



TECHNIUM

SOCIAL SCIENCES JOURNAL

9 R Ø

1

\$ Q H Z G H F D
I R U V R F L D O

, 6 6 1



Z Z Z W H F K Q L X P V F L H Q F H F R E

Ok or Not Ok: Mental Health Conditions of the Students amidst COVID-19

Jennifer M. Arbiol, Angelie V. Cabajes, Rey Jan S. Pusta

University of Southeastern Philippines

jmarbiol@usep.edu.ph

Abstract. The study aims to determine the mental health conditions experienced by the participants during the pandemic and identify the number of severe cases for appropriate intervention. It hypothesizes that the mental conditions of the participants vary when compared to gender. A total of 1,113 students participated in the study. A checklist was developed based on the DSM-V symptoms for major depressive disorder and generalized anxiety disorder. Data were gathered using online platform, wherein purposive sampling was utilized as only those with internet access can answer the survey. Data were analyzed using mean and frequency distribution, and Mann-Whitney Test. Results of the study revealed that participants experienced difficulty in concentrating and sleeping. A total number of 167 participants experienced severe symptoms of anxiety and depression. Mental health conditions of the participants were found to vary when compared to gender.

Keywords. mental health condition, COVID-19, gender

Ok or Not Ok: Mental Health Conditions of the Students amidst COVID-19

The Coronavirus Disease (COVID-19) was first reported to the World Health Organization (WHO) Office in China last 31 December 2019 and it was declared as Public Health Emergency on January 30, 2020 (WHO, 2020). It is considered as pandemic as it affects more than 3 million people worldwide as of 29 April 2020 (WHO, 2020). In the Philippines, the Department of Health (DOH) reported the first case of COVID-19 with a 38-year old female Chinese national, then the first local transmission was confirmed on 7th of March (WHO, 2020). On 16 March, Metro Manila was placed under community quarantine with 111 cases and 8 deaths (GMA news online, 2020). Davao City was placed under enhanced community quarantine (ECQ) on 4th of April with 104 cases as of 25 April (Argullas, 2020). Based on the guidelines on enhanced community quarantine, movement is limited as classes and school activities are suspended, mass gatherings are not allowed, mass public transportation are suspended, travel (land, sea, air) was restricted, and observance of strict home quarantine (officialgazette, 2020). In this situation, the individual's mental health is affected.

Mental health is defined as a state of well-being in which the individual realizes one's own abilities and potentials, copes adequately with the normal stresses of life, display resilience in the face of extreme life events, works productively and fruitfully, and is able to make a positive contribution to the community (WHO, 2004). It is an important component of overall health and wellbeing and crucial for a happy and meaningful life (McPherson, Ker,

McGeeAntony, Cheater, McLean, & Egan, 2014). The American Psychiatric Association (2018) characterizes mental health condition, which involves changes in emotion, thinking or behavior (or a combination of these). According to WHO (2019), in emergency situations almost all people who are affected will experience psychological distress. The American Psychological Association (APA, 2020) defines psychological distress as set of painful mental and physical symptoms that are associated with normal fluctuations of mood. In some cases, it may indicate the beginning of major depressive disorder, anxiety disorder, schizophrenia, somatization disorder, or a variety of other clinical conditions (APA, 2020). Depression and anxiety are commonly experienced in emergency situations (WHO, 2019). Problems about mental health specifically depression have been associated as conditions of adolescents (Dogra, Adams, Whiteman, Hughes, & Nisha, 2018). The present pandemic brought about by COVID-19 significantly contributes to adolescents' problems in mental health.

The present study aims to answer the following questions: (1) what are the mental health conditions commonly experienced by the students? (2) how many of the students experienced severe condition based on the survey? (3) do the students' mental health conditions vary according to gender. It is the goal of the study to describe the present mental health condition of the students in order to design appropriate interventions.

