



Original Article

Life Satisfaction and Self-Efficacy of Undergraduate Occupational Therapy Students in a University in Metro Manila: A Cross-Sectional Study

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Abstract

Background: The COVID-19 pandemic has significantly disrupted students' lives and daily routines, resulting in increased stress and mental health issues that impact their perceived life satisfaction and self-efficacy. While life satisfaction and self-efficacy may influence student academic performance and success, current data on life satisfaction and self-efficacy in Filipino occupational therapy students is limited. **Objectives:** This study aims to describe the life satisfaction and self-efficacy level of occupational therapy students at a university in Metro Manila, Philippines, during the COVID-19 pandemic and explore the relationship between these two variables. **Methods:** The study adopted an analytic cross-sectional study design and records review methodology utilizing the Student Life Survey 2021 database. Data from the survey participants who fit the study's inclusion criteria were extracted to determine their life satisfaction and self-efficacy based on their responses on the Satisfaction with Life Scale and Self-Efficacy Formative Questionnaire. Descriptive statistics using measures of central tendency and dispersion were used to analyze data. Spearman-Rho correlation analysis was performed to examine the correlation between participants' life satisfaction and self-efficacy. **Results:** A total of 205 occupational therapy students completed the survey. Results reveal that the participants were slightly dissatisfied with their lives ($M=18.45$; $SD=1.52$) and that they had satisfactory or adequate self-efficacy ($M=64.66$; $SD=1.37$). An analysis of their self-efficacy scores reveals that participants had a poor belief in their personal ability ($M=37.71$; $SD=1.33$) and a satisfactory or adequate belief that their ability can grow with effort ($M=26.92$; $SD=1.32$). Life satisfaction and self-efficacy were found to decrease as the participants' year level increased. Furthermore, correlation analysis revealed a statistically significant moderate correlation between participants' life satisfaction and self-efficacy ($\rho=0.40$, $p<0.05$). **Conclusion:** The participants have a slightly dissatisfied level of life satisfaction and a satisfactory or adequate level of self-efficacy during the COVID-19 pandemic. Life satisfaction and self-efficacy were found to have moderate correlation. Online learning adjustments, pandemic restrictions, and societal expectations are factors that may have influenced these findings, as emphasized in existing studies. This study may inform the academe in modifying existing learning environments and providing enhancement programs to deliberately target these constructs influencing overall academic performance.

Key Words: *life satisfaction, self-efficacy, occupational therapy students, Filipino*

INTRODUCTION

The emergence of COVID-19 has significantly impacted people's lives, especially regarding daily routines such as attending school and work. Like most countries, the Philippines has been affected considerably, leading to significant losses in life and livelihoods. Moreover, schools and universities have been forced to close and shift to an online class setup, which has brought most students issues with mental health and stress.¹ A number of studies show that increased

perceived stress and other mental health problems are associated with lowered life satisfaction and self-efficacy.²⁻⁴ This presents a problem, as these constructs contribute to student academic performance and success.^{5,6}

Life satisfaction is an important concept encompassing an individual's subjective perceptions about their quality of life. It is defined as a cognitively oriented, subjective

judgment of one's current life situation in relation to one's expectations.⁷ Similarly, it is conceptualized as a conscious assessment of life following self-set standards and criteria, being the cognitive dimension of subjective well-being.^{5,8} Life satisfaction implies contentment and acceptance of one's achievements, living conditions, and circumstances.^{8,9} It thus entails a personal evaluation of life in terms of its richness, meaningfulness, and quality.

Literature exploring life satisfaction in undergraduate health sciences, nursing, and medical students shows it is linked to numerous advantageous outcomes. For instance, evidence indicates that high life satisfaction is related to greater overall health and longevity, leading to fewer long-term health issues and the development of health-related behaviors.¹⁰ Life satisfaction is also associated with attaining healthier and more productive lifestyles, positively influencing school life, work performance and success, and interpersonal relationships.¹¹ Moreover, life satisfaction is associated with high levels of pleasant emotions and moods, such as optimism, which increases an individual's motivation and predicts a greater likelihood of high grades and completing college.¹²

