

A Tale of Three Countries in Southeast Asia: How Did Coronavirus Anxiety Impact Mental Health?

¹Yufi Adriani, ²Cahaya Asyifa, ³Argel B Masanda, ⁴Irwan Effendi

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¹Faculty of Psychology, UIN Syarif Hidayatullah Jakarta, Indonesia

²Faculty of Psychology, Universitas Tarumanagara, Jakarta, Indonesia

³Department of Psychology, National University of Baliwag, Philippines

⁴Microbiology and Biotechnology Laboratory, University of Riau, Pekanbaru, Indonesia

Abstract

Introduction: COVID-19 has impacted individuals from all nations, continents, races, and socioeconomic classes. However, emerging countries in Southeast Asia may have trouble during this time due to a lack of resources because of their high population densities. A few studies conducted in three Southeast Asian countries—Indonesia, the Philippines, and Malaysia—found signs of moderate to severe anxiety. It is predicted that it could have an effect on mental health as the pandemic progress.

Objectives: This study aims to understand the relationship between anxiety caused by the Coronavirus among people in the three Southeast Asia Countries with their mental health.

Methods: Using convenience sampling in quantitative methods, data were collected by administering an online questionnaire to people among the age of 18 and above who lived in Indonesia, Malaysia, and Philippines. Coronavirus anxiety measured using the Coronavirus Anxiety Scale (CAS). Whereas, mental health measured using The Mental Health Continuum-Short Form (MHC-SF). The analysis used in this study was descriptive analysis and linear regression.

Results: 514 people from Indonesia, Philippines, and Malaysia participated in this study. Current study shows significant relationship between coronavirus anxiety and mental health. However only 6.4% of the variance of mental health can be explained by coronavirus anxiety, while 93.6% is explained by other variables not examined in this study.

Conclusions: There is a significant relationship between coronavirus anxiety and mental health, however the relationship between them was low.

Keywords: coronavirus anxiety, post-covid-19 impact, community mental health, anxiety-mental health correlation, southeast Asian countries

1. Introduction

Coronaviruses are a group of viruses that belong to the order Nidovirales and the Coronaviridae family's coronae subfamily. The coronavirus in humans typically results in minor respiratory infections like the common cold, while some strains of the illness, such SARS, MERS, and COVID-19, are more dangerous. The virus is disseminated through direct contact and transfer, and it is thought to have originated from a zoonotic source. Up to severe respiratory failure, the symptomatic phase includes fever, coughing, and myalgias. Due to the coronavirus's accelerated geographic expansion over the past two decades, it has become a hazard to world health (Lee, 2020; Wiersinga et al., 2020).

The virus primarily spreads between persons who are in close proximity to one another. When an infected person coughs, sneezes, talks, sings, or breathes, the virus can be transmitted from their mouth or nose in minute liquid particles. When airborne infectious particles are breathed over short distances (a process known as short-range aerosols or short-distance airborne transmission), or when they come into direct contact with the eyes, nose, or

mouth, other persons may subsequently contract the virus (droplet transmission). The virus can spread in crowded, poorly ventilated settings where people frequently spend longer periods of time. After touching a surface or object that has been contaminated with the virus, people can contract the disease by touching their eyes, nose, or mouth. The high fatality rate, the misery endured by patients while they were ill, and the rapid and widespread pattern of transmission have caused the coronavirus to leave survivors, family members, and the community with trauma, anxiety, and excessive worry (Sharma et al., 2021; Umakanthan et al., 2020).

As of November 21, 2022, the coronavirus, also known as "COVID-19," had already caused 634,522,052 cases and 6,599,100 fatalities globally since it was declared a global pandemic on March 11, 2020 (WHO, 2020; Our World in Data, 2022). Without exception, COVID-19 has impacted people from all countries, continents, races, and socioeconomic groups (Shanafelt et al. 2020). However, developing countries in Southeast Asia, due to their high population densities, may face difficulties in enforcing social restrictions and bans due to a lack of resources or healthcare professionals (Pappa et al., 2021). During a major crisis like this, mental health issues are typically not the highest concern of the governments of these countries. Many studies conducted in various countries and even a few recent meta-analyses have demonstrated the prevalence of mental problems during the COVID-19 pandemic, and yet only two meta-analyses have been conducted on mental health symptoms during the COVID-19 pandemic in Southeast Asia (Chen et al., 2022; Pappa et al., 2021). A study conducted by Pappa et al. (2021) who compiled 25 studies and concluded that the most prevalent mental disorder symptoms were anxiety with 22% prevalence rates.