Review of Literature

Mental Health and COVID-19

Mental health has been defined as the absence of mental illness like depression (Westerhof & Keyes, 2010). The mental health of adolescents is a salient contemporary issue attracting the attention of policy makers in the UK and other countries (Dogra, Adams, Whiteman, Hughes, & Nisha, 2018). The recent passage of Mental Health Law in the Philippines recognizes the need for strengthening of programs for mental health (De Guzman, 2018). In light of these recent events, mental health is given importance amidst the COVID-19 pandemic (WHO, 2020).

Recent studies about COVID-19 suggests that symptoms of anxiety and depression (16-18%) are common psychological reactions to the COVID-19 pandemic, and may affect sleep (Rajkumar, 2020). Limcaoco, Mateos, Fernandez, and Roncero (2020) found a significant association with increasing anxiety and stress levels with the increase of global confirmed COVID-19 cases and deaths. This is consistent with the literature of previous epidemics such as A/H1N1 and SARS, as there appears to be an increase in anxiety levels as time passed (Liao, Cowling, Lam, Ng, and Fielding, 2014). Labarda and Chan (2014) found that post-traumatic stress, which may later on develop into Post-traumatic Stress Disorder (PTSD) was also prevalent among those affected by Typhoon Haiyan (or Typhoon Yolanda in the Philippines). They also reported sleep disturbances such as insomnia as also being prevalent among the population sample.

The mental health of college students is also affected in this pandemic. In a recent study by Cao, Fang, Hou, Han, Xu, Dong, and Zheng (2020), they found that almost a third of sampled college students had mild (21.3%), moderate (2.7%) to severe (0.9%) levels of anxiety. Possible protective factors included living in urban areas, family income stability, and living with parents. Also, the same study found that effects on the economy, daily life, and delays in academic activities were positively associated with anxiety symptoms. They therefore recommend the monitoring of the mental health of college students in times such as this pandemic. Because the situation is developing, further information that sheds light on the mental health of students is still needed.

Gender and Mental Health Conditions

Gender role theory suggests that there may be differences in symptom levels in terms of masculinity and femininity levels. There was an observed gender difference in anxiety symptoms among adolescents (Palapattu, Kingery and Ginsburg, 2006). Specifically, femininity was positively associated with anxiety symptoms and the opposite was the case for masculinity. This was substantiated further by Carter, Silverman, and Jaccard (2011) in their study. For depressive symptoms, adolescent females were more likely to manifest symptoms and typically had increasing symptoms as they age (Broderick and Korteland, 2002). A more recent study by Girgus and Yang (2015) shows that females were around twice as likely to exhibit depressive symptoms beginning from the middle adolescence to about age 55 years. In a study by Rice, Fallon, and Bambling (2012), however, conformity to masculine norms were associated with depressive symptoms. Depression was also positively associated with age and masculinity. The variation in these findings suggest that external factors such as gender role conflict or other social events may play a role in the etiology of depression and anxiety among men and women. Consistent with the biopsychosocial model, this includes, but is not limited to, the unique social circumstances that is the subject of this proposed study.

Theoretical Framework and Conceptual Framework

The study assumes the present pandemic, COVID-19 contributes to the mental health conditions of the students. The study aims to determine the mental health conditions experienced by the participants; identify the number of severe cases for appropriate intervention; and determine the significant difference on the mental health conditions when compared to gender, socio-economic status and academic program.

It is further assumed that the reasons for their mental health conditions arise from the interaction of the biological, sociocultural and psychological factors. The etiology of mental health problems includes biological factors, sociocultural factors, and psychological factors (Melgar, Lo, Melgar, & Topacio, 2018). Biological factors refers to genetics and hereditary influences that predisposes individuals to mental health problems (Nolen-Hoeksema & Marroquin, 2017). Sociocultural factors include family relationships, exposure to stressful events, and cultural factors that contribute to the development of mental health problems (Melgar, Lo, Melgar, & Topacio, 2018). Psychological factors include negative cognitions and schemas, which encompasses assumptions that formed throughout the person's life (Nolen-Hoeksema & Marroquin, 2017). Thus, the biopsychosocial model of causation is the most generally accepted theory among mental health professionals and researchers, since it depicts that mental health conditions are caused by a complex interaction and combination of biological, psychological, and social factors (Grohol, 2018).

