

Reducing Anxiety among University Students in East Java Indonesia during Covid-19 Pandemic

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ABSTRACT

Background: Remote learning activities are one of the government's policies in the Covid-19 pandemic, which is still being implemented in the education sector. There were plenty of impacts that the students encountered, especially among college students who experienced difficulties in completing their final project to experienced anxiety. **Objective:** These conditions were the background in carrying out this study as it aimed to determine the efforts to reduce anxiety among final-year students. **Methods:** This was analytical observational research with a cross-sectional study design using the Theory of Planned Behaviour, undertaken across all cities and regencies in East Java from March to October 2021. The research population was all final-year college students with a sample of 385 respondents. Variables in this study were belief factors, intention, and behavior. Data collection was conducted by distributing online self-administered questionnaires. Data were presented statistically in tables and charts and analyzed using the non-parametric statistical test, multiple linear regression. **Results:** The result showed that the belief factor significantly influenced the intention variable (sig. 0.000), and the intention variable influenced final-year students' behavior in reducing anxiety (sig. 0.000). The intention variable had a significant value of $0.000 < 0.05$, which indicated that the intention variable significantly influenced the final-year students' behavior to reduce anxiety. Based on the R square result, the intention variable influenced the final-year students' behaviour to reduce anxiety by 54%. **Conclusion:** Efforts known to reduce the anxiety of final-year students during the Covid-19 pandemic are managing stress, controlling themselves by increasing physical activity, doing hobbies, worship, positive thinking, and consuming the food they like

Keywords: Anxiety, College Seniors, COVID-19, Theory of Planned Behaviour, human and health.

INTRODUCTION

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with Covid-19 will experience mild-to-moderate respiratory illness without comorbidities (WHO, 2020); (Vicerra, et al, 2020). Various policy implementations have been done to control the spread of Covid-19. This situation affected all aspects of people's lives, including Indonesian people. One affected aspect was the education aspect. All students must carry out online teaching and learning activities from home. The policy came with its pros and cons, specifically among college students, as not all teaching and learning activities can be easily performed online, such as carrying out research activities and

working and supervising individual projects for final-year students. The lecture process, which used to be mainly carried out offline (face-to-face) live and inside a building) suddenly had to take place online. Students are starting to worry whether face-to-face and online can still work to understand the material well. They are also worried about the quality of the internet network and the work equipment (mobile phones, laptops, computers) they use (Christianto, et al, 2020); (Priskia, et al, 2022). Final year students were found to experience anxiety as the impact of implementing various policies during the Covid-19 pandemic. A study showed that, when closing all activities at the university, stay-at-home orders and lockdowns reduce the risk of disease contraction of

students and educators, thereby maintaining their physical health.

However, the system mentioned above inflicts several disadvantages on the mental health of the students is negatively affected, and around the world, some students are experiencing moderate to severe anxiety. In underprivileged countries, the situation is exacerbated for students who cannot afford electronic devices such as smartphones, laptops, tablets, or personal computers. Moreover, students and educators may feel more anxious during online classes and exams in countries where high-speed internet is unavailable or some internet connection problems (Kashefian-Naeeni, et al, 2020).

Anxiety is a total human response to a threat or danger that involves perceptions and thoughts about danger resulting in excessive anxiety reactions as a source of intense stress for an individual's physiological functions (Maina, et al, 2016). Anxiety among final-year students resulted from the delay in collecting research data, difficulties in carrying out the supervision process, and the extension of their study period. The previous explanation was supported by data stating that more than 50% of final-year students in East Java experienced anxiety due to the delay in executing their final project during the COVID-19 pandemic (Pratiwi, et al, 2020).

Several factors caused anxiety experienced by the final year students during the Covid-19 pandemic. Previous studies about anxiety among final year students during the Covid-19 pandemic reported to be caused by excessive fear of getting Covid-19, distance learning methods, concentration difficulty, excessive assignments, and difficulty adapting to the new learning system (Hasanah, et al, 2020); (Kusnayat, et al, 2020); (Putri, et al, 2020); (Santoso, et al, 2020). Anxiety among final-year students is manifested by declining focus ability, extreme fatigue, sleeping disorder, headache, loss of appetite, and restlessness (Putri, et al, 2020). Assuming that this anxiety problem is not immediately treated, it would lead to more severe problems, including depression, dropping out of university,

drug and alcohol abuse, and even suicide.^[8]

