
Semester 2	*None*	*None*	*None*	133	*None*	17	*None*	*None*
Semester 4	*None*	*None*	*None*	132	*None*	17	*None*	*None*
Semester 6	*None*	*None*	*None*	143	*None*	13	*None*	*None*
Semester 8	*None*	*None*	*None*	114	*None*	*None*	*None*	*None*
Location	Universitas Lorraine dan Universitas Sciences Po di Nancy, Wilayah Grand Est, Prancis	Universitas di Irlandia	Universitas Islam Negeri Maulana Malik Ibrahim, Malang	Fakultas Keperawatan, Pekanbaru, Riau	STIKES Graha Medika, Kotamobagu, Sulawesi Utara	Universitas Islam Indonesia, Daerah Istimewa Yogyakarta	Universitas Sampoerna, Jakarta	Universitas Riau

Table 2 is an analysis of the characteristics of respondents, which shows that from the eight research articles, the majority were female, 2656, with the most significant number of research respondents in the age range of 15-20 years, namely 760. At the educational level, the majority of respondents were in the 1st-2nd year Diploma, 132 respondents. The demographic characteristics of the academic program category show that the most significant number of respondents were sports, medical science, science, and technology majors, with 2186 respondents. Based on semester level, the most significant number of respondents in semester 6 were level III students, with 156 respondents. The scope of this research is comparable to the generalization of research results; the more comprehensive the generalization, the more research results can represent other research areas.

Based on Table 3, this literature review research article uses a cross-sectional research design with seven articles and a case study with one article. Even though different research designs are used, the dependent variable used is the same: stress level. The eight research articles included several types of independent variables. The statistical tests used in the six research articles are bivariate statistical tests (simple regression, chi-square, Pearson Product Moment, and Spearman) and multivariate statistical tests (logistic regression, multiple linear regression, ordinal logistic regression, multiple regression).

However, research (Sari et al., 2022) only carried out multivariate statistical analysis, and research (Yanti & Nurul, 2021) did not include bivariate analysis.

Table 3. Results of Research Method Analysis

Researcher, year	Sampling Technique	Method	Independent Variables	Statistic Test
Bedes, Stephanie B., dkk (2021)	*Accidental sampling*	*Cross-sectional*	Age, gender, financial aid programs, academic programs, online learning, time spent working at home, postponing final exams, home location, access to the outdoors, difficulty of isolation at home, tension and conflict at home, noise outside the residence, noise in the residence, someone at home exposed to COVID-19, relatives or acquaintances infected with COVID-19, alcohol consumption, tobacco use, family support, friend support, entertainment media, reading, physical exercise	*Univariate, Bivariate,* dan *Multivariate*
Bhargav, Madhav and Lorraine Swords (2022)	*Accidental sampling*	*Cross-sectional*	Gender (female), sexual orientation, education level, nationality, monetary adequacy, chronic illness, life situation (life in the family or outside), adverse childhood experiences, resilience, psychological distress	*Univariate, Bivariate* (uji korelasi *Pearson Product Moment* and *Spearman*) and *Multivariate*
Sari, Sulistya Umie Ruhmana, dkk (2022)	*Stratified random sampling*	Studi kasus	Different environments between students and lecturers, frequency of giving assignments, difficulty understanding the material, smooth internet access, difficulty coordinating in group assignments, irregular lecture schedules, online lectures hinder hobbies, lots of activities/homework, internet quota requirements, student expenses are inflated	*Multivariate*
Wahyuni, dkk (2022)	*Total sampling*	*Cross-sectional*	Learning assignments, internet connection, internet quota purchasing power	*Univariate and Bivariate (Chi-square)*
Hamzah, B., dkk (2020)	*Accidental sampling*	*Cross-sectional*	Age, GPA, course load, residence status	*Univariate and Bivariate (Chi-square)*
Harahap, Rahmi N., dkk (2021)	*Disproportionate stratified random sampling*	*Cross-sectional*	Gender, age, semester, length of synchronous lectures in 1 week, number of assignments in 1 week	*Univariate, Bivariate,* dan *Multivariate*
Yanti, Maya P. dan Nurul R. (2021)	*Accidental sampling*	*Cross-sectional*	Difficulty enjoying free time, feelings of fear that appear for no reason, difficulty understanding the material.	*Univariate and Multivariate*
Hutabarat, Nanik S., dkk (2022)	*Total sampling*	*Cross-sectional*	Tasks and learning load, relationships with classmates, knowledge, learning environment, parental support, lecturer support	*Univariate and Bivariate (Chi-square)*

