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Research Article

Mental Health and Academic Performance of Private Senior High School Students in the Division of Zambales amid Pandemic

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ABSTRACT

This study aimed to assess the mental health of private senior high school students and its effect on their academic performance during the fourth quarter of S.Y. 2020–2021 amid pandemic. It was conducted among grade 11 students enrolled in private schools in Zone I, Division of Zambales utilizing an explanatory sequential mixed methods design. The Mental Health Inventory or MHI-38 was used as the questionnaire for the quantitative part while online interviews were used for qualitative part. Findings revealed that students experienced anxiety during the pandemic. Despite being anxious, students were psychologically well and less distressed. Overall, they were in a positive state of mental health. The study also revealed that students' anxiety has significant difference with the modular distance learning delivery modality. The study has found no significant relationship between students' mental health and academic performance during the last quarter of S.Y. 2020-2021. Qualitative data analysis found that students experienced mental, academic, and social problems during the pandemic.

Keywords: *Academic performance, Anxiety, COVID-19 pandemic, Explanatory sequential mixed methods, Mental health, MHI-38, Modular distance learning*

Introduction

On March 11, 2020, the World Health Organization declared the novel human coronavirus disease or COVID-19 a pandemic, the first ever documented in history caused by coronavirus (Liu et al., 2020). Since its outbreak, more than 118.7 million of COVID-19 cases were reported and more than 2.6 million have died worldwide (Cohut, 2021). The pandemic's

devastating effects brought unprecedented challenges to the world's economy and public health (WHO, 2020). It changed the world tremendously and continuously challenges mankind to adjust to the "new normal" way of living. Pandemic-related consequences induced considerable degree of fear, worry, and concern thus, creating a negative impact on the

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mental health among population (Panchal et al., 2021).

In the Philippines, the country recorded one million cases of COVID-19 since the virus was first detected. For this reason, the government placed Metro Manila and other provinces under community-wide quarantine lockdown every time there was a surge of COVID-19 cases (Domingo, 2021). As this measure was introduced, levels of loneliness, depression, substance use, and suicidal behavior were expected to increase. According to the Department of Health, at least 3.6 million Filipinos were battling mental health issues amid pandemic: about 1.14 million Filipinos were experiencing depression, 847,000 were battling alcohol-use disorders, and 520,000 others were diagnosed with bipolar disorder. The Department also reported the increasing number of calls to the government's hotline for mental health assistance. In April 2021 alone, the hotline received 1,805 calls higher than the 1,604 calls recorded in March 2021. Around 31% of the calls were about anxiety and depressive symptoms, and 22% were referrals to psychiatrists and psychologists which indicates the need of mental health assistance among Filipinos at a time when the country breached one million-mark of COVID-19 cases (Domingo, 2021).

To contain the spread of this highly contagious disease, most countries temporarily closed schools which affected more than 1.2 billion learners worldwide with more than 28 million learners in the Philippines (UNESCO, 2020 as cited in Tria, 2020). As its major response to protect the health of educators and learners, the Department of Education has implemented the Basic Education–Learning Continuity Plan (BE–LCP) which took effect on August 24, 2020 for S.Y. 2020–2021. BE–LCP ensured that education and learning among students continue despite the threat of COVID-19. Since face-to-face classes can no longer be employed, BE–LCP aimed to provide quality distance learning through printed and digital self-learning modules, radio, television, and the use of Internet (Montemayor, 2020).

Prior to pandemic, a study was conducted among 13-15 years old Filipino high school students by the Global School-Based Students

Health Survey (GSHS) from January to March 2015 in which 17% of them have attempted suicide at least once, 12% seriously considered attempting suicide while 11% have made plans on how they would commit suicide (ABS-CBN Investigative and Research Group, 2017). As all efforts were seriously focused on understanding the virus and its physical effects as well as taking preventive measures against it, the concern over the impact of the pandemic on mental health is very little (Javed et al., 2020).

There were no studies that have been conducted yet about the impact of the COVID-19 pandemic to the mental health specifically among Filipino high school students. Hence, this study sought to assess the mental health and its effect on the academic performance among senior high school students amidst pandemic. With the use of Mental Health Inventory (MHI-38), the study was able to determine anxiety, depression, loss of behavioral or emotional control, general positive affect, emotional ties, and life satisfaction (six subscales); psychological distress and psychological well-being (global scales); and the overall mental health status (Mental Health Index) among students in Zone I, Division of Zambales.

Methods

Research Design

In this study, the researcher used the explanatory sequential mixed methods design. It involves a two-phase data collection project in which the researcher collects quantitative data in the first phase, analyzes the results, and then uses the results to plan the second, qualitative phase. The overall intent of this design is to have the qualitative data help explain in more detail the initial quantitative results; thus, it is important to tie together or to connect the quantitative results to the qualitative data collection. For this study, the mental health and its effect on the academic performance of the students during the pandemic was measured quantitatively with the use of MHI-38 survey questionnaire. After the collection and analysis of the quantitative data, in-depth interviews for the qualitative data collection process will follow to further explain in detail the initial quantitative results (Creswell & Creswell, 2018).

Respondents and Location

Through power analysis, the researcher was able to determine the sample size needed for the study using G*Power version 3.1.9.6. The researcher computed a total sample size of 84. Stratified random sampling method was also used in this study. The 84 respondents were composed of Grade 11 students who were enrolled in the different tracks and strands for the fourth quarter of S.Y. 2020-2021 from the private schools in the Division of Zambales.

Instruments

For the quantitative part of the study, an online survey questionnaire was used for collecting data from the student-respondents to gain information and insights about their mental health. The questionnaire was divided into two parts. The first part consists of the profile of the respondents that includes age, sex, track/strand, learning delivery modalities, and monthly family income. The Mental Health Inventory (MHI-38), which is the content of the second part of the questionnaire, was used to measure the mental health status of the students. It is a self-report tool that was developed by Veit and Ware (1983, as cited in Mental Health Outcome Measures Consortium, 2015) to assess the general psychological distress and well-being of a non-patient population. It is composed of 38 questions that require an answer from five to six-point scale. All of the 38 MHI items, except two, are scored on a six-point scale. Items 9 and 28 are the exception, each scored on a five-point scale. The MHI-38 can be grouped into six subscales (Anxiety, Depression, Loss of Behavioral/Emotional Control, General Positive Affect, Emotional Ties, and Life Satisfaction), two global scales (Psychological Distress and Psychological Well-being), and the overall Mental Health Index score. The use of this test is well-known and has been tested in extensive populations. Cronbach's alpha of the entire measuring instrument is $\alpha = 0.93$ which is described as excellent internal consistency or reliability, while the reliability of the subscale for negative mental health is $\alpha = 0.94$, and for positive mental health is $\alpha = 0.92$ (Ivanović & Ivanović, 2018). As the study was conducted during the COVID-19 pandemic, safety protocols were strictly prioritized. The

online survey questionnaire was materialized electronically through Google Forms.

