

A Case Study Measuring the Quality of Life of Students: Before and During COVID-19 Pandemic

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Abstract

The Covid-19 pandemic causes changes in the academic structure which also results in changes in the quality of life of students before and during the pandemic. The transition to online learning has impacted not only teachers, who have had to amend their courses, but also students who have had to adjust to a new learning environment. This study was conducted to perform an analysis of the student's quality of life before and during pandemic based on their self-concept as they deal with the resources in the new normal. As for the research study, a total of 100 random students from elementary, high school, and college were selected to answer the Self-Concept Questionnaire through an online survey. The result of the responses proved that there is a significant difference in the students' quality of life before and during the pandemic. The data results showed that before the pandemic self-concept was as of the following percentage: negative (1.8%), neutral (31.6%), and positive (66.7%). During the pandemic, positive self-concept decreased to only 52.6%, while neutral self-concept increased to 44.7% and negative self-concept increased to 2.6%.

Keywords

Self-Concept, Quality of Life, Students, Pandemic

1. Introduction

The COVID-19 caused a significant impact on people's lives worldwide. The Philippine government's lockdown, which began on March 17, 2020, enforced strict limits on social contact, people's ability to work, and reduced access to services. Early signs of the pandemic indicate that it will significantly impact jobs and livelihoods and income and personal debt. To most people, especially students, this is accompanied by a considerable amount of concern about future insecurity. In addition, in the Philippines, there are growing concerns about the pandemic's mental health repercussions (Rappler, 2020).

While easing back into normal life, educational institutions and most other enterprises continue to use remote work. Gender, educational environment, years of study, depression, and chronic illness have all been recognized as determinants of students' quality of being. According to studies, students between the ages of 16 and 25 have been found to experience tension, anxiety, and depressed tendencies, according to studies (Mahmoud et al., 2012). During COVID-19's lockdown period, elements such as changes in academic structures, tests, and a battle with limited resources have been linked to anxiety, tension, frustration, and depressive illnesses. As a result, social networking serves as a coping mechanism due to its ease of use and popularity, despite its harmful physical and mental health effects.

Measuring students' quality of life in response to the COVID-19 pandemic is lacking, particularly after the movement lockdown. Therefore, this study analyzes the quality of life of students before and during pandemic based on social and self-concept questionnaires dealing with the pandemic and resources in the new normal.

1.1 Objectives

Generally, the study aims to measure the students' quality of life before and during the COVID-19 Pandemic. Specifically, it intends to determine the difference in the quality of life of students before and during the pandemic based on Self-Concept, to understand the experiences of the students adjusting to the "new normal", and to study and identify different factors or changes that affect the quality of life of the students during this pandemic.

This study will provide knowledge for students about how pandemic affects students' quality of life both before and during the pandemic. This can serve as a guide for students in terms of how effectively they can manage their emotions and behavior in situations in the new normal. In addition, the results of this study will also enable teachers to assess students' academic performance and how their quality of life changed before and throughout the pandemic. This study will serve as a guide for teachers on how to handle teaching methods in some situations, allowing students to perform better academically before and during a pandemic. And for parents, this study will also provide parents with information on how their children's behavior affects their quality of life before and during the pandemic, based on the data provided. The results of this study will guide parents to understand the behavior of their child before and throughout the pandemic, parents can use this to develop activities to inspire and encourage children to focus on their goals and achieve success without worrying.

2. Literature Review

2.1. Impact of COVID-19 on Students

The emergence of Coronavirus disease (COVID-19) has led the world to an unprecedented public health crisis. Emergency protocols were implemented in India to take control of preventing the virus to spread which resulted in restrictions on all non-essential public movements ([Saha et al. 2020](#)). With the closure of educational institutions, the need for a rapid transition from physical learning to online learning emerged ([Kapasia et al. 2020](#)). Online learning has been observed as a possible alternative to conventional learning ([Adnan and Anwar 2020](#)).

