

## **After Over a Year of Pandemic: Mental Well-being and Life Satisfaction of Filipino College Students**

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### **ABSTRACT**

The COVID-19 pandemic has been there for over a year and may substantially negatively impact student's mental well-being. This study aimed to assess the subjective mental well-being and satisfaction with life of Filipino college students. This cross-sectional study involved the analysis of 1,141 college students in the Philippines. The data were collected using the Short Warwick-Edinburgh Mental Wellbeing Scale and the Satisfaction with Life Scale. Results indicated that while 52.8% reported high satisfaction with life, 40.2% had poor mental well-being. Self-reported health status ( $\beta=1.899$ ,  $p=.000$ ), age ( $\beta=0.179$ ,  $p=.000$ ), and year level ( $\beta=0.306$ ,  $p=.000$ ) predicted mental well-being. On the other hand, subjective mental well-being ( $\beta=0.736$ ,  $p=.000$ ), self-reported health status ( $\beta=0.967$ ,  $p=.000$ ), and age ( $\beta=0.691$ ,  $p=.025$ ) predicted life satisfaction. The COVID-19 pandemic has likely affected students' mental health and well-being. Interventions should be initiated to address the mental health needs of the students during this pandemic and even beyond the health crisis.

*Keywords:* COVID-19 pandemic, life satisfaction, mental health, Philippines, students

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### **INTRODUCTION**

The rise of mental and psychological health problems is an area of concern arising during pandemics. Soon after COVID-19 was declared a pandemic in March 2020 (Cucinotta & Vanelli, 2020), authorities and scholars have warned about the possible impact of the public health crisis on mental health and the rise of mental health issues (United Nations, 2020). The result of studies

on the immediate impact of the COVID-19 outbreak on psychological well-being revealed poor and negative mental health outcomes (Kecojevic et al., 2020; Wang et al., 2020a, 2021b). Moreover, a cross-country comparison disclosed that the Philippines were the two countries with the highest stress, anxiety, and depression (Wang et al., 2021a). Apart from the fear of getting infected by the virus are the new realities of home-schooling and significant changes to everyday lives as movements are restricted to reduce and contain viral transmission (Oducado & Estoque, 2021; Rodríguez-Rey et al., 2020). Lockdown restrictions and social distancing measures hurt economic well-being, psychological health, and quality of life (Le et al., 2020; Ren et al., 2021; Tran et al., 2020). Despite the developments of vaccines to protect against the disease, the number of cases in some parts of the world and the Philippines continues to rise. As of July 7, 2021, there are 184,324,026 confirmed cases and 3,992,680 deaths of COVID-19 worldwide (World Health Organization, 2021) and 1,450,110 infected and 25,459 deaths in the country (Philippine Department of Health, 2021).

Continuously monitoring the developments of the pandemic and its likely effect on mental health is necessary as the pandemic appears to remain for some time. A systematic review found that the COVID-19 pandemic negatively impacted the population's mental health (Xiong et al., 2020). In another study, younger groups and students' psychological health are more

affected by the pandemic (Tee et al., 2020). The COVID-19 crisis is fuelling a mental health crisis as the pandemic wears on to upset the lives of young people across the globe (Dodson, 2020). Pre-pandemic statistics of the World Health Organization (2020) show that 16 percent of people aged 10 to 19 years old worldwide live with mental health conditions, and suicide is the fourth leading cause of death for 15 and 19 years old. A study involving 30 countries reported a 10.8 percent lifetime prevalence of depression (Lim et al., 2018). University students are particularly vulnerable as there is an increased likelihood of experiencing common psychological problems throughout adolescence and are peaking in early adulthood (Hernández-Torrano et al., 2020). Unfortunately, many students never used mental health services despite having moderate or severe mental health symptoms during the pandemic (Lee et al., 2021).