For the in-depth interview, a semi-structured interview protocol was prepared focusing on the mental health and its effect on the academic performance of the senior high school students during the fourth quarter period of S.Y. 2020-2021 amid COVID-19 pandemic.

Data Collection

After obtaining the necessary permits, a link of the electronically constructed survey questionnaire via Google Forms was sent online through Messenger application. The academic performance of the students was determined by obtaining the students' general weighted average for the fourth quarter from students' Form 138. Interpretation of student's grade was based on DepEd Order No. 8, s. 2015.

For the qualitative part, in-depth interviews were conducted among 11 purposively selected students. Since it was pandemic and safety health protocols were strictly prioritized, the interviews were conducted through video calls. The interviews were recorded with permission of the respondents and were transcribed right after. For ethical considerations, participants were labelled using numbers. To analyze the data, the study followed Braun and Clarke's (2006) six steps or phases of thematic analysis: (1) familiarizing with the collected data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report. The transcribed responses of the interviewed participants were coded and categorized using MAXQDA Analytics Pro 2022.

All the findings were collected, tallied, analyzed, and interpreted accordingly with the supervision of a registered psychometrician.

Data Analysis

Since the study employed an explanatory sequential design, quantitative data were analyzed statistically using IBM SPSS Statistics version 29.0.1.0(171) while qualitative data were analyzed thematically using MAXQDA Analytics Pro 2022. Also, sample size of the study was determined by power analysis using G*Power version 3.1.9.6.

For the quantitative part, the data were tabulated and analyzed using statistical tools such as frequency count, percentage, weighted mean, analysis of variance (ANOVA) and Pear-

son *r*. For the qualitative part, the data were analyzed thematically following Braun and Clarke's (2006) six phases of thematic analysis.

Results and Discussion

Profile of the Respondents

A. Age

Table 1. Age Profile of the Respondents

Age	Frequency	Percentage
16	8	9.52
17	45	53.57
18	25	29.76
19	5	5.95
20	0	0.00
21	1	1.19
Total	84	100.00

Mean = 17.37 years

Out of the 84 respondents, majority (53.57%) were 17 years of age. The average age mean was 17.37 years old which is categorized as middle adolescent. Middle adolescence, which spans the ages of 13 to 17, is a developmental stage distinguished by the onset and intensification of risk behavior, including substance use, risky sexual conduct and delinquency. Adolescents go through incredible physical, intellectual, social, and emotional

transformations. This growth includes the physical growth related to puberty as well as a range of psychosocial changes associated with developing an increasingly refined identity; discovering individual talents, interests, and skills; forming meaningful peer and intimate relationships; and taking responsibility for more independent and adult decisions about risks, health, and the future (Da Silva Fortes & Fernandes, 2018).

B. Sex

Table 2. Sex Profile of the Respondents

Sex	Frequency	Percentage
Male	39	46.43
Female	45	53.57
Total	84	100.00

In this study, majority of the participants (53.57%) were females. The influence of gender may be particularly evident in adolescence given the increased frequency of psychological stress encountered throughout this developmental phase. Evidence suggests that there may be major gender variations in reaction to stress. For instance, adolescent girls' response to stress is characterized by negative self-

evaluation, rumination, and withdrawal, whereas adolescent boys' response to stress most frequently takes the form of risk behavior such as substance use, delinquency, and disagreeable, aggressive or antagonistic behavior. In other words, teenage girls seem to be more internalizing while encountering stress, whereas teenage boys become disinhibited (Da Silva Fortes & Fernandes, 2018).

C. Track/Strand

Table 3. Track/Strand Profile of the Respondents

Track/Strand	Frequency	Percentage
Accountancy, Business, and Management	8	9.52
Arts and Design	3	3.57
General Academic Strand	3	3.57
Home Economics	11	13.10
Humanities and Social Sciences	38	45.24
Industrial Arts	1	1.19
Information and Communication Technology	5	5.95
Science, Technology, Engineering and Mathematics	15	17.86
Total	84	100.00

Majority (45.24%) of the respondents were enrolled in Academic track – Humanities and Social Sciences strand followed by Academic track – Science, Technology, Engineering, and Mathematics strand (17.86%) and Technological-Vocational-Livelihood track – Home Economics strand (13.10%). For the S.Y. 2020-2021, of all the strands under Academic track, the Humanities and Social Sciences strand has the highest number of enrollees in all sectors including private and public schools. But in the

private sector, this strand is second only to the Science, Technology, Engineering and Mathematics strand. In a study of Vallejo (2019) on the personality and socio-economic factors influencing the academic track/strand among senior high school students, Humanities and Social Sciences (HUMSS) strand is the first choice among the respondents leading to the baccalaureate degrees in education, criminology, and social sciences due to the availability of these courses in the locality.

D. Learning Delivery Modality

Table 4. Learning Delivery Modality Profile of the Respondents

Learning Delivery Modality	Frequency	Percentage
Modular Distance Learning	61	72.62
Online Distance Learning	18	21.43
Modular + Online Distance Learning	5	5.95
Total	84	100.00

During pandemic, many of the respondents were enrolled in Modular Distance Learning type of modality (72.62%) followed by Online Distance Learning (21.43%) and combined Modular and Online Distance Learning (5.95%). In all levels and sectors, majority of the K-12 learners in all sectors are under Modular Distance Learning (Print). Printed

modular learning modality is the most preferred among all the strategies. One reason for this includes the households' lack of access to the internet. This is also the most practical since there is no need for parents and learners to buy gadgets or devices if their situation or financial status do not allow them do so (Planning Service, DepEd, 2022).

E. Monthly Family Income

Table 5. Monthly Family Income Profile of the Respondents

Monthly Family Income	Frequency	Percentage
₱219,140.00 and above	2	2.38
₱131,484.00 – ₱219,140.00	0	0.00
₱76,699.00 – ₱131,484.00	2	2.38

Monthly Family Income	Frequency	Percentage
₱43,828.00 – ₱76,699.00	4	4.76
₱21,914.00 – ₱43,828.00	16	19.05
₱10,957.00 – ₱21,914.00	18	21.43
Below ₱10,957.00	42	50.00
Total	84	100.00
Mean = ₱23,087.96		

Half of the 84 respondents (50.00%) belong to family with monthly income of ₱10,957.00 and below or poor income group. The average monthly family income mean was ₱23,087.96 which belongs to the lower middle-income group. According to the discussion paper of Albert and co-authors (2020), the lower middle-income group has a monthly family income ranging between ₱21,914 to ₱43,828 for a family of five in 2018 prices. This income group with an estimate of 7.6 million Filipino households is second to the majority low-income

group with estimated 8.4 million households. Despite this, most parents were encouraged to enroll their children in private schools because of the cash assistance provided by Department of Education. The goal of the SHS Voucher Program is to give incoming senior high school (SHS) students at participating private or non-DepEd public senior high schools financial aid in the form of vouchers. DepEd will not give the subsidy in cash, but will directly pay the non-DepEd senior high school where the student will enroll (Abad, 2020).