The findings on academic outcomes indicate that COVID-19 has led to a large number of students delaying graduation (13%), withdrawing from classes (11%), and intending to change majors (12%). Moreover, approximately 50% of our sample separately reported a decrease in study hours and their academic performance. Predicting the longer-term impact of the pandemic on student achievement is more difficult, but students reported that they expect to take a break from college in the fall 2020 semester at more than twice the rate in previous years (Zafar,2020). As expected, the COVID-19 outbreak also had large negative effects on students' current labor market participation and expectations about post-college labor outcomes. Working students suffered a 31% decrease in their wages and a 37% drop in weekly hours worked on average. Moreover, around 40% of students lost a job, internship, or job offer, and 61% reported having a family member that experienced a reduction in income (Araya,2020).

Broadly identified challenges with e-learning are accessibility, affordability, flexibility, learning pedagogy, lifelong learning, and educational policy (Murgatroyd, 2020). Many countries have substantial issues with a reliable Internet connection and access to digital devices. While, in many developing countries, economically backward children are unable to afford online learning devices, online education poses a risk of exposure to increased screen time for the learner. E-learning tools have played a crucial role during this pandemic, helping schools and universities facilitate student learning during the closure of universities and schools (Subedi et al., 2020). While adapting to the new changes, staff and student readiness needs to be gauged and supported accordingly. The learners with a fixed mindset find it difficult to adapt and adjust, whereas the learners with a growth mindset quickly adapt to a new learning environment. There is no one-size-fits-all pedagogy for online learning. There are a variety of subjects with varying needs. Different subjects and age groups require different approaches to online learning (Doucet et al., 2020). Online learning also allows physically challenged students with more freedom to participate in learning in the virtual environment, requiring limited movement (Basilaia & Kvavadze, 2020).

2.2. Mental health and quality of life during Pandemic

Countries throughout the world are currently under "lockdown," which forces individuals to stay at home and maintain social distance to avoid getting or transmitting COVID-19 and breaking the transmission cycle. It is still unclear

whether the Philippine lockdown is working, as the country's health system is more stretched by the ongoing crisis. While the lockdown and other public health measures are intended to prevent people from becoming infected with COVID-19, there are unexpected effects on the mental health of the most vulnerable people, those who are subjected to the strictest quarantine (Lapid, 2020). The emergence of a pandemic caused stress to various levels of society (WHO, 2020). There are several research studies related to the occurrence of a pandemic such as SARS and bird flu that have shown a negative impact on the mental health of people.

In the case of the Philippines, successive strong and super typhoons: Molave, Goni, and Vamco devastated the country between October to November 2020. These typhoons resulted in flash floods, storm surges, landslides, and debris flow that damaged houses, public infrastructures, and farms and resulted in the loss of lives. The natural disasters put the country's health system to test, as the temporarily relocated populations complicated the COVID-19 initiatives with an additional burden to the emergency in the country. A double disaster affects the health, safety, and well-being of both individuals and communities. These translate into a range of emotional reactions and unhealthy behaviors such as distress, substance abuse, and non-compliance with public health directives. Tertiary students constitute a particularly vulnerable population for mental health problems considering challenges commonly associated with their transitions to adulthood, as well as the common economic and material difficulties of this population (Cueto and Agaton, 2021).

2.3. Students Coping with the New Normal

During the pandemic, governments closed down schools to reduce the spread of the virus among students, which abruptly shifted the mode of education from traditional classroom instruction to distance learning. However, the lack of face-to-face interaction puts stress on the part of students, particularly on understanding the lessons, completing the academic requirements, and accessing the technology for online learning (Cueto and Agaton, 2021). The COVID-19 pandemic is considered one of the major threats to health and the lives of people today. It also has a great impact on the coping strategies and emotional responses of students. According to the study conducted by Pragholapati (2020), the results found that women showed more fear and anxiety than men.

The year 2020 has been tough. The COVID-19 pandemic has made a huge impact on people's lives all around the world. The Philippines is still dealing with the pandemic and has been listed among the top 20 countries with the most COVID-19 cases, as well as being subjected to the world's longest quarantine. The effect of the pandemic and other situations in 2020 might have a significant impact on college students' stage of life. Despite their fears and frustrations, the students had time to look into themselves and reevaluate their life and goals, leading to positive outcomes. According to the study conducted by JV Cleofas (2020), *Life Interruptions, Learnings, and Hopes among Filipino College Students during COVID-19 Pandemic*.