In Table 4, you can see the results of the analysis of bivariate statistical tests and multivariate statistical tests from the eight articles, showing a significant relationship between gender variables and stress levels in the three research articles. In two of the three research articles, it is known that women experience higher levels of stress than men. In line with research, Hamid (2022) also stated that there is a significant relationship between

gender and student stress in writing a thesis. The female gender experiences stress more quickly than men because, biologically, women have higher estrogen hormones than men and are more anxious and sensitive to their abilities. In contrast, men are more active and explorative. Men are taught to be more robust and alert when facing problems than women, so men tend to use reason rather than feelings (Monica, 2017). According to Sutjiato (2017), women have a risk of severe stress 2.7 times compared to men.

Table 4. Results of Analysis of Factors Associated with Stress Levels

Researhcer, year	Independent Variabel	Stress Level	
		Bivariate	Multivariate
Bedes, Stephanie B., dkk (2021)	Someone at home was exposed to COVID-19, confirmed and hospitalized	OR= 5.6 95% CI= 2.6-12.1 p= 0.0001	OR= 6 95% CI= 2.4-14.6 p= 0.0009
	Gender (Female)	OR= 2.6 95% CI= 2.1-3.2 p= 0.0001	OR= 2.3 95% CI= 1.9-2.9 p= 0.0001
	Noise outside the residence	OR= 2.1 95% CI= 1.8-2.5 p= 0.0001	OR= 1.5 95% CI= 1.2-1.8 p= 0.0004
	Noise in the residence	OR= 2.6 95% CI= 2.2-3.1 p= 0.0001	OR= 1.4 95% CI= 1.1-1.7 p= 0.008
	Family support	OR= 0.7 95% CI= 0.6-0.7 p= 0.0001	OR= 0.79 95% CI= 0.74-0.84 p= 0.0001
	Friends support	OR= 0.8 95% CI= 0.7-0.8 p= 0.0001	OR= 0.87 95% CI= 0.82-0.93 p= 0.0001
Bhargav, Madhav dan Lorraine Swords (2022)	Monetary sufficiency (having financial problems)	p= 0.006 r= 0.154	p= 0.013
	History of chronic disease	p= 0.006 r= 0.155	p= 0.037
	Psychological distress	p= 0.000 r= 0.276	p= 0.000
	Education level	p= 0.023 r= -0.136	-
	Gender (Female)	-	p= 0.014
Sari, Sulistya Umie Ruhmana, dkk (2022)	Different environment between students and lecturers	-	OR= 15.6 p= 0.000
	Frequency of assignments	-	OR= 12.3 p= 0.002
	Difficulty understanding the material	-	OR= 10.5 p= 0.000
	Smooth internet access	-	OR= 13.3 p= 0.042
	Difficulty coordinating in group assignments	-	OR= 14.7 p= 0.003
	Irregular class schedule	-	OR= 14.5 p= 0.000
	Lots of activities/homework	-	OR= 20.01 p= 0028
	Internet quota requirement	-	OR= 16.2 p= 0.000
Wahyuni, dkk (2022)	Learning tasks	p= 0.000	-
	Internet connection	p= **0.187**	-
	Purchasing of internet	p= **0.152**	-

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Researhcer, year	Independent Variabel	Stress Level	
		Bivariate	Multivariate
Hamzah, B., dkk (2020)	Age	$p= 0.001$	-
	Colege load	$p= 0.045$	-
	Status of residence	$p= 0.166$	-
Harahap, Rahmi N., dkk (2021)	Age	$p= 0.000$	$p= 0.03$
	Gender (male)	-	$p= 0.036$
	Semester	$p= 0.043$	-
	Assignments in a week	$p= 0.191$	-
Yanti, Maya P. dan Nurul R. (2021)	Assignments in a week	-	$p< 0.05$ Nilai konstanta (a)= 1.107
	Feeling of fear	-	$p< 0.05$ Nilai konstanta (a)= 1.107
	Difficulty understanding the material	-	$p< 0.05$ Nilai konstanta (a)= 1107
Hutabarat, Nanik S., dkk (2022)	Assignments and learning load	$p= 0.002$	-
	Relationships with classmates	$p= 0.003$	-
	Learning environment	$p= 0.004$	-
	Parental support	$p= 0.785$	-

