



# Life Changes, Stress, and Coping Stress of Undergraduate Students During Online Learning in Pandemic Era

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**Abstract.** The Covid-19 pandemic has been going on for more than a year, and there is still no certainty when it will end. Education institutions experienced the most significant impacts because the learning process became online to prevent transmissions. These changes raised various problems. This study aims to determine the changes and problems experienced by the students during online learning, the stress levels, and students' coping strategies. This mixed-method study involves 5018 undergraduate (S1) students (female = 66.12%) from the 2016 – 2020 classes across 20 universities in Indonesia located in the East and the West part of Indonesia. Data collection was carried out in March 2021 using the quota sampling method. The instruments used are the Perceived Stress Scale and the adapted Brief COPE to suit the student context. The result of this study indicates that the majority of participants (77%) have difficulties in absorbing materials, 66% complaint that the tasks become very numerous, 49% have difficulties joining online classes due to signal problems, 60% experience a reduced family income, 39% have economy crisis, 64% experience infrequent rest time, 56% experience unhealthy lifestyle because of the overuse of gadgets. The level of stress experienced by the university students at moderate to high levels was 85%. The students' coping strategies also play a role in their stress levels. The result of the multiple regression shows that when students use 'less useful' coping strategies it contributes to the increase of perceived stress ( $R^2 = 0.29$ ,  $F = 672.18$ ,  $p < 0.001$ ,  $r = 0.56$ ). The qualitative analysis results show that there were mental health problems in some students, which required the attention of the college leaders. We provide several recommendations for further study and student mental health care programs.

**Keywords:** Coping Stress · Online Learning · Pandemic Covid 19 · Undergraduate Students · Stress

## 1 Introduction

Since the end of 2019, the world has been shocked by a new virus spreading rapidly, namely COVID-19. COVID-19, or coronavirus, attacks the respiratory system and other body organs causing several symptoms such as fever, dry cough, dyspnea, headache, dizziness, feeling weak, vomiting, and diarrhea [1]. On January 30, 2020, the COVID-19 virus was declared a Public Health Emergency of International Concern (PHEIC).

Indonesia is one of the countries that have a relatively high rate of COVID-19 transmission. As of November 17, at 12.00 WIB, there were 474.455 cases of infection, 398.636 people recovered, and the number of deaths reached 15.393 people.

The spread of the COVID-19 virus in many countries raises social and psychological problems [2]. During the Covid-19 pandemic, social and psychological pressure increased due to the many changes that occurred, starting from macro conditions in the world and the Indonesian state, affecting the condition of families and individuals.

One of the significant changes the government has made to reduce the spread of the virus is physical distancing. Physical distancing itself is a method recommended by the World Health Organization (WHO) that aims to maintain a person's physical distance of at least 1 m from other people to prevent the possibility of spreading the COVID-19 virus. WHO recommended physical distancing, and in Indonesia, it has applied by implementing Large-Scale Social Restrictions (PSBB). Various institutions then practice the implementation of PSBB by implementing policies, such as work from home or learn from home or school from home. The Minister of Education and Culture issued regulation concerning the Guidelines for Home-Learning Implementation in an Emergency Period due to COVID-19.

In addition to implementing PSBB by closing schools or educational institutions, many workplaces, playgrounds, and other recreational activities are temporarily closed or unavailable to reduce the spread of COVID-19. In this case, COVID-19 affects healthcare, the economy, and social life. The real-life impacts in healthcare include challenges in doing tests, diagnosing and treating COVID-19 cases, high burdens on the medical system to function, neglecting other patients with different diseases, work overload on health workers, and challenges in medical devices distribution [3]. A significant impact in economic life included delayed manufacturing processes, delayed product distribution, losing national or international business chances, and slowed-down economic growth. Impacts in the social aspect include the restriction or closing of many kinds of services and social activities, such as concert cancellation, reduced activities in the tourism field, social distancing with friends and families, closed down restaurants, religious activities, and many other activities.

