Students' Psychological Well-Being and Psychological Distress in an Online Learning Environment

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Abstract: The main purpose of this study is to explore how the online learning environment influences the psychological well-being and distress of Junior High School students. Grade level and gender were considered when determining the influence of online learning on students' well-being and degree of distress. The relationship between psychological well-being and psychological distress was also studied in this study. The data was collected using two (2) validated tools: the Ryff's Scales of Psychological Well-being (SPWB) and the Perceived Stress Scale. These instruments were given to 272 Junior High School students (117 males and 115 females) via an online Google form. The outcomes of the data collection were examined and analyzed. Results noted that the participants are in a moderate level of psychological well-being. The three (3) components of psychological well-being that have had the largest impact on Junior High School students in an online learning environment are personal growth, purpose in life, and meaningful interactions with others. Students in junior high school are experiencing moderate psychological distress. Psychological well-being and psychological distress have a strong negative correlation (r = -0.662).

Keywords: COVID-19 Pandemic; Online Learning; Psychological Distress; Psychological Well-Being

INTRODUCTION

The COVID-19 pandemic has brought the whole world to a halt, with practically every country experiencing "lockdown" conditions. While the lockdown mechanism is a critical step in halting the exponential rise in COVID-19 cases, the pandemic's impact on young people's mental health is apparent (Da Silva Junior, et al., 2020). During the crisis, this age group is more vulnerable to psychological distress (Glowacz & Schmits, 2020). The existence of epidemics is widely recognized to intensify or create new stressors, such as fear and worry for oneself or loved ones, physical restraints and social activities due to quarantine, and abrupt and drastic lifestyle changes. Due to rigorous quarantine conditions, the global pandemic forced the closure of schools and colleges, as well as the discontinuation of face-to-face teaching and learning sessions. Academic institutions were compelled to quickly adjust to online learning and ran into several issues (Han, 2021). Online learning involves classes that are done online, wherein students can attend courses using the internet instead of learning in a physical classroom. In a response to the COVID-19 global pandemic, online classes were implemented despite the struggles students experienced due to the unexpected shift from traditional classes to online classes. During this unusual period, online programs are expected to be in

high demand as an alternative to institutional closure. Nonetheless, both students and instructors encounter several hurdles and difficulties, including psychological issues, because of an insufficient learning strategy.

Due to the COVID-19 outbreak, almost 1.5 billion students have been affected by school closures (IAU, 2020). According to Dodd et al. (2021), the COVID-19 epidemic had a significant impact on students' academics, hampering their overall learning experience. The most common difficulties were that students found it difficult to communicate with other students and teachers online, making online learning more challenging than face-to-face learning. Although instructor and student characteristics influence behavioral intention to use and accept e-learning technologies (Baber, 2020)], during the pandemic, students' achievements, engagement, and perceptions of success all declined (Daniels, Goegan, and Parker, 2021).

The purpose of this study was to investigate the various dimensions of psychological well-being among students currently enrolled in an online learning program, as well as how the change in the learning delivery mode has affected the various dimensions of their psychological well-being. The mental state/health of a person is referred to as psychological well-being. Psychological well-being is high when a person feels positive, happy, or very satisfied. According to Ryff (1989), the six dimensions of psychological well-being are as follows: (1) *self-acceptance* is accepting who you are, including all of your strengths and weaknesses, and embracing your past and present selves; (2) *positive relationships with others* is having good communication with your peers and being able to express love to the people you are with; (3) *autonomy* is learning how to live life independently and without relying on others; (4) *environmental mastery* refers to the ability to adapt to a given environment for the sake of an individual's well-being; (5) *purpose in life* refers to understanding one's role in the world in such a way that it does not harm one's mental health; and, finally, (6) *personal growth* refers to having an experience that contributes to one's personal growth.

A student's psychological well-being and learning behaviors may have been impacted throughout this period of social isolation, with virtual classrooms every weekday, online modules to comply with and finish for a week, and many online academic requirements to pass for the entire academic year. According to previous studies, a student's mental health declines when a public health emergency happens (Irawan, Dwisona, & Lestari, 2020). This demonstrates that physical distance standards provide students with fewer possibilities to attend university campuses in order to maintain social relationships, leading in social fragmentation and isolation, affected students' psychological well-being (Klussman, Nichols, Langer, and Curtin, 2020).

