

Mental Health Continuum as a Moderator to the Impact of COVID-19 Pandemic and Psychological Distress

John Nelson R. Ticzon
Maria Pauline T. Montaña
Pamantasan ng Lungsod ng San Pablo, Philippines

Abstract

The Philippines is one of the nations where people's livelihoods have been impacted because of the pandemic. Particularly for the young people who are struggling on education because of the online setup, undeniably their physical, mental, and emotional health is significantly affected to a greater or lesser extent even beyond the country. While it is true that the impact of the pandemic is directly related to the psychological distress of these students, the concept of the mental health continuum can alleviate this relationship. The fundamental goal of this study is to find out how the mental health continuum's moderation influences COVID-19 pandemic's impacts and psychological distress.

To determine this, the researchers will employ a quantitative research design with a population of students at the university in San Pablo City, Laguna, as well as quota sampling of at least 60 students.

As a result, the impact and depression levels of the respondents yielded significant result with a p-value of 0.003, whereas the relationships between anxiety and stress yielded an insignificant result with p-values of 0.13 and 0.094. This study contains the study's provided perspective on the students' current mental health concerns. In moderate, from mild to severe levels of depression, anxiety, and stress are correspondingly alarming.

Keywords: mental health continuum, psychological distress, COVID-19 impact, moderation

Introduction

The Corona Virus Disease 2019 (COVID-19) pandemic undeniably gave way to a profound effect on all aspects of society, not only physical health but also mental health. Aside from the allocation of resources and medically controlling the spread of the disease, mental health should also be given priority as some may be calling it the "Second Pandemic" because of the prevalence of mental health disorders and psychological distress during this season (Warren, 2021).

In the Philippines, one of the most affected sectors during this pandemic is the academic sector. Learning programs involving online classes, printed materials and lessons broadcast on television and social media were launched as the school year restarts. However, ever since schools shifted, students have been struggling to cope with the demands of this type of learning. They pointed out that the corona-virus lockdown affected household finances, and many Filipinos don not even have access to a computer or the internet. Aside from this, online learning during the pandemic has affected students and faculty, both physically and, as expected, mentally (Magsambol, 2021).

Although most students are affected negatively by the difficulty in the transition from face-to-face to online learning, a student from a study by Heilferty, Phillips, and Mathios (2021) still be able to find success. The student described that the transition to online learning left him with school to be his only focus and getting higher grades than ever. This suggests that students can still thrive during this pandemic and a sign of positive mental health.

With a positive mental health, the onset of mental disorders and psychological distress brought along by the impact of COVID-19 pandemic, may buffer its relationship. Using Keyes' (2002) mental health continuum as model of mental health, this study investigated whether the mental health continuum moderates the relation between the impact of the COVID-19 Pandemic and various psychological distresses.

Statement of the Problem

This study generally aimed to determine the moderation effect of mental health continuum to the impact of COVID-19 pandemic and psychological distress. Specifically, it sought to answer the following questions:

- 1) What is the impact of the COVID-19 pandemic to the respondents?
- 2) What is the level of psychological distress of the respondents in terms of (a) depression, (b) anxiety, (c) stress?
- 3) What is the mental health continuum of the respondents?
- 4) Does mental health continuum moderate the relationship between impact of the COVID-19 pandemic and psychological distress?

Hypotheses

H₀: Mental health continuum does not moderate the relationship between impact of the COVID-19 pandemic and psychological distress.

H_A: Mental health continuum moderates the relationship between impact of the COVID-19 pandemic and psychological distress.

Significance of the Study

The researchers firmly believe that the findings gained from this study will be beneficial to the following stakeholders: students, HEI's, mental health practitioners, and future researchers.

The implications of this study will help the students transition into the new normal and help them maintain positive mental wellbeing. Likewise, the result of this study will help HEI's formulate new policies and programs for the students in this time of the pandemic. Moreover, this study will help mental health practitioners design programs for mental wellbeing. Furthermore, the research will be a useful reference for researchers who would plan to apply the same method on a different sector.

Scope and Delimitations of the Study

This study aimed to determine the mental health continuum and moderation effect to the impact of COVID-19 pandemic and psychological distress. The respondents consisted of students from a Local University in San Pablo City, Laguna.

