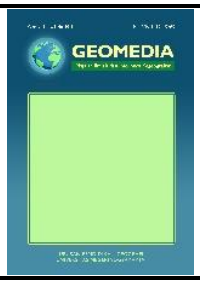

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Challenges of the first six months COVID-19 among students : an Experience at Yogyakarta State University

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A B S T R A K

Mahasiswa dan warga yang tinggal di daerah pemukiman sekitar perguruan tinggi merupakan salah satu kelompok yang rentan terhadap penyebaran COVID-19. Penelitian ini bertujuan untuk menganalisis tingkat antisipasi kerentanan dan kapasitas mahasiswa di Yogyakarta dalam menghadapi ancaman COVID-19. Penelitian ini termasuk ke dalam jenis penelitian kuantitatif, dengan sampel penelitian sebanyak 395 mahasiswa Universitas Negeri Yogyakarta. Metode survei melalui kuesioner digunakan untuk mengumpulkan data primer berupa kerentanan masyarakat dan kapasitas mahasiswa. Teknik pengambilan sampel penelitian pada riset ini yaitu menggunakan teknik *purposive sampling*. Validitas instrumen dilakukan melalui validitas isi dan validitas konstruk. Hasil analisis reliabilitas instrumen penelitian ini berada pada kategori 'sangat tinggi' untuk instrumen dengan skala Likert (Cronbach Alpha), kategori 'tinggi' untuk instrumen dengan skala Guttman (KR-20), dan kategori 'menengah' untuk instrumen dengan pilihan ganda (Split-Half Coefficient). Secara umum, hasil penelitian menunjukkan bahwa antisipasi kerentanan mahasiswa Universitas Negeri Yogyakarta terhadap ancaman COVID-19 berada pada level 'baik'. Sementara itu, tingkat kapasitas mahasiswa dalam menghadapi ancaman COVID-19 juga tergolong baik. Secara ringkas, penelitian ini menjelaskan pentingnya pengetahuan, kebiasaan, dan lingkungan sekitar dalam mengantisipasi potensi ancaman akibat COVID-19. Kemampuan mitigasi, kesiapan psikologis, dan kemampuan bertahan hidup memberikan gambaran kapasitas dan kemampuan mahasiswa dalam menghadapi ancaman COVID-19.

Keywords:
capacity
students
anticipation
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COVID-19

A B S T R A C T

Students and residents who live in residential areas around universities are one of the groups that are vulnerable to the spread of COVID-19. This study aims to analyze the level of anticipation of vulnerability and capacity of students in Yogyakarta in facing the threat of COVID-19. This research is a quantitative research, with 395 students from Yogyakarta State University as the research sample. The survey method through questionnaires was used to collect primary data in the form of community vulnerability and student capacity. The research sampling technique in this research is using *purposive sampling* technique. Instrument validity was carried out through content validity and construct validity. The results of the reliability analysis of this research instrument are in the 'extremely high' category for instruments with a Likert scale (Cronbach Alpha), 'high' category for instruments with a Guttman scale (KR-20), and 'moderate'

category for instruments with multiple choices (Split-Half Coefficient). In general, the results show that the anticipated vulnerability of Yogyakarta State University students to the threat of COVID-19 is at a 'good' level. Meanwhile, the level of student capacity in dealing with the threat of COVID-19 is also classified as good. In summary, this research explains the importance of knowledge, habits, and the surrounding environment in anticipating potential threats due to COVID-19. Mitigation ability, psychological readiness, and survival ability provide an overview of students' capacity and ability to deal with the threat of COVID-19.

Introduction

The issue of vulnerability in the context of disasters is complex and includes a range of factors, including social repercussions, economic effects, and physical threats. Research has demonstrated the tight relationship between disaster vulnerability and both property damage and human casualties, with low-income households, older adult populations, and population density all contributing to increased risk (Choo & Yoon, 2024). Anticipating students' vulnerability to COVID-19 disasters involves acknowledging the environmental elements that increase their risk as well as their psychological and social settings. Empirical studies demonstrate the necessity of all-encompassing approaches to disaster risk reduction that incorporate the viewpoints of students and guarantee that their distinct vulnerabilities are taken into taken into considerations (Seddighi et al, 2020). To guide disaster preparedness plans, thorough risk assessments that take vulnerability indicators into account are generally required (Ahmadu et al, 2024).