The study identifies mental health conditions that are commonly experienced during crisis situations, which are restlessness, being easily fatigued, difficulty concentrating, being irritable, tension in the muscles, difficulty sleeping, depressed mood, loss of interest or pleasure, significant weight loss or weight gain, feelings of worthlessness, and recurrent thoughts of death or suicidal ideation without specific plan. These indicators were taken from the symptoms of major depressive disorder and generalized anxiety disorder based on the Diagnostic Statistical Manual for Mental Disorder (DSM-V, 2013). Gender is a socio-demographic variable identified in the study that can be considered as biological and sociocultural factor that can help in the analysis of the participants' mental health conditions. The study assumes that the participants experienced the identified mental health conditions and the severity can vary. Furthermore, their mental health conditions vary according to their gender.

Methodology

Design

The design of the study is quantitative specifically descriptive design using survey as tool for data gathering. It describes the mental health conditions of the participants and the comparison with gender. A survey design allows test for association among variables of a sample of population (Creswell & Creswell, 2018). The survey method is a convenient way of gathering data to large number of participants (Neuman, 2014; Mertens, 2010).

Participants

The target participants were University students. The sampling technique was non-probability sampling specifically purposive sampling, since online platform was used. Students who have access to the internet can answer the survey. This is the methodological limitation of the study in terms of sampling due to limited movement under community quarantine. Technology specifically connectivity in the Internet is the efficient means of communication and reaching out to the students. A total of 1,113 participants participated in the study, which comprised of 372 males and 741 females. Most of the participants are females. Majority of the participants are from low middle-income class, which consists of 573 or 51.5%. Low middle-income class have a monthly income between Php 19,040.00 and Php 38,080.00 (Panay News, 2020).

Measure

The indicators for mental health conditions were taken from the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-V) specifically on the symptoms of major depressive disorder and generalized anxiety disorder. The instrument was a checklist type with a total of 11 items. The more items that the participant answered, specifically 6 and more, indicate severity of condition based on DSM-V classification.

Procedures

Students with access to Internet were able to answer the survey. The participants were informed of the purpose of the survey. Confidentiality was secured adhering to data privacy act.

The data were analyzed using descriptive statistics such as frequency distribution and mean. Inferential statistics such as Mann-Whitney Test was used in analyzing the comparison between mental health conditions and gender. Results were published in aggregated form in order to protect anonymity, privacy, and confidentiality of the participants. The analyzed data were used to develop follow-up intervention program to the students.

Results and Discussions

The study aims to describe the mental health conditions commonly experienced by the participants including the severe condition. It also analyzes the significant differences in the mental health conditions when compared to gender.

Table 1.
 Frequency and Percentage Distribution of Mental Health Conditions of the Participants

Symptoms	F	%
Restlessness		
Yes	366	32.9
No	747	67.1
Being Easily Fatigued		
Yes	268	24.1
No	845	75.9
Difficulty Concentrating		
Yes	563	50.6
No	550	49.4
Being Irritable		
Yes	461	41.4
No	652	58.6
Tension in Muscles		
Yes	208	18.7
No	905	81.3
Difficulty Sleeping		
Yes	511	45.9
No	602	54.1
Depressed Mood		
Yes	200	18.0
No	913	82.0
Loss of Interest or Pleasure		
Yes	360	32.3
No	753	67.7
Significant Weight Loss or Gain		
Yes	243	21.8
No	870	78.2
Feelings of Worthlessness		
Yes	328	29.5
No	785	70.5
Recurrent Suicidal Ideation		
Yes	67	6.0
No	1046	94.0