Conceptual/Theoretical Framework

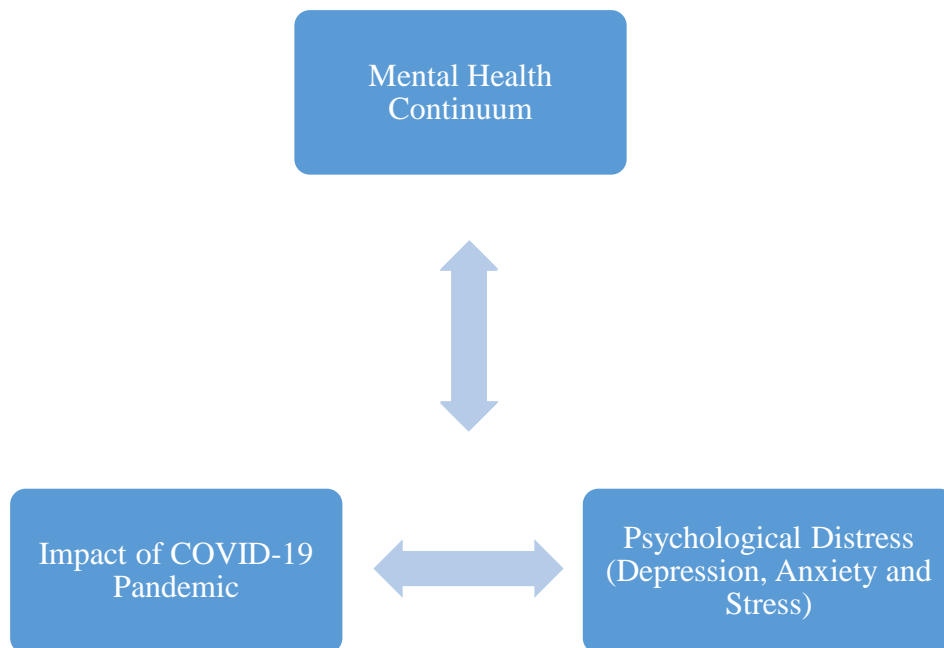


Figure 1. The conceptual framework showing the relationship of the variables of the study

This study was rooted in the Mental Health Continuum Model. The mental health continuum (MHC) is a range having mental health and mental illness at the two extreme ends. It projects the human mind on a continuous linear perspective. It helps in recognizing specific behavioral patterns that may need attention and suggests ways of dealing with the adversities that cause trouble (Chowdhury, 2021).

As shown in Figure I, the impact of the COVID-19 pandemic, like any other unfortunate event, is correlated with psychological distress such as depression, anxiety and stress. The third variable which is the Mental Health Continuum will be tested to see if it can moderate the relationship between the other two.

Review of Related Literature

Mental health response during the pandemic

It is very evident that the direct and indirect psychological and social effects of the coronavirus disease 2019 (COVID-19) pandemic are pervasive and would affect mental health now and in the future. In a position paper published by Holmes et al. (2020), they stated that the optimal structure of a mentally healthy life for individuals in the wake of COVID-19 needs to be mapped out. This structure will vary though as a function of background and individual circumstances. But the goal should be on understanding the factors that protect or adversely affect mental health.

They also reinstated that research funders and researchers must deploy resources to understand the psychological, social, and neuroscientific effects of the COVID-19 pandemic. Urgent action will enable us to apply the learnings gained to any future periods of increased infection and lockdown, which will be particularly important for front-line workers and for vulnerable groups, and to future pandemics. They proposed a framework for the prioritization and coordination of essential, policy-relevant psychological, social, and neuroscientific research, to ensure that any investment is efficiently targeted to the crucial mental health science questions as the pandemic unfolds (Holmes et al., 2020).

Other researchers such as Waters et al. (2022) are joining this response. In their study, they considered the role of positive psychology factors that can play in buffering against mental illness, bolstering mental health and building positive processes and capacities that may help to strengthen future mental health. Their paper explored evidences and applications from nine topics in positive psychology that support people through a pandemic: meaning, coping, self-compassion, courage, gratitude, character strengths, positive emotions, positive interpersonal processes, and high-quality connections.