However, there is a dearth of literature looking into life satisfaction in Filipino occupational therapy (OT) students. Current research focuses on other degree programs correlating life satisfaction with various factors. For example, a study by Cleofas emphasized the relationship between student involvement, mental health, and quality of life.⁴ Meanwhile, another study by Labrague emphasized the moderating role of resilience on stress caused by COVID-19-related concerns and the mental health and life satisfaction of nursing students.¹³

Self-efficacy, meanwhile, is another construct shown to influence educational outcomes positively. According to literature, it is defined as the belief in one's capacity to carry out tasks successfully, set goals, commit to challenges, and strive to meet those goals.¹⁴ Individuals with high self-efficacy manifest these traits as they can manage stress and their tasks and have the self-confidence to manage the complexity of different situations.¹⁵ In the context of education,

self-efficacy can therefore be described as the belief in one's ability to understand topics better and excel in the academic field. Moreover, it is also characterized by students' self-perceived confidence in achieving their academic goals.¹⁶ Overall, self-efficacy relates to the belief in one's ability to accomplish challenging tasks and that one's ability can grow with effort.¹⁷

High levels of self-efficacy in students have been shown to positively influence motivation in school, learning ability, and achievement.¹⁸ Studies exploring nursing students, for instance, found that academic self-efficacy could significantly predict academic performance and function as an internal motivator for dealing with academic challenges and achieving goals.^{19,20} In circumstances where students face the possibility of failure, those with high self-efficacy can maintain their efforts to succeed as they have the assurance that difficult situations are manageable.

However, as with life satisfaction, literature regarding self-efficacy in Filipino OT students is also limited. Presently, only one international study regarding the self-efficacy of OT students is available. This study explored the relationship between graduate occupational and physical therapy students' approaches to studying, self-efficacy, and positive mental health.²¹

The lack of descriptive, local, and OT student-specific studies concerning life satisfaction and self-efficacy is therefore notable. Most existing research on this topic has been conducted internationally or has looked into students from other health fields.^{10-12,16,19-21} Filling the gap in this knowledge is significant because understanding the welfare of students in this field is crucial in fostering competent and satisfied professionals. Such information can guide OT educators in seeing the need for programs that support student well-being, academic performance, and achievement. Moreover, educational institutions offering an OT program may be informed with effective pedagogical approaches across various modes of educational delivery. Ultimately, exploring OT students' life satisfaction and self-efficacy can improve their education, strengthen their support systems, and facilitate their development into competent professionals.

This study aims to explore the life satisfaction and self-efficacy of OT students at a university in Metro Manila, Philippines, during the COVID-19 pandemic. The specific aims of this study are:

1. To describe the life satisfaction and self-efficacy level among OT students
2. To examine the relationship between the life satisfaction and self-efficacy level among OT students.

METHODS

Ethical Considerations. This study received ethical approval. It abides by the Declaration of Helsinki, National Ethical Guidelines for Health and Health-Related Research of the Philippine Health Ethics Research Board (PHREB), relevant data privacy policies, and the Philippine Data Privacy Act of 2012.

Study Design. This study utilized an analytic cross-sectional study design. An analytic cross-sectional study design aims to gather data to describe and measure the association between different outcomes in a specified population at a particular point in time.²² This study used a records review methodology, where data has already been gathered, recorded, and stored.²³

Database Description. This study utilized the Student Life Survey 2021, which was deployed online between October and November 2021. The survey initially aimed to determine factors relating to the academic performance of OT students from the first to fifth year as they went through different courses delivered fully online at the time of the pandemic.

Setting. This study involved students who were enrolled in the Bachelor of Science in Occupational Therapy program at a selected private university in Manila, Philippines. The university offers various programs in the field of rehabilitation, including physical therapy, occupational therapy, speech-language pathology, and sports science.

Participants. This study utilized the following inclusion criteria: (1) 1st to 5th-year undergraduate OT students of either gender and (2) enrolled within the AY 2021-2022. Data from the Student Life Survey 2021 participants who met the criteria were drawn from the database.

