

## SOCIAL AND BEHAVIORAL RESPONSE TO CORONAVIRUS AS AN INFLUENCE ON STUDENTS' ANXIETY: A CONVERGENT DESIGN

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### ABSTRACT

The study was conducted to find out the levels of social response, behavioral response, and students' anxiety. In addition, this study wants to find out if social response, and behavioral response significantly predict students' anxiety, its contribution, and the students' lived experiences during the pandemic. This study used a mixed method design with 200 junior high school students in Kidapawan City First District. A survey questionnaire was used to gather data on social response, behavioral response, and students' anxiety. 10 Respondents from the in-depth interview and 7 respondents from focus group discussion. It was found out that the level of social response ( $m=4.41$ ), behavioral response ( $m=4.35$ ), and students' anxiety ( $m=4.23$ ). Moreover, both the variables social response and behavioral response significantly predict students' anxiety ( $r=.533$ ,  $r=.596$  and  $p<.05$ , respectively). The lived experienced experiences of the students revealed that they mostly follow minimum health protocols of the government to ease their anxieties during this pandemic and also experiences discomfort following those rules implemented. Lastly, students have experienced differently during the pandemic such as mode of learning in school during the new normal situation and adapted modular learning instead of face-to-face classes and the need to follow minimum health protocols as directed by the government and health sectors.

**Keywords:** *Social Response, Behavioral Response, Students' Anxiety, Convergent Design, Kidapawan City District IV.*

### INTRODUCTION

Education do not focus solely on the expansion of knowledge it also concerns with the growth of the student's well-being and can help students build well-around skills that will allow them to be fully equipped with the things needed to survive and be ready for any uncertainties in life. However, many students were impacted with the change of learning delivery modality due to coronavirus. Now, both students and schools' struggle. Online classes are important resources and support networks — has come to a halt. Due to these disruptions, college students are reporting increased stress. This adds to ongoing concerns about student mental health.

Studies show that rates of anxiety, depression, and stress in college students have risen significantly over the past three decades. Also, Holmes et al. (2020) noted that although a rise in symptoms of anxiety and coping responses to stress are expected during these extraordinary circumstances, there is a risk that the prevalence of clinically relevant numbers of people with anxiety, depression, and engaging in harmful behaviors (such as suicide and self-harm) will

increase. Furthermore, it is stated that the major adverse consequence of the COVID-19 pandemic is likely to be increased social isolation and loneliness, which are strongly associated with anxiety, depression, self-harm, and suicide attempts across the lifespan.

In this time, it is very important to determine the factors that can somehow help students maintain good well-being and being resilient to anxieties despite the current situation. This study tries to associate social response and behavioral response to the coronavirus as agents that can influence students' anxieties. Social responses to the coronavirus are preventive measures that can mitigate its impact on the people to effectively cope with the situation (Grant, 2018). Thus, social preparedness and awareness are essential elements to reduce the anxieties of people. Specifically, it is found that when there is a positive connection between awareness and preparedness of people on their mental health (Clay et al., 2014). On contrary, a probability of a mental disorder like anxiety due to an absence of social preparedness (Clay et al., 2014). On the other hand, the uncertainty and low predictability of COVID-19 threaten student's mental health, especially in terms of emotions and cognition.

According to the Behavioral Immune System (BIS) theory (John et al., 2013), people are likely to develop negative emotions (e.g., aversion, anxiety, etc.) and negative cognitive assessment for self-protection (Ackerman, 2009). Faced with potential disease threats, people tend to develop avoidant behaviors (e.g., avoid contact with people who have pneumonia-like symptoms) and obey social norms strictly (e.g., conformity). Moreover, according to stress theory (Noris et al., 2002) and perceived risk theory (Slovic, 1987), public health emergencies trigger more negative emotions and affect cognitive assessment as well. These negative emotions keep people away from potential pathogens when it refers to the disease. However, long-term negative emotions may reduce the immune function of people and destroy the balance of their normal physiological mechanisms (Kiecolt et al., 2002).

There have been many studies conducted before that examined student's anxieties during a pandemic or disaster, however, this study is focused on a current pandemic situation that affected many people globally which is about to surpass the greatest pandemic recorded, the 1918 Spanish Flu Virus. The only difference in today's time is that people are equipped with new medical technologies and communication is now easy unlike in the past. Thus, the need to conduct and further analyze how student's important social and behavioral responses can influence student's anxieties is very important.