Psychological effects of quarantine

The COVID-19 pandemic has seen many countries ask people who have potentially come into contact with the infection to isolate themselves at home or in a dedicated quarantine facility. Brooks et al. (2020) reviewed the psychological impact of quarantine and reported negative psychological effects including post-traumatic stress symptoms, confusion, and anger. Stressors included longer quarantine duration, infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma.

As supported by Giallonardo et al. (2020), these containment measures are having detrimental consequences on the mental health of the general population worldwide. In particular, frustration, loneliness, and worries about the future are common reactions and represent well-known risk factors for several mental disorders, including anxiety, affective, and post-traumatic stress disorders.

In another investigation by Ebrahimi et al. (2021), they assessed the prevalence of depression and anxiety symptoms during the COVID-19 pandemic. A total of 10,061 adults participated in the study. Symptoms of depression and anxiety were 2 to 3 times higher compared with pre-pandemic samples. Participants who predominantly socially distanced themselves revealed substantially higher symptoms than their counterparts.

To cite one country, Spain, which was one of the countries with the highest number of infections and a high mortality rate. The threat of the virus and consequences of the pandemic have a discernible impact on the mental health of citizens. Valiente et al. (2021) used a descriptive analyses and logistic regression study that revealed high rates of depression, anxiety and well-being. Specifically, their findings revealed that high levels of anxiety about COVID-19, increased substance use and loneliness as the strongest predictors of distress, while gross annual incomes and loneliness were strongest predictors of well-being.

To close, Rubin and Wessely (2020) hit hard when they stated that “Whether the epidemiological benefits of mandatory mass quarantine outweigh the psychological costs is a judgement that should not be made lightly.”

Impact of COVID-19 to students

Magson et al. (2021) stated that the restrictions put in place to contain the COVID-19 virus have led to widespread social isolation, impacting mental health worldwide. These restrictions may be particularly difficult for adolescents, who rely heavily on their peer connections for emotional support. They investigated the impact of the COVID-19 pandemic on adolescents’ mental health, and moderators of change, as well as assessing the factors perceived as causing the most distress.

In the 12 months leading up to the COVID-19 outbreak (T1), and again two months following the implementation of government restrictions and online learning (T2). Online surveys assessed depressive symptoms, anxiety, and life satisfaction at T1 and T2, and participants’ schooling, peer and family relationships, social connection, media exposure, COVID-19 related stress, and adherence to government stay-at-home directives at T2 only. In line with predictions, adolescents experienced significant increases in depressive symptoms and anxiety, and a significant decrease in life satisfaction from T1 to T2, which was particularly pronounced among girls. Moderation analyses revealed that COVID-19 related worries, online learning difficulties, and increased conflict with parents predicted increases in mental health

problems from T1 to T2, whereas adherence to stay-at-home orders and feeling socially connected during the COVID-19 lockdown protected against poor mental health (Magson et al. 2021).

All the while, Copeland et al. (2021) have tested the impact of the coronavirus disease 2019 (COVID) pandemic on the emotions, behavior, and wellness behaviors of first-year college students. They have concluded that COVID and associated educational/governmental mitigation strategies had a modest but persistent impact on mood and wellness behaviors of first-year university students. Colleges should prepare to address the continued mental health impacts of the pandemic.

In China, college students from Changzhi Medical College showed results of correlation analysis which indicated that economic effects, and effects on daily life, as well as delays in academic activities, were positively associated with anxiety symptoms. However, social support was negatively correlated with the level of anxiety. It is suggested that the mental health of college students should be monitored during epidemics (Cao et al., 2020).

In the Philippines, a study by Tria (2020) presented some of the new normal situation in the school setting. However, there were some posed challenges and issues presented while recommending several approaches on the new normal. Schools at all levels need to address concerns and carefully evaluate plans and procedures on the implementation of the new normal. Collaboration is the most important at these difficult times. He recommended that the opportunity and challenges presented should be grasped and taken with a serious concern. The challenge herewith is on how to provide and deliver quality education amidst exceptional times, like the COVID-19 pandemic, and to what extent are we going to become prepared when another crisis comes in the future.

Mental health continuum

Mental health is not just the absence of illness, but as a broad concept that applies to us all. The World Health Organization defines mental health as: a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. So mental health is not a binary state – a person is neither mentally healthy nor ill. Our mental health falls on a continuum, ranging from excellent mental health to severe symptoms such as panic attacks or major depressive episodes (Keyes, 2002).

