

# Ways of Coping and Mental Health among Nursing Students Transitioning from Online Learning to In-Person Classes in a University Setting

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## ABSTRACT

**Background:** Education is one of the sectors where the COVID-19 pandemic has had the biggest impact. Schools all throughout the world had to make adjustments, and after many years, virtual learning is now transitioning back to traditional in-person learning. During the Pandemic, concerns about mental and psychological health are becoming increasingly prevalent, especially among university students. **Objective:** The purpose of this study is to analyze the impact of shifting from online or virtual classrooms to in-person classes on nursing students' mental health and coping strategies. **Methods:** A cross-sectional and descriptive-correlational research design with a survey questionnaire was used among 405 nursing students from Mindanao State University's College of Health Sciences to determine how nursing students adjust to returning to school after more than two years of taking online classes due to pandemic restrictions. **Results:** The study revealed that the students' psychological well-being was much higher than their emotional and social well-being. This study's findings demonstrated a substantial positive correlation between nursing students' proactive coping and mental wellbeing, implying that as proactive coping improves, so does mental wellbeing. **Conclusion:** It can be concluded that utilizing proactive coping methods helps nursing students maintain their mental health when transitioning from online to face-to-face classes. The current study's findings suggest that proactive coping practices contribute significantly to mental health.

**Keywords:** COVID-19; Mental Health; Nursing Students; Ways of Coping

## INTRODUCTION

The Coronavirus disease (COVID-19) pandemic has caused various problems in the Philippines and throughout the world. Education has been among these problems. Philippines, being among the last countries globally to reintroduce full-time, in-person instruction, has raised concerns that the prolonged closure of classrooms has worsened the nation's education crisis (Al Jazeera and News Agencies, 2022). Additionally, a cross-country comparison revealed that the Philippines was included in the countries with the greatest levels of stress, anxiety, and depression during pandemics (Wang *et al.*, 2020). Mental and psychological health concerns are a growing concern during pandemics. Soon after COVID-19 was designated a pandemic in March 2020 (Cucinotta & Vanelli, 2020), authorities and experts warned of the potential impact of the public health crisis on mental health and the resulting increase in mental health concerns.

Numerous studies have been conducted to evaluate the effect of the pandemic on students' academic lives. Stress and anxiety negatively impact nursing students' professional identity development and health (Altiok & Üstün, 2013; Edwards *et al.*, 2010). These adverse effects are directly attributable to their coping strategies (Ergini *et al.*, 2018; Seyedfatemi, Tafreshi, & Hagani, 2007). Students do not use effective coping strategies during stressful situations, according to previous research (Ozkan & Yilmaz, 2010). Limited research exists regarding the mental health and stress management strategies employed by nursing students who have shifted from online and homeschooling to in-person classes within a university setting. As a result, this study aims to investigate the adaptation process of nursing students as they return to face to face classes following a period of over two years characterized by online classes due to pandemic-related restrictions. This study aims to assess the impact of the change from online or virtual classes to in-person classes in a university setting on the coping strategies and mental health of nursing students.

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## METHODOLOGY

### Research Design

This study aims to assess the correlation between mental health and ways of coping among nursing students transitioning from online or virtual classes to in-person classes in a university setting. To achieve this fundamental thrust, a cross-sectional and descriptive-correlational research design was employed using a survey questionnaire.

A descriptive design was employed to describe the demographic features, stress management strategies during this transition period, and mental health state of the respondents. Concurrently, a correlation study endeavors to ascertain if and how two or more quantitative variables exhibit a relationship or connection (Creswell & Clark, 2017). Correlation analysis was determined to be appropriate for establishing the existence of significant connections between the students' demographic features, proactive coping scores, and mental health scores. The degree of linkage was expressed using correlation coefficients.

