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# Anxiety: Impact of COVID-19 News to College Students

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**Abstract :** COVID-19 news not only influences the body's immune but also individual psychological states, such as anxiety, fear and restlessness. This research aims to study the effect of COVID-19 news broadcasts on students' anxiety. An experimental research was conducted with a pretest-posttest between-group design. Having compared the posttest scores between the two groups, it was found that there is an average difference in anxiety levels. Information about hazards and impacts of COVID-19 was stored on the hippocampus and may trigger negative emotions among college students. In other words, any news and video shows about COVID-19 may increase the level of students' anxiety.

Keywords : COVID-19, news, anxiety, college students

**Abstrak :** Berita tentang COVID-19 tidak hanya mempengaruhi kekebalan tubuh tetapi juga kondisi psikologis individu, seperti kecemasan, ketakutan, dan kegelisahan. Penelitian ini bertujuan untuk mempelajari pengaruh tayangan berita COVID-19 terhadap kecemasan mahasiswa. Penelitian eksperimental dilakukan dengan pretest-posttest between-group design. Setelah membandingkan skor posttest antara kedua kelompok, ditemukan bahwa ada perbedaan rata-rata tingkat kecemasan. Informasi tentang bahaya dan dampak COVID-19 disimpan di hipokampus dan dapat memicu emosi negatif di kalangan mahasiswa. Dengan kata lain, setiap tayangan berita dan video tentang COVID-19 dapat meningkatkan tingkat kecemasan siswa

Kata kunci : COVID-19, berita, kecemasan, mahasiswa

## Introduction

The first case of COVID-19 was detected in Indonesia on March 2 and then up to April 9, the pandemic had spread to 34 provinces in Indonesia (Ratcliffe, 2020). Based on Indonesia's National Disaster Management Agency (BNPB, 2020) report on the social media platform, as of October 4, 2020, the Indonesian government had reported 303,498 positive cases. It makes Indonesia the second country with the most COVID-19 cases in Southeast Asia after the Philipines and the third in Asia with 11,151 mortality. However,

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the government also informed that 228,453 people recovered while 63,894 people were treated.

Several findings suggest that the COVID-19 pandemic may cause psychological effects on students like anxiety, fear, and restlessness (Mei et al., 2011; Cao et al., 2020). If the anxiety level has exceeded normal limits, the immune system can be affected the consequent chances of being infected (WHO, 2020). CESPELS Research Institute (Center for Social, Political, Economic, and Law Studies) in Indonesia conducted a survey and found that 54.4% of respondents felt anxious and 35.6% others felt very anxious due to COVID-19. Besides, 51% of respondents found that the environment surrounding was not safe. The high level of anxiety about COVID-19 is because of ignorance of the pandemic, doubts over government, mortality statistics, economic prediction, and worry about the future (Amir, 2020).

Cao et al. (2020) also found that 24.9% of students suffer from anxiety due to COVID-19. The anxiety felt by students about COVID-19 effect on learning and future job vacancies (Cornine et al., 2020; Cao et al., 2020). Physical distancing and quarantine during the pandemic can be one of the anxiety factors on students since it makes them have lack interpersonal communication (Xiao, 2020; Kmietowicz et al., 2020; Cao et al., 2020; Cao et al., 2020; Cao et al., 2020; Cao et al. al, 2020). Anxiety is a concern over anticipated problems (Kring et al., 2007). Freud defined anxiety as something that felt, an emotional state that includes feelings worried, tense, nervous, and worried accompanied by physiological arousal. Consistent with Darwin's evolutionary perspective, Freud observed that anxiety is adaptive in motivating behaviors that help individuals cope with threatening situations and anxieties prevalent in most psychiatric disorders. (Spielberger, 2010).

Fullana (2020) argues that not following news and information related to COVID-19 is one of the best predictors of low anxiety levels. However, some information about COVID-19 spread in various media like television, online news, and videos uploaded online. The previous explanation encourages researchers to conduct more in-depth studies on the students' anxiety due to exposure to COVID-19. In this study, the respondents are first and second-year students (class of 2019 and 2020) of the Faculty of Psychology, Universitas Padjadjaran.

#### Method

This is an experimental research that involved two groups with a pretest-posttest design. Simple random sampling was used to determine the sample as a technique. Simple Random Sampling is a type of probability sampling, where each member of the population has an equal chance of being selected as the research sample (Christensen, 2007). The sampling process is carried out by giving equal opportunities to members of the population who meet the criteria to become the control group or the experimental group. The characteristics of this research sample are students in the class of 2019 and 2020 in the Faculty of Psychology in Universitas Padjadjaran who do not have hearing impairments, do not have visual impairments and are affected by COVID-19.

There were 76 samples involved determined based on the estimated proportion formula in the Unpad SAS; entering the value of 304 in the total population (confidence level: 90%, error: 10%) (Jatnika et al., 2019). Then the researcher had a random technique determining the control group and experimental group with equal numbers; 38 people per group. The data was collected online using the platform Zoom. Participants were prompted to enter the Zoom room and do a pre-test. They did the State Anxiety Test consists of twenty questions with a Likert scale. Before having the treatment, the researchers were convinced that participants have not been exposed to news of COVID-19.

The participants in the experimental group had a treatment of watching a video of COVID-19 information that is increasing in Indonesia for 2 minutes 39 seconds. It shows the data on the mortality caused by COVID-19 and potential problems caused by COVID-19 which trigger anxiety. Meanwhile, the control group was given a neutral video clip in the form of a clip of two women walking in a shopping center from the movie "Hannah and Her Sisters" with a duration of 1 minute 30 seconds. Video footage given to the control group is non-emotional (neutral) in a previous study conducted by Hewig et al. (2005). After watching the video, participants filled out a post-test which has the same items as the pre-test. It evaluated whether there is an effect of watching news videos about COVID-19 on increasing anxiety. The data obtained were then processed using the Statistical Packages for Social Sciences (SPSS) v.25 software. Data were processed on normality and difference between the control group and the experimental group. The normality test used the Kolmogorov Smirnov test and the group difference test using the T-test analysis.