As the global health crisis continues in the Philippines, Asia, and many parts of the world, experts anticipate a long-term impact of the pandemic on people's mental health (Joseph, 2021), and scholars speculate that a bigger wave of a mental health crisis can be expected in the aftermath of the pandemic (Rabacal et al., 2020; Repišti et al., 2020). While there had been many studies on the psychological impact of the pandemic on the population and students, most of the studies were done at the early onset of the pandemic (e.g., Kecojevic et al., 2020; Labrague et al., 2021; Superio et al., 2021; Tee et al., 2020). Moreover, previous

studies commonly used various outcome variables for possible psychopathologies, such as stress, depression, and anxiety (e.g., Hamaideh et al., 2021; Le et al., 2020; Lee et al., 2021; Ren et al., 2021; Simegn et al., 2021; Wang et al., 2021a, 2021b), however, few looked into the subjective mental well-being and life satisfaction being arguably indicators or possible predictors of current or future mental health outcomes. Moreover, qualitative evidence suggests that due to quarantine restrictions and campus closures, Filipino college students have failed to experience developmental milestones such as in-person co-learning and recreational activities with peers, engagement in internships and practicums in their desired industries, and preparations to launch themselves into the productive workforce (Cleofas, 2020). These pandemic-induced life interruptions may lead to poorer well-being, quality of life, and sentiments about the future among these emerging adults.

Since the conduct of studies in the country and elsewhere found in the literature (e.g., Lee et al., 2021; Superio et al., 2021; Tee et al., 2020), the students may have been continually exposed to pandemic-induced stressors for more than a year. There is a need to revisit the mental health conditions of these students to determine whether current policies and interventions need to be adjusted to address their needs. Thus, this study aimed to examine the subjective mental well-being and satisfaction with life of Filipino college students.

## **METHODS**

### **Research Design, Sample, and Data Collection**

It was a cross-sectional study. The sample of this study consisted of college students in one government-funded college in the Western Visayas region of the Philippines. The sample size was computed using the Raosoft sample size calculator. A sample of 364 was required for a population of 6,893 with a confidence level of 95%, a margin of error of 5%, and a response distribution of 50%. More than the required sample size for this study responded to the first wave of the web-based survey administered on July 1, 2021. However, we included only 1,141 responses in the analysis. In addition, we excluded five respondents who reported high-income status because of the very few numbers (less than 1 percent of the total sample) of respondents in the category. The study was conducted in accordance with the Declaration of Helsinki. Administrative clearance for the sound and ethical conduct of the study was obtained from the Public University where the study was conducted. The online survey (Google Forms) was posted in the school's official social media groups and chat groups. Students were asked to proceed with the survey only upon consenting to participate in the study.

### **Instruments**

The Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWS) and the Satisfaction with Life Scale (SWLS) were the main research instruments utilized in the study. The SWEMWS of the NHS Health

Scotland, University of Warwick, and University of Edinburgh (2008) consisted of seven items that measured subjective mental well-being in this study. The scores in the SWEMWBS were first summed up for each of the seven items (total score is from 7 to 35), using a 5-point scale that ranges from “1-None of the time” to “All of the time-5.” After which, the transformation of the total raw scores into metric scores was done using a conversion table (Stewart-Brown et al., 2009). The scores were interpreted as 7 to 20 are low or poor (17 or less for probable depression, 18–20 for possible depression), 28 to 35 are high, and between 20 and 28 are average mental well-being (Trabelsi et al., 2021). The SWLS of Diener et al. (1985) measured global cognitive judgment of life satisfaction. The SWLS was scored by summing the scores for each of the five items, which are scored from “1-Strongly disagree” to “7-Strongly agree,” and the total score is from five to 35. Scores were interpreted as 5 to 14 are dissatisfied (5 to 9 for extremely dissatisfied, 10 to 14 for dissatisfied), 25 to 35 are highly satisfied (25 to 29 are satisfied, 30 to 35 are highly satisfied), and between 14 to 25 are moderate life satisfaction (15 to 19 are slightly below average in life satisfaction, 20 to 24 are average life satisfaction; Pavot & Diener, 2013). While tool developers reported acceptable internal consistency of the SWEMWBS and SWLS, both scales had a Cronbach’s alpha of .87 when used among Filipino samples (Cleofas & Oducado, 2021). Self-reported health status was determined using a one-item

scale with responses ranging from “Poor-1” to “Excellent-5” (Haddock et al., 2006; Oducado et al., 2021). The respondents were also asked if they suffer from any chronic illness or comorbidities, answerable by “Yes-1, “No-2”, and “Don’t know-3.” The socio-demographic information of the respondents was also collected in the first part of the survey.