These restrictions certainly have various impacts on people's mental health, such as the emergence of feelings of isolation and worry about the possibility of losing jobs or incomes. The anxiety can increase due to the fear of the possibility of being infected by Covid-19 [4]. These things can be a stressor for many people, which can cause stress itself for these people.

Stress is a response from the human body to all the demands it faces, both positive and negative responses. Stress is an individual response to stressors [5]. Stressors are internal and external stimuli, which later can be the leading cause of stress.

In the education system, stressors can be when teachers and lecturers must quickly change the learning system and methods from face-to-face or offline learning to distance learning or online learning. The online learning system has advantages and disadvantages. One of the advantages is that students can learn and study at home to minimize their exposure to the COVID-19 virus. Online learning's disadvantages include limited internet access and reduced communication and interaction. Distance learning method could provide attractive and effective services, but the online method gives challenges in implementing the lecture process [6].

There are four sources of stress (stressors) on students in college, namely interpersonal, intrapersonal, academic, and environmental. Interpersonal stressors result from relationships with other people, such as conflicts with their circle, such as with family or friends. Meanwhile, intrapersonal stressors come from within the individual, such as changes in eating or sleeping habits and declining health conditions. Stressors related to academics could be multiple assignments and complex subject matters. Environmental stressors come from the surrounding environment, other than academics, for example, lack of vacation time, traffic jams, an uncomfortable living environment, and others [7].

Various changes in life due to the COVID-19 pandemic have become a different stressor for students. As one of the consequences of the implementation of PSBB, online learning can cause stress. Assignments are the most significant factor of stress faced by students, followed by boredom because they are always at home [8]. The COVID-19 pandemic has produced various types of stressors for students from interpersonal, intrapersonal, academic, and environmental aspects. Students need to adapt to various changes and pressures they experience. To adapt, students need adequate stress coping strategies to help produce comfortable conditions in various aspects of their lives.

Coping is the effective use of various resources and strategies in dealing with a situation that is considered to be stressful [9]. Lazarus and Folkman suggest two main categories of stress coping: problem-focused coping and emotion-focused coping. Many other researchers have developed Lazarus and Folkman's coping theory; one of them is Carver, Scheier, and Weintraub's (1989). This research uses coping strategies adapted from Carver's BRIEF COPE (1997). In the distribution of coping components, we grouped coping strategies into three categories following Carver, Scheier, and Weintraub's (1989) category: 1) Problem-Focused Coping; 2) Emotion-Focused Coping; 3) Less useful Coping. We used 14 sub-domain from Carver's BRIEF COPE for each of the three categories [10].

The problem-focused coping strategy consists of three ways of coping: (1) active coping, an active process to reduce or eliminate the effects of the stressor by taking direct action, (2) planning, the process of planning strategies in overcoming problems, and (3) seeking support for instrumental reasons, a form of coping by seeking advice, help, or information from others.

The emotion-focused coping strategy consists of five ways of coping: (1) seeking support for emotional reasons, seeking emotional support and relieving the emotional tension, (2) positive reframing, seeing the positive side of the problem we are experiencing. Changing the way to interpret a stressful situation into something more positive, (3) acceptance, how individuals accept problems they experienced. Acceptance is considered more effective than denial, (4) humor, seeing the situation in a lighter and humorous

way, and (5) turning to religion, by praying, meditating, getting closer spiritually to God, and other methods that can help individuals find peace of mind.

Less useful coping is a response classified as less valid or less helpful in solving problems that cause stress but tend to cause new problems. It consists of six ways of coping: (1) venting on emotions, emphasizes the release of negative emotions (2) behavioral disengagement, to distract individuals, usually with risky behaviors, (3) denial, consciously or unconsciously choosing not to believe or admit a problem that can be a stressor, (4) self-distraction, trying to divert attention for a moment from the problem at hand, so that the emotional condition or mind is not too full of burdens to the point that individuals can't think clearly. Efforts to divert attention can be adaptive if not done in the long term, (5) self-blame, criticize or blame oneself in situations and problems at hand. Self-blame can have a negative impact and add to the burden in the process of adapting to change, and (6) substance use, using cigarettes, alcohol, drugs, or other types of drugs to escape from problems or make individuals feel better.