The five zones of mental health continuum (Keyes, 2002)

The highest level of mental wellbeing in our continuum is ‘Excelling’. Given the right conditions, and a positive mindset, this is us functioning at our peak level. This can be at a time of great joy or fulfilment, such as the birth of a child, or a major personal success.

A normal, healthy state of mental health is indicated by the light green zone, which we call ‘Thriving’. In this zone you would feel fine – not necessarily completely free from troubles, but basically calm and content. Whatever worries or annoyances you face are coped with fairly well; they don’t make you feel unsettled in the long term. You are functioning normally with regard to basic behaviors like eating and sleeping. Your work patterns and social life are what is normal for you.

The yellow zone stands for an unsettled state of mind. A person can slip into ‘Surviving’ fairly easily, and it is important to watch out for the signs and symptoms. The yellow zone is not a severe state of distress, but it can indicate problems that could get worse, so it requires action. So how does someone experience this zone? Worries prey on the mind more than usual. Thoughts may be more negative than usual. Appetite and sleep may be affected. It will be harder to concentrate on work or other tasks.

In the orange zone we are significantly troubled. We may feel so much anxiety that life becomes a misery. Mood may be so low we feel it is hard to do anything well. Concentration is poor, energy is low, and work suffers. In this state we may feel pain both emotionally and

physically, or we may feel numbed and empty. Thoughts will be negative. Basic habits like sleeping and eating are affected.

Unfortunately, there is a state of mental health beyond Struggling. People with diagnosed mental health conditions may have found themselves in this zone in the past, which led to their diagnosis and treatment. But anyone can fall into this state given the right circumstances.

Mental Health Continuum – Short Form (MHC-SF) in different contexts

The MHC-SF consists of 14 items that were chosen as the most appropriate items representing the construct definition for each facet of well-being. Three items were chosen (happy, interested in life, and satisfied) to represent emotional well-being, six items (one item from each of the 6 dimensions) were chosen to represent psychological well-being, and five items (one item from each of the 5 dimensions) were chosen to represent social well-being. The response option for the short form was changed to measure the frequency with which respondents experienced each symptom of positive mental health, and thereby provided a clear standard for the assessment and a categorization of levels of positive mental health that was similar to the standard used to assess and diagnosis major depressive episode (Keyes 2009).

A study by Lamers et al. (2012), evaluated the measurement invariance of the Mental Health Continuum-Short Form (MHC-SF). The results indicated differences in the performance of one item (social well-being) for educational level, one item (social well-being) for sex, and two items (psychological well-being) for age. The MHC-SF is highly reliable over time, as there was no differential item functioning across the four timepoints. Furthermore, the means and reliabilities of the subscales were consistent over time. The MHC-SF is a reliable and valid instrument to measure positive aspects of mental health.

Petrillo et al. (2015) examined the structure, reliability, construct validity, and gender invariance of its Italian version. Confirmatory factor analysis confirmed the three-factors solution (emotional, psychological, and social) and a latent factor consisting of the three dimensions of well-being, and that the structure of the scale was the same for males and females.

Results revealed a high internal reliability and moderate test–retest reliability. The subscales correlated positively with corresponding aspects of well-being and functioning, showing convergent validity. The scale correlated negatively and moderately with measures of mental illness, showing divergent validity. Exploratory factor analysis supported the hypothesis of two separate, but correlated, factors for mental health and mental illness, showing discriminant validity and support for the two-continua model. A categorical diagnosis of the presence of mental health and the absence of mental health was applied to the sample. The Italian MHC–SF is a reliable and valid instrument to measure well-being and the positive aspects of mental health.

Another study by Machado and Bandeira (2015) described the adaptation and validation of the MHC-SF for the Brazilian Portuguese language. The various methods employed to assess the MHC-SF psychometric properties (principal component analysis, factor analysis, Item Response Theory and network analysis) indicated that a unidimensional structure is sufficient to represent the structure of the instrument and its high reliability. In addition, the results showed that the individual-centered aspects of mental health are more easily manifested relative to the social-oriented aspects. The Brazilian version of the MHC-SF is a valid and reliable instrument for the assessment of positive mental health.

