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**AMIDST COVID-19 PANDEMIC: DEPRESSION, ANXIETY, STRESS, AND
ACADEMIC PERFORMANCE OF THE STUDENTS IN THE
NEW NORMAL OF EDUCATION IN THE PHILIPPINES**

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ABSTRACT

Studies on mental health and academic performance have been conducted throughout the world. Thus, this study aims to assess the students' mental health amidst the new normal of education employing 21-item Depression, Anxiety, and Stress Scale or DASS-21, concerning their academic performance. The study's findings showed that almost more than half of the respondents suffered from moderate to extremely severe levels of depression, stress, and anxiety. Thus, there was no significant relationship between high negative mental health symptoms and academic performance. In conclusion, students that encounter extreme levels of adverse mental health can still maintain high academic achievement. However, the students' mental health should always be managed and helped to cope with their life problems, especially during this pandemic crisis.

Keywords: Depression, Anxiety, Stress, Academic Performance, COVID-19 Pandemic

INTRODUCTION

The series of rising mental health issues is a growing global epidemic globally, affecting around one-third of the world's population (Riley, 2019). Generally, mental well-being is the emotional and psychological well-being that influences how a person thinks, feels, and responds to life's events (World Health Organization, 2019). Adolescence, which begins at the age of 10 and ends at the age of 19, is a transitional time from childhood to adulthood. This is where a person undergoes critical physiological and mental changes in his or her growth. There are approximately 1.2 billion teenagers globally, and between 10-20% of children and adolescents have some mental health status (WHO, 2019). Remember that some studies have shown that a student's academic performance may be influenced by the state of his or her mental condition as early as studying in primary school (Marryat, Thompson, Minnis, & Wilson, 2017).

It is true that almost every adolescent is subjected to some form of educational advancement from primary school to higher education. The move to puberty and high school is not an unusual occurrence in the field of education. Although, in some situations, the transition to a new setting will often be followed by new obstacles and people who can contribute to an immediate shift in student socialization and behavioral influences that trigger short-term and long-term effects on their mental health (Van Rens, Haelermans, Groot, & van den Brink, 2017). The correlation of mental health problems with the academic performance of students is also illustrated.

The association between the General Weighted Average (GWA) of high school students and their academic achievement is positively correlated. Similarly, the existence of mental health conditions and causes such as depression, anxiety, and stress have also been noted for their relationship to academic achievement (Moreira de Sousa, Moreira, & Telles-Correia, 2018; Sharma & Pandey, 2017; Wyatt, Oswald, & Ochoa, 2017). Depression is the most common and recognized form of mental illness and is often characterized as intense levels of depression, often contributing to a lack of interest in daily life and how a person usually works at school or at work (Shumaila Khurshid, 2015). Anxiety disorder Anxiety indifference we encounter traditional associations with the feeling of powerlessness and fear associated with panic and stress (Bourne, 2010; Basco & Olea, 2013). In terms of stressors,

they are linked to those things that trigger distress within a person's psychological and emotional well-being, which may cause mental health issues (Dy, Ferido, Espiritu-Santo, & Ria, 2015).

Different countries have several studies that have helped establish the relationship between a student's emotional state and academic success. Whereas the new Mental Health Legislation in the Philippines, Republic Act 11036 was recently adopted on February 12, 2018. It is also troubling because the Philippines is also struggling to grips with the law because of the lack of new knowledge and accessible research (Lally, Samaniego, & Tully, 2019). There are only a few mental health studies in the Philippines, and most of them include university and college students as the main subject of study, not high school students. This study aims to contribute research and measurable knowledge on the relationship between adolescent mental health and their academic performance.