Students’ Academic Performance

Table 6. Students’ Academic Performance during the Fourth Quarter Period S.Y. 2020-2021

Academic Performance	Frequency	Percentage
Outstanding (90-100)	61	72.62
Very Satisfactory (85-89)	17	20.24
Satisfactory (80-84)	4	4.76
Fairly Satisfactory (75-79)	2	2.38
Did Not Meet Expectation (Below 75)	0	0.00
Total	84	100.00
Mean = 92.33		

Majority (72.62%) of the students got an outstanding academic performance with a general weighted average ranging from 90 to 100 during the last quarter of S.Y. 2020-2021. This implies that students were able to accomplish the written works and performance tasks through modular distance learning. A minimum of four written works and four performance tasks were administered to assess the content and performance standards that describe the knowledge, abilities, and skills that the learners are expected to demonstrate. Quarterly examinations were not administered for the S.Y. 2020-2021 thus, its previously determined weight of 20% was distributed equally into written works and performance

tasks, allotting an additional 10% to each component (DepEd Order No. 31, s. 2020).

Students’ Mental Health Based on the Six Subscales

A. Anxiety

Students fairly often found themselves trying to calm down (Ranked 1, 4.20), became nervous or jumpy when faced with excitement or unexpected situations (Ranked 2, 3.99) and got rattled, upset or flustered (Ranked 3, 3.76) during the pandemic. They were quite a bit anxious or worried (Ranked 4, 3.73). Sometimes, their hands shake when they tried to do something (Ranked 9, 3.45). The anxiety subscale got a total score of 33.50 which indicates that

students had experienced greater anxiety during the pandemic.

Students, as with the general population, have experienced anxiousness or being worried because of the threat brought by COVID-19. In a study by Baloran (2020), For the duration of the lockdown, the majority of the students showed signs of nervousness. They shun

social interaction, big parties, and meetings because they were concerned about money and food. The study also showed that students' typical personal coping mechanisms for anxiety during the pandemic were to adhere to stringent personal safety precautions and stay indoors during the day to minimize their exposure to COVID-19.

Table 7. Students' Mental Health as to Anxiety of the Six Subscales

Item Number	Anxiety	Mean Score	Qualitative Rating	Rank
3	How often did you become nervous or jumpy when faced with excitement or unexpected situations during the last quarter period?	3.99	Fairly often	2
11	How much of the time, during the last quarter period, have you been a very nervous person?	3.63	A good bit of the time	6
13	During the last quarter period, how much of the time have you felt tense or "high-strung"?	3.58	A good bit of the time	7
15	During the last quarter period, how often did your hands shake when you tried to do something?	3.45	Sometimes	9
25	How much have you been bothered by nervousness, or your "nerves", during the last quarter period?	3.46	Bothered some, enough to notice	8
29	During the last quarter period, how much of the time have you felt restless, fidgety, or impatient?	3.70	A good bit of the time	5
32	During the last quarter period, how often did you get rattled, upset or flustered?	3.76	Fairly often	3
33	During the last quarter period, have you been anxious or worried?	3.73	Yes, quite a bit	4
35	How often during the last quarter period did you find yourself trying to calm down?	4.20	Fairly often	1
<i>Total Score</i>		<i>33.50</i>	<i>Greater anxiety</i>	

B. Depression

Table 8. Students' Mental Health as to Depression of the Six Subscales

Item Number	Depression	Mean Score	Qualitative Rating	Rank
9	Did you feel depressed during the last quarter period?	2.63	Yes, quite depressed several times	4
19	How much of the time, during the last quarter period, have you felt downhearted and blue?	3.31	Some of the time	2
30	During the last quarter period, how much of the time have you been moody or brooded about things?	3.89	A good bit of the time	1
36	During the last quarter period, how much of the time have you been in low or very low spirits?	3.30	Some of the time	3
<i>Total Score</i>		<i>13.13</i>	<i>Lesser depression</i>	

Students responded that a good bit of the time during the last quarter period that they have been moody or brooded about things (Ranked 1, 3.89). Some of the time they felt downhearted and blue (Ranked 2, 3.31) and have been in low or very low spirits (Ranked 3, 3.30). Students also felt quite depressed several times (Ranked 4, 2.63). The depression subscale got a total score of 13.13 which denotes lesser depression among students.

According to Bueno-Notivol and co-researchers (2020), depression is a common re-

sponse to an unexpected downturn in one's living situation, characterized by uncertainty and isolation. People who experience unpredictable situations tend to feel powerless and unmotivated, which leads to sadness. This means that individuals suffering from sadness are less likely to seek treatment for their mental or physical symptoms. As a result, depression, like anxiety, can act as a barrier to sensible medical and mental health interventions during pandemics.

C. Loss of Behavioral/Emotional Control

Table 9. Students' Mental Health as to Loss of Behavioral/Emotional Control of the Six Subscales

Item Number	Loss of Behavioral/Emotional Control	Mean Score	Qualitative Rating	Rank
8	During the last quarter period, have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or of your memory?	2.98	Yes, but not enough to be concerned or worried about	6
14	During the last quarter period, have you been in firm control of your behavior, thoughts, emotions or feelings?	2.77	Yes, I guess so	7
16	During the last quarter period, how often did you feel that you had nothing to look forward to?	3.32	Sometimes	4
18	How much of the time, during the last quarter period, have you felt emotionally stable?	3.23	A good bit of the time	5
20	How often have you felt like crying, during the last quarter period?	3.43	Sometimes	3
21	During the last quarter period, how often have you felt that others would be better off if you were dead?	2.74	Sometimes	8
24	How often, during the last quarter period, did you feel that nothing turned out for you the way you wanted it to?	3.50	Fairly often	1
27	How often, during the last quarter period, have you felt so down in the dumps that nothing could cheer you up?	3.48	Sometimes	2
28	During the last quarter period, did you think about taking your own life?	2.45	Yes, at one time	9
<i>Total Score</i>		<i>27.90</i>	<i>Lesser loss of behavioral/emotional control</i>	

Students fairly often felt that nothing turned out for them the way they wanted it to (Ranked 1, 3.50). They sometimes felt so down in the dumps that nothing could cheer them up (Ranked 2, 3.48) and they sometimes felt like crying (Ranked 3, 3.43). Students also think at

one time about taking their own life (Ranked 9, 2.45). The subscale obtained a total score of 27.90 which signifies well-behaved or emotionally in-control among the students.

In a cross-sectional study by Tang and He (2023), the findings demonstrated that

learning motivation was positively correlated with emotional intelligence and that emotional intelligence and learning motivation were serially mediated by self-efficacy and social support. The results of this study point to the necessity of measures to promote students'

emotional intelligence throughout the COVID-19 pandemic. They also show that increasing students' self-efficacy and offering a variety of social supports will boost their motivation and academic achievement.