Mental health varies continuously all the way from severely ill (‘In crisis’) to high functioning (‘Excelling’). But we can find ourselves at any point along that spectrum. The point is that the needle can move up and down the dial.

Associates to Mental Health Continuum

Joshanloo and Nosratabadi (2008) investigated the discriminatory power of Big Five personality traits in discriminating among the levels of mental health continuum using an

Iranian university student sample. Findings revealed that respondents with different levels of mental health differed significantly on four of the five personality traits (extraversion, neuroticism, conscientiousness, and agreeableness). All in all, the results of this study converged with prior findings about the importance of Big Five personality traits in predicting well-being.

Fink (2014) on the other hand explored the predictive factors of student mental health within the college environment. His results suggested that supportive college environments foster student flourishing. Implications for promoting mental health across campus. Future research should build on exploratory findings and test confirmatory models to better understand relationships between the college environment and student flourishing.

As a predictor, Keyes, Dhingra, and Simoes (2010) sought to describe the prevalence of mental health and illness, the stability of both diagnoses over time, and whether changes in mental health level predicted mental illness in a cohort group. The study proved that gains in mental health predicted declines in mental illness, supporting the call for public mental health promotion; losses of mental health predicted increases in mental illness, supporting the call for public mental health protection.

Another study by Keyes et al. (2012) investigated whether level of positive mental health complements mental illness in predicting students at risk for suicidal behavior and impaired academic performance. Just under half of students flourished and did not screen positive for a mental disorder. Among students who did, and those who did not, screen for a mental disorder, suicidal behavior and impaired academic performance were lowest in those with flourishing, higher among those with moderate, and highest in those with languishing mental health. The study concluded that positive mental health complements mental disorder screening in mental health surveillance and prediction of suicidal behavior and impairment of academic performance.

Synthesis

Studies by Brooks et al. (2020), Giallonardo et al. (2020), Ebrahimi et al. (2021), and Valiente et al. (2021) showed that there are significant evidences of the rise of mental health concerns as an effect of the COVID-19 Pandemic restrictions to the general public.

For the adolescent students, these restrictions led to widespread social isolation, impacting mental health worldwide and making it difficult for them to rely heavily on their peer connections for emotional support (Magson et al., 2021).

As the schools at all levels need to address concerns and carefully evaluate plans and procedures on the implementation of the new normal (Tria, 2020) and as supported by Holmes et al. (2020) that the goal should be on understanding the factors that protect or adversely affect mental health, this study tested if the Mental Health Continuum could adverse the relation between the impact of the COVID-19 Pandemic and various psychological distresses namely depression, anxiety & stress.

Methodology

Research Design

The study employed the quantitative research design with the use of moderation analysis to determine if mental health continuum affects the relationship between impact of the COVID-19 pandemic and psychological distress.

Population, Sample Size and Sampling Technique

The target population of the study were the students from a Local University in San Pablo City, Laguna. The researchers utilized Quota Sampling that included not less than 60 students.

Research Instrument

This study employed 3 tools to measure the 3 variables in this study. The Coronavirus Impact Scale (CIS) for the impact of the pandemic; the Depression, Anxiety and Stress Scale - 21 Items (DASS-21) for psychological distresses and the Mental Health Continuum – Short Form.

Coronavirus Impact Scale (CIS) is an 11-item questionnaire that assesses the extent to which COVID-19 pandemic changed participant's lives in the following areas: routines, family income/employment, food access, mental health care access, access to social support, experience of stress related to COVID-19 pandemic, stress/family discord, personal diagnosis of coronavirus, immediate family members diagnosed with coronavirus, and extended family members and/or close friends diagnosed with COVID-19. Items were answered on a 4-point Likert scale, varying from 0 ("None/No change") to 3 ("Severe") (Stoddard et al., 2021).

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress.

Each of the three DASS-21 scales contains 7 items, divided into subscales with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, anhedonia and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset / agitated, irritable / over-reactive and impatient (Lovibond & Lovibond, 1995).

The MHC-SF consists of 14 items that were chosen as the most appropriate items representing the construct definition for each facet of well-being. Three items were chosen (happy, interested in life, and satisfied) to represent emotional well-being, six items (one item from each of the 6 dimensions) were chosen to represent psychological well-being, and five items (one item from each of the 5 dimensions) were chosen to represent social well-being. The response option for the short form was changed to measure the frequency with which respondents experienced each symptom of positive mental health, and thereby provided a clear standard for the assessment and a categorization of levels of positive mental health that was similar to the standard used to assess and diagnose major depressive episode (Keyes, 2009).