From the description of the coping strategies above, it can be seen that some coping strategies are adaptive (healthy), and some are maladaptive (unhealthy). It is essential to identify the coping strategies used by students in dealing with various changes and problems faced during this pandemic.

### **1.1 Research Questions**

The following are our research questions:

1. What changes will the students experience during the pandemic, and what are the effects (stress) on them?
2. What kind of coping strategies do the students implement to face the changes and problems or situations at hand?

### **1.2 Research Purposes**

In line with the formulation of research problems in the previous section, this research aims to:

1. To get an overview of changes experienced by the students during COVID-19 Pandemic in terms of academic activities, family relations, friendship, gadget(s) usage, and other activities outside college.
2. To get an overview of stress, feelings, and impacts experienced by the students as a result of these changes on themselves and the surrounding environment.
3. To get an overview of various coping strategies used by the students to face pandemic situations.

## **2 Method**

### **2.1 Participants**

This mixed- method study involved 5018 active bachelor students (freshmen (26.3%), sophomore (26.6%), junior (24.9%), and senior (22.2%) from 20 universities members of the Catholic Universities Association across Indonesia. We implemented a quota sampling method to recruit the participants based on entry year and sex in each university.

Most of the participants were female (66%), with a mean age of 20.63 years old ( $SD = 2.23$ ). The majority of students were Catholic (47.3%) and Protestant (36%). The participant's economic level (perceived level of SES) was dominantly middle class (57.6%) and middle-lower class (24.7%).

## **2.2 Instruments**

### **2.2.1 Life Changes**

We determined the changes in life and troubles related to the pandemic by asking whether the participants had more positive or negative experiences in academic, family relationship, friendship, and gadget usage settings. The questions carried some choices where the participant could specify more than one choice (see Table 1). In each question we also provided open questions to identify more comprehensive experiences from the participants. These questions will be analyzed with a qualitative approach.

### **2.2.2 Stress Assessment**

We adapted the Perceived Stress Scale 10 (PSS-10) (Cohen, Kamarck, & Mermelstein, 1983) to measure the level of students' stress via ten items. The item homogeneity and reliability of the PSS-10 were satisfying with the corrected item-total correlation coefficients were from 0.25 to 0.59, and the Cronbach Alpha coefficient was 0.78 [11]. We also asked about the stress levels experienced by participants in a more general context through one item, namely: "When you are asked to indicate your current situation, you are experiencing: no stress (1) – very stress (4)". Relating to the pandemic, we asked them to compare the stress level before and during the pandemic via one item with four-ranking choices. The rank choice was from (1) "Before the pandemic, I felt more stressed about studying compared to the current situation" to (4) "I feel studying is much more stressful now than it used to be before the pandemic."

### **2.2.3 Coping Stress**

We applied the adapted Brief COPE (Carver, 1997) in the Indonesian context (Shanti, Ayu, Nanditaputri, Tandias, 2020) with modifications related to the pandemic situation [12]. The scale measures three coping types of the participants, namely problem focus (6 items), emotion focus (10 items), and less-useful (14 items) in the Likert 5-point scale. The example of the items: "I am taking action to make this situation better" (problem focus), "I reduce my negative feelings by expressing my thoughts" (emotion focus), and "I consume alcohol to help me through this situation" (less useful). The corrected item-total correlations ( $r = 0.30 - 0.55$ ) and reliability coefficients of each coping style were sufficient (Cronbach's alpha for problem focused and emotion focus was 0.74, and the less useful type was 0.78).

## **2.3 Data Analysis**

We implemented descriptive statistics (percentage) to present the dominant life changes and troubles. We applied correlations and multiple regression to identify the relationship and predictions of coping stress to the stress level.