REVIEW OF RELATED LITERATURE

Mental health is most commonly associated when a person becomes fully aware of their abilities, can adapt to the normal stressors and problems in their life, can work within one's self-fulfillment and satisfaction efficiently, and can make the right contributions to society. It can be applied to an individual's ability to develop themselves harmoniously with or without other people and to deal with the circumstances of life efficiently (WHO, 2013). Furthermore, the concept of mental health defines from a more general point of view that is comprised of a positive and negative dimension. The positive which signifies the psychological well-being, affected mostly by elements of happiness, contentment, quality of life, and even health as a whole. Whereas the negative concept indicates the opposite as in "mental health problems" or "mental health distress" (Pilgrim, 2017). Depression, anxiety, and stress are always correlated with mental health disorders (Kutcher, Wei, & Coniglio, 2016). Often denoted and seen as real problems within the world. These conceptual factors adhered to individual development especially with adolescents or developing teens (Loewen et al., 2019).

1.1 Theories

Erik Erikson's theory on adolescents' psychosocial development on the seventh stage of development theorized the depression on adolescents. The approach suggested that every adolescent went to the stage of an identity crisis. To which every adolescent tried to find the answer to the question "Who am I?". The failure of answering the question brings adverse effects to an adolescent's mental health and development, it makes one disvalue their self-worth and become unable to cope with daily life, which could lead to Depression (Miller, 2017)

On another note, Strongman's anxiety theories (As cited by Garcia, Santilla, Molchanova, Salazar, 2017) were anxiety as a pain inflictor caused by unclear origins and phobias. The theories on anxiety suggest that it has no exact limit where or when it will stop. There are five categories in theories of anxiety; these are psychoanalytic, learning or behavioral, physiological, phenomenological, and uncertainty. This proves that all of the categories were very similar. However, anxiety cannot be understood without the people's influence, and its most common problem is that it mostly comes from uncertainty. Moreover, anxiety was categorized in two ways: Everyday Anxiety and Neurotic Anxiety. Everyday anxiety regarded anxiety as normal fear from real events while Neurotic anxiety was suggested to come from more phobic and panic attack-related origins (Strongman, 1995).

Stress is sometimes perceived as a mental pressure, however, it also has a physical effect on the human body. Grasping the stages the body goes through when exposed to stress helps people become more aware of these physical signs of stress when they occur. Hans Selye, a Vienna-born scientist, was the founder of the stress theory. He defined stress as "the non-specific response of the body to any demand for change" (As cited by Fink, 2016)

Lazarus' theory on stress also explained that the "General Adaptation Syndrome" or "GAS" is the three-stage process that describes the physiological changes the body goes through when under stress (Selye, 1956).

1.2 Depression and Anxiety

According to recent studies, depression and anxiety are the most common types of mental disorders, and comorbidity is also prevalent with these two disorders, which means that depression and anxiety may be simultaneously present in one person. Many individuals with anxiety also have depression and vice versa (Beiter et al., 2014). The most common mental disorders refer to two main diagnostic categories: depressive disorders and anxiety disorders. These disorders are highly prevalent in the world and impact the mood or feelings of affected persons. These symptoms range in terms of their severity from mild to severe and last for months to years (Holliday et al., 2015). These are diagnosable health conditions and are distinct from feelings of sadness, normal anxiety, stress or fear that anyone can experience from time to time in their everyday lives. At a global level, it's been reported that over 300 million people are estimated to suffer from depression, while more than 250 million people are estimated to suffer from anxiety disorder (WHO, 2017).

The number of individuals with common mental disorders such as depression and anxiety is rising on a global scale. More specifically in lower-income countries such as the Philippines because of the rapid growth of population, which results in more people living within the adolescent age, the age range when depression and anxiety most commonly occur (WHO, 2017). Although depression and anxiety both can and do affect people of all ages. This risk of becoming depressed is mainly affected by poverty, unemployment, tragic life events, and physical illnesses such as cancer. Some factors also include the behavioral lifestyle present in early adolescence (Loewen et al., 2019). Moreover, the pervasiveness of mental health disorders within the Philippines is gradually being measured and shown to increase within youth (Cleofas, 2019)

Depressive disorders are mostly associated with great feelings of sadness, loss of passion or engagement with tasks and hobbies, feelings of regret, low self-esteem, disturbed sleep cycles or eating habits, extreme fatigue, and poor concentration. Depression can be long-lasting or recurrent, substantially impairing an individual's ability to function at work or school and negatively view oneself, the environment, and the future (Schwarzer, 1984). Only limited studies on Filipino students have found that excessive sadness, a symptom of depression, is due to anxiety and stress that are related to academics and subjective factors (Zuorba, Cantara, & Olan, 2017).