Data Gathering Procedure

The researchers started by writing a letter to the College Administrators/President of the Local University in San Pablo City, Laguna asking for the permission to conduct the study in their institution.

The researchers distributed the scales online through Google Forms to the respondents. They were asked to give them their consent to use the information they will give before they answer the form.

After the completion of 60 respondents', data were used for tallying and statistical analysis.

Statistical Treatment of Data

Statistical Analyses were conducted using IBM SPSS 25. Linear Regression were utilized with the Impact of COVID-19 as the independent variable, the Psychological Distress as the dependent and the Mental Health Continuum as the third variable. It utilized the value of Mental Health Continuum multiplied by the Impact of COVID-19 as an interaction term.

Results and Discussion

Table 1 shows the distribution of the profile of the respondents. A big majority (68.33%) belonged to ages 20-22 (68.33%) almost three-fourths (73.33%) of the respondents are females.

Table 1. Profile of the Respondents

Ages	Frequency	Percent	Sex	Frequency	Percent
20-22	41	68.33 %	Male	16	26.67 %
23-25	14	23.33 %	Female	44	73.33 %
26 & above	5	8.33 %	TOTAL	60	100.00 %
TOTAL	60	100.00 %			

Table 2 presents the distribution of the results and the overall impact of the pandemic according to the Coronavirus Impact Scale (CIS). The majority (55.0%) of the respondents showed a mild result on the CIS. All the while showing that their score on the average is 1.20 (with the scale 0-0.75 = None/No Change, 0.76-1.5 = Mild, 1.51-2.25 = Moderate & 2.26-3 = Severe) with a standard deviation of 0.42 indicating a mild impact.

Table 2. COVID-19 Impact to the Respondents

	Frequency	Percent	Average	1.20
None/No Change	10	16.7	Std. Deviation	0.42
Mild	33	55.0	Interpretation	Mild
Moderate	17	28.3		
Severe	0	0.0		
Total	60	100.0		

These results indicate that despite the continuous rise of the number of COVID-19 cases in the Philippines, there are only mild changes in the respondents' routines, family income/employment, food access, mental health care access, access to social support, experience of stress related to COVID-19 pandemic, and stress/family discord.

Table 3.1. Average Depression, Anxiety and Stress of the Respondents

	Mean	Standard Deviation	Interpretation
Depression	16.90	8.663	Moderate
Anxiety	16.23	10.011	Severe
Stress	17.67	8.366	Mild

Table 3.1 shows the overall Depression, Anxiety and Stress of the respondents according to the DASS-21. Results indicated that on the average they have a Moderate Level of Depression, Severe Anxiety and Mild Stress Levels.

Despite the varying results among these 3 variables, there findings agree with those studies by Brooks et al. (2020), Giallonardo et al. (2020), Ebrahimi et al. (2021), and Valiente et al. (2021) that there are evidences of mental health concerns during the pandemic.

Table 3.2 Distribution of the Levels of Depression, Anxiety and Stress of the Respondents

	Frequency Percent		Frequency Percent		Frequency Percent	
	Depression		Anxiety		Stress	
Normal	11	18.3	10	16.7	22	36.7
Mild	7	11.7	8	13.3	13	21.7
Moderate	24	40.0	12	20.0	16	26.7
Severe	12	20.0	9	15.0	7	11.7
Extremely Severe	6	10.0	21	35.0	2	3.3
Total	60	100.0	60	100.0	60	100.0

As present in Table 3.2, a big number of respondents (24 or 40%) of the 60 showed Moderate levels of Depression. But in terms of their Anxiety only 21 (31%) of them had Extremely Severe levels showing evidence of huge deviation amongst the score. Stress levels, however, that indicated more than one-third (22 or 36.7%) of the 60 respondents showing Normal levels.

Table 4. Distribution of the Mental Health Continuum of the Respondents

	Frequency	Percent
Languishing	15	25.0
Moderate	27	45.0
Flourishing	18	30.0
Total	60	100.0

Table 4 shows an almost normal distribution of levels of Mental Health of the respondents according to the MHC-SF. A big number (27 or 45 %) of the 60 respondents. This was followed by 30% of Flourishing and 25% of Languishing respondents.