Table 1 presents the frequency and percentage distribution of the mental health conditions of the participants. Results show that most of the participants commonly experienced the conditions of difficulty concentrating ($f=563$; $p=50.6\%$) and difficulty sleeping ($f=511$; $p=45.9\%$). This depicts that throughout the lockdown the participants have problems concentrating and sleeping. During the community quarantine, classes were continued using blended learning. The participants have experienced then concentrating with their studies and complying with the requirements as the teaching shifts to flexible mode. Furthermore, the sleeping patterns of the participants were affected as they have experienced problem in sleeping. Difficulty concentrating is one of the symptoms for both anxiety and depression (APA, 2013). Difficulty sleeping is a symptom for anxiety (APA, 2013). Based on study conducted by WHO (2019), depression and anxiety are commonly experienced in emergency situations. This includes the present pandemic, COVID-19. Moreover, recent studies about COVID-19 suggests that symptoms of anxiety and depression (16-18%) are common psychological

reactions to the COVID-19 pandemic, and may affect sleep (Rajkumar, 2020). The participants' psychological reactions to the present pandemic are experienced by most individuals across the globe. The present pandemic has caused psychological distress to people around the world as it brings realistic threat to one's mental health.

Table 2.
Frequency and Percentage Distribution of Participants who Experienced Severe Symptoms

Mental Health Condition	f	%
Six (6) and more symptoms	167	15
Less than 6 symptoms	946	85
Total	1113	100

Table 2 summarizes the frequency and percentage distribution of participants who experienced severe mental health condition. Based on the result, it depicts that 167 out 1113 (15%) participants has experienced severe symptoms, those who responded with 6 and more of the symptoms indicated in the checklist. They show severe symptoms of anxiety and depression. They need professional help in order to help them cope with the present situation. Out of 1,113, 946 (85%) of the participants experienced less than 6 symptoms as indicated in the checklist. Majority of the participants experienced less severe symptoms indicated in the checklist. Although, they display less severe symptoms, there is still the presence of anxiety and depression among the participants. The present pandemic brought about by COVID-19 significantly contributes to adolescents' problems in mental health. In a recent survey, it shows that almost a third of sampled college students had mild (21.3%), moderate (2.7%) to severe (0.9%) levels of anxiety (Cao, Fang, Hou, Han, Xu, Dong, and Zheng, 2020). The pandemic has affected the mental health of the participants.

Table 3.
Significant Difference between Gender and Mental Health Conditions

	Mean	Std. Deviation	p-value
Male	2.76	2.70	.000
Female	3.44	2.583	

**significant at 0.05 (2-tailed)

Table 3 presents the significant difference between gender and mental conditions using Mann-Whitney Test. Result shows that the p-value of 0.000 is less than 0.05 level of significance. Therefore, there is a significant difference in the mental health conditions of the participants when compared with gender. Females reported more number of symptoms in anxiety and depression than males, with a mean of 3.44 compared to 2.76 for males. Based on the profile of the participants, more females participated in the study compared to males. Gender role theory suggests there is gender difference in the symptoms of anxiety among adolescents, wherein females were positively associated compared to males (Palapattu, Kingery

and Ginsburg, 2006). In case of depression, females were also found to manifest more symptoms than males (Broderick and Korteland, 2002). Girgus and Yang (2015) further explain that females were around twice as likely to exhibit depressive symptoms, at the onset of middle adolescence to about 55 years old. In contrary, Rice, Fallon, and Bambling (2012) found that masculine norms were associated with depressive symptoms. Thus, depression was found to be positively associated with masculinity. The variation in the literatures show that other factors can contribute to the mental health conditions of men and women. The biopsychosocial model suggests that the etiology of mental health conditions includes factors of biological, sociocultural, and psychological (Melgar, Lo, Melgar, & Topacio, 2018). The model shows the complex interaction and combination of these factors in the causation of mental health conditions (Grohol, 2018). The finding of the study depicts that the significant difference between male and female in the experience of mental health conditions can account for the interaction of biopsychosocial model. As found in the study, females reported more symptoms of mental health conditions compared to males, which are also supported by various literatures. Moreover, an underlying issue is the vulnerability of males to acknowledge and report their symptoms.