The analysis results of two of the eight research articles show a relationship between age and stress levels, with the most significant number of respondents aged ≤20 years. In line with research conducted by Shamsuddin (2013), it was stated that there was a significant relationship between age and the stress level of students, with the majority of research respondents aged ≥20 years. The age of 20 is the developmental stage of late adolescence, where cognitive development is characterized by confusion between ideal and natural conditions; in thinking, they can analyze situations, but when faced with problems, they must adapt to cope with change. These changes are sometimes not to individual values, resulting in conflict (Lubis, 2021). Research conducted by Hamid (2022) also states that there is a relationship between age and student stress levels with a p-value of 0.038.

The results of the analysis of five of the eight research articles show that there are four research articles in which the relationship between the variable number of activities/homework and the level of stress obtained a value (OR= 20.01 p-value= 0.028) and the variables of assignment and learning load have a relationship with the level of stress. stress, values were obtained (OR= 12.3 p-value= 0.002; p-value= 0.000; p-value= 0.045; p-value= 0.002). Meanwhile, one inconsistency research article shows that the variable number of tasks in 1 week is not related to stress levels; a value was obtained (p= 0.191). Research conducted by Ayuningtyas (2021) states that assignments are one of the risk factors for academic stress in students. Meanwhile, research conducted by Febriany (2022) stated that there was no relationship between course load and stress in students because the research was conducted after one year of online lectures, so the course load they faced had formed the perception that students were able to face a greater course load.

The results of the analysis of two of the eight research articles stated that there was a relationship between the variable difficulty understanding learning material and students' stress levels. This research is in line with Nurjanah (2022), which states that there is a significant relationship between difficulties in understanding the material and students' stress levels during online learning. Fitriani's research (2022) stated that difficulty in

understanding the material was one of the factors that influenced the academic stress felt during online lectures among IAIN Batusangkar students.

Analysis of research articles from two of the eight journals stated that there was a relationship between difficulty coordinating in group assignments and peer relationships with stress levels in students. According to research by Sutjiato (2017), a significant relationship exists between peer influence and stress levels with OR= 6.9. Early Research (2019) also states that there is a relationship between peers and students' stress levels. Low intelligence factors may cause respondents who receive social support from peers to experience mild stress because the level of intelligence is related to adjustment to existing changes.

Based on the results of the literature review, it was found that one of the eight articles stated that there was a relationship between smooth access (OR= 13.3; p-value= 0.042) and the need for internet quota (OR= 16.2; p-value= 0.000) with students' stress levels. According to research conducted by Afifah (2021), there is a relationship between internet access and stress levels; the slower internet access is used, the more stress levels increase. Fitriani's research (2022) states that poor internet network quality is a factor in academic stress, while the need for internet quota is also a stress factor for students. Meanwhile, one inconsistency study states that internet connection and internet quota purchasing power are not related to stress levels in students, obtained p-value = 0.187 and p-value = 0.152. In line with Nurjanah's (2022) research, it is stated that there is no relationship between the internet network and stress levels in students.

The analysis results of one of the eight research articles stated that there was a relationship between the determination of the lecture schedule and students' stress levels. This research aligns with Afifah (2021), which states that providing a lecture schedule is related to stress levels in students at Muhammadiyah University of Gresik with a p-value <0.05.

Based on the analysis of one of the eight articles, it is stated that difficulty enjoying free time and feelings of fear that arise for no reason are related to stress levels in students. This research is in line with Ayuningtyas (2021), who states that poor time management is one of the stress factors for students (eigen 1.455 and percentage of variance= 14.551). According to Hayati's research (2021), emotional factors are significantly related to students' stress levels. Emotional factors are conditions experienced by a person that cause changes on the emotional side. This factor is measured using the variable indicators of anxiety, anger, irritability, and sudden fear.