D. General Positive Affect

Table 10. Students' Mental Health as to General Positive Affect of the Six Subscales

Item Number	General Positive Affect	Mean Score	Qualitative Rating	Rank
4	During the last quarter period, how much of the time have you felt that the future looks hopeful and promising?	4.37	Most of the time	1
5	How much of the time, during the last quarter period, has your daily life been full of things that were interesting to you?	4.10	A good bit of the time	3
6	How much of the time, during the last quarter period, did you feel relaxed and free from tension?	3.60	A good bit of the time	10
7	During the last quarter period, how much of the time have you generally enjoyed the things you do?	4.04	A good bit of the time	4
12	When you have got up in the morning, this last quarter period, about how often did you expect to have an interesting day?	4.01	Fairly often	5
17	How much of the time, during the last quarter period, have you felt calm and peaceful?	3.99	A good bit of the time	7
26	During the last quarter period, how much of the time has living been a wonderful adventure for you?	3.95	A good bit of the time	8
31	How much of the time, during the last quarter period, have you felt cheerful, light-hearted?	4.00	A good bit of the time	6
34	During the last quarter period, how much of the time were you a happy person?	4.15	A good bit of the time	2
37	How often, during the last quarter period, have you been waking up feeling fresh and rested?	3.75	Some days, but usually not	9
<i>Total Score</i>		<i>39.96</i>	<i>Greater general positive affect</i>	

Most of the time, students felt that the future looks hopeful and promising (Ranked 1, 4.37). They also responded that a good bit of the time, they were a happy person (Ranked 2, 4.15), their daily life has been full of things that were interesting to them (Ranked 3, 4.10), and they generally enjoyed the things they do (Ranked 4, 4.04). They fairly often expect to have an interesting day when they got up in the

morning (Ranked 5, 4.01). A good bit of the time, they feel relaxed and free from tension (Ranked 10, 3.60). The subscale obtained a total score of 39.96 which means a greater general positive affect among the students.

In a study conducted by Wan Mohd Yunus and colleagues (2021), findings revealed that happy students have low chances of having severe symptoms of stress, anxiety, and

depression. Happiness among students can be a protective factor for negative emotional symptoms among learners. Their evidence also establishes a strong connection between a low

level of happiness and a high level of depression, recommending the importance of improving the subjective experience as one of the focal points to improve their mental health.

E. Emotional Ties

Table 11. Students’ Mental Health as to Emotional Ties of the Six Subscales

Item Number	Emotional Ties	Mean Score	Qualitative Rating	Rank
10	During the last quarter period, how much of the time have you felt loved and wanted?	4.40	Most of the time	1
23	How much of the time, during the last quarter period, did you feel that your love relationships, loving and being loved, were full and complete?	4.01	A good bit of the time	2
<i>Total Score</i>		<i>8.41</i>	<i>Stronger emotional ties</i>	

Most of the time, students have felt loved and wanted (Ranked 1, 4.40) and a good bit of the time they feel that their love relationships, loving and being loved, were full and complete (Ranked 2, 4.01). The emotional ties subscale attained a total score of 8.41 which denotes stronger emotional ties among the students.

to the feelings of relatedness and competence in their school performance. Parental support may directly benefit aspects that are thought to support motivation and may also influence indirectly through effects on mental health and mood. Parental support may evoke a positive mood and improve academic motivation.

According to Klootwijk and co-researchers (2021), adolescents’ parental support is salient

F. Life Satisfaction

Table 12. Students’ Mental Health as to Life Satisfaction of the Six Subscales

Item Number	Life Satisfaction	Mean Score	Qualitative Rating	Rank
1	How happy, satisfied, or pleased have you been with your personal life during the last quarter period?	3.82	Generally, satisfied, pleased	1
<i>Total Score</i>		<i>3.82</i>	<i>Greater life satisfaction</i>	

In this subscale, a total score of 3.82 denotes greater life satisfaction as students were generally happy, satisfied, or pleased they have been with their personal life during the pandemic. Results revealed in the study conducted by Wider and co-researchers (2022) that hope has been linked in connection between environmental quality and life satisfaction. The findings of the current review revealed that hope aided in adjusting to environmental

quality during the COVID-19 outbreak. Hope has also been linked to optimistic mental health outcomes and that well-being and hope could extremely important in managing climate-related issues throughout pandemic. Therefore, it is suggested that mental health care providers concentrate on delivering hope-related interventions among learners in overcoming COVID-19 difficulties and eventually raising contentment with life.

Students' Mental Health Based on the Two Global Scales

Table 13. Students' Mental Health Based on the Two Global Scales

Global Scales	Raw Score Range	Midpoint	Score	Qualitative Rating
Psychological distress	24-142	83	82.07	Lesser psychological distress
Psychological well-being	14-84	49	55.69	Greater psychological well-being

A. Psychological Distress

The psychological distress global scale obtained a total score of 82.07 which implies that students do not fall under negative states of mental health. In the study of Marzo and co-researchers (2020), more than half of the Filipino respondents did not experience psychological distress as a result of the COVID-19 pandemic, according to the results. Regression analysis showed that the respondents' higher levels of religiosity and faithfulness, lower levels of education, and their residence in Mindanao (as opposed to the Visayas) were associated with lower levels of psychological distress.

positive states of mental health among students. In a study involving bereaved Filipinos by Guanco and co-researchers (2023) revealed that their respondents' psychological well-being was better and their degrees of complex grieving symptomology were lower. The research verified that adaptive coping mechanisms are frequently employed by Filipinos during periods of bereavement. Furthermore, the outcomes showed that psychological well-being is predicted by coping techniques. That is to say, psychological wellbeing will be high among bereaved Filipinos who employ good coping mechanisms.

B. Psychological Well-being

The psychological well-being global scale obtained a total score of 55.69 which signifies

Students' Mental Health Index

Table 14. Students' Mental Health Index

Mental Health Index	Raw Score Range	Midpoint	Score	Qualitative Rating
Mental Health	38-226	132	137.76	Greater psychological well-being and relatively less psychological distress

The Mental Health Index score obtained was 137.76 which means that during the time of pandemic, the students had greater psychological well-being and relatively less psychological distress.

In a study of Kumar and co-researchers (2022), they found that children attending public schools had a slightly higher frequency of anxiety and sadness than those attending private schools. On the other hand, children from private schools reported higher rates of stress than those from public schools.

Prior to pandemic, Pineda and Bueno (2016) stated that Catholic private senior high school students have a positive mental health assessment in school, home, personal and health.