Conclusions

The present study explores in to mental health conditions of the participants at this time of the pandemic. It also determines the number of severe cases for appropriate intervention. The study hypothesizes the significant difference on the mental health conditions of the participants when compared to gender. The findings depict that the participants experienced difficulty in concentrating and sleeping. The participants experienced problem in concentrating with their classes, since they have also trouble in sleeping. A total of 167 participants reported that they experience severe symptoms of anxiety and depression. They responded with 6 or more of the symptoms indicated in the checklist. Females experienced a greater number of symptoms in anxiety and depression compared to males. Thus, the mental health conditions of the participants vary according to gender. The biopsychosocial model explains the variation in the experience of mental health conditions, which can be attributed to factors such as biological, psychological, and sociocultural.

References

- [1] Aktekin, Mehmet & Karaman, Taha & Senol, Yesim & Erdem, Sukru & Erengin, Hakan & Akaydin, Murat. (2001). Anxiety, depression and stressful life events among medical students: A prospective study in Antalya, Turkey. *Medical education*. 35. 12-7. Retrieved from <https://doi.org/10.1046/j.1365-2923.2001.00726.x>.
- [2] American Psychiatric Association (2018). Retrieved from <https://www.psychiatry.org/patients-families/what-is-mental-illness>.
- [3] American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorder Fifth Edition (DSM-V)*. USA: Washington, DC.
- [4] American Psychological Association (2020). *Psychological Distress*. Retrieved from <https://dictionary.apa.org/psychological-distress>.
- [5] American Psychological Association (2020). *Grief and COVID-19: Mourning our bygone lives*. Retrieved from <https://www.apa.org/news/apa/2020/04/grief-covid-19>.
- [6] Argullas, Carolyn (2020). *Davao City's COVID-19 cases breach 100 – mark*. Retrieved from <https://www.mindanews.com/top-stories/2020/04/davao-citys-covid-19-cases-breach-100-mark/>.

- [7] Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social psychiatry and psychiatric epidemiology*, 43(8), 667-672.
- [8] Broderick, P. C., & Korteland, C. (2002). Coping style and depression in early adolescence: Relationships to gender, gender role, and implicit beliefs. *Sex Roles*, 46(7-8), 201-213.
- [9] Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry research*, 112934. Retrieved April 4, 2020 from <https://doi.org/10.1016/j.psychres.2020.112934>.
- [10] Carter, R., Silverman, W. K., & Jaccard, J. (2011). Sex variations in youth anxiety symptoms: Effects of pubertal development and gender role orientation. *Journal of Clinical Child & Adolescent Psychology*, 40(5), 730-741.
- [11] Center for Disease Control and Prevention (2019). Psychology of a Crisis. Retrieved from https://emergency.cdc.gov/cerc/ppt/CERC_Psychology_of_a_Crisis.pdf.
- [12] Chen, E., & Miller, G. E. (2013). Socioeconomic status and health: mediating and moderating factors. *Annual Review of Clinical Psychology*, 9, 723-749.
- [13] Compton, M. T., & Shim, R. S. (2015). The social determinants of mental health. *Focus*, 13 (4), 419-425.
- [14] Creswell, John & Creswell, J. David (2018). *Research Design: Quantitative, Qualitative and Mixed Methods Approaches 5th Ed.* California: SAGE Publications, Inc.
- [15] Dogra, M. O., Adams, S., Whiteman, N., Hughes, J., & Nisha, P. R. (2018, December). Whose Responsibility is Adolescent's Mental Health in the UK? Perspectives of Key Stakeholders. *School of Mental Health*, 450-461.
- [16] Enhanced Community Quarantine-Official Gazette (2020). Retrieved from <https://www.officialgazette.gov.ph/downloads/2020/03mar/20200316-MEMORANDUM-FROM-ES-RRD.pdf>.
- [17] Engel, G. L. (1977). The need for a new medical model: a challenge for biomedicine. *Science*, 196(4286), 129-136.
- [18] Everly, G. S., & Lating, J. M. (2019). The anatomy and physiology of the human stress response. In *A clinical guide to the treatment of the human stress response* (pp. 19-56). Springer, New York, NY.
- [19] Fiorillo, A., & Gorwood, P. (2020). The consequences of the COVID-19 pandemic on mental health and implications for clinical practice. *European Psychiatry*, 1-4.
- [20] Girgus, J. S., & Yang, K. (2015). Gender and depression. *Current Opinion in Psychology*, 4, 53-60. Retrieved from http://www.gruberpeplab.com/teaching/psych3303_spring2019/documents/Girgus_Yang_2015.pdf.
- [21] GMA News Online (2020). COVID-19 Community Quarantine comes into Effect over Metro Manila. Retrieved <https://www.gmanetwork.com/news/news/nation/729706/covid-19-community-quarantine-comes-into-effect-over-metro-manila/story/>.
- [22] Grohol, J. (2018). Causes of Depression. Retrieved on March 4, 2019 from PsychCentral <https://psychcentral.com/disorders/depression/depression-causes/>.
- [23] Helmers, K. F., Danoff, D., Steinert, Y., Leyton, M., & Young, S. N. (1997). Stress and depressed mood in medical students, law students, and graduate students at McGill University. *Academic Medicine*, 72(8), 708-714.