In the study of Keyes, Dhingra, and Simoes (2010), they proved that gains in mental health predicted declines in mental illness showing that the fewer number of flourishing respondents suggest there is a room for mental health concerns.

Table 5. Moderation Analysis

	R	R Square	Adjusted R Square	R Square Change	F Change	Sig. F Change	Conclusion
Depression	0.463	0.215	0.173	0.215	5.102	0.003	Mental Health is a Moderator
Anxiety	0.308	0.095	0.047	0.095	1.962	0.13	Mental Health is not a Moderator
Stress	0.327	0.107	0.059	0.107	2.238	0.094	Mental Health is not a Moderator

As shown in Table 5, Mental Health moderates the relationship of the impact of COVID-19 and depression as it yielded a 21.5% (0.215) R Square Change. This shows that with the addition of the Mental Health as predictor, the regression model can predict the outcome 21.5% better which is significant with the p value of 0.003.

In terms of Anxiety, it only yielded 9.5% (0.095) increase in prediction. This means that Mental Health does not moderate the relationship of the impact of COVID-19 and anxiety with an insignificant p value of 0.13.

Lastly, a 10.7% (0.107) R Square Change is showing that Mental Health does not moderate the relationship of the impact of COVID-19 and Stress with a p value of 0.094.

Summary

Summary of Findings

This study was participated in 60 respondents from a Local University in San Pablo City, Laguna. A big majority (68.33%) of the respondents aged 20-22 years old. Almost three-fourth (73.33%) of them are female.

The overall average COVID-19 impact score according to the CIS was 1.2 which is being interpreted as Mild. While a big number of the respondents also had the same Mild impact with 55%.

According to the DASS21 the average score of the respondents on their depression levels was at 16.90 which is interpreted as a Moderate level, 16.23 to Anxiety which is Severe and 17.67 that is Mild. The distribution on the scores on DASS-21 on the other showed that most of the respondents had Moderate Depression, Extremely Severe Anxiety and Normal level of Stress.

On the aspect of Mental Health according to the MHC-SF, a big number of respondents fell on the Moderate Level consisting of 45%. This was followed by 30% of Flourishing respondents and 25% Languishing.

The analysis on the moderation effect of Mental Health Continuum to the relationship between COVID-19 Impact and Depression Level of the respondents yielded significant results with a p value of 0.003 rejecting the null hypothesis as it shows that Mental Health Continuum is a moderator. Meanwhile, on the relationships between Anxiety and Stress, it yielded insignificant results with p values of 0.13 and 0.094 respectively accepting the alternative hypothesis that Mental Health continuum is not a moderator.

Conclusions

The findings of this study provided a perspective to the current mental health concerns of the college students. Having moderate, severe and mild levels of depression, anxiety and stress, respectively is still alarming. Higher Educational Institutions should give emphasis on their mental health programs and services to cater to these concerns of students.

On a surprising note, the overall mild impact of the pandemic to the respondents is very interesting. This means that in San Pablo City, citizens had only mild change in routines, family income/employment, food access, mental health care access, access to social support, experience of stress related to COVID-19 pandemic, and stress/family discord.

The mental health continuum as a moderator to the relationship between impact of COVID-19 and various Psychological Distress, though yielding only one significant moderation on a Depression shows a bit promising outcome. This finding means that there can be a way to moderate the distress brought about by the pandemic.

Recommendations

Students are recommended to seek help because of their above normal levels of Depression, Anxiety and Stress. Though DASS-21 has no direct implications diagnosis via DSM or ICD, it is still better to act on it as early as possible.

Higher Educational Institutions must address these issues of their students and start promoting good mental health environment for their students to have a fruitful college life despite the pandemic.

The data yielded from the moderation analysis can be used by mental health practitioners to develop a program focusing on the promotion of Mental Health Continuum to at least address their problems on their depression.

Future Researchers may employ the same study on a larger sample and a wider locale to get better data. Locale should have a greater consideration because of the varying Quarantine Protocols in the country. Another should be the socio-economic status of the respondents as they may have impacted differently by the pandemic depending on the resources available to them.

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