Analysis of Variance on the Difference in Students' Mental Health when Grouped According to Profile Variables

Table 15. Students' Mental Health as to Anxiety when Grouped According to Profile Variables

Profile Variables	Source of Variation	Sum of Squares	df	Mean Square	F	Sig.	Interpretation
Age	Between Groups	193.066	4	48.266	.957	.436	Do Not Reject H ₀ Not Significant
	Within Groups	3985.351	79	50.447			
	Total	4178.417	83				
Sex	Between Groups	61.172	1	61.172	1.218	.273	Do Not Reject H ₀ Not Significant
	Within Groups	4117.244	82	50.210			
	Total	4178.417	83				
Track/ Strand	Between Groups	552.861	7	78.980	1.656	.133	Do Not Reject H ₀ Not Significant
	Within Groups	3625.556	76	47.705			
	Total	4178.417	83				
Learning De- livery Mo- dality	Between Groups	353.346	2	176.673	3.741	.028	Reject H ₀ Significant
	Within Groups	3825.070	81	47.223			
	Total	4178.417	83				
Monthly Family In- come	Between Groups	210.110	5	42.022	.826	.535	Do Not Reject H ₀ Not Significant
	Within Groups	3968.307	78	50.876			
	Total	4178.417	83				

There is no significant difference in students' anxiety when grouped according to age, sex, track/strand, and monthly family income. The computed significance values for age (0.436), sex (0.273), track/strand (0.133), and monthly family income (0.535) were higher than the alpha level of significance (0.050) therefore, null hypotheses were not rejected.

However, there is a significant difference in students' anxiety when grouped according to learning delivery modality. The computed significance value for learning delivery modality (0.028) was lower than the alpha level of significance (0.050), therefore, the null hypothesis was rejected.

In a cross-sectional study conducted six months after the COVID-19 outbreak and after introducing blended virtual classes, Alshammari and co-researchers (2022) found that anxiety was recognized more frequently among females, single or unmarried people, and junior students. The study's conclusions

advise educational institutions to create initiatives and online resources that enable students, especially those who are more vulnerable to stress—female and first-year students in particular—to engage and seek advice in a secure environment.

In another cross-sectional study conducted by Idris and colleagues (2021), studying at home caused students to feel more distracted with a feeling of uncertainty towards examinations. The majority of students were not participating in extracurricular activities and missed eating out. Despite having more time for introspection, students were found to be under higher stress in terms of their mental health.

In this study, only the anxiety subscale was found to have a significant difference to the learning delivery modality variable. The rest of the subscales such as depression, loss of behavioral/emotional control, greater positive affect, emotional ties, and life satisfaction, as well as,

the two global scales (psychological distress and well-being) and the overall Mental Health Index were tested having no significant differences to other profile variables.

Correlation between Students’ Mental Health and Academic Performance

Table 16. Correlation between Students’ Mental Health and Academic Performance

Pearson correlation	.104**
Sig. (2-tailed)	.347
N	84
Interpretation	Negligible Correlation Do Not Reject H ₀ Not Significant

** Correlation is significant at the 0.05 level (2-tailed).

There is no significant relationship between students’ mental health and fourth quarter academic performance. The computed correlation coefficient value was 0.104 which denotes negligible correlation ($\pm 0.00 - \pm 0.20$).

In a study conducted by Oducado and Estoque (2021), results revealed that students had low to moderate satisfaction while having

online learning during pandemic. They also considered the modality as very stressful. Their academic performance was considerably and greatly affected by the pandemic resulting in poor to fair performance. Stress from online learning has a significant and negative association with academic performance and online learning satisfaction.

Problems Experienced and their Effect on Students’ Mental Health and Academic Performance during Pandemic

Table 17. Generated Themes

Theme	Theme Description	Frequency
Mental problem	This refers to how the pandemic situation has affected students’ emotions (anxiety, unhappiness, boredom, etc.) and behavior (eating and sleeping patterns).	11
Academic problem	This refers to personal experience of the problems encountered by the students with the modular distance learning modality during pandemic.	11
Social problem	This refers to how the pandemic has affected students’ social lives and communication.	4

A. Mental problem

Students (Participants 1, 5, 6, 7, 8, and 11) have shown signs of anxiety during pandemic. The threat of COVID-19 virus has triggered fear causing nervousness and panic around the globe. Participant 6 told

“...sobra po ang anxiety ko nung COVID-19 pandemic. Sobrang nag-aalala ako sa sarili ko na baka merong masamang mangyari sa akin. Nene-nerbyos po ako at nagpa-panic” [My anxiety went through the roof during the COVID-19 pandemic I was very worried about myself

thinking that something bad may happen to me. I felt nervous and panicking].

Their anxiousness is mostly related in difficulty understanding of the modules and submitting them before deadline. Participant 6 said

“Na-experience kong laging nag-alala habang ako po ay nag-aaral during pandemic. Inii-sip ko palagi kung matatapos ko ba lahat ng activities on-time kasi mahirap pong sagutan yung mga questions” [I often experienced being wor-

ried while studying during the pandemic. I always think if I will be able to finish all my activities on-time because it is hard to answer all the questions]. Participant 7 also responded the same,

"Opo, nagwo-worry po ako madalas kasi 'di ko po talaga maintindihan ang mga modules tapos, dapat agad ipasa kinabukasan" [Yes, I often feel worried because I really don't understand the modules and then, I must submit them the day after].

Students (Participants 2, 4, 5, 7, 8, 9, 10, and 11) were also unhappy, often crying and contemplating. Participant 2 said

"... 'di ko po maiwasan na hindi maging malungkot at laging nag-iisip ng kung anu-ano... Minsan naiiyak na lang po sa tabi kahit walang dahilan" [I can't help not to become sad and I often overthink... Sometimes, I just cry on the corner without any reason].

Students found themselves crying due to pressures and problems which affected their academic responsibilities and led them of suicidal thoughts. Participant 7 affirmed

"Madalas po akong umiiyak at nalulungkot dahil sa sunod-sunod po na problemang dumating sa pamilya at kalusugan ko kaya na-apektuhan po ng sobra ang pag-aaral ko" [I often cried and felt sad because of the problems that came to my family and my health which affected my studies so much]. Participant 10 told

"Minsan naiisip ko na rin mag-suicide" [Sometimes, I think of committing suicide]. Participant 11 also stated

"Maraming pagkakataon din po na hindi ko mapigilan umiyak sa isang tabi at isiping magpakamatay dahil po sa mga pressure na nararamdaman ko" [There are many instances that I just cry in a corner and think of committing suicide because of the pressures that I feel].

Boredom led students (Participants 3, 10 and 11) to develop lack of enthusiasm in

studying their modules at home. They rather spend their time using their gadgets such as mobile phones to relieve them from being bored. Participant 3 stated

"Nabo-boring po sir, nawala po 'yung social life nitong pandemic kaya umikot lang po sa pagce-cellphone ang buhay ko para ma-contact ko mga kaibigan at kakilala" [Life was boring, Sir, social life has gone this pandemic. My life just revolves in using my cellphone so that I can contact my friends and other people that I know. Participant 11 mentioned

"Nakakabagot po kasi at nakakatamad pag puro basa ng basa" [It is boring and demotivating when all I do is reading].

