

# Innovations

## **Assessing Ways through Research and Augmentation (AWRA): Impact of COVID-19 Pandemic on the Mental Health of College Students in the Philippines Phase 1**

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**Abstract:** *The ongoing COVID-19 pandemic changed the overall educational landscape of the country. It shifted the attention to how the students handled the predicaments presented by the situation. This survey explored the effects of the pandemic to the mental health of the college students from both public and private institutions in the Province of Samar, Philippines. Data collection focused in two areas of mental health: anxiety and depression. It was done through online and face-to-face modalities with the use of the following tools: Anxiety GAD-2, Anxiety GAD-7, Depression PHQ-2, and Depression PHQ-9. Data were analyzed through quantitative methods. It was found out that of the 180 college students, 91 (50.56%) screened for generalized anxiety disorder as a result of the pandemic. Further analysis under this premise revealed that most of the college students which accounts for 87 (48.33%) developed moderate anxiety. By using the Depression PHQ-2 tool, it was found out that 127 (70.56%) college students developed major depressive disorder during the pandemic. Furthermore, 113 (62.78%) have PHQ-9 scores between 5-9, classified as mild severity of depression. This means that they need to be observed constantly and a follow-up diagnostic test should be conducted. Moreover, the following factors were identified that contributed to their current mental health: pandemic scare and fear of the unknown(175/180, 97.22%), decreased social activities and interaction due to pandemic restrictions(178/180, 98.89%), and forced transition of the mode of learning and other academic concerns(179/180, 99.44%). The pandemic had negative implications to the mental health of the college students. To cope with this, institutions and concerned agencies need to develop a good support system accompanied by a well thought out preventative and rehabilitative programs that caters mental health concerns of college students.*

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**Keywords:** *Higher Education, Mental Health, Impact, Survey, Philippines*

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## ***I. Introduction***

The COVID-19 pandemic has had an unprecedented impact on the world, affecting various aspects of our lives, including our mental health. The pandemic has caused significant disruptions to the college experience, including campus closures, the cancellation of in-person classes, and limitations on social interactions. These disruptions have led to increased stress, anxiety, and depression among college students, who have had to adapt to new ways of learning and living.

A number of studies have documented the negative impact of the pandemic on the mental health of college students. In the United States, a study by the American College Health Association (ACHA) found that nearly 90% of college students reported feeling overwhelmed by the pandemic, while 50% reported increased anxiety and 32% reported increased depression (ACHA, 2020). The ACHA also found that college students who experienced financial stress were more likely to report poor mental health (ACHA, 2021). Another study by Son et al. (2020) found that college students in the United States reported high levels of anxiety and depression during the pandemic, with minority students experiencing higher levels of psychological distress.

A study by Li et al. (2020) found that college students in China experienced high levels of anxiety, depression, and stress during the early stages of the pandemic. Similarly, a study by Cao et al. (2020) found that the pandemic has led to increased levels of stress and anxiety among college students in China, with nearly half of students reporting moderate to high levels of anxiety. In the same study, it was found out that among college students in the Philippines, the COVID-19 pandemic has led to increased levels of stress, anxiety, and depression, with nearly half of students reporting moderate to high levels of anxiety.

In the Philippines, Reyes et al. (2020) found that Filipino college students experienced a significant decline in mental health during the pandemic, with higher levels of anxiety, depression, and stress compared to pre-pandemic levels. In addition to the impact on mental health, the pandemic has also affected the academic performance and overall well-being of college students in the Philippines. A study by Lapeña et al. (2021) found that the pandemic has led to disruptions in the academic schedules of college students, resulting in increased stress and anxiety related to academic performance. The study also found that social isolation and decreased access to mental health services were significant stressors for Filipino college students during the pandemic.

The pandemic has also created new challenges for college students, such as managing online learning, financial stress, and social isolation. These challenges have further contributed to the negative impact on mental health. A study by Kim et al. (2021) found that the perceived lack of social support among college students was associated with higher levels of depression and anxiety during the pandemic. Overall, the COVID-19 pandemic has had a significant impact on the mental health of college students worldwide. It is important for universities and mental health professionals to provide resources and support to help students cope with the challenges posed by the pandemic.

#### ***a. Effects of COVID-19 to Filipino College Students***

In the Philippines, college students have faced several challenges, including academic and financial problems, social isolation, and mental health issues. The impact of the pandemic on college students' well-being has been a growing concern, with several studies exploring its effects.