The Theory of Planned Behaviour states that a person has many beliefs about a specific behaviour, yet three beliefs influence a person to change their behaviour, including behavioural belief, normative belief, and control belief (Sutton, 2014). Behavioural beliefs are individual beliefs about the results of a behaviour (beliefs strength) and evaluation of these results (outcome evaluation). In general, the more individuals have an evaluation that behaviour will produce positive consequences, the more individuals tend to be favourable towards that behaviour; conversely, the more individuals have negative evaluations, the more individuals tend to be unfavourable towards that behaviour. Normative beliefs are beliefs about other people's normative expectations (normative beliefs) and motivation to fulfil these expectations (motivation to comply). Control beliefs are beliefs about the existence of things that support or inhibit the behaviour that will be displayed (control beliefs) and perceptions about how strong the things that support and inhibit the behaviour (perceived power) are.

The Theory of Planned Behaviour assumes that humans are rational beings and use possible information systematically for them (Achmat, 2010). Thus, someone will consider their behaviour's impact before choosing to or not do specific behaviour. Based on the explanations above, it is crucial to study how to reduce anxiety among final-year students during the COVID-19 pandemic using the Theory of Planned Behaviour.

METHODS

This was analytical observational research with a cross-sectional study design. This research was undertaken from March to October 2021 across all cities and regencies in East Java. All final-year college students living in East Java in 2021 were enrolled as the research population. The research respondents were students from various tertiary institutions in Indonesia and were domiciled in East Java during the

pandemic. As the number of final-year students living in East Java was unknown, the sample size will be calculated using the following formula:

$$n = (Z \alpha^2 \cdot P(1 - P)) / d^2$$

$$n = (1.962 \cdot 0.5(1 - 0.5)) / (0.05^2)$$

$$n = (1.962 \cdot 0.5(0.5)) / (0.05^2)$$

$$n = (3.4816 \cdot 0.25) / 0.0025$$

$$n = 0.9604 / 0.0025$$

$$n = 384.16$$

Where:

n: minimum sample size

Z α : level of confidence 95% ($\alpha = 5\% = 1.96$)

P: proportion of the population 50% (0.5)

d: tolerated margin of error 5% (0.05)

The minimum sample size in this study was 385 respondents, based on the rounding up of the calculation result. However, the total number of samples enrolled in this study was 430 respondents. Data collection was carried out using a questionnaire that was packaged into Google and then distributed on an online platform. The questionnaire consists of informed consent, respondents' personal information, and questions related to the variables studied. Variable measurement is done by scoring and categorizing the scoring results into five categories, namely very low, low, medium, high, and very high. The research instrument to measure the belief factor (behavioural belief, normative belief, and control belief) will adopt a questionnaire from Ajzen, which also uses the Guttman scale as the answer choice model. The data was then stored using codes to protect respondents' privacy. The collected data were imported to Microsoft Excel and analysed using multiple linear regression, a non-parametric statistical calculation to model the influence between variables. The data were processed using IBM SPSS 22 version. The results of the data analysis were presented statistically in tables and charts to show the effectiveness of treatment to reduce anxiety.

RESULTS AND DISCUSSION

Frequency Distribution

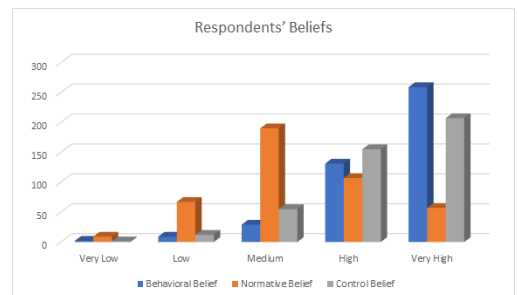
The frequency distribution of each variable of this study can be seen in Table 1 as follows:

Table 1: Respondents' Distribution Based on Socio-Demographic Characteristics

Variable	n	%
Age		
<20 years	82	19.1
21-25 years	345	80.2
> 25 years	3	0.7
Sex		
Male	123	28.6
Female	307	71.4
Religion		
Islam	414	96.3
Protestantism	11	2.6
Catholicism	4	0.9
Hinduism	1	0.2
Income		
< 500,000 IDR	218	50.7
500,001 IDR - 1,000,000 IDR	145	33.7
> 1,000,000 IDR	67	15.6
Study Period		
6th semester	70	16.3
7th semester	286	66.5
8th semester	27	6.3
> 8th semester	47	10.9

Source: Primary Data, 2021

Table 1 showed that the majority of the respondents were aged 21-25 years (80.2%), recorded as female (71.4%), and followed Islam as their religious belief (96.3%). Most of the respondents had an income of < 500,000 IDR each month (50.7%) and were in their 7th semester (66.5%).