The results of this study are very beneficial. It will not only give the government and the educational sector enough ideas on how to evaluate their systems and policies during a pandemic but as well as the parents and the community will be aware of the ways to help children and students feel safe and not to worry during this time.

## **FRAMEWORK**

This study is grounded on the Perception Risk Theory developed by Paul Slovic in a classic review article published in Science in 1987. Risk perception assumed that people rationally assess risk, weighing information before making a decision. This approach assumes that providing people with more information will alter their perceptions of risk. Subsequent research has demonstrated that providing more information alone will not assuage people's irrational fears and sometimes outlandish ideas about what is truly risky. The psychological

approach to risk perception theory, championed by psychologist Paul Slovic, examines the particular heuristics and biases people invent to interpret the amount of risk in their environment.

Slovic emphasizes the essential way in which experts' and laypeople's views of risk differ. Experts judge risk in terms of quantitative assessments of morbidity and mortality. Yet most people's perception of risk is far more complex, involving numerous psychological and cognitive processes. Slovic's review demonstrates the complexity of the general public's assessment of risk through its cogent appraisal of decades of research on risk perception theory.

## **METHOD**

### **Research Design**

This study utilized the convergent mixed-method research design, both qualitative and quantitative data were being collected concurrently, and by integrating the results, a more robust and complete understanding is possible than the use of either data source alone (Creswell, 2013). Moreover, the correlational design is a technique to describe and measure the degree of association (or relationship) between two or more variables or sets of the score (Creswell, 2002). In this study, the level of social, behavioral responses to the coronavirus and student's anxiety were determined. Moreover, the relationship between social, behavioral responses to coronavirus on student's anxiety were also investigated.

### **Respondents**

The students in Kidapawan City Fourth District were the respondents of the study. Using Slovin's formula to compute the sample size, a total of 200 students were selected using the following criteria: should full-time student and at currently staying in Kidapawan City while the pandemic is ongoing.

### **Instruments**

Sets of adopted a standardized questionnaire were used to gather data from the respondents. Even if the tools already have validity and reliability assessment, these instruments were subjected to validity and reliability test. The instruments include: social response questionnaire (Al-Ajilan, 2015), behavioral response questionnaire (Afayo et al., 2020), and anxiety questionnaire (Bults et al., 2017).

### **Statistical Tools**

Mean and Standard Deviation was used to determine the level of the level of social, behavioral responses to the coronavirus and student's anxiety. Moreover, the Pearson Product Moment Correlation was utilized to determine the relationship between social, behavioral responses to coronavirus on student's anxiety. Furthermore, the multiple regression analysis was used to measure the influence of social and behavioral response on the student's anxiety.

## RESULTS AND DISCUSSION

### Level of Social Response

Table 1 shows the level of social response. The variable social response contains four indicators namely government response, health-sector response, non-health sector response, and community response. The overall mean of the variable social response is 4.41 and high.

Government response gathered a mean of 4.58 and described as very high. Result indicates that students are highly aware of the government response in combat for the virus. It can be observe based on the result the government are transparent to the public on their plans in mitigating the spread of the virus and how it should be implemented. Having this kind of practices in times of pandemic can greatly influence students feeling of safety since they can be aware that the government is doing something in order to protect them from the virus. This conforms the study of (Buheji, 2020) that governments have given utmost priority to that aspect through adopting different community-based strategies like launching wide-scale COVID-19 awareness campaigns, quarantine protocols and mandating lockdown measures including schools and workplace closures.

Similarly, the mean of the indicator health-sector response is 4.42, described as high, this implies that health sectors are really up to date and timely in providing information about the pandemic situation. With all the different mediums for information dissemination, access to the status of pandemic and health care programs is now easy. This supported the study of Padilla, 2020 adequate, reliable and timely information becomes even more relevant. The production and synthesis of knowledge made available in a timely manner to professionals on the frontline of response to COVID-19 and to the people is essential and a basic requirement for improving response capacity.

In the same way, the mean of the indicator non-health sector response is 4.38 and is described as high. This entails that student do really know the value of preparedness. They believe that the establishments should have an advance preparedness plan in times of pandemic. This will help many establishments respond with the pandemic crisis effectively. Similarly, according to the European Union (2020) preparedness planning is essential in order to respond effectively to outbreaks and epidemics. Sharing and aligning plans and programs of establishments in the area of public health emergency preparedness adds value to the efforts to strengthen the capacities and ensure coordinated and effective support when faced health threats.