**Financial and Academic Challenges:** The pandemic has affected the country's economy, resulting in job losses and reduced incomes for many households. As a result, college students have faced financial difficulties, with some struggling to pay tuition fees and other expenses (Lapeña, Huyco, & Mejia, 2021). The shift to online learning has also posed challenges, with some students struggling to adapt to the new mode of education. A study by Tan (2021) found that online classes have negatively impacted students' academic performance, with many experiencing difficulties in managing their time and staying motivated.

**Social Isolation:** The pandemic has also led to social isolation, with quarantine measures limiting face-to-face interactions. College students have been unable to attend social gatherings, participate in extracurricular activities, or interact with their peers and professors in person (Lapeña et al., 2021). This has resulted in feelings of loneliness and disconnection from the college community, which can negatively impact mental health.

**Social Support:** Social support has been identified as a protective factor against the negative impact of the pandemic on mental health. A study by Kim, Majid, and Jang (2021) found that social support from family and friends was positively associated with mental health among college students in the Philippines during the pandemic.

**Mental Health Issues:** The pandemic's impact on mental health has been a growing concern worldwide, with several studies highlighting its effects on college students. A study by Reyes, Sierra, and Bianzon (2020) found high levels of anxiety and depression among college students in the Philippines during the pandemic. Another study by Lapeña et al. (2021) found that the pandemic has negatively affected students' psychological well-being, with many experiencing stress, anxiety, and depressive symptoms.

### ***b. Importance of Mental Health During the Pandemic***

The COVID-19 pandemic has brought unprecedented challenges to individuals and communities worldwide. With the rapid spread of the virus, governments and health organizations had to take drastic measures such as quarantine and social distancing to prevent the further transmission of the disease. These measures have resulted in significant changes in the way people live, work, and interact with each other. The pandemic's impact on physical health has been well documented, but its impact on mental health is equally significant.

Studies have shown that the pandemic has caused increased levels of anxiety, depression, stress, and other mental health problems among the general population (Holmes et al., 2020; Wang et al., 2020). The social isolation caused by quarantine and lockdown measures has also been linked to the exacerbation of existing mental health conditions and the development of new ones (Bao et al., 2020). For instance, a study in the Philippines showed that the pandemic had a significant impact on the psychological well-being of college students, which affected their academic performance (Tan, 2021).

The importance of mental health during the pandemic cannot be overstated. Mental health problems can affect individuals' daily functioning, impair their ability to work, study, and take care of themselves and others. Therefore, it is crucial to prioritize mental health during the pandemic and ensure that individuals have access to mental health support and resources.

Studies have shown that interventions such as online mental health services, teletherapy, and peer support groups can be effective in addressing mental health problems during the pandemic (Gupta et al., 2020; Najim et al., 2020). Education and awareness campaigns about mental health and the availability of mental health services can also help reduce stigma and increase help-seeking behaviors (Xiong et al., 2020).

As a whole, the pandemic has highlighted the importance of mental health as an integral part of overall health and well-being. The pandemic's impact on mental health underscores the need for effective mental health services and interventions to support individuals during these challenging times.

This study aimed to examine the effects of the COVID-19 pandemic on the mental health of college students enrolled in public state and private universities and colleges in the Province of Samar, Philippines guided by the following specific objectives:

1. Determine the impact of the pandemic on the following areas of mental health: anxiety and depression.
2. Explore the factors affecting the mental health of college students.

## ***II. Methodology***

In this study, the two main variables examined were anxiety and depression, which were assessed through a survey questionnaire.

### ***a. Research Design***

This study utilized a survey research design which is a common method used in social science research to collect data from a sample of individuals. This design involves the use of a standardized questionnaire to collect data on specific variables of interest. One advantage of this design is its ability to efficiently gather data from a large sample size, making it useful for studying population-level trends and attitudes (Babbie & Mouton, 2020). Moreover, survey research can allow for the measurement of latent constructs such as attitudes, beliefs, and values that may be difficult to observe directly (Stapleton & Webster, 2022).

### ***b. Participants and Sampling***

The research involved employing cluster sampling in selecting 180 college students from various public and private schools in the Province of Samar, Philippines. Cluster sampling is a method of sampling where the population is divided into clusters or groups, and a random sample of clusters is chosen to be included in the study. In this case, the clusters were the public and private schools in the province. By randomly selecting schools instead of individual students, cluster sampling can be a more efficient and cost-effective way to obtain a representative sample from a large population. Furthermore, it reduces the sampling error by including more diversity in the sample. The use of cluster sampling in this study ensures a diverse representation of college students in the Province of Samar.

According to a study by Mosadeghrad (2020), cluster sampling is a commonly used sampling technique in health research. It is particularly useful in identifying groups of people with similar characteristics or behaviors that may be affected by the same factors.