Based on a priori sample size computation using the Raosoft calculator, keeping a 5% margin of error, 95% confidence interval, and 50% response distribution, a minimum sample of 177 out of the 326 OT students during the academic year 2021-2022 was needed to answer the study objectives. Data in this study was drawn from 205 OT students exceeding the minimum requirement. The researchers intended to reach the minimum number of respondents without considering the sample distribution in terms of gender and year level.

Instruments. Data drawn from the database included the demographic characteristics of participants, such as gender, age, and year level, and raw responses to the Satisfaction with Life Scale (SWLS) and the Self-Efficacy Formative Questionnaire.

The SWLS is a 5-item self-administered questionnaire for assessing subjective personal well-being. Items are evaluated on a 7-point Likert scale (from 1 = strongly disagree to 7 = strongly agree) with scores ranging between 5 and 35. Higher scores indicate greater life satisfaction and are interpreted as follows: Extremely dissatisfied (5-9), Dissatisfied (10-14), Slightly dissatisfied (15-19), Neutral (20), Slightly satisfied (21-25), Satisfied (26-30), and Extremely satisfied (31-35). The SWLS has been shown to have acceptable validity and reliability when tested in Vietnamese,²⁴ Lithuanian,²⁵ and Mexican²⁶ populations. The questionnaire deployed online for the Student Life Survey 2021 database showed excellent internal consistency with a Cronbach's Alpha of $\alpha = .86$.

The Self-Efficacy Formative Questionnaire is a 13-item questionnaire that assesses secondary-level students' self-efficacy. It is divided into two subscales: "Belief in Personal Ability" and "Belief that Ability Grows with Effort." In the original tool, it utilized a 5-point Likert scale (from 1 = not very like me to 5 = very like me); however, the assessment tool that was deployed for the database used a 7-point Likert scale (from 1 = not very like me to 7 = very like me). The Self-Efficacy Formative Questionnaire has been shown to have high reliability. As a whole, it was reported to have obtained a Cronbach's alpha (α) of .89; the "Belief in Personal Ability" subscale obtained $\alpha = .85$ and the "Belief that Ability

Grows with Effort" subscale obtained $\alpha=0.81$.²⁷ The questionnaire deployed online for the Student Life Survey 2021 database showed excellent internal consistency with a Cronbach's Alpha of $\alpha=0.94$.

Data Gathering Procedures. Once ethical approval was obtained, a formal request was sent to the Department of Occupational Therapy chairperson for access to the Student Life Survey 2021 database. Data stored in the database was anonymized and had a data protection function to ensure no tampering. After the department chair granted the request, an encrypted and password-protected cloud and local data storage were made accessible to the primary investigator, who screened for participants who met the inclusion criteria. Only the data of participants who met the criteria were extracted and used in this study. Eligible data was then transferred to a separate database accessible only to the researchers, where it was secured and protected within the same storage. Due to the researchers' lack of control over the data collection process, this study is limited to utilizing the data collected within the timeframe the survey was conducted and the information obtained during that period.

Data Analysis Procedures. Data drawn from the database was encoded and analyzed in a purposely built Microsoft Excel Version 16.62.1 spreadsheet for data management. Descriptive statistics using measures of central tendency and dispersion were employed to summarize and describe the data. Measures of association, specifically correlation, were employed to examine the relationship between life satisfaction and self-efficacy.

Demographic data were presented as frequencies and percentages, while responses to the SWLS and Self-Efficacy Formative Questionnaire were presented in mean and standard deviation scores. Responses to each questionnaire were tabulated to form a single numeric score, from which participants' mean scores per year level and of all participants as a whole were calculated to determine their current life satisfaction and self-efficacy level. Self-Efficacy Formative Questionnaire scores were transmuted and displayed on a 100-point scale along with equivalent grades based on the

American letter grading system to allow for interpretation of the self-efficacy level.²⁸ Responses to the questionnaire were also analyzed further based on the two subscales representing two components of the self-efficacy model: "Belief in Personal Ability" and "Belief that Ability Grows with Effort".

Prior to conducting correlational analysis, normality of the distribution of the outcomes of both questionnaires was tested. The Shapiro-Wilk test for the outcomes of the Self-Efficacy Formative Questionnaire resulted in $p<0.05$; thus, the Spearman-Rho correlation test was used to test for correlation.