Students displayed a range of vulnerabilities related to their routines and behaviors during the COVID-19 pandemic, which made it difficult to predict their requirements. According to research, anxiety is severely impacted by the accessibility of online learning platforms, however it is unclear how perceived social support influences access issues (Halis & Yildirim, 2022). This disturbance frequently resulted in unhelpful coping mechanisms like spending more time in front of screens and engaging in less physical activity, which made mental health problems worse (Canlas & Karpudewan, 2021). According to certain research, students from less stable environments were more susceptible to the pandemic because of the influence of family dynamics and socioeconomic variables (Fila-Witecka, 2021).

In the general population, the COVID-19 pandemic is linked to extremely considerable levels of psychological suffering, including anxiety, sadness, stress, and post-traumatic stress disorder (Xion et al, 2020). Research has shown that optimism and looking forward to good things in the future may enhance optimistic emotions and help people react to the pandemic in a healthy way (Leslie-Miller et al., 2021). However, rethinking social ties will require new ethical frameworks because the crisis has made it harder for us to anticipate and make educated guesses about the future (Kendig & Bauchspies, 2021).

In Yogyakarta, the COVID-19 pandemic has had severe psychological, social, and economic effects that call for family assistance and individual coping mechanisms (Achmad et al, 2021). During COVID-19 in Yogyakarta, Indonesia, the following factors are important predictors of health protocol adherence: gender, age, education level, economic situation, and social standing (Supriyati et al, 2022). During the pandemic, students had to deal with issues like boredom, worry, and irritation in addition to worries about their future academic and professional careers and a sense of increased workload (Aristovnik et al., 2020). Additionally, Due to academic challenges and a lack of coping mechanisms, students with COVID-19 may face decreased motivation, greater pressure to study on their own, disruption of daily routines, and potentially higher rates of dropout (Grubic, et al., 2020).

Students' capacity in facing disasters is influenced by various factors. Jeans et al (2017) divides the three types of capacity into: absorptive capacity, adaptive capacity, and transformative capacity. Faced with an impending disaster, the ability to absorb information and apply it efficiently to gain the resources needed for

adaptation is a critical function of individuals as well as communities (Cheong & Assenova, 2021). Individuals and organizations can improve their capacity to absorb and respond to information by strengthening their absorptive capacity through different dimensions such as facilities, complementary understanding, and human resource management. This will ultimately improve their ability to navigate difficult circumstances and improve their ability to be resilient to disasters (Sadeghi et al, 2021).

The capacity of students to mitigate disasters is becoming more and more acknowledged as being crucial to building resilience in areas vulnerable to natural disasters. Students' disaster mitigation literacy in Indonesian schools could be effectively increased by incorporating local knowledge and disaster prevention instruction into academic disciplines (Juhadi et al, 2021). During the COVID-19 pandemic, there is a need to enhance students' understanding and involvement in disaster mitigation education (Alim et al, 2020). In addition, another study revealed that In order to increase student understanding and avoid the virus from spreading, disaster mitigation education must be implemented in schools during the COVID-19 new normal era (Ilyasa et al, 2020). In light of this, discussions on students' capacity and awareness of their vulnerability when dealing with COVID-19 are crucial since they prepare people for the possibility of a worldwide pandemic.

The depth of student' survival abilities when dealing with COVID-19 will also be identified by this study. Research indicates that college students' ability to survive academically has been influenced by COVID-19, but notwithstanding obstacles, they have gained useful skills and connections (Carbonel, 2022). In other study revealed that owing to elevated levels of worry and psychological strain amid the COVID-19 pandemic, Chinese university students utilized diverse coping mechanisms and survival tactics (Nurunnabi et al, 2020). These results emphasize the value of survival skills or copying techniques in assisting students in overcoming the obstacles presented by the COVID-19 epidemic.

This article discusses the anticipation of vulnerability and the capacity of students in higher education in facing COVID-19 in Yogyakarta Special Region. Anticipation of vulnerability is measured from three factors, namely general knowledge about COVID-19, behavior or habits during the COVID-19 pandemic, and environmental conditions. Meanwhile, students' capacity to deal with COVID-19 is based on factors such as mitigation ability, psychological condition, and survival ability.