### Participants

The study's population included 405 nursing students from all year levels at Mindanao State University's College of Health Sciences during the first semester of the academic year 2022-2023. The respondents in the study were selected using stratified proportionate and systematic random sampling techniques. In this study, the population group was divided proportionally into four homogeneous subpopulations based on a specific characteristic (i.e., year level) to achieve a representative sample for all year levels and to offer each element of the population an equal chance of being picked without replacement. All nursing students who were listed on the official master list of students were eligible to take part in the study as part of the inclusion criteria. The names of those who declined to participate, as well as those who were under 18 years old, were excluded from the list of participants.

### Research Instrument

This study utilized a structured questionnaire including closed-ended questions, consisting of three sections, two of which were adapted from previous studies and validated by several authors. The first section included questions with regard to the students' demographic characteristics, such as age, grade level, gender, marital status, birth order, family monthly income, and living arrangements while studying.

The subsequent section of the research instrument utilized the Proactive Coping Inventory to assess the strategies students have employed in managing stress and addressing challenges during their transition back to in-person classes (Greenglass *et al.*, 1999). The Proactive Coping Inventory (PCI) is a questionnaire designed to examine skills in coping with distress as well as those that promote improved well-being and life satisfaction. The PCI is divided into seven subscales: proactive coping (14 items), preventive coping (11 items), reflective coping (11 items), strategic planning (4 items), instrumental support seeking (8 things), emotional support seeking (5 items), and avoidance coping. Each subscale has a distinct set of items.

Keyes (2006) developed a technique called the Mental Health Continuum Short Form (MHC-SF) to assess the pupils' mental health. The assessment was carried out in terms of the three dimensions of well-being, which are as follows: emotional well-being, psychological well-being, and social well-being. The MHC-SF is comprised of 14 questions, all of which were chosen because they are the most archetypal items for their respective facets of the definition of the wellbeing construct.

### Validity and Reliability of the Instruments

The internal consistency of the Proactive Coping Inventory scale was high, as demonstrated by reliability values of 0.85 and 0.80. Greenglass *et al.* (1999) used principal component analysis to demonstrate the validity and homogeneity of its factorial structure.

### Data Collection

The primary data were gathered from surveys of nursing students enrolled at Mindanao State University's Main Campus in Marawi City's College of Health Sciences. Those who refused to participate in the study were not replaced with other names from the list. The survey instrument, informed consent form, as well as an invitation

letter detailing the risks, purpose, and benefits of involvement in the study, as well as instructions for completing the questionnaires, were distributed to the students through their respective level advisers. Permission for the research was obtained in writing from the Dean of the College of Health Sciences. Following the collection of completed surveys, the data were tallied, tabulated, and examined with the appropriate statistical tools. All research activities were monitored by the criteria issued by the Research Ethics Committee of Mindanao State University, Marawi City (MSUMAIN-REC) to guarantee that this research study complied with ethical standards. The research proposal was submitted to the MSUMAIN-REC for review prior to the conduct of the study.

### **Data Analysis**

All data computations in this study were performed using IBM Statistical Package and Service Solution (IBM-SPSS) version 29. Inferential statistics were employed to test whether there was a significant association between the key variables, and Regression analysis was employed to determine relationships among factors.

The statistical tools and techniques used in the study for in-depth data analysis were Descriptive statistics, including frequencies and percentages. These were used to describe the demographic characteristics of the students and to classify them in terms of their ways of coping and mental health status, while means and standard deviations were calculated for the students' scores on the seven subscales of the Proactive Coping Inventory and the three dimensions of mental well-being. Ranking was used to determine the students' extent of coping and level of mental well-being by ranking the students' responses from lowest to highest based on their frequencies and percentages.

### **Ethical Consideration**

The study obtained ethics approval from the Research Ethics Committee of Mindanao State University, Marawi City (MSUMAIN-REC) on October 23, 2022, with reference number MSUM-REC Code 2022-010.

## **RESULTS**

### **Respondent's Demographic Characteristics**

In order to ensure proportional representation, the population group was divided into four homogeneous subpopulations based on grade level. The following are the year-level sample sizes: 16% for first-year students, 36% for second-year students, 21% for third-year students, and 26% for fourth-year students. Only 398 of the 405 students invited took part in the survey, with a response rate of 98.2%.