RESULTS

Demographic Characteristics. The demographic characteristics of the study's participants are shown in Table 1. A total of 205 students participated in the study. The mean age was 21 years old, with females representing most of the subject population (81.46%). Of the 205 participants, 18 (8.78%) were 1st years, 46 (22.44%) were 2nd years, 62 (30.24%) were 3rd years, 52 (25.37%) were 4th years, and 27 (13.17%) were 5th years.

Table 1. Demographic characteristics of the participants

Demographic Characteristics	
Age (mean \pm SD)	21 1.36
Gender <i>n</i> (%)	
Male	38 (18.54%)
Female	167 (81.46%)
Year Level <i>n</i> (%)	
1st Year	18 (8.78%)
2nd Year	46 (22.44%)
3rd Year	62 (30.24%)
4th Year	52 (25.37%)
5th Year	27 (13.17%)
Total	205

Life Satisfaction. Table 2 shows the mean and standard deviation of participant responses to the SWLS. Overall, the mean score of all participants is 18.45 ± 1.52 , which suggests that they have a slightly dissatisfied level of life satisfaction. When comparing the mean scores per year level, the results show a trend of

decreasing life satisfaction with an increasing year level.

Table 2. Mean and Standard Deviation of SWLS scores

	Year Level	Mean ± SD
Satisfaction with Life Scale (SWLS)	1st Year	19.94 ± 1.65
	2nd Year	19.11 ± 1.61
	3rd Year	18.42 ± 1.41
	4th Year	17.98 ± 1.41
	5th Year	16.78 ± 1.65
	Total	18.45 ± 1.52

The frequency and percentage distribution of participant responses to the SWLS according to score range is shown in Table 3. The score range with the highest frequency of responses is 15-19 (slightly dissatisfied), with a frequency and percentage distribution of 61 (29.76%). The score range with the lowest frequency of responses is 31-35 (extremely satisfied), with a frequency and percentage distribution of 3 (1.46%).

Self-Efficacy. Table 4 shows the mean and standard deviation of participant responses to

the Self-Efficacy Formative Questionnaire. It also shows the transmutation of the responses on a 100-point scale, along with the equivalent letter grade based on the American letter grading system. Overall, the mean score of all participants was 64.66 ± 1.37, which transmutes to a score of 71.05 and an equivalent grade of C-. A comparison of the results of the questionnaire across year levels also shows a trend of decreasing self-efficacy with an increasing year level.

Participant responses to each subscale on the Self-Efficacy Formative Questionnaire are shown in Table 5. The mean score of participants for the 'belief in personal ability' subscale was 37.71 ± 1.33, which transmutes to a score of 67.35 and an equivalent grade of D+. The mean score of participants for the 'belief that ability grows with effort' subscale was 26.69 ± 1.32, which transmutes to a score of 76.91 and an equivalent grade of C+.

Correlation between Life Satisfaction and Self-Efficacy. The life satisfaction and self-efficacy scores of the participants were found to have a statistically significant moderate correlation ($p= 0.40, p<0.05$)

Table 3. Frequency and percentage distribution of participant responses to the SWLS according to score range

	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total
31-35 (Extremely Satisfied)	0	2	0	0	1	3 (1.46%)
26-30 (Satisfied)	6	6	4	6	5	27 (13.17%)
21-25 (Slightly Satisfied)	2	13	16	8	1	40 (19.51%)
20 (Neutral)	2	2	8	5	1	18 (8.78%)
15-19 (Slightly Dissatisfied)	4	11	19	21	6	61 (29.76%)
10-14 (Dissatisfied)	3	8	10	5	9	35 (17.07%)
5-9 (Extremely Dissatisfied)	1	4	5	7	4	21 (10.24%)

Note: n(%)

Table 4. Mean, standard deviation, and transmutation of self-efficacy formative questionnaire scores

	Year Level	Mean ± SD	Transmutation	Letter Grade
Self-Efficacy Formative Questionnaire	1st Year	69.33 ± 1.32	76.19	C
	2nd Year	65.91 ± 1.46	72.43	C-
	3rd Year	65.79 ± 1.22	72.30	C-
	4th Year	62.67 ± 1.34	68.87	D+
	5th Year	59.59 ± 1.49	65.48	D
	Total	64.66 ± 1.37	71.05	C-