**Table 1.** Examples of questions to identify the changes and troubles during the pandemic

Aspects	Questions	Choices
Academic	What changes have you experienced in the learning process?	<ul style="list-style-type: none"> <li>· All learning activities are online</li> <li>· More assignments</li> <li>· Relation with the lecturer is closer etc.</li> </ul>
	What problems did you experience with the change?	<ul style="list-style-type: none"> <li>· Difficulty digesting / absorbing lessons</li> <li>· Feeling bored or not interested in learning</li> <li>· My grades are dropping etc.</li> </ul>
Family relationship	What changes have you experienced in your family?	<ul style="list-style-type: none"> <li>· The problems in the family are increasing</li> <li>· More free time spent together in the family</li> <li>· Relationships with family members become closer etc.</li> </ul>
	What problems have you experienced with the changes in the family?	<ul style="list-style-type: none"> <li>· Feeling more uncomfortable at home</li> <li>· Experiencing emotional/verbal abuse from people at home</li> <li>· There is conflict in the family etc.</li> </ul>
Friendship	What changes have you experienced in your friendship?	<ul style="list-style-type: none"> <li>· Friendship is not fun anymore</li> <li>· Problems in friendship are getting less</li> <li>· More free time spent with friends etc.</li> </ul>
	What problems did you experience with the change in friendship?	<ul style="list-style-type: none"> <li>· Conflict with friends</li> <li>· I feel more lonely</li> <li>· No more sources of support when I am having problems etc.</li> </ul>

*(continued)*

## 2.4 Ethical Protocol

This research has passed due diligence by Atma Jaya Catholic University ethics committee with a letter No: 1446A /III/LPPM.PM.10.05/11/2020.

**Table 1.** (continued)

Aspects	Questions	Choices
Gadget usage	What changes have you experienced in the use of your gadgets?	<ul style="list-style-type: none"> <li>· The use of social media (Instagram, LINE, Whatsapp, etc.) is increasing</li> <li>· Rest time becomes erratic</li> <li>· Anxious if not using gadgets etc.</li> </ul>
	What problems are you experiencing related to changes in your device/gadget usage activity	<ul style="list-style-type: none"> <li>· I feel I am in the stage of social media addiction</li> <li>· I think my life is not healthy</li> <li>· My relationship with people close to me is disturbed etc.</li> </ul>

### 3 Result

#### 3.1 Changes in Academic

About 86% of participants reported that the learning method from offline to online is the essential change. This shift impacted the increment of assignments (66%) and difficulties in working on group tasks (61%). Another change was the relationship between lecturers and students became more distant (44%). The students also identified that their study time was becoming less (25%) because they had to help their parents.

#### 3.2 Troubles in Academic

Most participants stated that the significant challenge was understanding the lesson material presented online (77%). Moreover, they could not conduct the practicum. Participants experienced boredom and were not interested in attending lectures (52%). Other difficulties were the instability of the internet network (49%) and the absence of ideal online learning facilities (39%). It caused the students to ignore the presented material (29%) and leave class before the class ended (21%).

#### 3.3 Changes in Family Relationship

Participants stated that the pandemic impacted their family's economy, namely decreased family income (60%). However, the pandemic gave participants more time with family (53%) and made them feel a stronger relationship with family (43%); but at the same time, it increased the problem in the family (27%).

#### 3.4 Troubles in Family Relationship

Participants reported that they have problems related to economic decline in the family (39%). They also stated that they were feeling depressed (28%), uncomfortable at home

(20%), and feeling irritable when interacting with family members (20%). Some stated they should do hard work to meet the family's economic needs (15%). This situation was causing conflict in the family (13%), and some of it enforced verbal (3%) or physical hostility (1%).

### **3.5 Changes in Friendship**

In general, participants experienced changes in friendships that were less good, namely reduced free time with friends (64%), relationships with friends became more tenuous (50%), and felt less pleasant (38%).

### **3.6 Troubles in Friendship**

Participants indicated that they lost communication with friends (50%), became more lonely (44%), and felt that their relationships began to close down (31%) because they did not communicate directly or face to face. Still, some participants felt there was no effect on changes in friendship (31%), some others thought they did not receive help when facing problems (23%) and others faced conflicts with friends (8%).

### **3.7 Changes in Gadget(s) Usage**

Participants used gadgets (78%) and social media (78%) longer than before the pandemic. They also spent more on shopping online (34%). Emotionally, they felt anxious when not holding the gadget (29%). They also reported that the rest time became erratic (64%), and the routine activities (sport and doing homework) became less (29%).