Psychological distress was another variable investigated in this study. Psychological distress is an emotional condition characterized by stressors and expectations that are difficult to manage in everyday situations. Horwitz (2007) defines it as a temporary emotional response to stress that, if left untreated, can have a negative impact on an individual's mental health and wellbeing. Because of its linkages with risk behaviors and physical health sickness among students (Adams, et al., 2008) and its proclivity to precede more significant mental health illnesses, psychological distress is essential from a health promotion/illness prevention standpoint (Kessler, 2008). It is also causing concern among educators due to its harmful impact on student learning. Adapting to online learning methods was linked to a lot of stress, which posed a problem for people who did not have access to the internet at home (Hoover, 2020). In the spring 2020 semester, Johnson (2020) found that 35% of students reported higher anxiety as a result of the change from face-to-face to virtual learning, which corresponds to the early stages of the COVID-19 pandemic. When COVID-related restrictions are in place, people from disadvantaged families are more likely to have negative opinions toward online courses, putting them at increased risk of psychological distress (Zhang & Liu, 2021).

The purpose of this study was to look at the link between psychological well-being and psychological distress among junior high school students who were enrolled in an online learning platform. Due to a paucity of local studies, this study also investigated the impact of a full online learning experience on students, with an emphasis on the impacts of a large-scale epidemic among adolescents on their psychological well-being and distress.

MATERIAL AND METHODOLOGY

Research Design

The descriptive correlational method was used to collect data and answer the research questions in this study. A descriptive correlational study, according to Sousa et al. (2007), describes the variables and the natural relationships that exist between and among them. This is a quantitative strategy that focuses on objective measurements and

statistical, mathematical, or numerical analysis of data obtained via polls, questionnaires, and surveys. The survey method was employed in this investigation.

Participants

In this study, stratified random sampling was used. The study's population consisted of Junior High School students from a selected private school that implements a full online learning modality. A total of 272 students (117 males and 115 females) took part in the study. The mean age of the participants is 14.69 (SD = 1.01). Participants ranged in grade level from seventh to tenth grade. In terms of the number of participants by grade level, for Grade 7, there were 49 (18%), for Grade 8, there were 33 (12%), for Grade 9, there were 136 (50%) and for Grade 10, there were 54 (20%) participants.

Instruments

The data for this study was collected using standardized tools. The Ryff's Scales of Psychological Well-being (SPWB) and the Perceived Stress Scale were both employed in the study. The Ryff's Scales of Psychological Well-being (SPWB) is a study tool developed by Carol Ryff, an American psychologist, to assess an individual's psychological well-being (Ryff, 1989). The SPWB mainly revolves around the six (6) factors, which are autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. The test-retest reliability coefficient of the research instrument was 0.82. The subscales of self-acceptance, positive relation with others, autonomy, environmental mastery, purpose in life, and personal growth were found to be 0.71, 0.77, 0.78, 0.77, 0.70, and 0.78 respectively, which were statistically significant ($p < 0.001$). Therefore, the results demonstrated that the scale is valid and reliable and suitable for assessing the psychological well-being. When determining the participants' psychological well-being, a score of 0 to 42 indicates a low level of psychological well-being, a score of 15 to 30 implies a moderate level of psychological well-being, and a score of 31 to 45 suggests a high level of psychological well-being.

On the other hand, the Perceived Stress Scale (PSS) is a commonly used research tool for determining personal stress levels (Cohen et al., 1988). The PSS is designed to help measure personal stress, contains two factors which are "perceived helplessness" and "perceived self-efficacy." The Cronbach's alpha coefficients of this scale were 0.83 (Factor 1), 0.77 (Factor 2), and 0.87 (Total Score). Hence, the test-retest reliability scores were 0.83 (Factor 1), 0.68 (Factor 2) and 0.86 (Total Score). The PSS-10 questionnaire and perceived health correlations ranged from 0.22 to 0.35. Thus, this instrument showed adequate reliability and validity supporting its use in numerous populations. In terms of interpreting the scores of the participants in PSS, a result of 0 to 14 would be regarded low stress, a rating of 15 to 30 would be considered moderate stress, and a score of 31 to 45 would indicate high stress.

Procedure

Participants who were chosen at random were told that their participation was voluntary, that any information they supplied would be kept private, and that they could withdraw from the study at any time. To signify their involvement, the participants were asked for their assent and their parents/guardians signed an informed consent form. Data collection was done during the third quarter grading of school year 2020-2021 around February 2021. The survey instrument was emailed to the participants using a Google Online Survey form after they agreed to participate. To interpret the data, the completed online survey instrument was gathered and tabulated. Mean, standard deviation, mean rank, and Pearson-r in the analysis and interpretation of the gathered data were used as statistical treatments to analyze and interpret the data.