- [24] Kelloway, E. K., Mullen, J., & Francis, L. (2012). The stress (of an) epidemic. *Stress and health*, 28(2), 91-97.
- [25] Kim, J., & Lee, S. J. (2019). An emerging online social network and disaster-induced collective stress. *Media Psychology*. <https://doi.org/10.1080/15213269.2019.1609989>.
- [26] Labarda, C. E., & Chan, C. S. (2018). Sleep disturbances, posttraumatic stress, and psychological distress among survivors of the 2013 Super Typhoon Haiyan. *Psychiatry research*, 266, 284-290.
- [27] Liao, Q., Cowling, B.J., Lam, W.W.T., Ng, D.M.W., & Fielding, R. (2014). Anxiety, worry and cognitive risk estimate in relation to protective behaviors during the 2009 influenza A/H1N1 pandemic in Hong Kong: ten cross-sectional surveys. *BMC Infectious Diseases*.
- [28] Limcaoco, R. S. G., Mateos, E. M., Fernandez, J. M., & Roncero, C. (2020). Anxiety, worry and perceived stress in the world due to the COVID-19 pandemic, March 2020. Preliminary results. *medRxiv*.
- [29] Mak, I.W.C., Chu, C.M., Pan, P.C., Yiu M.G.C., Chan V.L. (2009). Long-term psychiatric morbidities among SARS survivors. *General Hospital Psychiatry*, 31, 318–326. Retrieved from <https://doi.org/10.1016/j.genhosppsych.2009.03.001>
- [30] McPherson, K., Ker, S., McGeeAntony, E., Cheater, M. F., McLean, J., & Egan, J. (2014). The association between social capital and mental health and behavioural problems in children and adolescents: an integrative systematic review. *BMC Psychology*.
- [31] Melgar, Ma. Isabel, Lo, Cherie Ann, Melgar, Marika, & Topacio, Anne Marie (2018). *Beyond DSM: Casebook in Abnormal Psychology and Mental Health*. Quezon City: Ateneo de Manila University Press.
- [32] Mertens, Donna M. (2010). *Research and Evaluation in Education and Psychology 3rd Ed.* California: SAGE Publications, Inc.
- [33] Moore, G. F., Anthony, R. E., Hawkins, J., Van Godwin, J., Murphy, S., Hewitt, G., & Melendez-Torres, G. J. (2020). Socioeconomic status, mental wellbeing and transition to secondary school: Analysis of the School Health Research Network/Health Behaviour in School-aged Children survey in Wales. *British Educational Research Journal*.
- [34] Neuman, W. Laurence (2014). *Social Research Methods: Qualitative and Quantitative Approaches 7th Ed.* UK: Pearson Education Limited.
- [35] Nolen-Hoeksema, Susan & Marroquin, Brett (2017). *Abnormal Psychology 7th Ed.* USA: McGraw-Hill Publishing Company.
- [36] North, C. S., & Pfefferbaum, B. (2013). Mental health response to community disasters: a systematic review. *Jama*, 310(5), 507-518.
- [37] Nuru-Jeter, A. M., Sarsour, K., Jutte, D. P., & Thomas Boyce, W. (2010). Socioeconomic predictors of health and development in middle childhood: Variations by socioeconomic status measure and race. *Issues in comprehensive pediatric nursing*, 33(2), 59-81.
- [38] Palapattu, A. G., Kingery, J. N., & Ginsburg, G. S. (2006). Gender role orientation and anxiety symptoms among African American adolescents. *Journal of abnormal child psychology*, 34(3), 423-431. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.577.2504&rep=rep1&type=pdf>.