Method

This study falls under the category of quantitative descriptive research. Through description analysis, it is expected that this research can provide an explanation of the level of vulnerability and capacity of Universitas Negeri Yogyakarta to in dealing with the COVID-19 pandemic. Quantitative analysis is used at the data processing stage so that the final results of the study are represented in the form of a percentage of the level of vulnerability and the level of capacity of students against the threat of COVID-19 systematically.

The data collection technique uses questionnaires through virtual networks and platform forms by taking samples from all faculties and all levels at Universitas Negeri Yogyakarta by paying attention to the composition of respondents in each study program and department. As supporting data to strengthen the threat analysis, data on the distribution of COVID-19 cases in Yogyakarta Province was also used, which was obtained through secondary data.

The sample in this study includes several students from D3, S1, S2, and S3 levels who live in the area around Universitas Negeri Yogyakarta. Sampling in this study used purposive random sampling technique, namely by paying attention to the representation of each level, study program, and distribution in each Universitas Negeri Yogyakarta to get representative results.

1) Respondent Description

The number of students in Yogyakarta Province (2021) as a whole reached 369,831 people or an increase of 0,995% from the number of students in 2019 which reached 368.066 people. Sleman Regency has the most students around 210.277 people, and the least number of students is in Kulon Progo Regency with 529 people.

After analyzing according to predetermined criteria, it is known that the total number of respondents who fit the research requirements is the amount of 395 people. The table 1 below shows the distribution of respondents by gender:

Table 1. Respondent Frequency Based on Gender

Gender	Frequency	Percentage
Male	138	35%
Female	257	65%
Amount	**395**	**100%**

Students who became respondents in this study based on the results of filling out an online questionnaire were divided into four age categories. The classification can be seen through the following table 2:

Table 2. Frequency Distribution of Respondents Based on Age

Age	Frequency	Percentage
18 – 25	308	77,97%
26 – 33	81	20,51%
34 – 41	4	1,01%
42 – 51	2	0,51%
Amount	**395**	**100%**

The distribution of respondents based on residence or current residence is spread across 4 districts and 1 city with the largest percentage of students domiciled in Sleman district. The overall distribution of respondents is shown in the following figure: (Figure 1)

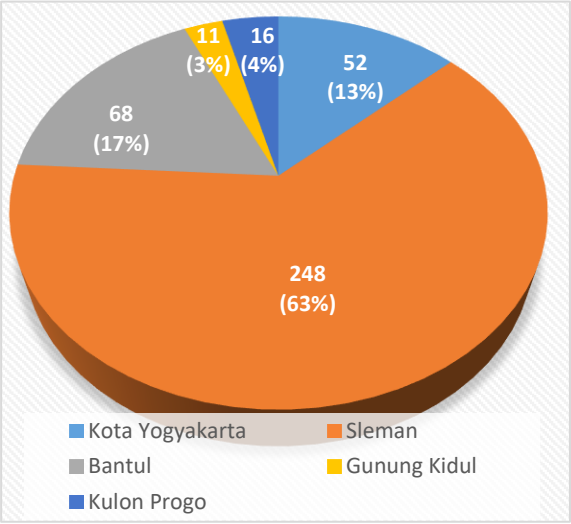

Figure 1. Respondent Domicile Percentage

Based on this figure, 248 or 63% of the total respondents are domiciled in Sleman Regency. Followed by students who live in Bantul district, totaling 68 people or equivalent to 17% of the total respondents. On the other hand, there is a 13% part of the figure that shows the distribution of respondents domiciled in the city of Yogyakarta, namely 52 people. The smallest distribution comes from respondents who live in Gunung Kidul district, 11 people with a percentage of 3% and those who live in Kulon Progo, 16 people or 4% of the 395 respondents.

2) Validity and Reliability

The items on the questionnaire in this study were composed of Likert, Guttman, multiple choice, and short form scales to obtain information about student vulnerability and capacity. This study also used content validity and construct validity to measure the feasibility of the questionnaire. The proof of content validity is through expert judgment. Meanwhile, for construct validity, the questionnaire was distributed to 70 student respondents outside the research sample with the biserial correlation coefficient for Guttman scale questionnaire items, Pearson Bivariate Correlation for questionnaire items with multiple choice answer options, and Exploratory Factor Analysis (EFA) for Likert scale questionnaire items.