A few studies held in three countries in Southeast Asia, among them were Indonesia, Philippines, and Malaysia to find out about the anxiety level of the citizens. During the first week of the adjustment period following the lifting of the first Social Restriction Rules in Indonesia, Hikmah et al. (2020) performed an online poll among the general population, and found that 33,1% of participants had moderate to severe anxiety. Meanwhile, in Philippines, a survey conducted during the first month after COVID-19 was declared a pandemic and a more stringent community quarantine was put in place, and revealed the moderate to severe anxiety symptoms (Tee et al., 2020). A study was conducted in Malaysia during the third wave of the Coronavirus pandemic and found that 34.1% of participants experienced mild to moderate symptoms of anxiety (Marzo, 2021).

At the time of this research, citizens in these three countries were required to comply with COVID-19 regulations that were rapidly changing. When the environment is constantly shifting, people often experience feelings of uncertainty (Ren et al. 2020). Uncertainty distress, as coined by Freeston et al. (2020), refers to the subjectively bad emotion one feels in response to uncertainty. Sankar et al. (2017) found that people tend to adopt particular behaviors, when faced with distress or uncertainty. Over-engagement is the first pattern of behavior proposed by Freeston et al. (2020), and it consists of behaviors such as over-preparation, repeated questioning, and prolonged internet searching that are motivated by attempts to attain certainty about outcomes in uncertain situations in order to reduce feelings of uncertainty. Alternatively, people may exhibit avoidance behaviors or under-engagement, which are characterized by actions such as procrastination, distraction, and information avoidance. These actions were taken to avoid facing events whose outcomes are unknown and to lessen the unpleasant emotions associated with uncertainty. Thirdly, people may participate in impulsive actions because they want to fix the issue at hand, which may require acting in a way they haven't given much consideration to in order to minimize uncertainty about the result of the event or the anxiety created by uncertainty. These behavioral patterns are also evident in persons with anxiety symptoms (Andrews et al., 2010; Freeston et al., 2020).

Anxiety over the COVID-19 outbreak's unpredictability can also be explained by evolutionary theory, which suggests that, in the presence of an urgent threat, fear mobilizes physical resources to trigger a fight-or-flight reaction, which allows for speedy adaptation and increases the chances of survival (Chen et al., 2020). Anxiety is assumed to have developed as a defense mechanism in reaction to the identification of threats that are outside of one's abilities to mitigate or avoid. It serves to heighten vigilance for the purpose of spotting danger, to weigh alternatives for the sake of maintaining adaptability, to shift metabolic resources in anticipation of either action or avoidance, and to solidify learning by means of reinforcement and memory (Chen et al., 2020). However,

severe anxiety can cause significant disruptions and make it hard to carry out these survival responses (Chen et al., 2020).

People with a strong need for closure have preference for predictability and discomfort with ambiguity make them prone to experiencing excessive coronavirus anxiety (Lee, 2020). Excessive anxiety can lead to clinical difficulties that are classified as anxiety disorders, which commonly have detrimental impacts on mental health (Chen et al., 2021). As of 2004, the World Health Organization (WHO) defined mental health as "a state of well-being in which the individual realizes his or her abilities, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his or her community." In conclusion, good mental health is a state of wellness that allows people to deal with the challenges of daily life and perform effectively, as well as provides them the resources to manage unpredictable and destructive stressors, like the uncertainty of the pandemic situation (Fusar-Poli et al., 2019). Nevertheless, individuals with a high prevalence of psychopathology symptoms are more likely to be less effective in their personal and social life (Lamers et al., 2011). We expect that coronavirus anxiety will negatively predict mental health across cultures, however, in this study, we focus on people in the three Southeast Asian nations. This hypothesis is based on the conceptualization discussed and the findings of prior empirical studies.

2. Objectives

The purpose of this study was to better understand the association between coronavirus-induced anxiety and mental health among people in the Philippines, Malaysia, and Indonesia. Furthermore, this study also aims to obtain information on the citizens' satisfaction with their government's responses to the COVID-19 outbreak, as earlier research found its association with mental health (Chen et al., 2021; Gutiérrez-Cobo et al., 2021).

3. Methods

This study was conducted using convenience sampling in the quantitative study method. In order to collect data, an online questionnaire was administered by local researchers to people aged 18 years old and above, who at the time of the research, lived in Indonesia, Malaysia, and the Philippines. In order to administer this questionnaire, we involved research collaborators from the Philippines and Malaysia. The online survey was conducted from May 2020 until June 2020. This study participated by 514 participants from three countries, Indonesia $n = 245$, 47.7%, Filipino $n=187$, 36.4%, and Malaysia $n = 82$, 16%. The majority of the participants are 18-24 years old (49,6%) and female (65,6%). The analysis used in this study was descriptive analysis and linear regression.