### Statistical Data Analysis

Data were analyzed using the IBM SPSS software version 23. For description purposes, frequency, percentage, standard deviation (SD), and mean were utilized. A one-way Analysis of Variance with Scheffe’s procedure was used to compare means of more than two groups. In comparison, a t-test for independent samples was employed to compare the means of two independent groups. Correlates and predictors were identified using Pearson’s *r* and multiple linear regression analysis using the step-wise method. Alpha level of significance was set at .05.

### RESULTS

Table 1 presents the profile of 1,141 respondents. The average age and self-reported health of the respondents were 21.78+3.28 and 4.06+.21, respectively. The majority were females (74.6%), single (96.7%), junior level (37.7%), low-income status (67.7%), not working or full-time students (77.9%), with residence located in the city (55.4%), are living with their family (94.8%), and do not have any chronic illness or comorbidities (78.8%).

Table 2 shows that 40.2% and 42.3% had poor and average subjective mental well-being, respectively. On the other hand, 52.8% were highly satisfied with life.

Table 3 shows the Pearson's r result revealing that age ( $r=.131$ ,  $p=.000$ ) and self-reported health ( $r=.267$ ,  $p=.005$ ) were

significantly related to mental well-being. Also, t-test for independent samples and one-way ANOVA revealed that mental well-being significantly differed according to marital status ( $t=-2.514$ ,  $p=.012$ ), academic year level ( $F=4.053$ ,  $p=.007$ ), and if the student suffers from chronic illness ( $F=9.508$ ,  $p=.000$ ). Post hoc analysis revealed that the subjective mental well-being of juniors ( $p=.020$ ) and seniors ( $p=.028$ ) were significantly higher than that of freshmen college students. In addition, those who do not suffer from any chronic illness had significantly higher ( $p=.000$ ) mental well-being than those who do not know if they have chronic illness or comorbidities.

The Pearson's r result in Table 4 shows that mental well-being ( $r=.636$ ,  $p=.000$ ), age ( $r=.064$ ,  $r=.030$ ), and self-reported general health status ( $r=.271$ ,  $p=.000$ ) were significantly correlated with life satisfaction. Additionally, the result of the t-test for independent samples and one-way ANOVA revealed that satisfaction with life significantly differed based on marital status

Table 1  
Profile of college students

| Profile                                      | Mean  | SD   | f    | %    |
|----------------------------------------------|-------|------|------|------|
| Age                                          | 21.78 | 3.28 |      |      |
| Self-reported health status                  | 4.06  | 0.71 |      |      |
| Sex                                          |       |      |      |      |
| Male                                         |       |      | 29   | 25.4 |
| Female                                       |       |      | 851  | 74.6 |
| Marital status                               |       |      |      |      |
| Single                                       |       |      | 1103 | 96.7 |
| Married                                      |       |      | 38   | 3.3  |
| Family income status                         |       |      |      |      |
| Low income                                   |       |      | 772  | 67.7 |
| Middle income                                |       |      | 369  | 32.2 |
| Work status                                  |       |      |      |      |
| Yes                                          |       |      | 252  | 22.1 |
| No                                           |       |      | 889  | 77.9 |
| Location of residence                        |       |      |      |      |
| City                                         |       |      | 632  | 55.4 |
| Town                                         |       |      | 509  | 44.6 |
| Family living arrangement                    |       |      |      |      |
| Yes                                          |       |      | 1082 | 94.8 |
| No                                           |       |      | 59   | 5.2  |
| Year level                                   |       |      |      |      |
| Freshman                                     |       |      | 197  | 17.3 |
| Sophomore                                    |       |      | 331  | 29.0 |
| Junior                                       |       |      | 430  | 37.7 |
| Senior                                       |       |      | 183  | 16.1 |
| Presence of chronic illness or comorbidities |       |      |      |      |
| Yes                                          |       |      | 59   | 5.2  |
| No                                           |       |      | 899  | 78.8 |
| Don't know                                   |       |      | 183  | 16.0 |