Female students outnumber male students in the survey. This accounts for 88.9% (354) of the sample, with male students accounting for 11.1% (44) of the total. The great majority of those polled are unmarried. This accounts for 96% (382), despite the fact that just 4% (16) of respondents are married. The respondents' ages range from 18 to 24, with a median of 21. Actual age is divided into three categories: 18 to 20, 21 to 23, and 24 and higher. The majority of respondents, 208 (52%), are between the ages of 21 and 23, while 183 (46%) are between the ages of 18 and 20.

### **Ways of Coping**

The mean composite score for PCI was 2.95, as shown in Table 1. This composite score indicates that when asked about their potential reactions and ways of coping with various scenarios as they return to face-to-face classes during the transition period, the students rated their reactions as 'somewhat true.' The majority of respondents believed three statements from the proactive coping subscale and two statements from the preventive coping subscale to be 'completely true' as a means of coping with the challenges of face-to-face classes.

According to Table 1, the total PCI score of the respondents was 162.33, indicating a below-average score based on the median score. This interpretation is based on the seven subscales that are used to interpret PCI composite subscale scores. Women are more likely than men to use the coping methods of reflective coping ( $M = 3.07$ ), strategic planning ( $M = 3.05$ ), preventive coping ( $M = 3.01$ ), instrumental support seeking ( $M = 2.92$ ), and emotional support seeking ( $M = 2.73$ ), according to the findings. Males, on the other hand, are more likely than females to use proactive ( $M = 2.96$ ) and avoidance ( $M = 2.82$ ) coping techniques. This would suggest that women tend to cope more reflectively and introspectively. In other words, they would prepare in advance. The results would also suggest that men are more likely to avoid problems completely or address them in a more direct manner.

**Table 1: Respondents' Scores on the Subscales of Proactive Coping**

Subscales	Score	Mean	Male	Female	Interpretation
Reflective Coping	33.68	3.06	3.02	3.07	Somewhat true
Strategic Planning	12.05	3.03	2.91	3.05	Somewhat true
Preventive Coping	29.99	3.00	2.94	3.01	Somewhat true
Instrumental Support	23.20	2.91	2.90	2.92	Somewhat true
Proactive Coping	41.40	2.90	2.96	2.90	Somewhat true
Avoidance Coping	8.38	2.79	2.82	2.79	Somewhat true
Emotional Support	13.59	2.71	2.65	2.73	Somewhat true
<b>Composite</b>	162.33	2.95	2.89	2.92	Somewhat true

Note: N = 398; Median = 166.5

Scaling: 1.00 - 1.74 = Not at all true; 1.75 - 2.49 = Barely true; 2.50 - 3.24 = Somewhat true; 3.25 - 4.00 = Completely true

### Mental Wellbeing

Three items reflected emotional well-being: cheerful, interested in life, and contented. Six items indicated psychological well-being, one from each of the six dimensions: self-acceptance, environmental mastery, positive relationships with others, personal growth, autonomy, and life purpose. The final category, social well-being, was represented by five items, one from each of the five dimensions: social contribution, social actualization, social integration, and social coherence.

The average composite MHC-SF score was 2.97 (see Table 2). This composite score indicates that, when asked how often they experienced each symptom of positive mental health in the past month, students reported that it occurred 'about 2 or 3 times a week'. This indicates that in the month prior to taking the survey, respondents expressed experiencing each of the three characteristics of wellbeing roughly twice or three times each week on average. In the context of social wellbeing, however, respondents reported feeling 'approximately once a week' (M = 2.45) that our society is a good place or is becoming a better one for all individuals. On the subscale of psychological wellbeing, respondents indicated that they had experiences that challenged them to grow and become better people 'almost every day' (M = 3.48).