### **3.8 Troubles in Gadget(s) Usage**

The changes in gadget(s) usage caused several negative impacts such as a perceived unhealthy lifestyle (56%), the feeling of social media addiction (42%), and gadget addiction (38%). Further, the participants reported a conflict in their relationship with other people (22%).

### **3.9 Activities in the Pandemic Era**

During the pandemic, the participants stayed home doing online lectures (89%), helping family members (60%), doing online business to increase their income (18%), and meeting friends online (15%).

#### **3.9.1 Comparisons, Correlations, and Predictive Testing**

We found that gender impacted stress levels and coping styles (Table 2). Female students ( $M = 3.00$ ,  $SD = 0.52$ ) tended to experience more stress than males ( $M = 2.88$ ,  $SD = 0.51$ ) significantly ( $t = 7.67$ ,  $p < 0.001$ ). They also perceived the pandemic situation as more stressful than before the pandemic ( $M = 2.12$ ,  $SD = 0.75$ ) compared to their male



**Table 2.** Comparison stress level and coping style based on gender

Variables	Gender Female (N = 3318) Male (N = 1696)	M	SD	t-test	Eta-squared ( $\eta^2$ )	Percentage
Stress evaluation before and after the pandemic	Female	2.12	0.75	7.04***	0,0098	0.9%
	Male	1.96	0.75			
Perceived stress	Female	3.00	0.52	7.67***	0,011	1.16%
	Male	2.88	0,51			
Problem focused coping	Female	3.41	0.64	3.16**	0,0019	0.198%
	Male	3.35	0.64			
Emotion focused coping	Female	3,38	0.57	5.79***	0,0066	0.66%
	Male	1.95	0.44			
Less useful coping	Female	3.28	0.60	5.39***	0,0057	0.576%
	Male	2.03	0.54			

Note: \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

colleagues ( $M = 1.96$ ,  $SD = 0.75$ ) significantly ( $t = 7.04$ ,  $p < 0.001$ ). Female students were also found higher on each coping stress style (see Table 2).

The correlation among variables in this study showed that age impacted the stress level and coping styles (Table 3). The correlation among variables in this study showed that age impacted the stress level and coping styles (Table 3). Senior students tend to have lower stress than younger students. Problem-focused ( $r = -0.18$ ,  $p < 0.01$ ) and emotional focus ( $r = -0.13$ ) correlated significantly with stress levels, which means the two coping styles can reduce stress. Contrarily, the less useful coping style positively correlates with stress level, which means the coping style increases the stress level ( $r = 0.48$ ,  $p < 0.01$ ) (Table 4 and 5).

### 3.9.2 Predictive

A multiple regression testing revealed that all coping styles predicted perceived stress significantly ( $F(3, 5017) = 672.18$ ,  $p < 0.001$ ). The problem focus ( $b = -0.14$ ,  $p < 0.001$ ) and emotional focus ( $b = -0.07$ ,  $p < 0.001$ ) predicted lower perceived stress, while the less useful coping style predicted higher perceived stress ( $b = 56$ ,  $p < 0.001$ ) (Diagram 1).

## 4 Qualitative Results

We carried out a qualitative analysis to complement the quantitative data analysis, and there are two essential aspects found in this study: educational and mental health aspects.

**Table 3.** Correlation between age, stress level, and coping

Variables	Age	Stress evaluation	Perceived Stress	Problem-focused	Emotion-focused
Stress evaluation before and after the pandemic	-0.03*				
Perceived stress	-0.10**	0.52**			
Problem-focused coping	0.04*	- 0.02	-0.18**		
Emotion-focused coping	0.06**	-0,01	-0.13**	0.74**	
Less useful coping	-0.05**	0.34**	0.48**	0.11**	0.16**

#### 4.1 Educational Aspect

Regarding the process and learning activities during the pandemic, the participants think that (1) learning activities are ineffective, (2) materials were given in a monotonous and uninteresting way. They also (3) feel bored and fed up during learning activities. These correspond with the previous quantitative results.