The data showed that 60.2% and 48.1% of the respondents had very high behavioural and control beliefs, respectively. It indicated that most respondents had a high response to reducing anxiety and a high perception of its difficulty level. Meanwhile, about 44.2% of the respondents had moderate normative beliefs, which implied that the respondents received a moderate level of influence of environmental support to reduce anxiety.

Most of the respondents in this study (48.6%) had a high intention to treat their anxiety. The behaviour of nearly half of the respondents (48.4%) was recorded as moderate. Therefore, most respondents had a moderate behaviour level to reduce their anxiety regardless of their high intentions.

Effect Analysis Between Variable

Effect analysis between variables was undertaken using linear regression according to the flow of the Theory of Planned Behavior as follows:

Table 2: The Effect of Belief Factor towards the Intention to Reduce Anxiety among Final Year Students in East Java in 2021.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R Square	
	B	Std. Error	Beta				
1	(Constant)	6.628	3.272		2.026	0.043	0.540
2	Behavioral Belief	0.295	0.048		6.156	0.000	
3	Normative Belief	0.235	0.033		7.174	0.000	
4	Control Belief	0.421	0.047		8.945	0.000	

Source: Primary Data, 2021

Based on the result of multiple linear regression, as shown in Table 2, it is known that the significant values for behavioural belief, normative belief, and control belief were $0.000 < 0.05$. The result showed that the belief factor significantly affected the intention to reduce anxiety among final-year students. Furthermore, both variables had a positive influence based on the t-score, which was all positive. This result implied that the increase follows the escalation of

the final year students' belief in the intention to reduce anxiety and vice versa.

Table 2 also shows that the explanatory power of the belief factor towards the final-year students' intention to reduce anxiety was 54% (R square = 0.540). This result implied that the belief factor influenced the final-year students' intention by 54%, while the remaining 46% came from other variables that were not examined in this study.

Table 3. The Effect of Intention Factor towards the Behavior to Reduce Anxiety among Final Year Students in East Java in 2021.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	R Square	
	B	Std. Error	Beta				
1	(Constant)	25.845	3.352		7.711	0.000	0.234
	Intention	0.484	0.042		11.446	0.000	

The result of simple linear regression in Table 3 showed that the intention variable had a significant value of $0.000 < 0.05$, which indicated that the intention variable significantly influenced the final-year students' behaviour to reduce anxiety. The intention variable positively influenced the behaviour variable, as the t-score was positive. This result implied that their behaviour follows the increase in the final year students' intention to reduce anxiety. Based on the R square result, the intention variable influenced the final-

year students' behaviour to reduce anxiety by 54%.

The Influence of Basic Factors on Behavioural Belief

The study's results showed a significant influence between the essential factors on behavioural belief. The essential factors of attitude, age, gender, religion, pocket money, social support, length of study, experience, knowledge, and exposure to social media simultaneously influence respondents' behavioural beliefs by 29.6%. This shows that essential factors within each of them

influence students' behavioural responses in efforts to deal with or reduce anxiety.

The results of this study are in line with the results of previous studies. A person's attitudes and experiences during the Covid-19 pandemic are known to affect increasing behavioural beliefs (Brooks, et al, 2020). Knowledge is also stated to be related to behavioural beliefs. Behavioural beliefs will also increase when someone has good knowledge (Yanti, et al, 2020). Trust and social support are also related to a person's behavioural beliefs (Putra and Sari, 2020). This means that when students have high social trust and support for an effort to deal with anxiety, they will also be more confident in implementing efforts to reduce anxiety.

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The Influence of Basic Factors on Normative Belief

Based on the results of the study showed that there was a significant influence between the essential factors on normative belief. The essential factors of attitude, age, gender, religion, pocket

money, social support, years of study, experience, knowledge, and exposure to social media simultaneously influence respondents' normative beliefs by 18.5%. This shows that essential factors in a person affect their belief in giving reciprocity that is in line with the social support they receive to deal with anxiety during the COVID-19 pandemic.