### ***c. Data Collection***

Data collection focused on two areas of mental health: anxiety and depression, which were measured using the Anxiety GAD-2, Anxiety GAD-7, Depression PHQ-2, and Depression PHQ-9 scales (Spitzer et al., 2006; Kroenke et al., 2007). The data were collected through online and face-to-face modalities.

### ***d. Data Analysis***

The collected data underwent careful analysis using techniques such as frequency count, percentage, and weighted mean to determine response rates (Panela, 2022a). The survey served as an initial exploration of the observed phenomenon and will aid in the further analysis of the study (Panela, 2022b). The analysis of the data was carried out using Microsoft Excel and Statistical Package for the Social Sciences (SPSS).

## ***III. Results and Discussion***

Using the Anxiety GAD-2 tool, it was found out that 180 college students, 91 (50.56%) screened for generalized anxiety disorder as a result of the pandemic. It is followed by 45 (25.00%) college students who developed panic disorder, 33 (18.33%) who developed social anxiety disorder and 11 (6.11%) categorized as any anxiety disorder.

**Table 1. Types of Anxiety Disorder Developed by College Students**

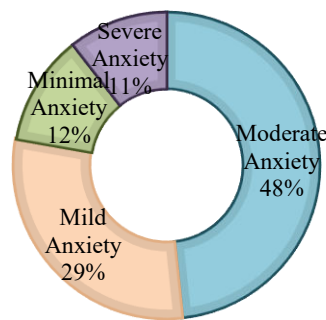
<b>Types of Anxiety Disorder</b>	<b>f</b>	<b>Percentage</b>
1. Generalized Disorder	91	50.56
2. Panic Disorder	45	25.00
3. Social Anxiety Disorder	33	18.33
4. Any Anxiety Disorder	11	6.11
<b>Total</b>	180	100.00

The findings of the study highlight the significant impact of the pandemic on the mental health of college students in the Philippines, particularly on their anxiety levels. As revealed by the Anxiety GAD-2 tool, more than half of the participants (50.56%) screened positive for generalized anxiety disorder. This is consistent with the previous research that highlighted the negative psychological impact of the pandemic on the general population, including anxiety and stress (Xiong et al., 2020; Wang et al., 2020).

Moreover, the study also revealed that a considerable number of college students developed panic disorder (25.00%) and social anxiety disorder (18.33%) as a result of the pandemic. These findings suggest that the pandemic has led to the exacerbation of pre-existing anxiety disorders and the development of new ones among college students. This is consistent with the findings of previous studies that highlighted the significant impact of the pandemic on mental health outcomes, including anxiety disorders (Cao et al., 2020; Sahoo et al., 2021). In general, grand weighted mean for the impact of the ongoing pandemic to school management was posted at 3.11 with an interpretation of quite often.

The high prevalence of anxiety disorders among college students underscores the need for mental health interventions to support this vulnerable population during the pandemic. This includes the provision of online mental health services, psychoeducation, and self-help resources that are easily accessible to college students (Liu et al., 2021). In addition, it is essential to prioritize mental health promotion and awareness campaigns in educational institutions to reduce the stigma associated with mental health issues and promote help-seeking behaviors among college students (Xiong et al., 2020).

**Figure 1. Severity of Anxiety Disorder among College Students**





Further analysis under this premise revealed that most of the college students which accounts for 87 (48.33%) developed moderate anxiety. Followed by those developing mild which accounts for 53 (29.44%), minimal anxiety with 21 (11.67%), and severe anxiety with 19 (10.56%).

These findings are consistent with previous studies that suggest a high prevalence of depression among college students during the pandemic (Chen et al., 2020; Naser et al., 2021).

Once again, the negative impact of the pandemic on mental health is undeniable, and it highlights the need for immediate interventions and support for college students to address their mental health concerns.

As seen on Table 2, by using the Depression PHQ-2 tool, it was found out that 127 (70.56%) college students developed major depressive disorder during the pandemic. The remaining 53 (29.44%) college students developed any depressive disorder.

The finding is concerning and highlights the impact of the pandemic on mental health. This finding is consistent with other studies that have reported high rates of depression among college students during the pandemic (Cao et al., 2021; Wang et al., 2020). In a study by Cao and colleagues (2021), they found that 63.1% of college students in China reported moderate to severe depressive symptoms during the pandemic. Another study by Wang and colleagues (2020) reported that 16.5% of the participants had moderate to severe depression symptoms during the initial stage of the pandemic.