Reliability in this study uses the KR-20 reliability type for Guttman scale questionnaire items, Cronbach Alpha for Likert scale questionnaire items, and split-half reliability for questionnaire items with multiple choice options.

The questionnaire consisted of a total of 96 questions/statements consisting of 56 items with Likert scale answer options, 7 items with multiple choice answer options, 33 items with a Guttman scale, and 6 short answer questions to obtain information. The results of construct validity showed that the statement with the Guttman scale answer option consisted of 30 items declared valid (> r-table = 0.235, n = 70) and 3 items was invalid (< r-table = 0.235, n = 70). Meanwhile, for the answer items with multiple choice answer options, only 1 item is invalid, while the other 6 items are valid.

In the analysis of construct validity with Exploratory Factor Analysis (EFA) conducted on questionnaire statement items with Likert scale answer options, the Kaiser-Meyer-Olkin (KMO) value is 0.736, which means that it has met the minimum requirement of Measure of Sampling Adequacy (MSA) higher than 0.5. The results of the

Barlett Test significance value have also been satisfied as required to be smaller than 0.05, hence the results of the analysis of respondents obtained a significance value of 0.000.

In the anti-image correlation value, 8 items were found to be invalid because the value was below 0.5. While the other 48 items after going through the running process are at a value above 0.5. Meanwhile, the Eigenvalue in the total variance matrix is required to be more than 1.0. From the analysis results, there are 12 factors whose value is more than 1.0. Thus, the 12 components are able to explain as much as 77.235% of the overall variance.The results of the reliability analysis of the questionnaire items are presented in the following table: (Table 3)

Table 3. Questionnaire reliability

	Cronbach's Alpha	N of items	category
Likert scale	0,95	48	Extremely high
Guttman scale	**KR-20**		
	0,708	30	High
Multiple choice	**Split-Half Coefficient**		
	0,575	6	Moderate

From the table above, it follows that the research questionnaire is reliable with details for items with Likert scale answer options having extremely high reliability, while the Guttman scale answer options have a high level of reliability, and the multiple choice has a medium level of reliability.

Result

1) Analysis of student Vulnerability Anticipation to the Threat of COVID-19

The questionnaire distributed to respondents to find out the anticipation of student vulnerability to the threat of COVID-19 has a score range of 0 - 1 and 1 - 4. Therefore, with a total of 45 items (25 items with a scale range of 0 - 1, and 20 items with a scale range of 1 - 4), then: (Table 4)

Highest score = 105

Lowest score = 20

Mi = $\frac{1}{2}$ (105 + 20) = 62,5

SDi = $\frac{1}{6}$ (105 + 20) = 20,83

Table 4. Score Category of Student Vulnerability to the Threat of COVID-19

Formula	Category
X ≥ 93,75	Excellent
62,5 ≤ X < 93,75	Good
31,25 ≤ X < 62,5	Moderate
31,25 > X	Insufficient

Based on the total average achievement of the results of the questionnaire data on the variable anticipating student vulnerability to the threat of COVID-19, a score of 69.98 was obtained, which means that this variable reached the good category. In presenting the analysis data for each indicator, this variable uses descriptive percentage analysis to obtain the value of each item and the average value of the items.

(a) Analysis of general knowledge about COVID-19

Based on the results of the calculation of the value of each question item and statement on the general knowledge indicator regarding COVID-19, it is found that the highest percentage of general knowledge is the item asking whether students know what is meant by COVID-19. This item reached a value of 99.49%, indicating that almost all respondents knew what was meant by COVID-19. The lowest percentage in the indicator of general knowledge about COVID-19 is found in the item asking whether respondents know what is meant by "long COVID", which is 49.87%. This indicates that less than 50% of respondents know what "long COVID" is. Overall, the percentage of students' general knowledge of COVID-19 is 76.67%, which means it can be classified into the high category.

(b) Analysis of student behavior during the COVID-19 pandemic

The indicator of student behavior or habits during the COVID-19 pandemic consists of 19 statement items. The results of the value calculation show that the highest percentage of habits carried out by respondents is "*wearing a mask when leaving the house in any condition*" with a value of 95.98%. The lowest percentage in the indicator of student behavior or habits during this pandemic is in the statement explaining that respondents "*use their own eating utensils when eating outside the home*", which is 49.87%. This indicates that less than 50% of respondents use their own eating utensils when eating outside the

home during the pandemic. Overall, the percentage of behaviors or habits carried out by students during the pandemic is 68.71% with a high category.