- [39] Panay News (2020). Who is middle class? Here's the classification from government think tank. Retrieved from <https://www.panaynews.net/who-is-middle-class-heres-the-classification-from-philippine-govt-think-tank/>.
- [40] Papa, A., & Maitoza, R. (2013). The role of loss in the experience of grief: The case of job loss. *Journal of Loss and Trauma*, 18(2), 152-169.
- [41] Papa, A., Lancaster, N. G., & Kahler, J. (2014). Commonalities in grief responding across bereavement and non-bereavement losses. *Journal of Affective Disorders*, 161, 136-143.
- [42] Pennebaker, J. W., & Harber, K. D. (1993). A social stage model of collective coping: The Loma Prieta earthquake and the Persian Gulf War. *Journal of Social Issues*, 49(4), 125-145.
- [43] Potts, L. C., & Henderson, C. (2020). Moderation by socioeconomic status of the relationship between familiarity with mental illness and stigma outcomes. *SSM-Population Health*, 100611.
- [44] Rajkumar, Ravi Philip (2020). COVID-19 and Mental Health: A review of the existing literature. Retrieved from <https://doi.org/10.1016/j.ajp.2020.102066>.
- [45] Reiss, F. (2013). Socioeconomic inequalities and mental health problems in children and adolescents: a systematic review. *Social science & medicine*, 90, 24-31.
- [46] Rice, S., Fallon, B., & Bambling, M. (2011). Men and Depression: The Impact of Masculine Role Norms Throughout the Lifespan. *The Australian Educational and Developmental Psychologist*, 28(2), 133-144. doi:10.1375/aedp.28.2.133. Retrieved from <https://doi.org/10.1375/aedp.28.2.133>.
- [47] Schotte, C. K., Van Den Bossche, B., De Doncker, D., Claes, S., & Cosyns, P. (2006). A biopsychosocial model as a guide for psychoeducation and treatment of depression. *Depression and anxiety*, 23(5), 312-324.
- [48] University of Southeastern Philippines (2020). Memorandum Circular regarding USEP academic regulations amidst the COVID-19 pandemic. Retrieved April 4, 2020 from <http://www.usep.edu.ph/blog/2020/04/27/memorandum-order-regarding-usep-academic-regulations-amidst-the-covid-19-pandemic/>.
- [49] Uy, K. D., Valmores, S. E., Etulle, H. N. & Lumayno, V. . (2014). The Fractal Dimension of the Levels of Depression. *Recoletos Multidisciplinary Research Journal*, 2(1). Retrieved from <http://ejournals.ph/form/cite.php?id=9466>.
- [50] World Health Organization (2004). Promoting Mental Health. Retrieved from https://www.who.int/mental_health/evidence/en/promoting_mhh.pdf.
- [51] World Health Organization (2020). Rolling Updates on Coronavirus Disease (COVID-19). Retrieved from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>.
- [52] World Health Organization (2020). Coronavirus disease (COVID-19) Pandemic. Retrieved from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.
- [53] World Health Organization (2020). Coronavirus Disease (COVID-19) in the Philippines. Retrieved from <https://www.who.int/philippines/emergencies/covid-19-in-the-philippines>.
- [54] World Health Organization (2019). Mental Health in Emergencies. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/mental-health-in-emergencies>.