The feelings of being frustrated (Participants 4 and 8) and agitated (Participants 2 and 4) were also evident as they try to answer their modules. Participant 2 said

"Opo, Sir, pakiramdam ko po lagi ako nag-mamadali kasi kailangan kong matapos lahat ng gawaing bahay bago ako mag-modules" [Yes, Sir, oftentimes I feel like I am always in a hurry finishing all the house chores before doing my modules]. Participant 8 stated

"Nakaka-praning po, Sir, lalo na po sa pag-sagot ng modules. Una po, 'di ko naintindihan. Pangalawa po, andami po'ng sinasagutan na activities. Panghuli po ay pinapapasa agad agad ng teacher yung modules sa subject n'ya" [It's very frustrating, Sir, especially in answering modules. First, I don't understand them. Second, so many activities to answer. Lastly, the teacher puts us in a hurry to submit the modules immediately in his subject].

Students' (Participants 1, 3, 4, 9, and 10) eating habits and sleeping patterns were also greatly affected by the pandemic situation. Participant 1 told

"Dumating po sa point na 'di na po maayos yung pagtulog ko at yung pagkain ko po" [It came to a point that it affected my sleep and the way I eat]. Participant 10 disclosed

“Ngayon po ‘yung pagtulog ko, alas-singko na ako natutulog tapos tanghali na ako magigising. Minsan ‘di ko na po nararamdaman ang gutom at gusto ko na lang matulog ng matulog kasi may mga problema din po ako sa bahay” [Now, in terms of my sleeping habit, I sleep at five o’clock in the morning and wake up late in the afternoon. Sometimes, I don’t feel that I am hungry; I rather sleep all the time because of the problems at home]. Participant 4 also revealed

“Puyat po ako palagi kasi pinipilit ko mag-module sa gabi. Konting tulog lang at gigising na ulit ng maaga para maghanda na sa trabaho” [I lack sleep as I try to answer all my modules at night. I sleep just for a short time and then I will wake up early to prepare for work].

As face-to-face classes were suspended and students have no other choice but to enroll to distance learning type of modality, they did not escape the academic pressures brought by modular and online learning (Participants 1, 7, 8, 10, and 11). Students felt pressured whenever the deadline of submission of modules was fast approaching. Participant 7 stated

“Opo, nagwo-worry po ako madalas kasi ‘di ko po talaga maintindihan ang mga modules tapos, dapat agad ipasa kinabukasan. Yung tipong kahit ano’ng pilit ng utak ko na intindihin, ‘di ko po talaga maintindihan” [Yes, I often feel worried because I really don’t understand the modules and then, I must submit them the day after. Even if I force my brain to understand, I really can’t]. Participant 10 told

“Nape-pressure din po ako lalo na kapag pinapa-submit na ng teacher bago mag-end ng quarter” [I also feel pressured especially if the teacher wants me to submit them before the quarter ends].

These “pressures” caused confusion to the students having a hard time focusing and making decisions. Participant 11 said

“Yes po, Sir, na-experience ko po ‘yan kapag malapit na ang deadline para i-submit ang mga activities ko. Marami po kasing ginagawa sa

bahay kaya ‘di maka-focus sa pagsagot po ng modules. ‘Di ko na po alam ang uunahin sa dami ng gawain” [Yes, Sir, I was able to experience that when the deadline of submitting my activities is getting near. There’s a lot of chores to be done at home that’s why I cannot focus in answering my modules. I do not know what to do first due to many chores]. Participant 7 even appealed

“Huwag po masyadong i-pressure ang estudyante. May mga guro po kasi na pinagsabay-sabay ang mga gawain at ine-expect na makakapag-pasa talaga kami on time. Iba-iba po kasi kami ng pamamaraan kung paano mag-aral” [Don’t put pressure to the students. There are teachers who simultaneously give all the activities and expect that students will submit them on time. We have different learning styles].

B. Academic Problem

Students (all Participants) have struggled immensely in their academic performance upon transitioning from traditional face-to-face to distance learning. As most students were enrolled in modular distance learning, they encountered several problems in this type of learning modality. Students (Participants 1, 3, 7, and 8) experienced difficulty understanding of the module. Participant 7 stated

“Opo, nagwo-worry po ako madalas kasi ‘di ko po talaga maintindihan ang mga modules tapos, dapat agad ipasa kinabukasan. Yung tipong kahit ano’ng pilit ng utak ko na intindihin, ‘di ko po talaga maintindihan” [Yes, I often feel worried because I really don’t understand the modules and then, I must submit them the day after. Even if I force my brain to understand, I really can’t].

Students were not able to finish or submit their modules late and incomplete because of numerous activities that need to be answered. Participant 3 said

“Sa gabi na lang po ginagawa para wala pong istorbo at ingay, ‘yun nga lang po ‘di rin natatapos kasi inaantok na po at nakakapagod sa sobrang dami ng pinapagawa” [That is why I do

my modules at night so that there will be no disturbances and noises, unfortunately, I do not accomplish them on time because I am already sleepy and it is very tiring because of so many activities]. Participant 4 revealed

“Sinasagutan ko po lahat ng mahahalaga tulad ng summative tests ko po lalo na ang performance task. Sa totoo lang, ‘di ko na po sinasagutan ang mga modules ko” [I answer the most important like my summative tests especially the performance task. To be honest, I do not answer my modules anymore]. Participant 11 also revealed

“Kahit late na po, pinipilit ko pa rin sagutan ang mga modules. Complete or incomplete ‘yung mga sagot, pinapasa ko pa din po sa school baka sakali na tanggapin pa din at checkan ng mga teachers ko” [Even though it’s late already, I still push myself in answering all my modules. Complete or incomplete answers, I still submit them to school hoping that my teachers will consider and check them].

Other factors have also challenged the students academically. Most of them (Participants 2, 3, 4, 5, 7, 9, and 11) prioritizes their responsibilities at home resulting to having a hard time in answering their modules. Participant 3 stated

“Opo, Sir, dahil sa marami pong gawaing bahay tulad ng pag-aalaga sa mga pamangkin at nagbabantay sa tindahan, hindi ko po nasasagot ng maayos ang modules ko” [Yes, Sir, since I do a lot of chores like taking care of my nieces and watching over our store, I cannot answer the modules properly]. Participant 11 said

“Marami po kasing ginagawa sa bahay kaya ‘di maka-focus sa pagsagot po ng modules. ‘Di ko na po alam ang uunahin sa dami ng gawain” [There’s a lot of chores to be done at home that’s why I cannot focus in answering my modules. I do not know what to do first due to many chores].