(c) Analysis of neighborhood condition

The condition of the neighborhood has 13 questions that are used to determine the anticipation of student vulnerability in facing the threat of COVID-19. The results of the analysis of the living environment indicator are presented in the form of a percentage value per item and an average percentage value. The highest percentage in this indicator is the answer to the favorable question item (see attachment) which asks whether the respondent's residence has a clean water source with a value of 99.75%. This shows that almost all respondents live in an environment that has a clean water source. Furthermore, the lowest percentage is found in the non-favorable question item (see attachment) which asks whether the respondent lives with other people (e.g. family, boarding friends, etc.) during the pandemic with an achievement of 14.43%. This indicates that most respondents still live with other people during the pandemic. Overall, the indicator of environmental conditions around the place of residence has an average value of 65.90% with a high category.

2) Analysis of student capacity against the threat of COVID-19

The questionnaire distributed to these students on the variable of student vulnerability to the threat of COVID-19 has a score range of 0 - 1 and 1 - 4. Therefore, with a total of 40 items (11 items with a scale range of 0 - 1, and 29 items with a scale range of 1 - 4), then: (Table 5)

Highest score = 127
Lowest score = 29
Mi = $\frac{1}{2}$ (127 + 29) = 78

SDi = $\frac{1}{6}$ (127 + 29) = 26

Table 5. Student Capacity Score for the Threat of COVID-19

Formula	Category
X ≥ 117	Excellent
78 ≤ X < 117	Good
39 ≤ X < 78	Moderate
39 > X	Insufficient

Based on the total average achievement of the questionnaire data results on the variable student capacity against the threat of COVID-19, it was obtained at 90,76, which means that this variable reached the good category. Data analysis on each indicator of the student capacity variable in facing the threat of COVID-19 uses descriptive percentage analysis to present the value of each item and the average value of the items.

(a) Analysis of students' mitigation capacity against COVID-19

The analysis of 20 questions and statements answered by respondents was conducted to assess the mitigation ability of students in facing the threat of COVID-19. The highest score of 89.96% was obtained for the statement "*I use a private vehicle when traveling outside the house even though it is close*." This indicates that most respondents are able to mitigate themselves by avoiding traveling using public transportation during a pandemic. Furthermore, the lowest score was obtained for the statement "*I have a thermometer and regularly check my body temperature after traveling*" which was 43,16%. This shows that less than 50% of respondents own a thermometer and check their body temperature regularly. However, overall the average value of the student mitigation indicator against the threat of COVID-19 is 67,03% which is included in the high category.

(b) Analysis of students' psychological readiness for COVID-19

The psychological readiness of students in facing the threat of COVID-19 is an indicator composed of 11 statement items. The statement "*I filter information circulating about COVID-19 in my environment, especially those with unclear sources*" had the highest score of 89,96%. This indicates that most respondents are psychologically prepared to deal with the pandemic by sorting out accurate and reliable information about COVID-19. Furthermore, the lowest percentage of readiness was obtained from the statement "*I keep several important telephone numbers (Hospital / Health Center, family, Head of RT / RW) that I can contact during an emergency*" which amounted to 68,55%. This shows that the awareness of keeping emergency numbers has been owned by most respondents. Overall, the average value of the indicator of students' psychological readiness for the threat of COVID-19 is 79,04%, which can be categorized as high.

(c) Analysis of student Survival Skills against COVID-19

The survival ability of students during the COVID-19 pandemic was analyzed through 9 questions that were mainly related to the economic conditions of respondents. The highest score of 86,58% was obtained through the answer to the favorable question whether the respondent had missed a meal due to financial difficulties during the pandemic. In line with this question, the lowest score of 30,13% was obtained from the question whether the respondent was studying while working. Overall, the average value of student survival skills during the COVID-19 pandemic is 65,29%, which is still in the high category.

Discussion

1) Student vulnerability anticipation to the threat of COVID-19

The student vulnerability anticipation questionnaire was developed based on personal, family and community risk assessments from BNPB's (Badan Nasional Penanggulangan Bencana) InaRISK Personal application.