According to a study conducted by CB Agaton, LJ Cueto (2021), Two concurrent events in the Philippines, the COVID-19 pandemic, and natural disasters, have a significant impact on the lives of Filipino college students. During a double tragedy, students commonly suffer stress, anxiety, and worry. Despite the significant challenges the students encountered in dealing with the effects of a double tragedy, they showed adaptability and resilience that they may not have seen in a classroom setting. It also claimed that, despite their uncertainty about the future, they express hope and optimism, and view themselves as self-reflective, resilient, and socially responsible adults emerging from the pandemic. During the double disaster, there was a positive perspective, fortitude, unity in times of despair, and gratitude for everything they received.

2.4. Psychological Problems in Families

Older Filipinos who at baseline already experience loneliness and have no moral support at home face more challenges. Even though physical distancing is critical to reducing the spread of the virus, the result is that many older individuals are now unable to see friends and family and experience further isolation. Those who do not have access to technology and have very limited resources are often much more isolated and unable to connect with others outside of the home.

According to Magsoy (2020), about 4.5 million Filipinos have lost their jobs this year, with the unemployment rate at 10.4 percent - the highest in 15 years, the government reported, due to the Covid-19 pandemic and the lockdown shuttering thousands of businesses.

During the pandemic, many parents have experienced increased pressures and erosion of social support, with implications for their mental health. In a US survey, the majority of parents expressed that during the pandemic, concerns about finances, social isolation, criticism from others, as well as emotional experiences of sadness and loneliness were affecting their parenting. Globally, school, and childcare closures and the hiatus of after-school activities have added to parental pressure to balance responsibilities, including becoming the sole providers of supervision and education for their children all while experiencing heightened financial and emotional stress. Families, generally, are affected by the disruptions of the pandemic. However, these pressures disproportionately affect families who experience health and social inequities, including fewer financial and social resources, crowded homes, and limited technology and Internet access collision of these stressors have contributed to increases in domestic violence, and emerging studies have shown increased frequency of shouting and physical punishment of children since the pandemic began (Gadermann, 2021).

There were indications that the pandemic was already impacting the mental health and well-being of Canadian children. For example, by April 2020, reports showed a dramatic surge in calls documented by Kids Help Phone, a national helpline for young people, with a 48% increase in calls about social isolation, a 42% increase in calls about anxiety and stress, and a 28% increase in calls about physical abuse. Experts raised alarms that disruptions to routines and services, combined with increased family stressors, social isolation, and domestic violence, were creating conditions that risked increasing child mental health problems on an unprecedented scale, with children from marginalized and socioeconomically disadvantaged backgrounds likely to be disproportionately affected (Richardson, 2021).

3. Methods

The data collected from the survey were analyzed using Minitab software. The statistical measures used were mean standard deviation and standard error for mean. Paired sample t-test was also used to determine the significant difference in the self-concept of the students before and during a pandemic. Descriptive measures and frequency distribution of data were also employed to further analyzed the comparison of the data.

The respondents of the study are 100 random students from high school and college. The students are asked about their quality of life before and during the COVID-19 pandemic based on a self-concept questionnaire. The data was collected from students residing in Laguna, Philippines. The Self-Concept Questionnaire (SCQ) designed and standardized by Robson was used for this research study. The SCQ is a self-report scale measuring self-esteem (Robson, 1989) of an individual. It consists of 40-item questions and scoring is performed on a 5-point scale, ranging from 1 to 5. The individual is asked to indicate how much they agree or disagree with each statement, according to how they typically feel. A total score of 120 and above indicates a positive self-concept, a score between 80-119 indicates a neutral self-concept and a score of 79 and below indicates a negative self-concept. Other pertinent data to measure the changes in the quality of life of students before and during the pandemic were also gathered from the respondents such as the monthly income of a household before and during the pandemic as well as living conditions before and during a pandemic. The demographic profile of the respondents was also gathered such as gender, age, educational level, religion, and the number of household members.