On the other hand, Anxiety disorders are distinguished from a subjective state of intense and uncontrolled fear and anxiety. Psychologically, extreme causes of anxiety can cause someone to feel disconnected with oneself and even fearing insane (Bourne, 2010). Additionally, Anxiety Disorder can also refer to a group of mental disorders such as generalized anxiety disorder (GAD), panic disorder, phobias, social anxiety disorder, obsessive-compulsive disorder (OCD), and post-traumatic stress disorder (WHO, 2017).

1.3 Stress

Stress is the typical reaction of a person's physical and mental aspect towards any change that requires an adjustment or response to perceived threats in a person's life. May it be literal or imagined, stress affects the physiological and psychological well-being of people. In turn, these effects can result in several stress reactions, such as the fight-or-flight response (Seaward, 2018). In a conducted study amongst Filipino students, stress was positively associated with their everyday routine and significantly affected their mental state. Such routines that correlate with their stress response were ranked in the following order: academics, amount of workload, and time

management (Dy, Ferido, Espiritu-Santo, & Ria, 2015).

1.4 Academic Performance

Academic performance results from the measurements and outcomes of proper education. It is the point wherein an institution, principal, or even student has achieved their educational goals. May it be in the significance of learning presented through scales or the GWA (Ward, Stoker, & Murray-Ward, 1996). The academic achievement of the youth remains an important factor for the development of society. Students who do well in school are better able to transition into adulthood and achieve a better understanding of the practicalities of life—resulting in what may come off as occupational success that may contribute to the improvement of oneself and the community (Regier, 2011).

1.5 DASS-21

Several tools can be used to measure a person's mental state in regards to the ranges of negative emotions. Some of these emotions include sadness, anger, and fear related to stress and depression and anxiety disorder (Cowen & Keltner, 2017). To assess and measure mental health, questionnaires and surveys such as the GHQ-28, PHQ-9, and the DASS21, the researchers' scaling method. Studies have recommended the reliability and viability of the DASS21. The DASS21 is heavily relied on to produce the total scale scores in the correlation of mixed depression, anxiety, and stress amongst various respondents (Osman et al., 2012; Tran, Tran, & Fisher, 2013).

1.6 Related Studies

A recent study conducted on Rizal Technological University students in the Philippines proposed to identify the relationship between the anxiety levels of students and its' effects on the General Weighted Average/GWA of the students. Anxiety was differentiated with state and trait anxiety. State anxiety was then described as the perception of a person towards threatening situations while Trait Anxiety was the interpretation and reaction of a person towards said situations. The results of the study showed that there was a negative correlation between anxiety levels of the students with their academic achievement. They were suggesting that students with higher GWA experienced lower manifestations of anxiety disorder and its symptoms and types (Basco & Olea, 2013). In a similar study, anxiety was seen to not be limited to students with learning disabilities. Stating that all students at all levels may experience anxiety and concluded that to reduce anxiety, teachers and parents need to be involved in helping students with their academics (Dobson, 2012)

Furthermore, another study identified the relation of anxiety, depression, and stress with higher secondary school students' academic achievement. The research subjects comprised 120 randomly selected students, divided into 60 boys and 60 girls, between several schools in a rural state in India. The results of the study found that between the three variables, depression and anxiety were shown to have a significant negative relationship with academic achievement. In contrast, stress was showed to have a significant positive relationship with academic achievement. Concluding that the mental health of students affects their academic achievements (Sharma & Pandey, 2017)

In a contrasting study, the opposite result was shown. The study aimed to conclude the relationship between depression and anxiety with academic performance using the DASS-21 Questionnaire. The results showed no significant relationship with depression or anxiety with the GWA of students, though stating that gender was a factor in affecting their academic performance. Specifically stating that since women had higher academic performance than males, it made sure that students with low past academic performance also had low current GWA (Bisson, 2017).