Coronavirus anxiety measured using the Coronavirus Anxiety Scale (CAS; Lee, 2020), a brief mental health test to identify possible causes of dysfunctional anxiety related to the COVID-19 pandemic. The CAS is the first published measure of Covid19-related psychopathology that has been validated in a large sample of adults who reported significant anxiety in the early stages of the coronavirus pandemic. Principal component and factor analyses were done to identify psychometrically well-founded items for the CAS, which turned out to be a highly reliable instrument (0.93), thematically consistent, and stable. Participants was asked to choose using a 5-point scale (0 = never to 4 = almost every day) on each item. This 5-item scale was written to capture the manifestation of this particular form of anxiety due to surrounding news regarding Coronavirus, specifically dizziness, insomnia, tonic immobility, loss of appetite, and abdominal pain.

Mental health measured using The Mental Health Continuum-Short Form (MHC-SF; Keyes et al., 2008). MHC-SF is a brief scale measuring positive mental health and consists of 14 items, an abbreviated form of the 40-item MHC-LF (Keyes, 2002). These items measure what is considered a syndrome covering three broad aspects: emotional well-being, social well-being, and psychological well-being. The MHC-SF allows two kinds of assessment, the level of well-being and a categorical assessment of mental health status with three categories: flourishing (high level of well-being), languishing (the absence of mental health), and moderate mental health (located between these two extremes) (Žemojtel-Piotrowska et al., 2018). Respondents rated every feeling in the past month on a 6-point scale (0= never to 5= every day) which describes the frequency of experiencing various well-being symptoms during the past month.

4. Results

4.1 Coronavirus Anxiety Profile

Our study showed that participants from three countries experienced symptoms of anxiety related to coronavirus that ranged from moderate to high. As can be seen in table 1, 75.9% of Filipino participants had a moderate level of anxiety, and the remaining 24.1% had a high level of anxiety. Then, in participants in Malaysia, 11% of them have a high level of anxiety. Finally, for participants in Indonesia, the study results showed that 84.8% of them experienced moderate anxiety symptoms, and the remaining 15.2% experienced high anxiety symptoms.

Table 1. Coronavirus Anxiety Profile

| Citizen | Filipino | Count | Medium | High | |
|--------------|------------|------------------|--------|-------|--------|
| | | | | | |
| | | | 142 | 45 | 187 |
| | | % within Citizen | 75.9% | 24.1% | 100.0% |
| | Malaysian | Count | 73 | 9 | 82 |
| | | % within Citizen | 89.0% | 11.0% | 100.0% |
| | Indonesian | Count | 221 | 24 | 245 |
| | | % within Citizen | 90.2% | 9.8% | 100.0% |
| Total | | Count | 436 | 78 | 514 |
| | | % within Citizen | 84.8% | 15.2% | 100.0% |

4.2 Satisfaction toward government response on COVID-19 Outbreak

As indicated previously, this survey also assesses the level of satisfaction of citizens in each country with their government's response to the COVID-19 outbreak. The majority of Filipinos, 52%, are not satisfied with the government's response, as shown in table 2 of our study. Indonesian participants similarly expressed dissatisfaction with the government's response, with 44.6% expressing discontent with how their government handled the COVID-19 outbreak. Whereas, it was interesting to see that the people of Malaysia had different results. None of the participants were displeased with the government's response, 6.1% said they were neutral, and 93.9% were satisfied with the government's response.

Table 2. Satisfaction toward government response on COVID-19 Outbreak

| Citizen | Filipino | Count | Not Satisfied | Neutral | Satisfied | |
|--------------|------------|------------------|---------------|---------|-----------|--------|
| | | | | | | |
| | | | 99 | 62 | 26 | 187 |
| | | % within Citizen | 52.9% | 33.2% | 13.9% | 100.0% |
| | Malaysian | Count | 0 | 5 | 77 | 82 |
| | | % within Citizen | 0.0% | 6.1% | 93.9% | 100.0% |
| | Indonesian | Count | 130 | 73 | 42 | 245 |
| | | % within Citizen | 53.1% | 29.8% | 17.1% | 100.0% |
| Total | | Count | 229 | 140 | 145 | 514 |
| | | % within Citizen | 44.6% | 27.2% | 28.2% | 100.0% |

4.3 Relationship between coronavirus anxiety and mental health

To determine the association between coronavirus and mental health, we used linear regression to analyse the data. Our data yielded a significant result, as seen in the sig. column of ANOVA Table 3, which contains the value.000 (sig. 0.05). Therefore, it is proven that there is a significant relationship between coronavirus anxiety and mental health.