The participants have some suggestions: (1) learning activities can be given in a more exciting and easily understandable way, and (2) minimizing difficulties in understanding materials due to one-way material delivery and lack of discussion activities.

Regarding the limitation of quota and stable internet connection while attending online learning activities, participants experienced: (1) an increased burden for quota purchase, (2) technical difficulties due to them living in remote areas. They are hoping to receive support for quota purchasing routinely each month.

Regarding online and offline learning, participants considered that online learning is ineffective in yielding similar effective results during offline learning, especially for practical lessons. Participants suggest that offline learning activities can be implemented while adapting the health policies.

Regarding the financial aspect, participants felt that their economic condition worsened during the pandemic, which impeded the participants' ability to pay for their tuition fees. They hope that colleges are willing to give discounts on their tuition fee.

The transformation of learning and synergy between higher education is one of the keys for universities to get out of the prolonged COVID-19 pandemic. The use of virtual learning in the distance learning process is believed to provide ease of learning, make it a means to communicate directly via cyberspace, and avoid physical contact to prevent the transmission of COVID-19. Direct interaction provides a meaningful touch between educators and students, stimulating students' thoughts, feelings, and desires. Through direct interaction, educators can create a learning atmosphere and learning process by the character and needs of students and achieving educational goals. Even deeper, direct interaction between educators and students can create feelings of mutual need, respect,

**Table 4.** List of top responses on life changes during pandemic era

Aspects	Changes	N	%
Academic	All learning methods were changed to online	4295	86
	Increase in number of assignments	3332	66
	working in a group became more difficult	3074	61
	Relations between lecturer became distant	2229	44
	Reduced learning time	1264	25
	Increased learning time	1014	20
Family	Reduced family economy	3034	60
	More free time with family	2635	53
	Family relationship became stronger	2160	43
	Increased problems in family relations	1334	27
Friendship	Less free time with friends	3196	64
	Relationship among friends became more distant	2516	50
	Spending time with friends became less fun	1915	38
Gadget(s)	More time in gadget(s) usage	3890	78
	Increase in social media usage	3907	78
	Infrequent resting time	3198	64
	Increase in Intensity of online shopping	1695	34
	Feeling restless if not using gadget(s)	1433	29
	Neglecting other activities (sports or cleaning house)	1470	29
Activities during pandemic era	Learning at home	4474	89
	Helping family members	3021	60
	Staying at home	2431	48
	Offline meeting with friends	1546	31

*(continued)*

**Table 4.** *(continued)*

Aspects	Changes	N	%
	Doing online business to increase income	902	18
	Online meeting with friends	766	15
	Helping society	376	7

affection, and longing when students graduate from the courses taught by the lecturer [13].

## 4.2 Mental Health Aspect

The following passage will present the results for qualitative analysis regarding participants' aspirations about the need for mental health programs. In this research, we asked participants to answer several open-ended questions, especially to write down aspirations to the college institutions to improve students' psychological well-being. The participants' responses' resulted in five suggestions or recommendations. Interestingly, the participants responded that apart from conveying their aspirations regarding the need for mental health programs in colleges, they also mentioned concrete suggestions that the college administrators can immediately follow up. The five suggestions and recommendations are as follows:

### 4.2.1 Policies in Giving Out Assignments for Students During Online Learning

Assignments can become a stressor or source of pressure for students. That is why some of the suggestions given by participants to the college and lecturers regarding assignments "to be more friendly" for students are as follows: (a) reduce the number of assignments given to students, (b) lecturers can consider the deadline time so that it will not be too short, (c) assignments were given with clear explanation, (d) consider to determine the type of assignment, whether it is individual or team assignment, (e) consider the classes not to be held at night, Saturday or holiday.

"We would like for the lecturers also to understand our difficulties as students during the pandemic. For example, when we are in class, our parents sometimes call us to help them. We are also feeling pressured by the assignments. Assignments are indeed our obligation, but we still have to help our parents improve our family economy during this pandemic. We would also prefer not to be given too many assignments."