RESEARCH QUESTIONS

The current study aims to evaluate the depression, anxiety, and stress experience by the students and assess its relation on their academic performance. Specially, it sought to answer the following questions:

1. What is the level of the emotional states of depression, anxiety and stress of the students?
2. What is the level of academic achievement of the students?
3. Is there a significant relationship between the emotional states of depression, anxiety, and stress on the students' academic performance?

MATERIALS AND METHODS

1.1 Research Design

The research design of a study is referred to as the structure, strategy, and arrangement on how data may be collected and analyzed to serve relevance to the research's variables and purposes. It is most commonly defined as the "blueprint" of a study and would determine the answers to certain questions about the research topic and provides additional data such as: What the study is about, what type of data is needed, what type of sampling method should be used, etc. (Akhtar, 2016).

In this study, the researchers used a descriptive correlational research design, specifically a quantitative research method. Quantitative research methods use numbers and any measurable kind of data or information to be processed in systematic procedures used in investigating variables and their relationships. Researchers mainly use the quantitative method to identify the variables used in research work and aid with the data collection (Salford University, 2007; Apuke, 2017).

1.2 Study Participants

The research participants were the senior high school students from the public and private schools in Bulacan, Philippines, enrolled for the school year of 2020-2021. The total number of respondents was 259.

1.3 Study Instrument

The study made usage of the shortened. Twenty-one question Depression, Anxiety and Stress Scale (DASS-21) by P.F. Lovibond and S.H. Lovibond to measure students' mental health. The questionnaire consists of a 21-question inventory designed to measure and identify the severity and presence of depression, anxiety, and stress. The number of points ranged from zero (0) to three (3) corresponding to "Did not apply to me at all" for zero, "Applied to me to some degree, or some of the time" for one, "Applied to me to a considerable degree or a good part of the time" for two, and "Applied to me very much or most of the time" for three. Most recent studies suggest that the internal reliability of the instrument is $p=.94$ (Gloster, et al., 2008).

1.4 Procedures

To obtain the necessary data of the study in determining the relationship of depression, anxiety, and stress with the academic performance of the participants, the researcher gathered information through an online survey utilizing google form. With the participants' consent, they were subjected to the DASS-21 and provide their academic performance for the first grading of SY 2020-2021.

RESULTS

This section of the study deals with the gathered data from the research instrument following the research questions. This is to compare the results and know the respondents' level of depression, anxiety, and stress. The gathered data were analyzed using statistical techniques such as the frequency count, percentage, and mean.

1.1 Levelsof Depression, Anxiety, and Stress

This set of data is intended to identify and describe the proportion of students utilizing severity level from the three separated domains (Depression, Anxiety, and Stress) of the DASS-21 Questionnaire that was distributed to the respondents. To describe the respondents' level of severity, the researchers first determined the level with the use of the DASS-21 scaling procedure. The levels of severity were then tallied with their appropriate ranges: Normal, Mild, Moderate, Severe, and Extremely Severe.

Table 1. The Proportion of the Depression Levels of the Students

<i>Level</i>	<i>Frequency</i>	<i>Percentage</i>
Normal	22	8.49%
Mild	24	9.27%
Moderate	72	27.80%
Severe	88	33.98%
Extremely Severe	53	20.46%
	259	100.00%

Based on the outcome of Table 1, it was recognized that most of the senior high students had severe levels of depression having 33.98% out of 100.00%. Succeeded with moderate levels with 27.80%. Followed by extremely severe with 20.46%, then 9.27% with mild, and the lowest with 8.49% for normal. The students' highest level of severity was "severe" which indicated that the majority of all the students suffered from severe levels of depression. Meaning that depression was present in the respondents most of the time and present more active symptoms such as extreme sadness and rejection of life.

Table 2. The Proportion of the Anxiety Levels of the Students

<i>Level</i>	<i>Frequency</i>	<i>Percentage</i>
Normal	13	5.02%
Mild	12	4.63%
Moderate	20	7.72%
Severe	76	29.34%
Extremely Severe	138	53.28%
	259	100.00%

Based on the outcome of Table 2, it was recognized that most of the senior high students had extremely severe levels of anxiety having 53.28% out of 100.00%. Followed by 29.34% of severe anxiety. Then with 7.72% which was moderate, 5.02% which had normal anxiety, and 4.63% with the lowest level for mild anxiety. The students' highest level of severity was extremely severe, which indicated that more than half of all the respondents experienced anxiety, which means that anxiety was present to more than half of all the respondents and experienced from frequent subjective fears and phobias.