Table 2  
Level of mental well-being and life satisfaction of college students

| Level of mental well-being and life satisfaction | f   | %    |
|--------------------------------------------------|-----|------|
| Mental well-being (M = 23.16, SD = 5.10)         |     |      |
| High (28 to 35)                                  | 199 | 17.4 |
| Average (21 to 27)                               | 483 | 42.3 |
| Low (7 to 20)                                    | 459 | 40.2 |
| Life satisfaction (M = 24.30, SD = 6.29)         |     |      |
| Highly satisfied (25 to 35)                      | 603 | 52.8 |
| Moderately satisfied (15 to 24)                  | 451 | 39.5 |
| Dissatisfied (5 to 14)                           | 87  | 7.6  |

Table 3  
*Correlates of subjective mental well-being among college students*

| Variables                                                 | M     | SD   | Test statistics | p-value |
|-----------------------------------------------------------|-------|------|-----------------|---------|
| Age <sup>†</sup>                                          |       |      | .131*           | .000    |
| Self-reported health status <sup>†</sup>                  |       |      | .267*           | .005    |
| Sex <sup>‡</sup>                                          |       |      | 0.709           | .479    |
| Male                                                      | 23.35 | 5.33 |                 |         |
| Female                                                    | 23.10 | 5.01 |                 |         |
| Marital status <sup>‡</sup>                               |       |      | -2.514*         | .012    |
| Single                                                    | 23.09 | 5.11 |                 |         |
| Married                                                   | 25.06 | 4.54 |                 |         |
| Family income status <sup>‡</sup>                         |       |      | -0.521          | .602    |
| Low income                                                | 23.11 | 5.13 |                 |         |
| Middle income                                             | 23.28 | 5.04 |                 |         |
| Work status <sup>‡</sup>                                  |       |      | 1.816           | .070    |
| Yes                                                       | 23.68 | 5.40 |                 |         |
| No                                                        | 23.02 | 5.00 |                 |         |
| Location of residence <sup>‡</sup>                        |       |      | 0.365           | .589    |
| City                                                      | 23.09 | 5.03 |                 |         |
| Town                                                      | 23.26 | 5.18 |                 |         |
| Family living arrangement <sup>‡</sup>                    |       |      | 1.675           | .094    |
| Yes                                                       | 23.22 | 5.12 |                 |         |
| No                                                        | 22.08 | 4.70 |                 |         |
| Year level <sup>§</sup>                                   |       |      | 4.053*          | .007    |
| Freshman                                                  | 22.11 | 4.88 |                 |         |
| Sophomore                                                 | 23.09 | 4.81 |                 |         |
| Junior                                                    | 23.48 | 5.38 |                 |         |
| Senior                                                    | 23.69 | 5.05 |                 |         |
| Presence of chronic illness or comorbidities <sup>§</sup> |       |      | 9.508*          | .000    |
| Yes                                                       | 22.18 | 4.95 |                 |         |
| No                                                        | 23.50 | 5.13 |                 |         |
| Don't know                                                | 21.85 | 4.74 |                 |         |

Note: <sup>†</sup>Pearson r correlation, <sup>‡</sup>t-test for independent group, <sup>§</sup>Analysis of Variance \*p < .05