Correspondingly, the mean of the indicator community response is 4.38 described as high. The result implies that students are highly aware that there are isolation facilities for the people who are infected with the virus. Knowing this idea helps individual to stay calm, for they know that there are interventions being made to reduce the transmission of COVID-19 and for their safety.

Similarly, Among the eleven statements on the indicator community response, the statement "The community has laboratory that is identified for confirmation (locally, regionally or nationally)" got the highest mean of 4.50 described as highly aware, while the statement "The

community established plan for action for tackling disease outbreaks within the family” got the lowest mean 4.16 of described as aware. This supports the study of Thompson (2020) community prioritized health care facilities, isolation and several measures that can be taken to implement infection prevention and control. These measures help prevent the spread of contagious diseases from one person to another.

**Table 1. Level of Social Response**

Level of Social Response	Mean	Std. Deviation	Interpretation
A. Government Response	4.58	.523	Highly Aware
B. Health Sector Response	4.42	.365	Aware
C. Non-Health Sector Response	4.38	.407	Aware
D. Community Response	4.38	.367	Oftentimes
<b>Overall</b>	<b>4.41</b>	<b>.330</b>	<b>High Level of Social Response</b>

### Level of Behavioral Response

Table 2 shows the level of behavioral response. The variable behavioral response contains one indicator namely psychological response. The overall mean of the indicator psychological response is 4.35 with a description of high. This implies that students are highly prepared and are highly hopeful that they can combat this COVID19 pandemic. This finding is aligned to the results Buheji (2020) elucidates that in times of uncertainties, psychological resilience is an important ability of human to spring back into shape, specifically after being pulled, or stretched, or bent due specific intention or condition.

**Table 2. Level of Behavioral Response**

Behavioral Response	Mean	Std. Deviation	Interpretation
A. Psychological Response <i>Mean</i>	<b>4.35</b>	<b>.342</b>	<b>High Level of Psychological Response</b>

### Level of Student's Anxiety

Table 3 shows the level of student's anxiety. The variable student's anxiety contains three indicators namely knowledge, perceived severity, and perceived efficacy. The overall mean of the variable student's anxiety is 4.23, described as high.

In terms of the knowledge of the students, overall mean is 4.39 and is high. This implies that students are highly aware of how to detect if a certain person has been infected by the virus by looking at the observable symptoms. This means that students are well oriented on some important ideas that they must need to know. In support, Alahdal et al. (2020) states that during epidemics and pandemics, a gap in knowledge about the emerging disease can cause chaos

and panic among the public. Distributing the proper information can not only guide society through such events but can also increase epidemic preparedness that might occur in the future. In addition, negative attitudes and practices towards new infectious diseases can aggravate epidemics which may eventually result in pandemics.

In the aspect of perceived severity, the overall mean is 4.38 described as high. Students are really worried on how this COVID-19 could severely affect their health. This conforms in the study of (Liu et al., 2020) that COVID-19-specific worries about being infected and getting the symptoms could also affect to people's mental well-being during the pandemic. For example, worries about the consequences, feeling of having COVID-19 were associated with anxiety symptoms among adults and children.

Meanwhile, there is also a high level of perceived efficacy among students with the mean is 3.93. The result proves that students are now conscious of whoever they are with and where they go. This supported the study of UNICEF (2020), people and places who have been affected by the COVID-19 contribute to the people's stigma and fear around. This creates a negative association between a person or group of people who share certain characteristics and a specific disease.

**Table 3. Level of Student's Anxiety**

Student's Anxiety	Mean	Std. Deviation	Interpretation
A. Knowledge	4.39	.422	Agree
B. Perceived Severity	4.38	.442	Agree
C. Perceived Efficacy	3.93	.519	Agree
<i>Mean</i>	<b>4.23</b>	<b>.324</b>	<b>High Level of Student's Anxiety</b>

### Relationship between Variables

Table 4 presents the results of correlational analysis of the variables which its purpose is to show if the two independent variables particularly the social response and student's anxiety, and behavioral response and student's anxiety. The result indicates that both social response and behavioral response, have a significant relationship with student's anxiety.