From the results of the 2015 Simbolon's research (Simbolon, 2015) prolonged and continuous anxiety can cause stress that interferes with daily activities [14]. The responsibilities and demands of academic life on students can be part of the stress experienced by students. Stress is a human psychological reaction or response when faced with things that are felt to have exceeded the limit or are considered difficult to deal with. Every

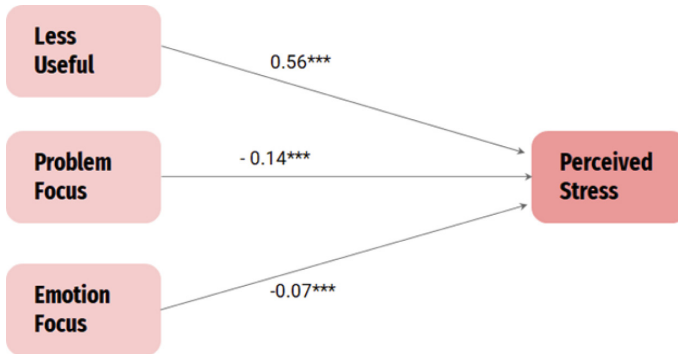
**Table 5.** List of top responses on troubles during pandemic era

Aspects	Troubles	N	%
Academic	Difficulties in learning	3865	77
	Feeling bored or uninterested	2616	52
	Signal problems impeded learning processes	2458	49
	Unavailable learning facilities/places	1953	39
	Ignoring classes	1476	29
	Missing classes	1033	21
Family	Felt more difficulties in family economy	1978	39
	No significant problems	1947	39
	Feeling pressured	1395	28
	Cannot stand being at home	1013	20
	Easily angered by family members	990	20
	Need to work harder to help family economy	750	15
	Conflicts in family	657	13
	Receiving emotional/verbal abuse by family member(s)	127	3
	Receiving physical abuse by family member(s)	39	1
Friendship	Communication among friends became sparse	2510	50
	Feeling more lonely	2228	44
	Became more close-off to friends	1577	31
	No significant problems	1540	31
	No more support When I am having problems	1154	23
	Conflicts with friends	416	8
Gadget(s)	I feel that my lifestyle has become unhealthy	2800	56
	I feel that I'm already in the stage of social media addiction	2118	42
	I feel that I'm already in the stage of gadget(s) addiction	1886	38
	Problems in my relations with other people	1108	22

*(continued)*

**Table 5.** (continued)

Aspects	Troubles	N	%
	I feel insecure when I see other people's posts on social media	1031	21
	I feel angry if my parents commented on my gadgets(s) usage	675	13



**Digram. 1.** Predictive testing on perceived stress by coping styles.

human being has experienced stress even before humans are born. Academic stress is mental and emotional stress, or tension, which occurs due to the demands of campus life.

The research results by Maia, Berta Rodrigues, Paulo César (2020) showed that students who were evaluated during the pandemic period showed significantly higher levels of anxiety, depression, and stress than students in regular times [15]. The results show that the pandemic has a negative psychological effect on students.

#### 4.2.2 Implementation of Learning Methods that Could Improve Students' Mental Health

Participants suggest that college and lecturers implement learning methods that support students' psychological well-being, such as: (a) variated learning methods, not monotonous and boring, (b) lecturers can be more caring, relaxed, and humorous, (c) giving ice breaking and games sessions that could entertain students while in the online class, for example, short movies, (d) routinely ask about students' psychological condition, motivate them, and give them a chance to confide themselves during class sessions.

"I hope that the class could be implemented in a more relaxed and laid-back way. Also, it will be good to develop emotional relations by greeting and asking about each other's well-being, and sometimes interspersed with jokes and humor so that the positive energy in each others' selves can be more active and making it easier for students to absorb the materials given."

#### **4.2.3 Lecturers Are More Caring, Supportive, and Willing to Understand Students' Difficulties During the Pandemic**

Participants suggest that lecturers can develop a more caring attitude, listen and understand students, and support and motivate students who encounter challenges and difficulties during the pandemic. Other suggestions from the participants include the college administrators to give training for the lecturers so that they could be more caring and understanding to the students' conditions.