Note: A+ (97-100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (65-66), E/F (Below 65)

Table 5. Mean, standard deviation, and transmutation of self-efficacy formative questionnaire scores according to subscale

Subscale	Mean ± SD	Transmuted Score	Letter Grade
Belief in Personal Ability	37.71 ± 1.32	67.35	D+
Belief that Ability Grows with Effort	26.92 ± 1.32	76.91	C+

Note: A+ (97-100), A (93-96), A- (90-92), B+ (87-89), B (83-86), B- (80-82), C+ (77-79), C (73-76), C- (70-72), D+ (67-69), D (65-66), E/F (Below 65)

DISCUSSION

This section presents an analysis of potential factors contributing to the participants' life satisfaction and self-efficacy levels, their scores per subscale on the Self-Efficacy Formative Questionnaire, and the trends observed in both constructs across year levels. The discussion is informed by relevant findings from similar existing studies.

Analyzing Factors Potentially Influencing Participants' Life Satisfaction. The results of this study indicate that the participants are slightly dissatisfied with their lives. Similar findings have also been reported in studies done among medical students in Belarus and nursing students in Poland during the COVID-19 pandemic.^{29,30} Moreover, other studies done during the same period among health sciences students in countries such as Poland, Brazil, and Turkey suggest that participants were either slightly satisfied, neutral, or dissatisfied but not satisfied or extremely satisfied with their lives based on their scores on the SWLS.³¹⁻³⁴

One factor that could explain the participants' life satisfaction level was the situation surrounding the COVID-19 pandemic. According to a study by Srikhamjak et al., pandemic-related concerns such as economic problems, social isolation, and lifestyle changes negatively affected Thai occupational therapy students' mental health and quality of life.³⁵ Due to such concerns, the students reported feeling that their lives became more difficult, that they were uncomfortable and anxious about the COVID-19 situation, and that they missed their lives before the pandemic.³⁵ Occupational therapy students in Turkey reported similar circumstances, having difficulties maintaining school-life balance, increased stress, and decreased motivation during the pandemic.³⁶

Numerous studies among allied health programs also support the fact that the COVID-19 pandemic had a negative impact on college students' life satisfaction in general. For instance, studies examining university students' experiences during the pandemic describe that circumstances including social exclusion, alteration in daily living patterns, and concerns about the virus acquisition were associated with higher levels of anxiety, stress, and depression.^{4,37,38} Due to such circumstances, university students experienced many adverse behavioral and psychological reactions, including frustration, emotional disturbance, and exhaustion.³⁴ Moreover, a study conducted by Labrague on Filipino student nurses reported that stress associated with COVID-19 had been found to result in poorer psychological well-being and decreased life satisfaction, especially considering that the unexpected duration of the pandemic made sustaining the students' resilience and ability to cope a major challenge.¹³

Another factor that could explain the participants' life satisfaction level was the shift of educational delivery to an online learning platform, which required students to make heavy adjustments to the new mode. This is supported by studies conducted on occupational therapy students in Malaysia and the United States, which describe that undergoing full online learning was a stressful adjustment that forced the students to alter learned patterns of engagement in studying, sleep, rest, and community mobility, negatively impacting their satisfaction with their learning experience.^{39,40} Coupled with the lack of preparation for the shift and the stressful working conditions of the pandemic, health sciences students in the United Arab Emirates and occupational therapy students in Malaysia generally felt that their online learning situation was less satisfactory compared to their face-to-face learning experiences.^{39,41}

Apart from learning adjustments, the loss of interaction between students and their peers may have also affected the satisfaction of this study's participants. This is supported by a study conducted on health sciences students during the pandemic, which found that the lack of opportunities to socialize in an online learning context meant that the students had fewer opportunities to form friendships and learn effectively.^{41,42} The loss of student-peer interaction is significant because this interaction improves learning, enhances experiences, and plays a significant role in one's contentment with their education.⁴¹

Moreover, factors such as technical difficulties in online learning may have had a considerable influence on the participants' low satisfaction. Issues such as poor internet connection and technological difficulties were some concerns voiced by medical and health sciences students regarding some of their reasons for dissatisfaction with online learning.⁴¹ Online learning dissatisfaction may be significant in understanding one's overall life satisfaction because learning is a major aspect of one's role as a student.