Table 3. ANOVA

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|-------------------|
| 1 | Regression | 3260.681 | 1 | 3260.681 | 34.752 | .000 ^b |
| | Residual | 48039.319 | 512 | 93.827 | | |
| | Total | 51300.000 | 513 | | | |

Table 4. Model Summary

| Model | R | R Square | Adjusted R Square | Std.Error of the Estimate |
|-------|-------------------|----------|-------------------|---------------------------|
| 1 | .252 ^a | .064 | .062 | 9.68642 |

As shown in Table 4, however, the R^2 of this correlation between coronavirus anxiety and mental health is only .064, or 6.4%. This finding suggested that coronavirus anxiety explains only 6.4% of the variance in mental health, whereas the remaining 93.6% is explained by other variables not addressed in this study. Although there is a significant relationship between coronavirus anxiety and mental health, the relationship is considered as weak.

5. Discussion

In light of significant implications of the gathered data, the following conclusions are hereby drawn:

Result 1: participants from three countries experienced symptoms of anxiety related to coronavirus that ranged from moderate to high. Consistent with the results from different regions, the present study has found higher prevalence rates of depression, anxiety, and stress during the COVID-19 pandemic. In line with study done across 35 societies, the findings support our a priori hypothesis, indicating that perceived vulnerability negatively predicted subjective well-being and positively predicted negative emotional symptoms and psychological distress across cultures (Chen et al. 2021).

Result 2: The majority of Filipinos, 52%, are not satisfied with the government's response, as shown in table 2 of our study. Indonesian participants similarly expressed dissatisfaction with the government's response, with 44.6% expressing discontent with how their government handled the COVID-19 outbreak. Whereas, it was interesting to see that the people of Malaysia had different results, with none of the participants were displeased with the government's response, 6.1% said they were neutral, and 93.9% were satisfied with the government's response. Study by Alamsyah & Zhu (2022) which indicate that government information quality is of vital importance in helping citizens get ready to fight the pandemic, as well as maintain their wellbeing. Their study shows that higher information quality leads to higher ability to respond quickly to the crisis, as well as reduced level of information overload.

[find out whether Malaysia's government response were quicker giving out information than the rest of the country].

Result 3: There is a significant relationship between coronavirus anxiety and mental health. the R^2 of this correlation between coronavirus anxiety and mental health is only .064, or 6.4%. This finding suggested that coronavirus anxiety explains only 6.4% of the variance in mental health, whereas the remaining 93.6% is explained by other variables not addressed in this study. Although there is a significant relationship between coronavirus anxiety and mental health, the relationship is considered as weak.

1. Age, educational attainment, and the degree of satisfaction of the people to their government's response to the pandemic are psychologically correlated to the experience of anxiety and the overall mental health of the Filipinos, Malaysian, and Indonesia during the COVID-19 pandemic. This conclusion gathered from the observation and also previous research that maturity in terms of age and developmental task give influence in how people see things, so the college students who is already in a higher thinking phase fully understand about the risk and the effect of COVID-19, therefore age and educational background positively correlates with anxiety and mental health. Moreover, the participants of this study seemed more critical with the government policy during this pandemic, when they feel that the policy could not overcome all the problems that might come during the pandemic, anxiety will increase and affect their mental health.

2. The experience of anxiety related to the coronavirus can negatively impact the psychological, social, and emotional wellbeing of the college students in three countries.

3. In spite of the adverse and hostile repercussions of the COVID-19 pandemic, college students on those three countries people are less likely to experience anxiety due to the coronavirus itself but rather seem to be more concerned on how they can function psychologically, socially, and emotionally in the challenges on the “new normal” brought by the pandemic. People in Philippines, Malaysia and Indonesia have adapted and with this situation since it already last for almost few months. Therefor they need to change their mindset and find the way on how to live side by side with COVID – 19 Virus.

Recommendation

With the implications of the results of the study, the following recommendations are hereby highly suggested:

1. Government-led mental health intervention programs should deal proactively in the following areas of psychological, social, and emotional functioning:

- a. Recognition of personal abilities and limitations.
- b. Getting a healthy diet plan and fitness regime.
- c. Engaging in more social activities.
- d. Getting adequate rest.

2. For the future researchers, the following are strongly advised:

- a. Inclusion of COVID-19 positive participants.
- b. Increasing of the total number of participants.
- c. Stratified selection from all regions of the country.
- d. Relatively equal distribution of the participants in terms of their profiles.

When the above has been secured, the use of regression analysis is then highly ideal.

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