"I hope that the lecturers can be more friendly, and also more understanding to the students who lack facilities needed in learning."

#### **4.2.4 Conduct Online Meetings to Increase Students' Psychological Well-Being**

Some of the online meetings suggested by the participants included: (a) webinar about mental health topics, (b) support group among students, (c) routine meetings (weekly/bi-weekly/monthly) with an academic counselor to consult about personal problems and to give support and guidance for students, (d) pray together or retreat. Besides doing online meetings, participants also suggest the college do the following things: (a) making content about mental health and spread it through social media, (b) opening link/suggestion box which can be used for students to express their complaints via letters/email, (c) the college can spread surveys periodically to get information about students' psychological well-being.

"Conducting public webinars for free to give relaxation/meditation or other fun activities. Also, we would appreciate it if offline activities could be held weekly in college/outside college."

#### **4.2.5 Provide Counseling Service with Professionals**

Participants were aware that some of the students have more severe problems that could not be solved through the online meetings in suggestion no. 4. Participants also suggest that the college provide counseling services with professionals (psychologists). The aspirations regarding professional counseling service for students are as follows: (a) free counseling service, (b) the college promotes and gives information about the counseling service.

"I want students to receive free counseling sessions for a certain period, and if possible, we could choose our counselor. Please provide counseling service for students, and if it's already available, maybe the college could give clear information because many students usually do not understand their own college's counseling system. Thank you."

## 5 Discussion

During the pandemic, the students experienced many challenges. The change in the form of learning from offline to online brings various changes, which impact the students' lives. These changes require readiness from the students and assistance from their circle, parents, lecturers/college counselors.

To be ready to learn and manage various challenges, students need to exercise self-control, self-regulation, and self-efficacy [16]. Students need to be able to motivate themselves, have prior knowledge, do assignments given online, have problem-solving skills, note-taking skills, and obtain facilitation from parents and lecturers, including assistance when needed, which will impact managing stress.

From the results of quantitative analysis, there are exciting findings that problem-focused and emotion-focused coping strategies have a negative correlation with students' perceived stress. This shows that coping strategies in the category of problems and emotions-focused coping, namely active coping, planning, instrumental support, emotional support, acceptance, positive reframing, humor, and turning to religion, are classified as adaptive coping strategies. These coping strategies have been shown to lower the assessment score of the student's self-stress condition. Various strategies need to be developed to implement their coping stress strategy.

Other efforts that can support students include adequate class management in online learning, rules, discipline, and prevention of cyberbullying, cooperation between lecturers/teachers, students, and parents, effort to develop a conducive class and school environment, and consideration for individual differences.

## 6 Conclusion and Suggestion

Based on the results of research and discussion, the conclusions of this study are as follows:

1. Students experienced various changes during the Covid-19 pandemic, such as academic activities, family life, friendship relations, gadgets, and outside lectures. These changes become a source of stress or a stressor.
2. The stress level experienced by students is at a moderate to high level, as much as 85%.
3. Coping strategies used by students in dealing with various changes and problems or situations they face are problem-focused and emotion-focused coping strategies.
4. The results of multiple regression show that several copings that fall into the less useful category (self-distraction, venting, self-blame, denial, substance use, and behavioral disengagement) contribute to an increase in perceived stress ( $R^2 = 0.29$ ,  $F = 672.18^{**}$ ,  $R = 0.56^{**}$ ).
5. Suggestion for the follow up of the results for teacher Strive for a positive learning climate: taking time to say hello personally, interactively, not dull, trying to understand and empathize with what students feel, not giving too many assignments, and giving assignments in clear steps, Understand distance learning methods (not just changing from offline learning to online)



6. For University Advisor, create mentoring programs for students: strategies to minimize negative emotions/maladaptive behavior, learning strategies, give emphasis and policies so that lecturers can adjust conditions during the pandemic as previously suggested.

For students, set adaptive coping strategies and reduce the number of coping mechanisms protracted in self-distraction (too much social media or mobile phone activity). Increase Self-regulation (emotional regulation): being aware of the current condition and seeing the pandemic as a challenge to optimize the situation and become more mentally healthy.

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