Nonetheless, given that this study's participants were only slightly dissatisfied with their lives, it can also be argued that their experiences were not entirely negative. Numerous studies support that there are positive aspects of online or distance learning, including the idea that studying has become more convenient, flexible, self-paced, and accessible, supporting learners' use of various educational materials.^{41,43,44} Due to the nature of online learning, learners have increased independent study periods making them watch lecture videos at any time during the day.³⁶ This suggests greater control over one's life contributing to overall life satisfaction. Although recommendations for improvement exist, learners, in general, declared that they considered the changes and adaptations in education delivery during the pandemic as successful and somehow satisfactory.^{36,45}

Analyzing Factors Potentially Influencing Participants' Self-Efficacy. The self-efficacy level of this study's participants can be described as satisfactory or adequate based on their responses to the Self-Efficacy Formative

Questionnaire. Similar results have also been found in studies that assessed the self-efficacy of medical and nursing students in countries such as China and Peru, reporting that participants had moderate levels of academic self-efficacy during the pandemic.^{46,47}

Like their life satisfaction, the participants' self-efficacy level may also be explained by similar factors related to the shift in educational delivery to an online setup. One of these factors is the high level of stress and anxiety associated with the pandemic and online learning challenges. Different studies conducted during the pandemic describing the relationship between stress, anxiety, and self-efficacy affirm this. For example, Meyer et al. describe that high levels of individuals' perceived disruptions in their lives and routines caused increased levels of stress, which in turn negatively affected their self-efficacy.⁴⁸ Studies conducted on nursing students and college students also argued that higher perceptions of stress and anxiety negatively influence academic self-efficacy and impact the learning process.^{35,49}

Apart from pandemic-associated stress and anxiety, perceptions that online education is ineffective could have caused the participants' current self-efficacy level. One of these perceptions is that health sciences and OT education are not compatible with online learning. Multiple studies describe that since health education heavily relies on hands-on training, students feel that some content, such as practical skills demonstration, is better taught in a traditional face-to-face classroom than online.^{36,39,50} Coupled with barriers to online learning such as technological problems, limited possibilities of e-learning platforms, lack of student-staff interaction online, and negative attitudes towards online education,⁴² students during the pandemic may have felt that they were not able to truly understand what was being taught to them, negatively impacting their self-efficacy.

Furthermore, difficulties adapting to the pandemic may have influenced the participants' self-efficacy level. Ozturk et al. found that occupational therapy students in their study had problems managing their time, problems acquiring new study habits and discipline, and

concerns about gaining professional competence online.³⁶ In relation to this, the results of a study by Zimmerman and Kulikowich suggest that university students with prior online learning experiences had higher online learning self-efficacy than those without.¹⁵ The findings of Zimmerman & Kulikowich may corroborate with the results of this study because, before the pandemic, the participants were engaging in full face-to-face learning. All these factors could have negatively influenced their beliefs in their ability to succeed in school and, thus, their self-efficacy.

Nonetheless, given that the participants' self-efficacy was satisfactory, it can be argued that online learning also positively affects students' self-efficacy. For instance, according to Forde and Obrien, using digital technology for learning allows students to acquire knowledge and skills from a wide variety of learning materials, enabling them to engage meaningfully with resources suitable to them.⁴² Since the diverse range of materials available online allows students to select resources that accommodate their learning styles, online learning may help students better develop their skills and capacities. Moreover, online learning is very self-directed in nature. This allows students to revisit educational videos at their own pace and convenience.⁵¹ Given that students can take their time to be more comfortable with a particular lesson, students may also be able to come into classrooms feeling more prepared than when taught through traditional face-to-face means, positively impacting their self-efficacy.