In general, the results show that the anticipation of the vulnerability of Universitas Negeri Yogyakarta students to the threat of COVID-19 is in the good category. This is an effect of colleges implementing stringent procedures to guard against and shield employees and students from the COVID-19 epidemic, and instructors switching to virtual learning environments (Sahu, 2020). The support that academic staff and university public relations offered during the COVID-19 pandemic received the highest level of satisfaction from students (Aristovnik et al, 2020).

(a) General knowledge about COVID-19

Students' general knowledge of COVID-19 is an important parameter in assessing vulnerability anticipation, because knowledge is a crucial domain to shape individual actions. Pleasant information and upbeat mindsets may prove helpful in limiting the COVID-19 pandemic (Puspitasari et al, 2020). When a person with low social anxiety anticipates a circumstance that requires social evaluation, anticipatory processing helps them with their executive functioning (Sluis et al, 2017).

Students' general knowledge of COVID-19 was analyzed using descriptive percentage analysis with 5 (five) sub-indicator grids including: knowledge of zoning of COVID-19 prone areas, understanding of COVID-19, causes of COVID-19, general symptoms of COVID-19, and implications of COVID-19. The five sub-indicators were reduced to 13 questions and statements that were realized in multiple choice questions, short form, and statements with a Guttman scale.

Based on the results of calculating the value of each question and statement item, the highest percentage of students' general knowledge is found in the item that asks about the meaning of COVID-19, with a value of 99,49%.. These results indicate that almost all respondents have high general knowledge related to COVID-19, corroborated by the percentage value of student responses to subsequent statements and questions which also have a high average percentage value.

Although the majority of students know what COVID-19 is, its causes, common symptoms, and treatments, not a few do not understand the manifestations and implications of Covid--19 at a later stage. This is shown through the assessment results on the COVID-19 implications sub-indicator which asks whether students know about "long COVID". Almost half of the total respondents knew what "long COVID" was. Long COVID as symptoms that still persist in the body after being declared cured or negative from COVID-19. In fact, detailed knowledge about COVID-19 is basic information that needs to be owned by the wider community to avoid misconceptions and stigmatization of COVID-19 survivors. Knowledge of long COVID may also reduce excessive anxiety about the threat of COVID-19 in general (Al-Jahdhami, et al. 2021).

The insufficient information about the implications of COVID-19 can be caused by various factors that are interesting to be further examined in other similar studies. There needs to be an independent effort in finding information about COVID-19 and its various sundries to strengthen students' general knowledge in dealing with COVID-19. This could provide benefits for students in anticipating their personal and environmental vulnerability to the threat of COVID-19.

But overall, the general knowledge of UNY students about COVID-19 could be classified into the high category with a percentage of 76.67%. In line with several studies in various countries

regarding students' knowledge of COVID-19, the results of the analysis of the questionnaire show that during this pandemic students have quite extensive knowledge about COVID-19 (Maheswari, et al. 2020; Gao, et al. 2020).

(b) Student behavior during the COVID-19 pandemic

Another crucial parameter in assessing the anticipation of student vulnerability to a pandemic is the assessment of behavior or living habits. University students' hazardous habits are considerably predicted by their attitudes and knowledge about health (Alves, 2023).

Assessment of student behavior or living habits during the COVID-19 pandemic was carried out through descriptive percentage analysis. The analysis was carried out using 6 (six) grids or sub-indicators, including: the use of personal protective equipment (PPE), the habit of shaking hands, habits when arriving home after traveling, habits when outside the home, the provision of PPE and soap/antiseptic at home, and behavior to maintain endurance. The six sub-indicators were reduced to 19 favorable and non-favorable statement items with score scoring using a Likert scale.

Based on the results of calculating the value of each question item and statement, the highest percentage of student behavior or living habits during a pandemic is the statement that respondents use masks when leaving the house in any condition (95.98%). This shows that almost all respondents have a high awareness to protect themselves and stop the spread of COVID-19.

In addition, student awareness is also shown by the habit of washing hands with soap upon arrival from traveling (90,51%) and the habit of carrying a hand sanitizer or wet tissue when traveling (82,51%). These three habits have a fairly high value, which means that most respondents are used to doing it. Most of the other statements and questions on the questionnaire also have a high average percentage value. The results of this study are in line with Gao's research (2020) which shows that general knowledge about COVID-19 as a global issue can shape positive behavior as an effort to tackle the pandemic.