Students (Participants 2, 3, 4, 5, 9, 10 and 11) were also financially challenged during the pandemic. They stressed the insufficiency of

resources as they cannot afford to buy supplies while studying at home. Participant 9 suggested

“Sana po mabigyan kami ng gadgets para ma-experience namin na makapag-online class o kaya magamit namin sa pagre-research. Sana mag-provide din po ng load or libreng data. May mga activities po kasi sa modules na hindi po klaro kaya kailangan po ng access sa Internet lalo’t wala naman po kaming mga libro” [I hope they would give us gadgets so that we will experience online classes or use them for research. I also hope that they will provide us load or free data. There were activities in the modules that are not clear that’s why we need access to the Internet especially that we don’t have books on hand]. Participant 10 pleaded

“Ano Sir, sana bigyan ng ayuda kaming mag-aaral kasi nakakahiya na humingi sa magulang ng paggagastusan. Mahirap po yung sitwasyon ngayong pandemya. Tulad po sana ng load o kaya free wifi para po sa pagse-search sa Internet kasi kailangan na po iyon ngayon kahit na may modules na naka-print” [Sir, I hope, we, the students will be provided with assistance because it’s already embarrassing to ask expenses to our parents. Situation during this pandemic is so hard. Just like load or free wifi to search the Internet, they are really needed now, even if we are using printed modules].

C. Social Problem

Students (Participants 1, 3, 5, and 11) gave emphasis on how the pandemic affected their social lives. Community-wide quarantines and lockdowns have resulted many to stay inside their homes especially the young ones. Minors were restricted from going out as curfews have been strictly implemented. They emphasize the importance of communication not only with their families at home but also with the people outside through the use of social media. Participant 1 stated

“...importante po yung presence na meron kang kasama at naipapadama na hindi ka nag-iisa. Bukod sa parents ko, naramdaman ko po iyon sa mga teachers at adviser ko kahit sa chat lang kami nag-uusap” [...the presence of having

a company and making you feel that you are not alone are so important. Aside from my parents, I also felt that from my teachers and advisers even though we only chat].

This statement also highlighted the need to communicate with their teachers and advisers. Teachers' role as counsellors are crucial especially in time of pandemic. Participant 5 emphasized that teachers are students' source of advice and motivation saying

"Gusto ko din po 'yung may mga maka-kausap po na teachers or sinuman po na magpapayo at gagabay sa amin para ma-motivate kami" [I also want teachers or anyone whom I can talk to, who will encourage and guide us to become motivated].

On the other hand, there were students who wanted to communicate such as seeking advice from parents but were unable to do so because of the difficulty of the situation brought by the pandemic. This is the reason why some of them chose to keep it on themselves and not disclose to other people, even to their family, about their problems and feelings. Participant 11 stated

"Yung mga problema ko po, sinasarili ko na lang po... Gusto ko pong sabihin sa mga magulang ko na nahihirapan na ako pero 'di ko po magawa kasi alam kong mas nahihirapan din sila sa sitwasyon namin" [I just keep my problems to myself... I want to reach out to my parents and tell them, that I am having a hard time but I can't do it because I know that they are experiencing much harder with our situation].

Conclusion

Using the MHI-38, the study discovered that during the COVID-19 pandemic, anxiety was experienced by private senior high school students in Zone I, Division of Zambales. By using analysis of variance, it is determined that student's anxiety has significant difference with learning delivery modality. At the time, modular distance learning was the most preferred choice for students. Qualitative data also revealed students' difficulties completing their modules and the issues that have negatively

impacted their mental, academic, and social well-being.

The conclusions of the study have led to the following recommendations:

1. The Department of Education may further develop a quality and mentally healthful modular distance learning modality that is beneficial to the psychological well-being among learners especially in times of uncertainties such as pandemic and school cancellations due to natural disasters.
2. The Department may strengthen the awareness on the importance of mental health among learners by enhancing teachers and guidance counsellors with adequate understanding through seminars and trainings.
3. The Department may review and prioritize implementation of a mentally and psychologically healthy curriculum that is beneficial to the mental health among learners.
4. The Department may produce quality textbooks and modules with activities that are doable and understandable and may not trigger mental or psychological distresses such as anxiety.
5. Private and public schools may prepare a continuity plan system in case the distance learning modalities are implemented in emergency situations and school cancellations.
6. School guidance counsellors may develop a helpline program that monitors mental health status among learners.
7. School heads and teachers may ensure constant communication and monitoring of students' situation in case distance learning modalities are implemented.
8. Future researchers may conduct similar studies among public school learners' mental health and its effect on their academic performance.

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References

- Abad, M. (2020, June 29). DepEd opens senior high school voucher program for 2020-2021. *Rappler*. <https://www.rappler.com/nation/265170-deped-opens-senior-high-school-voucher-program-2020-2021/>
- ABS-CBN Investigative and Research Group. (2017, October 12). Mental health of Filipinos [Infographic]. *ABS-CBN News*. <https://news.abs-cbn.com/focus/multi-media/infographic/10/12/17/mental-health-of-filipinos>
- Alberto, J. R. G., Abrigo, M. R. M., Quimba, F. M. A., & Vizmanos, J. F. (2020, August). Poverty, the Middle Class, and Income Distribution amid COVID-19. *Philippines Institute for Developmental Studies*. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps2022.pdf>
- Alshammari, T., Alseraye, S., Alqasim, R., Rogowska, A., Alrasheed, N., & Alshammari, M. (2022, January 25). Examining anxiety and stress regarding virtual learning in colleges of health sciences: A cross-sectional study in the era of the COVID-19 pandemic in Saudi Arabia. *Saudi Pharmaceutical Journal*, 30, 256-264. <https://doi.org/10.1016/j.jsps.2022.01.010>
- Baloran, E.T. (2020, May 22). Knowledge, attitudes, anxiety, and coping strategies of students during COVID-19 pandemic. *Journal of Loss and Trauma*. <https://doi.org/10.1080/15325024.2020.1769300>
- Braun, V. & Clarke, V. (2006, January). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 22-101. <http://dx.doi.org/10.1191/1478088706qp0630a>
- Bueno-Notivol, J., Gracia-Garcia, P., Olaya, B., Lasheras, I., López-Antón, R. and Santa-bárbara, J. (2020, August 31). Prevalence of depression during the COVID-19 outbreak: A meta-analysis of community-based studies. *International Journal of Clinical and Health Psychology*, 21(1). <https://doi.org/10.1016/j.ijchp.2020.07.07>
- Cohut, M. (2021, March 12). Global impact of the COVID-19 pandemic: 1 year on. *Medical News Today*. <https://www.medicalnewstoday.com/articles/global-impact-of-the-covid-19-pandemic-1-year-on>
- Creswell, J. W. & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications, Inc.
- Da Silva Fortes, L. & Fernandes, M. (2018). Gender differences in terms of life stressors in adolescence. *Indian Journal of Mental Health*, 5(3), 317-323. http://indianmentalhealth.com/pdf/2018/vol5-ssue3/Original_research_article_43-49.pdf
- Domingo, K. (2021, May 17). Gov't mental health hotline receives more calls as COVID-19 pandemic rages in Philippines. *ABS-CBN News*. <https://news.abs-cbn.com/news/05/07/21/govt-mental-health-hotline-receives-more-calls-as-covid-19-pandemic-rages-in-philippines>
- Domingo, K. (2021, May 19). At least 3.6 million Filipinos battling mental health issues amid pandemic: DOH. *ABS-CBN News*.