Table 3. The Proportion of the Stress Levels of the Students

<i>Level</i>	<i>Frequency</i>	<i>Percentage</i>
Normal	42	16.22%
Mild	42	16.22%
Moderate	106	40.93%
Severe	59	22.78%
Extremely Severe	10	3.86%
	259	100.00%

Based on the outcome of Table 7\3, it was visible that most of the senior high students had moderate signs of stress having 40.93% out of 100.00%. Coming after this were severe signs of stress with 22.78% Followed by normal and mild signs of stress with 16.22%. The least was extremely severe signs of stress with 3.86%. Since the highest percentage level was moderate signs of stress, it suggests that the senior high students had moderate levels of stress. Meaning that the respondents experienced non-excessive and controllable stress symptoms such as uncontrolled emotions (anger, and impatience) and physical difficulties.

The Level of the Academic Performance of the Students

This section provides the tabulation of the level of frequency of the academic performance of Grade 11 and 12 students. The grades were arranged in the following range of Outstanding (90 – 100), Very Satisfactory (85 – 89), Satisfactory (80 – 84), Fairly Satisfactory (75 – 79), and Did Not Meet Expectations (74 and below).

Table 4. Level of Academic Performance of the Grade 11 Students

<i>Indicators</i>	<i>Frequency</i>	<i>Percentage</i>
90 - 100 (Outstanding)	5	3.70%
85 - 89 (Very Satisfactory)	47	34.81%
80 - 84 (Satisfactory)	69	51.11%
75 - 79 (Fairly Satisfactory)	14	10.37%
74 and below (Did Not Meet Expectations)	0	0.00%
	135	100.00%

Based on Table 4, it was seen that more than half of all the Grade 11 students' academic achievement was Satisfactory with 51.11%. Succeeding this was Very Satisfactory with 34.81%. It's then followed by Fairly Satisfactory with 10.37%. The indicator with the least amount of percentage was Outstanding with 3.70%. Overall, the indicator of Satisfactory had the leading level in the academic performance of the Grade 11 students meaning that the students accomplish their academic tasks and comply with their requirements.

Table 5. Level of Academic Performance of the Grade 12 Students

<i>Indicators</i>	<i>Frequency</i>	<i>Percentage</i>
90 - 100 (Outstanding)	17	9.04%
85 - 89 (Very Satisfactory)	96	51.06%
80 - 84 (Satisfactory)	75	39.89%
75 - 79 (Fairly Satisfactory)	0	0.00%
74 and below (Did Not Meet Expectations)	0	0.00%
	188	100.00%

Based on the results from Table 5, it was seen that more than half of all the Grade 12 students' academic achievement was Very Satisfactory with 51.06%. This was succeeded by Satisfactory with 39.89%. It was then followed by Outstanding, the indicator with the least amount of percentage with 9.04%. Overall, the indicator of Very Satisfactory had the leading level in the academic performance of the Grade 12 students implying that more than half of the students often accomplish their academic requirements and perform well in school-related activities.

Correlation of Depression, Anxiety, and Stress and the Academic Performance of the Students

This section presented the correlation of depression, anxiety, and stress on the academic performance of all the respondents. The multiple correlation analysis on the SPSS was used and tested at the 0.01 level of significance.

Ho₁: The students' scale on depression does not present a significant relationship with their academic performance.

Ho₂: The students' scale on anxiety does not present a significant relationship with their academic performance.

Ho₃: The students' scale on stress does not present a significant relationship with their academic performance.