Although the majority of respondents have an awareness of the threat of COVID-19 and are striving to form new habits in complying with health protocols, not a small number of students still use consumables that are also used by others. This is shown through the results of the analysis on the non-favorable statement which states that respondents "use their own cutlery when eating outside the home", which is 45,73%. This percentage illustrates a condition where less than 50% of respondents are accustomed to bringing and using their own eating utensils when eating outside the home during this pandemic. The method for cleaning recyclable tableware following coronaviral infection patients (COVID-19) is outlined in this standard operating procedure (SOP) (Votinova, 2020).

When viewed as a whole, the behavioral aspects or habits of Universitas Negeri Yogyakarta students during the COVID-19 pandemic are categorized as high with a population response of 68,71%. In line with several studies in various countries regarding student habits related to COVID-19, the results of the analysis of the questionnaire show that during this pandemic students have sufficient awareness of being adaptive to COVID-19.

(c) Neighborhood condition

The majority of Universitas Negeri Yogyakarta students living in Yogyakarta Province during the COVID-19 pandemic live in Depok District, Sleman Regency. In addition, Universitas Negeri Yogyakarta students who live in Yogyakarta are also scattered in Mlati, Ngaglik, and Gondokusuman sub-districts. All of these sub-districts are included in the red zone of COVID-19 distribution in Yogyakarta. This is reinforced by the results of the analysis of non-favorable question items which show that only 32,91% of students do not live in densely populated areas, in other words, 67,09% of students live in densely populated environments.

The results of data analysis show that the highest percentage value of environmental conditions where students reside is the availability of clean water sources. This is an important note considering that one of the Corona virus prevention measures is to wash hands frequently using soap and running water. The availability of adequate clean water can support efforts to break the chain of spreading the corona virus through the habit of washing hands and bathing after traveling. The existence of clean water sources in the residence and the environment around students is expected to strengthen efforts to anticipate vulnerability in the face of the Corona virus.

In addition to the availability of clean water sources, some of the analysis results that include a high percentage include the availability of adequate bathing, washing and toilet facilities (MCK), living in a house / room with good air circulation, separate rooms with family members or other people, agreement in implementing clean and healthy living behavior, and living in a house / room with direct sunlight. The high percentage of some of these conditions is also expected to increase anticipation of vulnerability in dealing with the corona virus, although it does not rule out the possibility of transmission that could occur even in a clean and healthy environment.

Students' environmental conditions still have a high vulnerability in the sub-indicator of living with others. The non-favorable question asking whether respondents live together with other people (e.g. family, boarding house friends, etc.) indicated the lowest achievement with 14,43% of students answering 'no'. The answer shows that most students still live together with other people during the pandemic. As Zheng (2020) mentioned that the coronavirus can be transmitted from asymptomatic people to others, people who live with others are at higher risk of contracting the virus than people who live alone. This is one of the reasons why people who are mild coronavirus survivors are encouraged to self-isolate or in other words live separately from other people.

The vulnerability of the environment around where students live is not only caused by the condition of living together with other people but also because where students live is an area close to public facilities, there are COVID-19 patients in the neighborhood, have a history of comorbidities, and are vulnerable groups. However, overall the condition of the environment around where students live gets an average score of 65,90% which is a high category.

2) Student capacity against the threat of COVID-19

The research that has been conducted shows that the capacity of Universitas Negeri Yogyakarta students to deal with the threat of COVID-19 is in the good category with a value of 69,98. This figure is obtained from the assessment results of respondents' answers to 40 questions and statements on the questionnaire that has been distributed. The indicators or parameters used in the student capacity measurement questionnaire refer to the community capacity component in Prihananto & Muta'ali's (2015) research which includes mitigation capabilities, psychological readiness, and survival capabilities.

(a) Students' mitigation ability against COVID-19

Mitigation is an effort to tame or overcome potential threats. In an international ecological catastrophe, youth and young adults may prove vital to disaster relief and mitigation strategies by fostering mental wellness and health (Bessaha et al, 2021). Under the conditions of COVID-19, unevenly distributed threats have the potential to infect someone randomly through transmission, so concrete steps are needed to tame the pandemic.