**Table 2. Types of Depressive Disorder Developed by College Students**

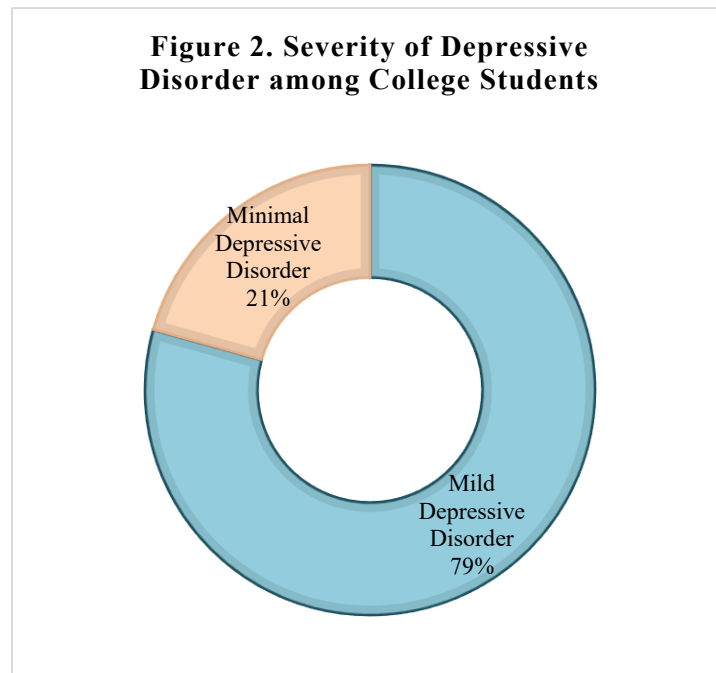
<b>Types of Depressive Disorder</b>	<b>f</b>	<b>Percentage</b>
1. Major Depressive Disorder	127	70.56
2. Any Depressive Disorder	53	29.44
<b>Total</b>	180	100.00

The pandemic has brought about various stressors such as social isolation, financial difficulties, and uncertainty about the future, which can all contribute to the development of depressive symptoms (Zhou et al., 2020). In addition, the sudden



shift to online learning and the lack of social support from peers and educators may also exacerbate feelings of loneliness and hopelessness (Son et al., 2020).

Again, the high prevalence of depression among college students during the pandemic underscores the need for mental health interventions and support for this vulnerable population. Early detection and intervention are crucial in addressing depressive symptoms among college students during the pandemic. Educational institutions and mental health professionals must develop effective and accessible interventions to provide support to students in need.