Table 1. The Results of the Correlation Analysis of the Respondents' Depression, Anxiety and Stress Scale and their Academic Performance

Variables		Academic Performance	Depression	Anxiety	Stress
Academic Performance	Pearson Correlation	1	.006	-.001	-.049
	Sig. (2-tailed)		.926	.985	.430
	N	259	259	259	259
Depression	Pearson Correlation	.006	1	.654**	.274**
	Sig. (2-tailed)	.926		.000	.000
	N	259	259	259	259
Anxiety	Pearson Correlation	-.001	.654**	1	.215**
	Sig. (2-tailed)	.985	.000		.000
	N	259	259	259	259
Stress	Pearson Correlation	-.049	.274**	.215**	1
	Sig. (2-tailed)	.430	.000	.000	
	N	259	259	259	259

** . Correlation is significant at the 0.01 level (2-tailed).

As finalized in Table 6, it presented the results of the study from the correlation analysis. It revealed that there is no significant relationship between the factors of depression, anxiety, and stress on the academic performance of the students. This is because the linked variable had a probability greater than the 0.01 alpha level of significance, resulting in the null hypothesis being accepted.

DISCUSSION

The study first raised the questions: What is the level of the emotional states of depression, anxiety, stress, and academic performance of the students? The researchers went to present the severity level of the three domains by using the scaling procedure of the DASS-21 and applying the statistical analysis of percentage and mean. The academic performance of the students was shown using the statistical presentation of rate and frequency. The highest corresponding levels of depression, anxiety, and stress were presented as: The respondents had Severe levels of depression (32.84%), Extremely Severe levels of Anxiety (54.85%), and Moderate levels of Stress (39.5%). Students' academic performance was divided with the Grade 11 students having satisfactory levels of academic performance and Grade 12 having very satisfactory academic performance levels.

Moreover, the results showed that though the levels ranged from Moderate to Extremely Severe, Depression, anxiety, and stress had no significant relationship with academic performance. Similarly, studies using the DASS-21 also showed the same results while having the same and different age groups. The results only indicated that the domains of depression, anxiety, and stress had strong correlations with each other, but not with academic performance (Iwamoto & Chun, 2019; Vasugi&Norlizah, 2019).

Studies also made use of the DASS-21 to correlate depression, anxiety, and stress with academic performance in a different aspect. The findings showed that there was a significant relationship with the variables above (Hart, 2019). Though differentiated with the age group and the respondents' location, there was a lack of information on Philippine or Southeast Asian adolescents as the target subject and the DASS-21 as the primary instrument.

Overall, the presence of negative mental health disorders impacts the students' personal and social development, especially as they are near the end of their adolescent stage and closer to adulthood. With this information, the researchers imply that the students and other related factors and individuals be more self-aware of oneself and others' mental health. Furthermore, the acknowledgment of the importance and steps towards good mental health present crucial elements for the future and present the psychological growth of individuals.

CONCLUSION

The study investigated the relationship between depression, anxiety, and stress on the students' academic performance. The results of the study based on the levels of severity imply that most of the students are experiencing hopelessness, rejection of life, and dysphoria concerning depression. Subjective anxious effects and situational anxiety are rampant in the everyday lives of the students. Additionally, lack of emotional control and physical difficulty are signs of high levels of stress that are also common within the students.

The results of the study concluded that the severity level of depression, anxiety, and stress of the students provide no significant relationship with their academic performance. This indicates that despite the high levels of depression, anxiety, and stress on the students, they are still able to accomplish and manage their academic duties and maintain their own desired graded average efficiently. This may be because of subjective factors affecting the mental thinking of students.

In addition, the results showed that there is no significant relationship with negative mental health symptoms and academic achievement. Though the high levels of depression, anxiety, and stress are still alarming and can affect the development of the students as individuals, especially as they are about to transition towards their

adult and college life.

Moreover, the following were the recommendations of the study: (1) the school create programs such as individual and group interventions by applying one-on-one interviews with the guidance counselors of the school and occasional programs that promote and explain good mental health on both parents and the students; (2) other professionals familiarize the teachers with basic coping techniques such as knowing the "Do's and Don'ts" on students who experience negative mental health symptoms; (3) the parents participate with the school's programs to be familiar with the school system and become knowledgeable with their children's behavior and academic performance.

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