Particularly, from the result presented, it shows that the correlation between social response and student's anxiety revealed a p value of .000 which is less than the value of 0.05 level of confidence which indicates that there is a relationship that can be drawn from the two variables indicated. Thus, the null hypothesis which states that "*There is no significant relationship between social response and student's anxiety*" is therefore rejected with a moderate degree of correlation ( $r=.533$ ).

In support, according to the study of Clay et al. (2014) that social preparedness like government giving awareness and support to people, and community responses are essential elements to reduce anxieties of people. Specifically, it is found that this two have a significant relationship. That is, social awareness and preparedness of people can influence directly their

mental health (Clay et al., 2014). However, the absence of social preparedness can have a probability of mental disorder like anxiety (Clay et al., 2014).

Similarly, from the result presented, it shows that the correlation between behavioral response and student's anxiety revealed a p value of .000 which is less than the value of 0.05 level of confidence which indicates that there is a relationship that can be drawn from the two variables indicated. Thus, the null hypothesis which states that "*There is no significant relationship between behavioral response and student's anxiety*" is therefore rejected with a moderate degree of correlation ( $r=.596$ ).

According to Leung et al. (2003) understanding individuals' behavior and their relationship to their perceived risk is important in terms of effective control of one's mental health. Some studies have examined risk perceptions and precautionary behaviors during the early stages of the 2009 (H1N1) influenza pandemic. These studies found that precautionary behaviors were associated with anxiety about H1N1 influenza, risk perceptions, perceived efficacy of the precautionary behaviors (Lao et al., 2010; Seal et al., 2010; Goodwin et al, 2009). Thus, in similar way, in this COVID-19 pandemic, behavior regulation is an important factor that can contribute to anxiety during pandemic.

**Table 4. Relationship between the Variables**

VARIABLES	R	p-value	Remarks
Social Response and Students' Anxiety	.533**	.000	Highly Significant
Behavioral Response and Students' Anxiety	.596**	.000	Highly Significant

\*Significant at .05 level

### **Influence of Social Response and Behavioral Response on Student's Anxiety**

Table 5 presents the results of regression analysis which purpose is to show the significant predictors of innovative climate. The result indicates that both social response and behavioral responses were found to be significant predictors of student's anxiety.

In particular, behavioral responses has a significant direct effect on the student's anxiety ( $\beta=.435$ ,  $p<.05$ ). This means that the regression weight for social response in the prediction of student's anxiety is significantly different from zero at the 0.05 level (two-tailed). Thus, the value of .435 revealed that in every increase of a single unit in the social response, an increase of .435 in student's anxiety can be expected.

According to the OECD (2020) that the social response plays an important role in tackling the crisis caused by the coronavirus (COVID-19) pandemic. Having the ability of the government and the community to coordinate and strategize a plan, use of evidence to inform decisions, and communicates decisions to the public are important factors that somehow influence people's mental health. Moreover, when people know the plans of the government and community, people feel safe and secured since they knew that they are doing for the safety of the people.

Similarly, social responses have a significant direct effect on the student's anxiety ( $\beta=.173$ ,  $p<.05$ ). This means that the regression weight for behavioral responses in the prediction of student's anxiety is significantly different from zero at the 0.05 level (two-tailed). Thus, the value of .173 revealed that in every increase of a single unit in the behavioral responses, an increase of .173 in student's anxiety can be expected.

In support, according to Canadian Mental Health Association (2020), anxiety is a normal reaction to uncertainty like the coronavirus and the COVID-19 illness make for a very uncertain future. People worry about their own health, family, school and work. However, people who already experience a lot of anxiety may find their anxiety worsening.

**Table 5. Influence of Social Response and Behavioral Response on Student's Anxiety**

Variables	Unstandardized Coefficients		Standardized Coefficient	T	p-value	Remarks
	B	Std. Error	Beta			
(Constant)	1.577	.255		6.175	.000	
Social Response	.173	.088	.177	1.971	.040	Significant
Behavioral Response	.435	.085	.460	5.127	.000	Significant

Note:  $R=.607^a$ ,  $R\text{-square}=.368$ ,  $F=57.420$ ,  $P>.05$

## CONCLUSION

The students during pandemic have high awareness on social responses and behavioral responses to Covid-19. Meanwhile, anxiety is high among students. In addition, both social and behavioral response of the students to coronavirus showed to have a significant relationship with the students' anxiety and has contributed greatly to the student's anxiety.

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