Analyzing Factors Potentially Influencing Participants' Self-Efficacy per Subscale. The study's findings regarding the participants' responses to the first subscale of the Self-Efficacy Formative Questionnaire indicate that they have a poor belief in their personal ability. This finding can be explained by the negative influence of the pandemic and the consequent shift of educational delivery on students' overall self-efficacy.^{35,36,39,42,50} Torelli et al. described similar results in medical students, stating that more than half of their participants believed that there had been a decline in their clinical ability and proficiency due to remote learning, especially concerning practical work and patient handling.⁵²

Moreover, findings regarding the participants' responses to the second subscale show that they had a satisfactory or adequate belief that their ability grows with effort. The results of this subscale are aligned with the concept of a growth mindset, which entails believing that intelligence and talents can be improved over time through one's effort and learning.⁵³ Some studies suggest that the COVID-19 pandemic situation had a major influence on students' growth mindset. For example, a study by Bozan and Stoner found that pandemic-related changes to college students' social and learning environment had impacted their motivation to overcome barriers and achieve academic success, highlighting the need for longitudinal growth mindset interventions to increase college students' growth mindset.⁵⁴ Another study by Finnamore et al. describes that the reality of COVID-19, including alterations in the way students learned and were taught, changed some college students' growth mindset.⁵⁵ This change suggests that the growth mindset was negatively impacted during the pandemic.

Trends in the Life Satisfaction and Self-Efficacy of Participants. This study found a trend of decreasing life satisfaction and self-efficacy among participants as their year level increased. This finding is consistent with the results of several studies on the life satisfaction of medical and occupational therapy students^{35,56} and studies on the academic self-concept of undergraduate students,^{57,58} which is closely related to self-efficacy.

A collation of related studies points to several factors which may have contributed to the decrease in participants' life satisfaction from lower to higher years of study. For example, the implementation of country-wide physical distancing measures and restrictions in Thailand during the pandemic enabled first-year students to spend more time engaging in leisure and exercise pursuits, while fourth-year students spent less time in those activities due to practical work and homework completion.³⁵ This narrative supports this study's findings since participation in leisure⁵⁹ and physical activities⁶⁰ are positively linked with students' life satisfaction. Moreover, burnout, which has been shown to inversely impact the life satisfaction of students in the medical field, may also explain

the decreasing trend in participants' life satisfaction.⁶¹ The results of a study conducted by Robins et al. suggest that burnout is high in health professions students in their final years of study and that stress increases towards the end of their degree programs.⁶² This is supported by Morales-Rodriguez, who describes that burnout is correlated to occupational therapy students' age, year level, and time spent on program activities.⁶³

On the other hand, the downward trend in the self-efficacy of the participants may be explained by factors related to academic demands. According to studies conducted in places like Asia, Europe, and the United States, academic institutions place demands on students that foster rivalry among them. As a result of frequent adverse feedback on their academic abilities, their belief in their capabilities decreases as their age increases.^{64,65} Walsh et al. also report that academic demands increase in allied healthcare students the higher their year level.⁶⁶ These demands include factors such as the course's time demands, studying for tests, assignments, and other academic assessments.^{67,68} The fluidity of educational delivery during the pandemic may have given rise to additional complications.

Relationship between Life Satisfaction and Self-Efficacy. Numerous studies have shown a significant correlation between life satisfaction and self-efficacy among university students in Turkey, South Africa, China, and the United States.⁶⁹⁻⁷² These studies indicate that participants with higher self-efficacy tend to have greater experience of life satisfaction. Consistent with the findings of previous studies, this study has been revealed to have a statistically significant moderate correlation between the participants' life satisfaction and self-efficacy scores. The relationship between these two variables can be explained by having the same mediating factors, for instance, emotional dysregulation.⁷³ Another study emphasized that individuals with a high level of self-efficacy are able to conquer life challenges because of their belief in their personal ability, thus, increasing their life satisfaction in the process.⁷⁴

Direct Implications. This study's findings have direct implications for the academe. The findings

suggest that modifications in the learning environment and enhancements in the educational delivery must be made to help promote OT students' life satisfaction and self-efficacy. This may include developing support initiatives, enhancement programs, and improved workload schedules, especially for those in their final year. Various life skills training programs may be adopted as additional support mechanisms for students. Life skills are human skills acquired through instruction or experience that can be used directly in addressing issues and questions commonly encountered in everyday life.⁷⁵ Such type of program has been found to be an effective strategy in promoting positive social and mental health by strengthening coping strategies, developing self-confidence and emotional intelligence, and improving thinking, critical problem-solving, and decision-making skills. In the process, university students will be equipped with skills that enable them to quickly adapt to the rapid shifts in educational delivery.