Table 4  
*Correlates of life satisfaction among college students*

| Variables                                | M     | SD   | Test statistics | p-value |
|------------------------------------------|-------|------|-----------------|---------|
| Mental well-being <sup>†</sup>           |       |      | .626*           | .000    |
| Age <sup>†</sup>                         |       |      | .064*           | .030    |
| Self-reported health status <sup>†</sup> |       |      | .271*           | .000    |
| Sex <sup>‡</sup>                         |       |      | 0.152           | .879    |
| Male                                     | 24.35 | 6.29 |                 |         |
| Female                                   | 24.28 | 6.30 |                 |         |
| Marital status <sup>‡</sup>              |       |      | -4.211*         | .000    |
| Single                                   | 24.22 | 6.36 |                 |         |

Table 4 (continue)

| Variables                                                 | M     | SD   | Test statistics | p-value |
|-----------------------------------------------------------|-------|------|-----------------|---------|
| Married                                                   | 26.58 | 3.24 |                 |         |
| Family income status <sup>†</sup>                         |       |      | -2.260*         | .024    |
| Low income                                                | 24.01 | 6.43 |                 |         |
| Middle income                                             | 24.91 | 5.97 |                 |         |
| Are you a working student <sup>‡</sup>                    |       |      | 0.674           | .500    |
| Yes                                                       | 24.54 | 6.41 |                 |         |
| No                                                        | 24.23 | 6.26 |                 |         |
| Location of residence <sup>‡</sup>                        |       |      | 1.207           | .228    |
| City                                                      | 24.50 | 6.06 |                 |         |
| Town                                                      | 24.05 | 6.57 |                 |         |
| Family living arrangement <sup>‡</sup>                    |       |      | 2.441*          | .015    |
| Yes                                                       | 24.41 | 6.27 |                 |         |
| No                                                        | 22.36 | 6.45 |                 |         |
| Year level <sup>§</sup>                                   |       |      | 1.481           | .218    |
| Freshman                                                  | 23.49 | 6.14 |                 |         |
| Sophomore                                                 | 24.52 | 6.16 |                 |         |
| Junior                                                    | 24.33 | 6.61 |                 |         |
| Senior                                                    | 24.72 | 5.92 |                 |         |
| Presence of chronic illness or comorbidities <sup>§</sup> |       |      | 12.335*         | .000    |
| Yes                                                       | 23.24 | 5.96 |                 |         |
| No                                                        | 24.77 | 6.20 |                 |         |
| Don't know                                                | 22.25 | 6.47 |                 |         |

Note: <sup>†</sup>Pearson r correlation, <sup>‡</sup>t-test for independent group, <sup>§</sup>Analysis of Variance \*p < .05

Table 5

Regression analysis of predictors of mental well-being among college students

| Independent variables       | β      | t    | p-value | 95% CI for β   |
|-----------------------------|--------|------|---------|----------------|
| (Constant)                  | 10.771 | 8.45 | .000    | 8.27 to 13.28  |
| Self-reported health status | 1.899  | 9.32 | .000    | 1.50 to 2.30   |
| Age                         | 0.179  | 3.95 | .000    | 0.090 to 0.268 |
| Year level                  | 0.306  | 1.97 | .000    | 0.001 to 0.611 |

Note. R = .301; R<sup>2</sup> = .091; Std. Error of the Estimate = 4.87; F = 37.87; p = .000

(t=-4.211, p=.000), family income status (t=-2.260, p=.024), those living with family (t=2.441, p=.015), and presence or absence of any chronic illness or comorbidities (F=12.335, p=.000). Post hoc analysis unveiled that those who do not suffer from chronic illness have significantly higher (p=.000) life satisfaction compared to those

who do not know if they have any chronic illness or comorbidities.