The results of this study are in line with the research results of Putra and Sari (2020), which also state that social support influences a person's behaviour in proving or providing feedback on the norms of the people around them, both around the COVID-19 pandemic and mental health disorders due to the pandemic. Previous research conducted in Taiwan showed results that were in line with the results of this study, that partially gender does not affect a person's normative beliefs (Fang, et al, 2017). So it is known that not all essential factors have a partial effect on a normative belief in dealing with anxiety during the Covid-19 pandemic, but when viewed simultaneously, all of a person's essential factors influence a person's normative beliefs.

The Influence of Basic Factors on Control Belief

Based on the results of the study, it was shown that there was a significant influence between the essential factors on control beliefs. The essential factors of attitude, age, gender, religion, pocket money, social support, years of study, experience, knowledge, and exposure to social media simultaneously influence the control of respondents' beliefs by 26.8%. This shows that essential factors in a person influence the perception of the difficulty in dealing with anxiety during the Covid-19 pandemic.

Several previous studies have shown results in line with this study. Essential factors significantly influence a person's perspective regarding the difficulty in handling anxiety during the Covid-19 pandemic (Bohon, et al, 2016); (Godbersen, et al, 2020); (Hudiyawati and Prakoso, 2015). Bohon et al. (2016) stated that attitude, social support, experience, knowledge, and media exposure influenced adolescents' perspectives in dealing with the anxiety they felt during the Covid-19 pandemic. On the other hand, Godbersen et al. (2020) also stated that essential factors within a person

significantly affect someone's perspective control. Therefore, it can be seen that the essential factors of students dominantly influence their perspective on the difficulty in handling anxiety or other mental health disorders during the Covid-19 pandemic.

The Effect of the Trust Factor on Intention

Based on the results of the study, it was shown that there was a significant influence between the belief factor on intention. The trust factor, consisting of behavioural, normative, and control beliefs, is simultaneously known to affect respondents' intention by 54%. These results show that a person's belief influences their intention to deal with anxiety. This trust factor can be in the form of trust in efforts to mitigate Covid-19 and to prevent and reduce anxiety and other mental health disorders.

This study's results align with Bohon et al. (2016), which also stated that the belief factor influences a person's intention to address their mental health disorders. The belief factors known to be more dominant in influencing their intentions are normative and behavioural beliefs. Someone who believes in both prevention and treatment of anxiety will increase their intention to prevent and treat anxiety during the Covid-19 pandemic (Bohon, et al, 2020).

Respondents' distribution showed various results based on belief factors in the Theory of Planned Behaviour consisting of behavioural belief, normative belief, and control belief. One's belief system on certain things can lead to overthinking and affect their mental health. A study by Putra and Sari (2020) reported that respondents' reasonable belief influenced their level of sincerity in behaving. Someone's belief in mystical and taboo things to treat anxiety increases their level of anxiety (Kishore, et al, 2011). Another study showed that the likelihood of being unable to treat mental health problems was more prevalent among people with a higher negative belief in mental health problems (Hartini, et al, 2018).

The result of this study also showed that intention had a significant effect on the final-year students'

behaviour in reducing anxiety. However, it can be seen that there was a disparity between the final-year students' intention and their behaviour in reducing anxiety. The disparity can occur due to factors beyond the intention, such as someone's readiness, willingness, and ability (Tomczyk, et al, 2020). Despite that, intention also took a crucial role in influencing the final-year students' effort to reduce anxiety.

Previous studies showed efforts to reduce anxiety among final-year students before and during the Covid-19 pandemic. The efforts that have been demonstrated to reduce anxiety among final-year students were neurocognitive therapy and cognitive behavioural therapy (Abbing, et al, 2019); (Fauzi, 2020).

CONCLUSION

The belief factor significantly influences final-year students' intentions in reducing anxiety. The intention was also found to significantly influence final-year students' behaviour in reducing anxiety. Efforts known to be effective in reducing final-year student anxiety during the Covid-19 pandemic consist of managing stress and exercising self-control. Stress management is done by finding out/identifying the source of stress, changing situations and conditions that can cause stress, adapting to the causes of stress, and taking time to do things you enjoy. At the same time, the self-control efforts carried out by most respondents are increasing physical activity, doing hobbies, worshipping, thinking positively, and eating favourite foods. Thus, the universities need to facilitate or support their students in reducing anxiety during the COVID-19 pandemic by providing comprehensive cognitive behavioural therapy services.

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