Limitations and Recommendations. The sample of data extracted from the students did not consider the distribution of participants in terms of gender and year level. Although the second, third, and fourth-year levels had the most respondents in this study, which is similar to the actual breakdown of students per year level for AY 2021-2022, using a more representative sample of the population is recommended. This would strengthen the generalizability and validity of the findings.

The limitations of using secondary data in this study should also be acknowledged. The survey from which data was extracted was not deployed by the researchers themselves. As a result, analysis was limited to the information gathered during the period when the survey was conducted. Since the researchers had no control over the data collection process, they also lacked insight into potential issues which may have occurred during data collection. Future researchers collect their own data to ensure greater control over the data collection process.

As mentioned above, another limitation is that the study's scope is limited to undergraduate OT students at a university in Metro Manila. Because they shared similar educational and instructional

experiences, findings may not be generalizable to the broader population of OT students from other schools in the Philippines, limiting its applicability. Future research may extend the scope of this study to include other OT schools in Metro Manila or throughout the Philippines.

Moreover, the correlational analysis is limited to only examining the relationship between life satisfaction and self-efficacy and not with other variables mentioned in the study, such as academic performance. Future research may explore the correlation of life satisfaction and self-efficacy with other related themes (e.g., academic performance) to broaden knowledge of this topic.

Additionally, the survey utilized for data gathering was deployed during a time when participants were engaging in pure online learning. As such, future research may focus on describing and comparing students' life satisfaction and self-efficacy in different learning setups (pure online, hybrid, pure onsite).

Qualitative research may also be conducted to deepen understanding of the two constructs by exploring participants' subjective experiences and perspectives.

CONCLUSION

Overall, the participants of this study have a slightly dissatisfied level of life satisfaction and a satisfactory or adequate level of self-efficacy during the COVID-19 pandemic. Further analysis of the self-efficacy results reveals that participants had a poor belief in their personal ability and a satisfactory or adequate belief that their ability grows with effort. Online learning adjustments and pandemic restrictions are relevant factors that may have influenced the life satisfaction and self-efficacy of the participants. This was supported by various literature emphasizing the negative effects of the pandemic on overall learning and mental wellness, along with impeding optimal socialization among peers influencing belief in oneself and satisfaction attained in the process. Apart from this, findings also indicate a trend of decreasing life satisfaction and self-efficacy across participants' year levels, corroborating existing studies that attribute such a trend to societal expectations. In

the present study, life satisfaction and self-efficacy were also found to correlate moderately.

Life satisfaction and self-efficacy are connected to various invaluable concepts, such as academic performance. Since there is a perceived lack of literature regarding said constructs among occupational therapy students, the results of this study fill the gap and may help aid related stakeholders and future researchers in ensuring improved competence and well-being among the said population. Developing support initiatives, programs, and schedules are recommendations to the academe that may promote the life satisfaction and self-efficacy of OT students, especially those in their final year. A more extensive study involving a broader scope of participants and exploring other learning setups may be done in the future for more comprehensive analysis and recommendations on life satisfaction and self-efficacy. Qualitative research should also be considered to deepen understanding of the subjective aspects of the two constructs.

Individual Author's Contributions

All authors met all four criteria of authorship based on the recommendation of the International Committee of Medical Journal Editors. KM conceptualized the paper, analyzed data, and co-wrote the paper; CTB conceptualized the paper, analyzed data, co-wrote the paper; CL, MA, DB, CQB, KL, MM, and QT collected data, analyzed data, co-wrote the paper.

Disclosure Statement

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Conflicts of interest

No known conflicts of interest are associated with this work. The corresponding author is part of the Editorial Board of PJAHS.

Supplementary Materials

[Supplementary Material A. Instruments used](#)

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