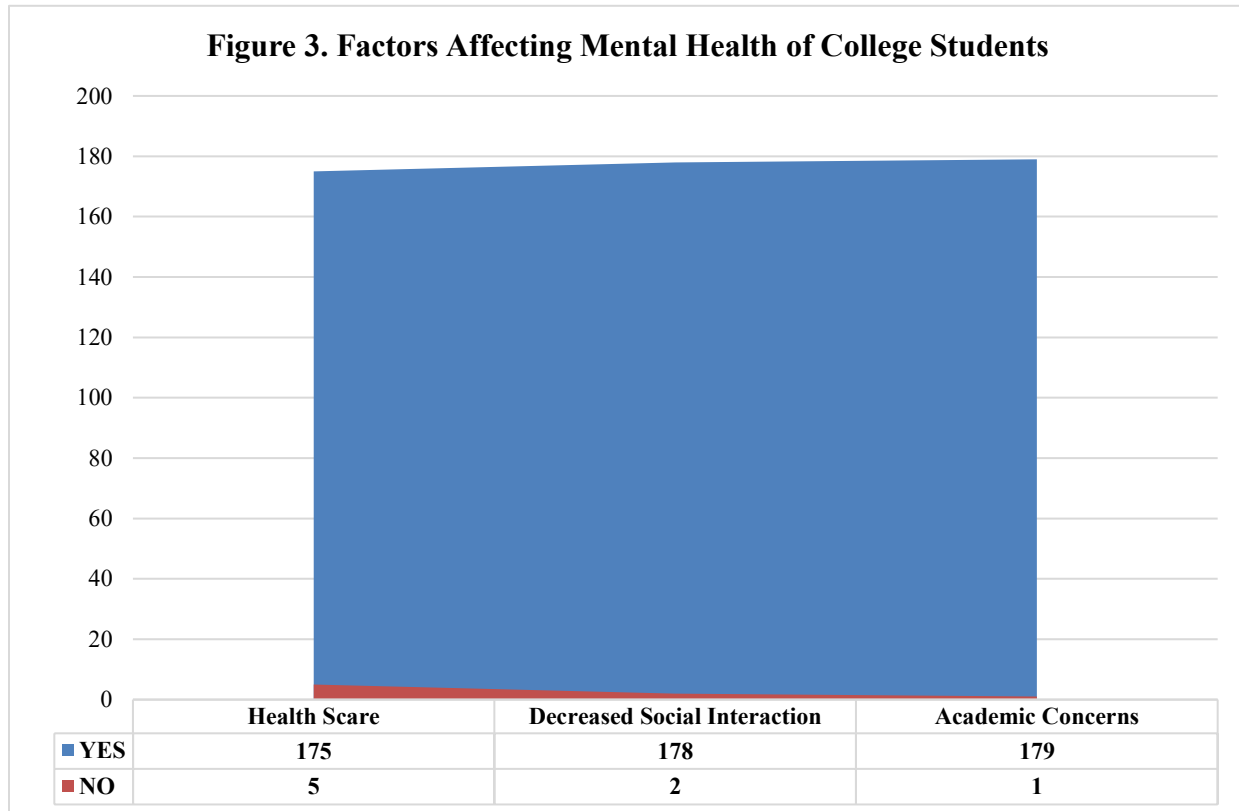


Digging deeper on depression, it was found out that 113 (62.78%) have PHQ-9 scores between 5-9, classified as mild severity of depression. This means that they need to be observed constantly and a follow-up diagnostic test should be conducted. While the remaining 67 (37.22%) college students were classified as minimal depressive disorder.

The findings of this study on the high prevalence of depressive symptoms among college students during the pandemic are consistent with previous research. In a study conducted in China, Zhou et al. (2020) found that the prevalence of depression among college students during the pandemic was 22.6%, which is similar to the prevalence found in this study. Similarly, a study in the United States found that the prevalence of depression among college students increased from 9.1% pre-pandemic to 24.5% during the pandemic (Cao et al., 2021).

Most of the college students in this study exhibited mild severity of depression. This finding is consistent with a study in Pakistan which found that the majority of college students who reported depressive symptoms had mild to moderate severity (Khan et al., 2021). However, it is important to note that even mild levels of depression can have a significant impact on an individual's daily functioning and quality of life (Kroenke et al., 2007). Thus, interventions and support should be provided to help address the mental health needs of college students during and after the pandemic.

Moreover, the following factors were identified that contributed to their current mental health: pandemic scare and fear of the unknown (175/180, 97.22%), decreased social activities and interaction due to pandemic restrictions (178/180, 98.89%), and forced transition of the mode of learning and other academic concerns



(179/180, 99.44%).

The findings suggest that the pandemic has greatly affected the mental health of college students, particularly due to the fear and uncertainty surrounding the pandemic. The fear of contracting the virus and the unknown consequences of the pandemic have been reported as significant stressors that contribute to the development of anxiety and depression (Fiorillo&Gorwood, 2020). In addition, the restrictions on social activities and interaction, such as physical distancing and quarantine measures, have been reported as significant contributors to the decline in mental health (Xiong et al., 2020).

The forced transition to online learning and other academic concerns have also been reported as factors that contributed to the decline in mental health among college students during the pandemic (Cao et al., 2020). The sudden shift to online learning and the lack of face-to-face interaction with peers and educators have been associated with increased feelings of loneliness and decreased motivation to learn

(Odriozola-González et al., 2020). Furthermore, the academic stress associated with the transition to online learning and the uncertainty surrounding the future of education have been reported as significant stressors that contribute to the development of anxiety and depression (Xiong et al., 2020).

#### **IV. Conclusion and Recommendation**

Based on the findings of the study, it can be concluded that a significant number of college students in the Province of Samar, Philippines experienced symptoms of anxiety and depression during the pandemic. The study found that 50.56% of college students screened positive for generalized anxiety disorder, and 70.56% developed major depressive disorder. The factors identified that contributed to their current mental health include pandemic scare and fear of the unknown, decreased social activities and interaction due to pandemic restrictions, and forced transition of the mode of learning and other academic concerns.

Given these findings, it is recommended that universities and colleges implement interventions that address the mental health concerns of their students. These interventions may include providing mental health services and resources such as counseling and support groups, as well as creating safe spaces for students to discuss their mental health struggles. Additionally, universities and colleges may consider implementing policies and programs that promote work-life balance and help students manage academic stress.

Moreover, it is important for universities and colleges to prioritize the mental health and well-being of their students, especially during times of crisis such as the COVID-19 pandemic. By providing support and resources, universities and colleges can help mitigate the negative impact of the pandemic on the mental health of their students.

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