4. Results and Discussion

4.1. Summary of Respondents' Profile

Table 1 shows the demographic profile of the respondents. Five demographic questions were included in the survey questionnaire to gain further understanding of the respondents' profile such as gender, age, educational level, religion, and no. of household members. The majority of respondents were females (56.1%). The majority of the respondents were between the ages of 21 and above (53.5%) and most are college students (77.2%). Most of the respondents are catholic (68.4%) and the majority have 5 five household members in the family (39.5%).

Table 1. Summary of Respondents' Profile

Respondents' Profile	Category	N	%
Gender	Male	50	43.9%
	Female	64	56.1%
Age	15 and below	8	7.0%
	16-18	19	16.7%
	19-20	26	22.8%
	21 and above	61	53.5%
Educational Level	High School	23	20.2%
	College	88	77.2%
	Post-graduate	2	1.8%
Religion	Catholic	78	68.4%
	Christian	32	28.1%
	Others	4	3.5%
No. of household members	3	10	8.8%
	4	30	26.3%
	5	45	39.5%
	6	29	25.4%

4.2. Comparison of Monthly Income Before and During Pandemic

Table 2 shows the respondent's parents' monthly income before and during the pandemic. Based on the result, most of the respondents' parents earned between Php20,000 and Php40,000 per month before the pandemic, with a total of (23.7 %). On the other hand, most respondents were still earning at the same salary level as before the pandemic, with a total of (26.3 %). Some of the income ranges were increased during the pandemic, while others were dropped, affecting the respondents' earning percentages before the pandemic, as shown in Figure 1.

Table 2. Comparison of Monthly Income Before and During Pandemic

Before pandemic			During pandemic		
Income Bracket	Frequency	%	Income Bracket	Frequency	%
10,000 and below	11	9.6%	10,000 and below	18	15.8%
10,000-20,000	12	10.5%	10,000-20,000	14	12.3%
20,000-40,000	27	23.7%	20,000-40,000	30	26.3%
40,000-70,000	22	19.3%	40,000-70,000	14	12.3%
70,000-130,000	25	21.9%	70,000-130,000	26	22.8%
130,000-200,000	12	10.5%	130,000-200,000	9	7.9%
200,000 and above	5	4.4%	200,000 and above	3	2.6%

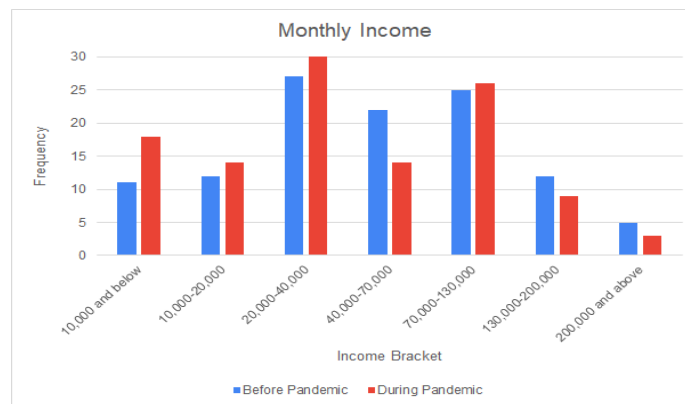


Figure 1. Graph Comparing Monthly Income before and During Pandemic

4.3. Comparison of Living Conditions Before and During Pandemic

Table 3 shows the living condition of students before and during the pandemic. The residence type of the students is also shown in the table. In column 1 (Before pandemic), family homes had the highest frequency (91 and a percentage of 79.8%) compared to apartment (9 and a percentage of 7.9%), townhouse (10 and a percentage of 8.8%), and condominium (4 and a percentage of 3.5%). We can see that most students are residing at their family home, and few students live in condominiums before the pandemic. On the other hand, in column 2 (During pandemic), changes in the frequency and percentage can be seen in the residence type of the students—the frequency and percentage of family homes and apartments increases.

In comparison, the number of students residing in townhouses and condominiums decreases during the pandemic. As shown in Table 3, some families have increased monthly earnings, and some of them have decreased monthly income. Therefore, changes in the residence type of the students may be due to families earning a higher amount of income and families who are earning lower amounts of income during the pandemic.