Analysis of research articles from two of the eight journals states that there is a relationship between different environments between students and lecturers and the learning environment as the main factor in student stress levels, obtained values (OR=15.6 and p-value=0.000) and p-value=0.004. One in eight research articles states that noise outside and inside the residence is related to students' stress levels but is not the main factor. In line with Nafiati's (2015) research, it is stated that there is a relationship between the learning environment and college stress in students. Meanwhile, one inconsistency article was found, which stated that there was no relationship between residential status and students' stress levels, obtained a p-value = 0.166. Based on the analysis results, one of the eight articles states that monetary adequacy (financial problems) is related to students' stress levels. This research aligns with Ayuningtyas (2021), who suggests a relationship between financial management problems and the stress level of students studying cosmetology at Jakarta State University. The results of the analysis of one of the eight articles stated that a history of chronic disease was related to students' stress levels. This research is in line with Habibah's research (2021), which stated that a history of chronic disease has a significant relationship with academic stress levels. A history of chronic

disease can cause changes in daily activities, especially diseases that can cause paralysis (Siboni, 2019). The analysis results of one of the eight articles stated that psychological distress was related to the level of stress in students at several universities in Ireland; a value was obtained (p-value = 0.000). Based on theory and previous research, researchers have not found a significant relationship between psychological distress variables and stress levels in students.

Based on the analysis of one of eight research articles, it is stated that education level is related to students' stress levels. This research is in line with research by Mualim (2020), which suggests that there is a significant relationship between education level and work stress. Analysis of one of the eight research articles states that the semester is related to stress levels in students. This research aligns with Habibah's (2021) research, which suggests a significant relationship between semester variables and student stress levels, and a p-value of 0.008 was obtained. According to Beiter (2015), mental health problems, especially stress, occur in new and second-year students.

Analysis of one of the eight research articles states that there is a relationship between someone at home who is exposed to COVID-19, confirmed and hospitalized, and stress levels in students. This research is also strengthened by research by Khademian (2021), which states that living with family members who are at high risk of exposure to COVID-19 is associated with stress levels with a 95% CI value of 0.325:1.4. The results of the analysis of one of the eight research articles stated that there was a relationship between family support and friend support and student stress levels, obtained values (OR= 0.7; 95% CI= 0.6-0.7; p= 0.0001) and (OR= 0.8; 95% CI= 0.7-0.8; p= 0.0001). Halawa's research (2020) argues that there is a significant relationship between family support and student stress. Meanwhile, one inconsistent research article states that parental support does not have a significant relationship with stress levels in students; a value was obtained (p= 0.785). In line with research by Febriany (2022), social support does not have a significant relationship with stress among FIKES students at UIN Syarif Hidayatullah. This social support includes support from friends and family or parents, which can influence trust and confidence in one's abilities.

Several weaknesses were found in these eight research articles, namely in the demographic characteristics of the respondents in Table 2; one research article did not include gender and age distribution, namely in the research (Sari et al., 2022). Three research articles provide advice to students and related educational institutions, namely (Wahyuni et al., 2022), (Bedes et al., 2021), and (Bhargav & Lorraine, 2022). Meanwhile, one research article advises future researchers (Hamzah et al., 2020).

CONCLUSION

Based on the research results above, it can be concluded that the main factors related to stress levels during the COVID-19 pandemic, obtained from bivariate and multivariate analysis in the eight research articles, are gender, age, lots of activities/homework, assignments, and learning load, difficulties in understanding learning material, difficulty coordinating in group assignments and relationships with classmates, smooth internet access, internet quota requirements, irregular lecture schedules, different environments between students and lecturers and learning environments, monetary adequacy (financial problems), categories: history of chronic disease, psychological distress, education level, semester, someone at home who was exposed to COVID-19, confirmed and hospitalized. The results of this research analysis show inconsistencies in several articles regarding the variables of internet connection, internet quota purchasing power, residence status, number

of assignments in one week, and parental support, so further research is needed to prove whether or not there is a relationship between stress levels in students and these variables.

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