Ethical Considerations

The ethical clearance process was followed prior to the implementation of this research. The study needed to have the consent of the Science research adviser first, and then the school principal. The research proposal was subsequently submitted to the school's Ethics Review Board, which received final approval to proceed with the research. In the study, the participants' rights were explained and enumerated. It stated that their participation in the study is entirely voluntary, and that they are free to withdraw at any moment. The participants gave their assent, and the parents/guardians of the participants gave their informed consent. The findings are private, however in the event of a presentation or publishing of the research, it was stated that no personally identifying information would be revealed.

RESULTS AND DISCUSSION

Dimensions of psychological well-being

Table 1 presents the six (6) dimensions of psychological well-being that include autonomy with a

mean score of 11.37 (SD= 3.44) interpreted as high; environmental mastery with a mean score of 11.75 (3.06) interpreted as high; personal growth with a mean score of 7.30 (SD= 3.75) which means moderate; positive relations with others having a mean score of 10.80 (SD= 3.55) interpreted as moderate; purpose in life with a mean of 10.37 (SD= 3.74) which means moderate; and self-acceptance with a mean of 11.08 (SD= 4.10) which is high. The over-all psychological well-being has a mean score of 62.67 (SD= 2.56) interpreted as moderate. Meanwhile, personal growth, a sense of purpose in life, and meaningful relationships with others were the top three factors influenced by online learning as indicated by a moderate level on these dimensions.

Table 1. Ranking of the factors of psychological well-being affected by the online learning environment

Factors	Mean	SD	Interpretation	Rank
Environmental Mastery	11.75	3.06	High	1
Autonomy	11.37	3.44	High	2
Self-Acceptance	11.08	4.10	High	3
Positive Relations with Others	10.80	3.55	Moderate	4
Purpose in Life	10.37	3.74	Moderate	5
Personal Growth	7.30	3.75	Moderate	6

The psychological well-being of participants per grade level is shown in Table 2. The results showed that across all grade level, moderate level of psychological well-being is experienced. The lowest in terms of psychological well-being are the Grade 8 students (M= 53.50, SD= 3.40) followed by Grade 7 (M= 59.50, SD= 1.59). When grouped by gender, there is little difference in terms of their mean scores since each gender has moderate level of psychological well-being. But the female participants have lower mean score (M= 61.97, SD= 0.50) compared to male (M=63.59, SD= 0.71) in terms of their psychological well-being.

Table 2. Level of psychological well-being

Demographic Factor	Mean	SD	Interpretation	Rank
Grade Level				
Grade 9	64.88	0.54	Moderate	1
Grade 10	64.00	1.68	Moderate	2
Grade 7	59.50	1.59	Moderate	3
Grade 8	53.50	3.40	Moderate	4
Gender				
Male	63.59	0.71	Moderate	1
Female	61.97	0.50	Moderate	2

Level of psychological distress

In terms of the level of psychological distress by grade level, Table 3 shows that it was the Grade 10 who experienced high stress (M= 28.40, SD= 6.47), next is Grade 9 with a moderate stress (M= 24.48, SD= 5.24), followed by Grade 7 with a moderate stress (M= 24.30, SD= 5.74), and last is Grade 8 with a moderate stress (M= 22.33, SD= 8.12). Overall, the participants experienced a moderate stress level (M= 24.96, SD= 6.05).

When the participants were grouped by gender, the results showed that both genders experienced moderate level of stress, M= 26.17, SD= 5.88 for female and M= 23.36, SD= 6.04 for male. Females, on the other hand, suffered more stress than males when they were ranked according to their group mean. This means that women are more likely than men to become stressed.

Table 3. Level of psychological distress

Demographic Factor	Mean	SD	Interpretation	Rank
Grade Level				
Grade 7	24.30	5.74	Moderate	3
Grade 8	22.33	8.12	Moderate	4
Grade 9	24.48	5.24	Moderate	2
Grade 10	28.40	6.47	High	1
Gender				
Female	26.17	5.88	Moderate	1
Male	23.36	6.04	Moderate	2

Relationship of psychological well-being to psychological distress

When the Pearson-r formula (r = -0.662) was used, the results demonstrated a strong negative relationship between psychological well-being and psychological distress that is statistically significant at.05. When psychological well-being is high, psychological discomfort is low, and vice versa. Furthermore, when psychological distress caused by an online learning environment is high, psychological well-being is affected, resulting in a lower degree of psychological well-being.