Table 3. Comparison of Living Condition Before and During Pandemic

Type of residence	Before pandemic		During pandemic	
	Frequency	%	Frequency	%
Family home	91	79.8%	92	80.7%
Apartment	9	7.9%	11	9.6%
Townhouse	10	8.8%	9	7.9%
Condominium	4	3.5%	2	1.8%

4.4. Summary Result of Self-Concept Questionnaire

Table 4 shows the summary of the Self-concept score before and during the pandemic. Before the pandemic, 1.8% of respondents have a negative self-concept and show signs of being sensitive to criticism, having difficulties relating with people in a social context, feeling unable to communicate with others, and being unable to meet their desires and needs. When it comes to positive self-concept, 66.7% of respondents believe they can cope with problems and rehabilitate themselves. On the other hand, 31.6% have a neutral self-concept.

However, during the pandemic, 2.6% have a negative self-concept and exhibit signs of being sensitive to criticism, having difficulty engaging with people in a social situation, feeling unable to communicate with others, and unable to meet their desires and requirements. In terms of positive self-concept, 52.6% think they can deal with challenges and rehabilitate themselves. 44.7%, on the other hand, have a neutral self-concept.

Table 4. Summary Result of Self-Concept Questionnaire

Before Pandemic			During Pandemic		
Perceived self-concept	Frequency	%	Perceived self-concept	Frequency	%
Negative self-concept	2	1.80%	Negative self-concept	3	2.60%
Neutral self-concept	36	31.60%	Neutral self-concept	51	44.70%
Positive self-concept	76	66.70%	Positive self-concept	60	52.60%

4.5. Result of Paired Sample T-Test

Based on the paired sample t-test performed on the data on the self-concept of students before and during the pandemic as shown in Table 5, it was proved that 15 items out of 40 items in the self-concept questionnaire have significant differences before and during the pandemic. These items are the following: overcoming future obstacles, excessively anxiety or stress, holding back from accomplishment, difficulty speaking to groups of people, peoples' reactions, being sensitive, accomplishments, fear of saying wrong things, abnormal feelings, afraid to find out true self, self-consciousness, socialize, guilt feeling, productivity, talent, positive/natural feeling, bad experiences, and confidence in new situations. Based on the calculated mean scores for all significant items, it shows a decrease in the score of self-concept of the students during the pandemic. Overall, there is a significant difference between the quality of life of students before and during a pandemic.

Table 5. Result of Paired Sample T-Test

Items	Condition	Mean	Std. Dev.	SE Mean	p-value	Remarks
1	Before	3.386	0.888	0.083	0.147	not significant
	During	3.237	1.091	0.102		
2	Before	3.395	1.061	0.099	0.236	not significant
	During	3.228	1.198	0.112		
3	Before	3.353	1.049	0.098	0.089	not significant
	During	3.333	1.142	0.107		
4	Before	3.386	1.060	0.099	0.050	significant
	During	3.105	1.076	0.101		
5	Before	3.298	1.182	0.111	0.124	not significant
	During	3.491	1.154	0.108		
6	Before	3.263	1.269	0.119	0.373	not significant
	During	3.158	1.202	0.113		
7	Before	3.491	1.154	0.108	0.314	not significant
	During	3.368	1.131	0.106		
8	Before	3.404	1.127	0.106	0.651	not significant
	During	3.465	1.099	0.103		
9	Before	3.132	1.164	0.109	0.190	not significant
	During	3.307	1.145	0.107		
10	Before	3.509	1.139	0.107	0.079	not significant
	During	3.272	1.199	0.112		
11	Before	3.035	1.159	0.109	0.005	significant
	During	2.649	1.344	0.126		
12	Before	3.009	1.208	0.113	0.360	not significant
	During	2.912	1.266	0.119		
13	Before	3.553	1.220	0.114	0.004	significant
	During	3.193	1.289	0.121		
14	Before	3.123	1.235	0.116	0.431	not significant
	During	3.128	1.241	0.116		
15	Before	3.377	1.163	0.109	0.002	significant
	During	2.965	1.174	0.110		
16	Before	2.816	1.149	0.108	0.622	not significant
	During	2.877	1.146	0.107		
17	Before	3.123	1.049	0.098	0.519	not significant
	During	3.044	1.200	0.112		
18	Before	3.254	1.029	0.096	0.021	significant
	During	3.018	1.113	0.104		
19	Before	3.254	1.302	0.122	0.001	significant
	During	2.825	1.243	0.116		
20	Before	3.228	1.105	0.104	0.100	not significant
	During	3.044	1.122	0.114		
21	Before	3.211	1.215	0.114	0.042	significant
	During	2.965	1.226	0.115		
22	Before	3.430	1.136	0.160	0.000	significant
	During	3.000	1.190	0.111		
23	Before	3.667	1.195	1.112	0.001	significant
	During	3.263	1.190	0.111		
24	Before	3.482	1.177	0.110	0.003	significant
	During	3.123	1.213	0.114		
25	Before	3.316	1.207	0.113	0.944	not significant
	During	3.307	1.130	0.106		
26	Before	2.921	1.057	0.099	0.269	not significant
	During	3.035	1.088	0.102		
27	Before	2.965	1.212	0.113	0.004	significant
	During	2.640	1.098	0.103		
28	Before	3.553	1.191	0.112	0.001	significant
	During	3.149	1.184	0.111		