Students' mitigation ability is assessed through eleven sub-indicators which are manifested in 20 questions and statements. The eleven sub-indicators include installing the COVID-19 monitoring application, conducting self-literacy, owning a first aid kit and its contents, taking preventive measures at home, limiting activities outside the home, taking preventive measures when traveling / on trips, taking preventive measures outside the home, changing masks used every day, updating the contents of the first aid kit with recommended basic medicines, taking body temperature measurements after returning from traveling, and conduct handwashing according to the procedure.

The highest percentage in the assessment of students' mitigation abilities in facing the threat of COVID-19 of 89,96% was obtained for the statement "*I use a private vehicle when traveling outside the house even though it is close*." This indicates that most respondents are able to mitigate themselves by avoiding traveling using public transportation during a pandemic. Furthermore, the lowest score was obtained for the statement "*I have a thermometer and regularly check my body temperature after traveling*" which was 43,16%. This shows that less than 50% of respondents own a thermometer and check their body temperature regularly. However, overall the average value of the student mitigation indicator against the threat of COVID-19 is 67,03% which is included in the high category.

(b) Students' psychological readiness for COVID-19

The COVID-19 pandemic has been associated with exceptionally high levels of psychological distress, including anxiety, depression, stress, and post-traumatic stress disorder among the general population (Xiong et al, 2020). Among medical professionals and members of the public, the prevalence of anxiety and depression during the COVID-19 pandemic was 33% and 28%, respectively (Luo et al, 2020).

Students are a vulnerable group affected by disasters both economically and psychologically. The psychological readiness of students in facing the threat of COVID-19 is an indicator composed of 11 statement items. The statement "*I filter information circulating about COVID-19 in my environment, especially those with unclear sources*" had the highest score of 89,96%. This indicates that most respondents are psychologically prepared to deal with the pandemic by sorting out accurate and reliable information about COVID-19.

Furthermore, the lowest percentage of readiness was obtained from the statement "*I keep several important telephone numbers (Hospital / Health Center, family, Head of RT / RW) that I can contact during an emergency*" which amounted to 68,55%. This shows that the awareness of keeping emergency numbers has been owned by most respondents. Overall, the average value of the indicator of students' psychological readiness for the threat of COVID-19 is 79,04%, which can be categorized as being high.

(c) Student survival skills against COVID-19

The survival capacity of Universitas Negeri Yogyakarta students during the COVID-19 pandemic was analyzed through 9 questions that were mainly related to the economic conditions of the respondents. The highest score of 86,58% was obtained through the answer to the favorable question whether the respondent had ever missed a meal due to financial difficulties during the pandemic. This shows that during the pandemic, Universitas Negeri Yogyakarta students have experienced financial difficulties which resulted in respondents not consuming meals. This condition needs to be further explored in terms of frequency and causes of occurrence during the pandemic. In line with this question, the lowest value of 30,13% was obtained from the question of whether the respondents studied while working, which means that only about 30% of the total respondents studied while working. In other words, 69,87% of students still rely on money sent by their parents and/or scholarships to fulfill their daily needs. Parent-students at community colleges might be successful by setting priorities, scheduling their time wisely, getting help when needed, dealing with stress, creating study and parenting plans, and keeping an optimistic outlook (Peterson, 2016). However, the overall average value of students' survival ability during the COVID-19 pandemic is 65,29%, which is still in the high-level category.

Conclusion

The results of the research showed that the level of anticipation of vulnerability and capacity of Universitas Negeri Yogyakarta students against the threat of COVID-19 was classified as good. The findings in this study are able to explain the importance of knowledge, habits, and the surrounding environment in anticipating potential threats to individuals due to the COVID-19 pandemic. Extensive knowledge about COVID-19 is able to provide an overview for individuals to change their living habits and condition the surrounding environment where they live. Likewise, the ability to mitigate, psychological readiness, and high survival ability can provide an overview of the capacity or ability of Universitas Negeri Yogyakarta students to deal with the threat of COVID-19.

Some of the limitations of this study are that the sample chosen was only limited to students from Yogyakarta State University. In addition, this research was conducted during the COVID-19 pandemic. Due to these limitations, researchers suggest future research to expand the sample to other universities in the Special Region of Yogyakarta, not only limited to Yogyakarta State University. It is also necessary to conduct post COVID-19 research to observe the anticipated vulnerability and capacity of students.

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