CONCLUSIONS

The general objective of this study was to determine the influence of online learning environment to the psychological well-being and the psychological distress of the participants. The relationship between psychological well-being and psychological distress was also investigated in this

study. The findings revealed that the participants have a moderate level of psychological well-being. People with moderate SPWB scores are more likely to feel good, joyful, or content at times, but also to experience negative emotions and be dissatisfied with their lives. This finding supports earlier research that suggests online learning has an impact on students' psychological well-being and that academic and relationship changes are stressors (Padrón, et al., 2021). Further, the findings revealed that personal growth, purpose in life, and meaningful relationships with others are the three (3) dimensions of psychological well-being that have had the most impact on junior high school students in an online learning environment. The participants' SPWB results demonstrated a decline in their personal growth prospects due to their incapacity to participate in other activities that would allow them to explore their surroundings. The participants' SPWB ratings may indicate that they believe their life purpose has been hindered as a result of the online learning environment. Because they have little physical interaction with their classmates or social network, their ability to communicate successfully with peers may have been hampered, as evidenced by their SPWB ratings.

The junior high school students experienced a moderate amount of psychological distress from their engagement in an e-learning platform. These findings suggest that the online learning environment is a contributing factor in students' increased levels of perceived stress to online learning. According to related studies in online learning modality, students report significant rates of negative feelings such as worry, tension, overwhelmed, tiredness, and depression (Camacho-Zuniga, Pego, Escamilla, and Hosseini, 2021). During the pandemic, anxiety levels were greatly influenced by worries about academic delays and social interaction (Dhar, Ayittey, and Sarkar, 2020). Students' psychological distress is also influenced by a variety of additional stressors, such as their academic future, task overload, interpersonal disputes, and constraints on enjoyable types of social contact (Padrón, et al., 2021). It is also significant to note that the findings cited that female student are more prone to experience distress compared to male students. This conclusion is consistent with previous research, which found that female students had higher levels of anxiety (Wang, Zhao, and Maia, 2020) and fear of COVID-19 than male students (Rodriguez-Hidalgo, et al., 2020), as well as having more emotional challenges overall (Padrón, et al., 2021).

According to the findings of this present study, there is a strong negative relationship between junior high school students' psychological well-being and psychological distress. This finding backs up research that shows that lockdowns and the shift to online learning that students are experiencing will lead to psychological issues like frustration, stress, and depression, especially among those without pre-existing mental health conditions who have become increasingly socially isolated and have shown signs of declining mental health (Hmaza, et al., 2021; Chaturvedi, Vishwakarma, & Singh, 2021). In another study, students that reported distress on e-learning burden and fear of missing out are experiencing anxiety, boredom, frustration, and concerns about their academic and professional careers (Aristovnik, 2020; Hasan & Bao, 2020).

RECOMMENDATIONS

Practical and appropriate recommendations are made based on the current study's objectives, findings, and conclusions. Future research may consider conducting a comparative study on the psychological well-being and psychological distress experienced by Junior High School, Senior High School, and College students may be conducted. The researchers also realized that obtaining qualitative data about students' actual experiences on learning online could add to the study's findings. Given the psychological stress that students face in an online learning environment, having an academic break during the academic year would be an innovative idea. There should also be possibilities for students to participate in non-academic or extra-curricular activities that can help lessen distress to improve their psychological well-being. Because of the nature of online learning, teachers must be careful about how much work they assign to learners. Teachers should create opportunity for students to respond to various aspects of psychological well-being. Parents should continue to be supportive of their child's learning by means of constantly talking to them and asking them if ever they have concerns on their online classes. They should serve as a guide and help their children cope better in the online learning environment. Students should be able to find ways to positively cope in the online learning. They should identify different healthy coping strategies that will help them better manage their psychological distress and will help improve their psychological well-being.

REFERENCES

Adams, T.B., Wharton, C.M., Quilter, L., & Hirsch, T. (2008). The association between mental health and acute infectious illness among a national sample of 18- to 24-year-old

college students. *Journal of American College Health*. 56, 657–664.

Aristovnik A, Keržič D, Ravšelj D, Tomaževič N, Umek L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, 12(20): 8438.

Baber, H. (2020). Modelling the acceptance of e-learning during the pandemic of COVID-19 A study of South Korea. *International Journal of Management Education*. 19, 100503.d

Camacho-Zuniga, C., Pego, L., Escamilla, J., & Hosseini, S. (2021). The impact of the COVID-19 pandemic on students' feelings at high school, undergraduate, and postgraduate levels. *Heliyon*, e06465.