**Table 2: Subscales of Mental Health Continuous Short-Form**

Subscales	Mean
Psychological Wellbeing	3.13
Emotional Wellbeing	3.11
Social Wellbeing	2.74
Mental Wellbeing Total Score <sup>a</sup>	2.99

a The MHC-SF was scored on a Likert scale from 0 to 5.

The findings show that the level of the respondents' psychological wellbeing was much higher compared to their levels of emotional and social wellbeing. The mean score for the subscale of psychological well-being was the highest (M = 3.13), followed by Emotional well-being (M = 3.11). The mean score for the social well-being subscale was the lowest (M = 2.74).

**Table 3: Respondents' Mental Wellbeing Classification**

Classification	n	%
Moderately mentally healthy <sup>a</sup>	207	52.0
Flourishing <sup>b</sup>	182	45.8
Languishing <sup>c</sup>	9	2.26
Total	398	100.0

a Reflects the number and percentage of participants with a mean score between 15-27 on the MHC-SF questionnaire.

b Reflects the number and percentage of participants with a mean score between 28-70 on the MHC-SF questionnaire

c Reflects the number and percentage of participants with a mean score between 0-14 on the MHC-SF questionnaire



According to the findings presented in Table 3, nearly one-half of the students (n = 182), or 45.8% of the total sample, were rated as having excellent mental health (i.e., flourishing mental wellbeing). More than half of the respondents (52%) were comprised of individuals who were rated as having a moderately healthy mental health status (n = 207). It was discovered that only nine students (2.26%) were experiencing a worsening of their mental health (i.e., languishing mental wellbeing). Despite that, this number is still enough to warrant consideration. Proactive Coping and Mental Wellbeing

**Table 4: Spearman Correlations Between Proactive Coping and Mental Wellbeing**

Variable	Correlation Value	p-Value	Interpretation	Decision
Proactive Coping <sup>a</sup>	0.581**	< 0.001	Significant	Reject H0 <sub>3</sub>
Mental Wellbeing <sup>b</sup>				

Note: Correlation is significant at the \*\*p.01 (2-tailed)

a 1=Not at all true, 2=Barely true, 3=Somewhat true, 4=Completely true

b0 = Never; 1 = Once or twice a month; 2 = About once a week; 3 = About 2 or 3 times a week; 4 = Almost every day; 5 = Everyday

N = 398

df=n-2

Spearman's rank correlation was computed to assess the relationship between points scored on the proactive coping and the mental wellbeing scores. As shown in Table 4.15, there was a moderate, positive monotonic correlation between the two variables,  $r(396) = 0.581, p = 0.01$ . The positive correlation indicates that as scores for proactive coping increase, so do scores for mental wellbeing. This can be interpreted to suggest that as students become more proactive in coping with the challenges of face-to-face classes, their mental health status in terms of the three dimensions of wellbeing—emotional, psychological, and social wellbeing—flourishes and progresses toward positive mental wellbeing.

## DISCUSSION

To ensure that each year level is proportionally represented, the demographic group was split into four homogeneous subpopulations based on their year level. A total of 405 students were sampled. Most of the respondents were aged 21 to 23, followed by those aged 18 to 20, and only a few were aged 24 and older. Due to the implementation of the K-12 curriculum in 2012, a student's basic education has been extended by two years. More than 20% of undergraduates at four-year colleges and universities were older than 24 years old, while the remaining students were between the ages of 18 and 24 (The Hamilton Project, 2017), which is consistent with this study's findings.

The Transactional Model of Stress and Coping proposed by Lazarus states that stress results from the interaction between a person and their environment. Stress develops when events exceed a person's resources and pose a threat to their well-being (Schwarzer & Taubert, 2002). The COVID-19 pandemic resulted in an education crisis all over the world, as well as in the Philippines. Students in the Philippines experienced great levels of stress, anxiety, and depression during the pandemic (Cacayan, Baua, & Alvarado, 2020). It was only recently, in 2021, that in-person classes were permitted in the country. This transition to face-to-face classes after nearly two years of online classes served as an external event that affected the mental well-being of students. Students in the medical field were among those who were the first to transition back to face-to-face classes, as their courses required them to complete practical exercises to learn more effectively. Among these students were nursing students. Studies would show the nursing students' academic development is directly affected by stress and anxiety, while these in turn are affected by their coping behaviors (Altiok & Üstün, 2013; Ergini *et al.*, 2018).