- <https://news.abs-cbn.com/spot-light/05/19/21/at-least-36-million-filipinos-battling-mental-health-issues-amid-pandemic-doh>
- Guanco, R.J.F., Delgra, L.K.Y., Dotimas, U.E., Dumas, K.B., & Lumpay, E.R.D. (2023, March 23). Mediating role of coping strategies on the symptoms of complicated grief and psychological well-Being during COVID-19 Pandemic. *Human Behavior, Development and Society*, 24(1), 84-92. https://www.researchgate.net/publication/370229603_Mediating_Role_of_Coping_Strategies_on_the_Symptoms_of_Complicated_Grief_and_Psychological_Well-Being_during_COVID-19_Pandemic_1/references#fullTextFileContent
- Idris, F., Zulkipli, I.N., Abdul-Mumin, K.H., Ahmad, S.R., Mitha, S., Rahman, H.A., Rajabalaya, A., David, S.R., & Naing, L. (2021). Academic experiences, physical and mental health impact of COVID-19 pandemic on students and lecturers in health care education. *BMC Med Educ*, 21(542). <https://doi.org/10.1186/s12909-021-02968-2>
- Ivanović, M. & Ivanović, U. (2018, July 11). Prediction of mental health among cadet football players based on the emotional intelligence and perfectionism. *EQOL Journal*. 10(2), 13-21. <https://doi.org/10.31382/eqol.181202>
- Javed, B., Sarwer, A., Soto, E. B., & Mashwani, Z-R. (2020, June 22). The coronavirus (COVID-19) pandemic's impact on mental health. *Int J Health Plann Manage*. <https://doi.org/10.1002/hpm.3008>.
- Klootwijk, C.L.T., Koele, I.J., van Hoorn, J., Guroglu, B. and van Duijvenvoorde, A.C.K. (2021, August 26). Parental support and positive mood buffer adolescents' academic motivation during the COVID-19 pandemic. *Journal of Research on Adolescence*, 31(3), 780-795. <https://doi.org/10.1111/jora.12660>
- Kumar, R.K., Aruna, G., Biradar, N., Reddy, K.S., Soubhagya, M., and Sushma, S.A. (2022, march 23). The prevalence of depression, anxiety, and stress among high school adolescent's children in public and private schools in Rangareddy district Telangana state: A cross-sectional study. *Journal of Education and Health Promotion*, 11:83. https://doi.org/10.4103/jehp.jehp_548_21
- Liu, Y-C., Kuo, R-L., & Shih, S-R. (2020, August). COVID-19: The first documented coronavirus pandemic in history. *Biomed J*, 43(4), 328-333. <https://doi.org/10.1016/j.bj.2020.04.007>.
- Marzo, R.R., Villanueva, E.Q., Faller, E.M., & Balonado, A.M. (2020, November 7). Factors associated with psychological distress among Filipinos during coronavirus disease-19 pandemic crisis. *Open Access Macedonian Journal of Medical Sciences*, 8(T1):309-313. <https://doi.org/10.3889/oam-jms.2020.5146>
- Mental Health Outcome Measures Consortium. (2015). A guide for measuring mental health outcomes in western Australian community managed organisations. *Western Australian Association for Mental Health*. <https://waamh.org.au/assets/documents/sector-development/a%20guide%20for%20measuring%20outcomes%20in%20cmos%202016%20low%20res.pdf>
- Montemayor, M. T. (2020, December 31). Education goes on amid Covid-19 thru DepEd's continuity plan. *Philippine News Agency*. <https://www.pna.gov.ph/articles/1126058>
- Oducado, R.M.F., & Estoque, H.V. (2021, April). Online Learning in Nursing Education during the COVID-19 Pandemic: Stress, Satisfaction, and Academic Performance. *Journal of Nursing Practice*. 4(2), 143-153. <https://doi.org/10.30994/jnp.v4i2.128>
- Panchal, N., Kamal, R., Cox, C., & Garfield, R. (2021, February 10). The implications of COVID-19 for mental health and substance use. *KFF*. <https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/>
- Pineda, A.M. & Bueno, D.C. (2019, October). School, home, personal and mental health-related issues of senior high students in a Catholic school in the Philippines. *CC The*

- Journal: A Multidisciplinary Research Review*, 14. ISSN 1655-3713
Planning Service, Department of Education (2022, July). *DepEd data bits: learning delivery modalities*. <https://www.deped.gov.ph/wp-content/uploads/2022/08/7-Databits-Learning-Delivery-Modalities-Jul.pdf>
- Tang, Y. & He, W. (2023, March 15). Relationship between emotional intelligence and learning motivation among college students during the COVID-19 pandemic: A serial mediation model. *Front. Psychol.* 14:1109569. <https://doi.org/10.3389/fpsyg.2023.1109569>
- Tria, J. Z. (2020). The COVID-19 pandemic through the lens of education in the Philippines: The new normal. *International Journal of Pedagogical Development and Lifelong Learning*, 1(1), ep2001. <https://doi.org/10.30935/ijpdll/8311>
- Vallejo, O.T. (2019). Personality and socio-economic factors influencing the choice of academic track among senior high schoolers. *International Journal of Academic Research in Education and Review*, 7(3), 28-33. <https://doi.org/10.14662/IJARER2019.020>
- Wan Mohd Yunus, W.M.A., Badri, S.K.Z., Panatik, S.A., and Mukhtar, F. (2021, February 16). The unprecedented movement control order (lockdown) and factors associated with the negative emotional symptoms, happiness, and work-life balance of Malaysian university students during the coronavirus disease (COVID-19) pandemic. *Frontiers in Psychiatry*, 11:566221. <http://doi.org/10.3389/fpsy.2020.566221>
- Wider, W., Taib, N.M., Khadri, M.W.A.B.A., Yip, F.Y. Lajuma, S., & Punniamoorthy, P.A/L. (2022, June 23). The Unique Role of Hope and Optimism in the Relationship between Environmental Quality and Life Satisfaction during COVID-19 Pandemic. *Int J Environ Res Public Health*, 19(13), 7661. <https://doi.org/10.3390/ijerph19137661>
- World Health Organization (WHO). (2020, October 13). *Impact of COVID-19 on people's livelihoods, their health and our food systems*. <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems#:~:text=The%20COVID%2D19%20pandemic%20has.and%20the%20world%20work.&text=The%20pandemic%20has%20decimated%20jobs%20and%20placed%20millions%20of%20livelihoods%20at%20risk>