29	Before	3.167	1.096	0.103	0.027	significant
	During	2.895	1.116	0.105		
30	Before	3.140	1.151	0.108	0.000	significant
	During	2.596	1.246	0.117		
31	Before	3.246	1.044	0.098	0.588	not significant
	During	3.307	1.065	0.100		
32	Before	2.851	1.138	0.107	0.719	not significant
	During	2.807	1.104	0.103		
33	Before	3.018	1.022	0.096	0.270	not significant
	During	3.140	1.060	0.100		
34	Before	3.009	1.101	0.103	0.004	significant
	During	2.684	1.139	0.107		
35	Before	3.623	1.059	0.099	0.016	significant
	During	3.377	1.147	0.107		
36	Before	3.228	1.105	0.104	0.041	significant
	During	2.947	1.128	0.106		
37	Before	3.202	0.988	0.093	0.056	not significant
	During	2.991	1.043	0.098		
38	Before	3.535	1.146	0.107	0.007	significant
	During	3.211	1.230	0.115		
39	Before	3.018	1.262	0.118	0.339	not significant
	During	2.895	1.353	0.127		
40	Before	3.439	3.074	0.288	0.024	significant
	During	2.807	1.254	0.117		
Overall	Before	130.340	24.130	2.260	0.000	significant
	During	122.860	24.300	2.280		

5. Conclusion

Based on all the data gathered, we can conclude that there is a significant difference in students' quality of life before and during the pandemic. The majority of respondents had a significant decrease in their self-concept during the pandemic as compared to before the pandemic. Before the pandemic, the following are percentage distribution of students' self-concept scores: negative (1.8%), neutral (31.6%), and positive (66.7%). However, during the pandemic, the positive self-concept score dropped to 52.6%, while neutral self-concept rose to 44.7% and negative self-concept rose to 2.6%. According to the result of paired sample t-test, there is a significant difference in the quality of life of students before and during the pandemic in the areas of overcoming future obstacles, excessive anxiety, or stress, holding back from accomplishment, difficulty speaking to groups of people, people's reaction, being sensitive, accomplishments, and fear of socializing. Based on the calculated mean scores for all significant items, it shows a decrease in the score of self-concept of the students during the pandemic.

In this study, the researchers also measured the difference in the quality of life of students in terms of the monthly income of parents and their living conditions before and during the pandemic. The parents with monthly income before pandemic of 70,000 and above decreased during the pandemic and some of them are now earning 70,000 and below. For the comparison of living conditions before and during the pandemic with choices between family home, apartment, townhouse, and condominium. During the pandemic, students living in family homes and apartments increased while living in townhouses and condominiums decreased. Students living in condominiums decreased significantly during the pandemic. Overall, we can conclude that there is a significant difference between the quality of life of students before and during a pandemic.

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Biographies

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