#### Result

There are 76 participants from academic 2019/2020. They are divided equally and randomly into the control group and experimental group.

Descriptive Statistics of Participants Pre-Test Data			
Groups	<b>Total Participants</b>	Mean	Standard Deviation
Control	38	42,03	10,978
Experiment	38	44,18	10,588

Table 1.Descriptive Statistics Of Participants' Pre-Test Data

There was a different mean score on pre-test data between the experimental group and the control group. On control group the score of M = 42.03 and SD = 10.978 while the experimental group has M = 44.18 and SD = 10.588.

Descriptive Statistics Of Participants' Post-Test Data			
Groups	<b>Total Participants</b>	Mean	Standard Deviation
Control	38	45,32	9,332
Experiment	38	51,18	10,603

Table 2

There were also different results on post-test between the control group and experiment group in which the control group has M = 45.32 and SD = 9.332 while the experimental group gets M = 51.18 and SD = 10.603.

Table 3. The Pre-Test Normality Statistical Test

Groups	Shapiro-Wilk Value	p-value
Control	0,113	0,755
Experiment	0,123	0,276

Having Shapiro-Wilk test., the pre-test was normally distributed with p = 0.755 for the control group and p = 0.276 for the experimental group. Since the data is normally distributed then analysis was conducted using the Independent Sample T-Test.

Levene's Test		Independent Sample T-Te	est
p-value	t-value	df	p-value
0,906	-0,872	74	0.386

Table 4. Independent Sample T-Test

Based on Independent Sample T-Test of pre-test data, the t-value is -0.872 with p-value (0.386)> 0.05. It can be inferred that there is no difference in anxiety in the pre-test between the control group and the experimental group.

Table 5. Post-test Normality Statistics Test

Groups	Shapiro-Wilk Value	p-value
Control	0,986	0,914
Experiment	0,974	0,516

Having normality test, it was found that post-test data is normally distributed (p-value > 0.05 for the control group and experimental group).

Table 6. Independent Sample T-Test

Levene's Test	Independent Sample T-Test		
p-value	t-value	df	p-value
0,638	-2,561	74	0,024

Based on the table, we get t (74) = -2.561 with a *p*-value = 0.024. Based on these results, it was found that giving news video of COVID-19 increase the anxiety level of psychology students Universitas Padjadjaran Class of 2019 and 2020, where t (74) = -2.561, p <0.05.

#### Discussion

This research compared pre-test and post-test between the experimental group and the control group. Each group had treatment having videos about COVID-19. The results obtained from comparing the post-test scores of the control group and the experimental group showed a difference in the mean of the two groups. The score obtained is t(74) = -2.561 with p-value = 0.024 < 0.05. Therefore, it inferred that giving news videos about COVID-19 may increase the anxiety level of psychology students at Universitas Padjadjaran academic year 2019/2020.

The news on the experimental group contains information about COVID-19 cases in Indonesia and their consequences. Participants had negative information on the video that may trigger negative emotions they had. Previous research conducted by C Liu and Eddie MW Tong (2020) also found that the longer time following information related to COVID-19, then the more anxious will be felt. Besides, there was also increasing in several psychological symptoms such as anxiety, symptoms of depression, and stress.

Both control and experimental groups have pre-test scores that are not much different. The difference test value also showed no difference (0.386). However, after having treatments, both groups both showed an increase in anxiety scores. In the control group, the initial mean value was 42 to 45, while in the experimental group from 45 to 51.

The t-test results also showed a significant difference (0.024). In other words, the video treatment given to the experimental group affected the anxiety level of the participants. The results obtained have similarities with the previous studies. Fullana (2020) stated that not following the news about COVID-19 can make anxiety levels decrease. Participants were affected by the assumption provided on the news with the negative impact of COVID-19.

Based on the observations, there were slight differences in the expressions on participants in the control group and the experimental group. Some participants in the experimental group frowned while the control group showed a flat facial expression. However, there were no significant differences in facial expressions between the experimental group and the control group. It may happen since the research is online. Then it is difficult to observe the participant's facial expression and behavior.

The news provided on the experimental group may trigger the participant's anxiety about COVID-19. Since the video acts as a stimulus that causes negative emotions, then the previously stored emotional memory in the hippocampus due to the COVID-19 pandemic may be triggered. Cannistraro and Rauch (2003) explained that forwarding of the stimulus through the nervous system finally activates the hypothalamus-pituitary-adrenal (HPA) and stimulates an increase in adrenocorticoids which causes anxiety symptoms. Hence, having negatives experience with that video may have influenced the results of this study.

#### Conclusions

This research shows that having exposure to COVID-19 news affects the anxiety levels among college students. Since the experimental group had been exposed to the negative information about COVID-19, they had a higher anxiety level. Even though they had no previous information but the video exposed made them anxious. During a pandemic, extreme stress can become anxiety so it is important to minimize negative exposure. This pattern may also be implied in having lectures and exams so that students may regulate themselves in managing excessive feel and disturbing anxiety.

Further research may explore another treatment having different media. Not only video but also other media may be used in the next research exploring the effect on students' anxiety. Besides, using attribute variables on participants may also be an idea for comparing between the control group and the experimental group such as across high and low self-efficacy. Subject may also expanded not only on students but also other profession. Since this research had an online process collecting the data, further research may have an offline experimental process with a camera so that the participant's facial expression may be recorded.

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