Presented in Table 5 are the predictors of mental well-being. Multiple linear regression analysis revealed that self-reported health status (β=1.899, p=.000), age (β=0.179, p=.000), and year level (β=0.306, p=.000) were significant



Table 6  
*Regression analysis of predictors of life satisfaction*

| Independent variables       | $\beta$ | t     | p-value | 95% CI for $\beta$ |
|-----------------------------|---------|-------|---------|--------------------|
| (Constant)                  | 2.403   | 2.36  | .018    | 0.409 to 4.396     |
| Mental well-being           | 0.736   | 25.17 | .000    | 0.679 to 0.794     |
| Self-reported health status | 0.967   | 4.58  | .000    | 0.553 to 1.381     |
| Age                         | 0.691   | 2.25  | .025    | 0.087 to 1.295     |

Note.  $R = .638$ ;  $R^2 = .407$ ; Std. error of the estimate = 4.85;  $F = 259.76$ ;  $p = .000$

predictors of mental well-being. In addition, the regression model explained 9.1% of the variances of subjective mental well-being ( $F=37.87$ ,  $p=.000$ ).

The regression model (Table 6) explained 40.7% of the variances of the satisfaction with life ( $F=259.76$ ,  $p=.000$ ). Subjective mental well-being ( $\beta=0.736$ ,  $p=.000$ ), self-reported health status ( $\beta=0.967$ ,  $p=.000$ ), and age ( $\beta=0.691$ ,  $p=.025$ ) were significant predictors of life satisfaction.

## DISCUSSION

This study investigated college students' mental well-being and satisfaction after over a year of the pandemic health crisis. After almost sixteen months since the COVID-19 pandemic began, we found a relatively significant number of college students reporting poor mental well-being suggesting possible or probable psychopathology. A systematic review of the effects of COVID-19 on psychological outcomes found that the COVID-19 pandemic negatively impacted people's mental health (Xiong et al., 2020). Studies conducted during the lockdown period and early parts of the pandemic in the Philippines have shown that college students experience fear (Superio et al., 2021), anxiety (Cleofas &

Rocha, 2021), lockdown fatigue (Labrague et al., 2021), loneliness (Labrague & Ballad, 2020), and were moderately or severely affected by the pandemic (Tee et al., 2020). Nevertheless, the literature and our findings suggest that the COVID-19 pandemic continues to have an undesirable impact on students' mental health. The proportion of students having poor mental well-being in our study after more than a year of the pandemic is disturbing and is an area of concern. Poor psychological or mental well-being is linked with depression, stress, and anxiety (Malone & Wachholtz, 2018; Ceri & Cicek, 2021; Wąsowicz et al., 2021). Additionally, our result also has important implications for the early implementation of suicide prevention strategies. Depression or poor mental health is a risk factor for suicidal behaviors before and during the pandemic (Brådvik, 2018; Elbogen et al., 2021). Although a longitudinal survey found no significant changes in the respondents' stress, anxiety, and depression levels during the initial phase and four weeks later of the COVID-19 outbreak (Wang et al., 2020b), there is also evidence showing that suicidal ideation was found to increase over time since the start of the COVID-19 pandemic (Mamun, 2021).



A pre-pandemic meta-analysis also revealed a higher prevalence of self-harm, non-suicidal self-injury, and suicidal behaviors among children and adolescents in low and middle-income, non-Western countries (Lim et al., 2019). And while the central focus of public health initiatives during outbreaks usually revolves around the physical and biological effects of the epidemic, the increasing mental health burden calls for enhanced mental health support (Ho et al., 2020a). Well-being initiatives and other positive psychological measures such as Cognitive Behavioral Therapy (Soh et al., 2020; Zhang & Ho, 2017) may be undertaken to address the potentially growing number of psychological problems during the global health crisis. Nevertheless, it may also be valuable not only to attribute students' poor mental well-being to the effect of the pandemic. Issues in mental and psychological health may also be due to other factors like the altered learning landscape and academic difficulties (Burns et al., 2020; Oducado & Estoque, 2021).