Chaturvedi, K., Vishwakarma, D.K., & Singh, N. (2021). COVID-19 and its impact on education, social life, and mental health of students: A survey. *Child & Youth Services*. 105866.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health Social Behavior*. 24, 385–396.

Da Silva Junior, F.J.G., Sales, J.C.S., Monteiro, C.F.d.S., Costa, A.P.C., Campos, L.R.B., Miranda, P.I.G., Monteiro, T.A.D.S., Lima, R.A.G., & Lopes-Junior, L.C. (2020). Impact of COVID-19 pandemic on mental health of young people and adults: A systematic review protocol of observational studies. *BMJ Open*, 10, e039426.

Daniels, L.M., Goegan, L.D., & Parker, P.C. (2021). The impact of COVID-19 triggered changes to instruction and assessment on university students' self-reported motivation, engagement, and perceptions. *Social Psychology of Education*. 24, 299–318.

Dhar, B.K., Ayittey, F.K., & Sarkar, S.M. (2020). Impact of COVID-19 on Psychology among the University Students. *Global Challenges*. 4, 2000038.

Dodd, R.H., Dadaczynski, K., Okan, O., McCaffery, K.J., & Pickles, K. (2021). Psychological wellbeing and academic experience of University students in Australia during COVID-19. *International Journal of Environmental Research & Public Health*. 18, 866.

Glowacz, F., & Schmits, E. (2020). Psychological distress during the COVID-19 lockdown: The young adults most at risk. *Psychiatry Research*. 293, 113486.

Han, X. (2021). Online Learning in Vocational Education of China during COVID-19: Achievements, Challenges, and Future. *Journal of Educational Technology Development Exchange*. 13, 61–82.

Hasan N, & Bao Y. (2020). Impact of "e-Learning crack-up" perception on psychological distress among college students during COVID-19 pandemic: A mediating role of "fear of academic year loss". *Children and Youth Services Review*, 118:105355. pmid:32834276

Hmaza, C., Ewing, L., Heath, N., & Goldstein, A. (2021). When Social Isolation Is Nothing New: A Longitudinal Study on Psychological Distress During COVID-19 Among University Students With and Without Preexisting Mental Health Concerns. *Canadian Psychology*. 62, 20–30.

Hoover, E. (2020). *Distanced Learning. Chronicle of Higher Education*. Available online: https://www.chronicle.com/article/distanced-learning (accessed on 12 July 2021).

Horwitz, A.V. (2007). Distinguishing distress from disorder as psychological outcomes of stressful social arrangements. *Health*. 11, 273–289.

IAU. (2020). *Covid-19: Higher Education challenges and responses*. Retrieved July 06, 2020, from https://www.iau-aiu.net/Covid-19-Higher-Education-challenges-and-responses.

Irawan, A., Dwisona, D., & Lestari, M. (2020). Psychological impacts of students on online learning during the pandemic COVID-19. *KONSELI: Jurnal Bimbingan dan Konseling (E-Journal)*. 7, 53-60. doi:10.24042/kons.v7i1.6389

Johnson, R. (2020). *Students Stressed out Due to Coronavirus, New Survey Finds. Best Colleges*. Available online: https://www.bestcolleges.com/blog/coronavirus-survey (accessed on 10 August 2021).

Kessler, R.C. (2008). Age of onset of mental disorders: A review of recent literature. *Current Opinion on Psychiatry*, 20. 359–364.

Klussman, K., Nichols, A.L., Langer, J., & Curtin, N. (2020). Connection and disconnection as predictors of mental health and well-being. *International Journal of Well-being*. 10, 89–100.

Padrón, I., Fraga, I., Vieitez, L., Montes, C., & Romero, E. (2021). A Study on the Psychological Wound of COVID-19 in University Students. *Frontiers in Psychology*. 12, 589927.

Rodríguez-Hidalgo, A.J., Dios, I., & Holden, R.R. (2020). Fear of COVID-19, Stress, and Anxiety in University Undergraduate Students: A Predictive Model for Depression. *Frontiers in Psychology*. 11, 591797.

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*. 57(6), 1069-1081. doi:10.1037/0022-3514.57.6.1069.

Wang, C., Zhao, H., & Maia, B.R. (2020). The Impact of COVID-19 on Anxiety in Chinese University Students. *Frontiers in Psychology*. 11, 1–8.

Zhang, Y., & Liu, B. (2021). Psychological Distress Among Chinese College Students During the COVID-19 Pandemic: Does Attitude Toward Online Courses Matter? *Frontiers in Psychology*. 12, 1–8.