Also, in this study, higher self-reported health predicts higher mental well-being and greater life satisfaction. Although it is not a significant predictor, students without chronic disease or comorbidities have higher well-being and life satisfaction scores in the bivariate analysis. Correspondingly, perception of good health status is associated with lower levels of stress, anxiety, depression, and the psychological impact of the pandemic (Browning et al., 2021; Oducado et al., 2021; Rogowska et al., 2020; Tee et al., 2020). On the other

hand, chronic conditions were associated with lower health-related quality of life (Tran et al., 2020). Our finding suggests that the general health status of students should be given focus at this time of health catastrophe. Likewise, students should be made aware of their current health status and the possible presence of comorbidities that might increase their risk of severe COVID-19 illness (Guillasper et al., 2021).

Meanwhile, this study also found that younger students have poor mental well-being and life satisfaction. Thus, younger age groups and students are particularly at risk of experiencing the pandemic's negative mental and psychological impact (Browning et al., 2021; Cleofas & Rocha, 2021; Tee et al., 2020; Wang et al., 2021b). Perhaps, younger students are more likely to be worried about their future education (Aristovnik et al., 2020; Browning et al., 2021) but are less likely to use positive coping strategies, making them more vulnerable to psychopathologies or negative mental states during the pandemic (Labrague et al., 2021). Therefore, it is crucial to proactively reach out to students who are likely to experience mental health issues and provide them with accessible mental health care (Lee et al., 2021).

On the brighter side, this study found that a little over half of the students are highly satisfied with their life. On the other hand, studies elsewhere noted a decline in life satisfaction related to the COVID-19 pandemic (Duong, 2021; Pretorius & Padmanabhanunni, 2021; Von Soest et al., 2020). The varying times the studies were

conducted, the use of different tools to assess a similar construct, and the different scoring and interpretation procedures of various scholars may have influenced the results. Moreover, while mental well-being, self-reported health, and age can explain 40.7% of the variances of the satisfaction with life, there may be other factors contributing to college students' life satisfaction. Other factors found in the literature that are linked with life satisfaction are satisfaction with family life (Schnettler et al., 2017), stress and ego-resilience (Kim & Koh, 2016), and academic performance, and physical activities (Slavinski et al., 2021), among others. Future researchers may consider these variables when studying life satisfaction in the current or similar context.

Finally, we also demonstrated in this study that students' mental well-being predicts their satisfaction with life. Our finding is consistent with the results of studies conducted elsewhere, like in Canada (Lombardo et al., 2018) and China (Bieda et al., 2019). Therefore, the promotion of mental well-being is necessary to enhance life satisfaction among college students.

Nonetheless, our study has the following limitations. First, it must be noted that our outcome measures (subjective mental well-being and life satisfaction) are dependent on students' self-report and not meant to diagnose any psychopathology. Functional neuroimaging and structured clinical interviews are the gold standards for establishing the psychiatric diagnosis (Husain et al., 2020, Ho et al., 2020b). Moreover, our study is limited to its

cross-sectional nature and our single-site sample, which decreases its generalizability and ability to establish causality among variables. There may be other factors that could contribute to students' mental outcomes not included in the study. Future researchers may investigate if vaccination could improve mental health and may follow the design of studies found in the literature (e.g., Chew et al., 2021). Nevertheless, our findings enrich the literature on the mental and psychological outcomes of the pandemic among college students. We provide up-to-date evidence on students' mental well-being and life satisfaction after over a year of the inception of the COVID-19 crisis.

## CONCLUSION

This study highlights that the mental health aspect of college students should be given priority during the pandemic. Our study suggests that the rather long-term presence of the COVID-19 pandemic has likely affected college students' mental well-being and psychological health resulting in a looming mental health crisis. Also, students' mental well-being is a valuable resource that contributes to their life satisfaction. Moreover, this research found that younger students with lower general self-reported health status tend to have poor subjective mental well-being and life satisfaction. Therefore, attention should be given to the cohort of students at risk of mental health issues and are likely to report lower mental well-being. Some students may need professional help dealing with the pandemic,

and mental health care should be made accessible and available to them. Preventive strategies and mental health promotion interventions may be initiated to respond to the growing mental health needs of the students during this pandemic and as the long-term effects of the pandemic continue to unfold.

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