This study found that the respondents tend to utilize reflective coping, followed by strategic planning, preventive coping, instrumental support seeking, proactive coping, avoidance coping, and emotional support seeking. The avoidance coping subscale and emotional support seeking subscales had the lowest mean scores, which means that respondents would tend to approach their problems, devise a strategy to solve their problems, and try to find meaning in what is happening to them. Instrumental support-seeking had a higher mean score than emotional support-seeking, which would imply that the respondents' preferred concrete measures to cope.

In the context of Lazarus and Folkman's Transactional Model of Stress and Coping Theory (2013), the results would

seem to imply that respondents tend to favor problem-focused approaches to coping, followed by meaning-focused coping, and then emotion-focused coping. Rather than avoid their problems, respondents would tend to take a proactive approach and set goals for themselves. The respondents would also tend to be either high proactive copers or low proactive copers, with high proactive copers being those who utilized proactive coping strategies more frequently than low proactive copers.

On average, the respondents rated all of the statements under the following dimensions of reflective coping, instrumental support seeking, emotional support seeking, strategic planning, and avoidance coping as somewhat true, which means that they would utilize these coping strategies with some frequency to deal with the transition back to face-to-face classes. These findings are consistent with the findings of a study conducted in Israel (Savitsky *et al.*, 2020), which discovered that nursing students in Israel used the following coping strategies: resilience, seeking knowledge and counsel, mental disengagement, spiritual and nonscientific sources of support, and humor. Resilience can be compared to proactive coping, mental disengagement with avoidance coping, seeking knowledge and counsel with emotional support seeking, and finally spiritual and nonscientific sources of support and humor with instrumental support seeking.

The findings are also consistent with prior research that revealed that positive and problem-oriented coping methods were more commonly adopted in the wake of the COVID-19 pandemic (Huang & Zhau, 2020; Cheung, Fong, & Bressington, 2021). This is also consistent with Lazarus (2013) Transactional Model of Stress and Coping Theory and the findings of this study, which revealed that the PCI dimensions that could fall under problem-focused approaches to coping—such as reflective coping, strategic planning, and preventive coping—were the most frequently used approaches to coping.

This study found that the vast majority of respondents had flourishing and moderately healthy mental wellbeing, while only a small minority had mental wellbeing that was deteriorating. This would indicate that the mental health of nursing students is generally positive. This would imply that the return to traditional classroom settings has been beneficial for their general mental health as a whole. Previous studies have found that among the effects of the COVID-19 pandemic was its detrimental effect on the mental well-being of people (Wang *et al.*, 2020). A study found that the COVID-19 pandemic caused symptoms of PTSD, depression, anxiety, stress, and insomnia in nursing students in China (Gao *et al.*, 2021). It was also found that the stress nursing students face in dealing with their academic obligations could also affect their mental health (Hamadi *et al.*, 2021). Another study found that the level of stress experienced by university students is likely to increase due to a particularly demanding academic program, examinations, and receiving low grades (Mboya *et al.*, 2020). The pandemic affected student performance and student performance evaluations in countries that resorted to online classes (El Masri & Sabzalieva, 2020). The study thus imply that the students may feel a measure of relief returning to their previous mode of learning and assessment, which they are more familiar with, that of face-to-face classes. By returning to face-to-face classes, they no longer have to deal with stressors brought about by online classes caused by the pandemic, such as irritation caused by faulty internet connections and anxiety caused by disruptions in their regular routine and in the submission of their student work (Savitsky *et al.*, 2020).

The findings indicate that the majority of the nursing students have experienced positive mental health symptoms twice or three times per week over the past month. This suggests that as long as they are in face-to-face classes, the respondents can continue to maintain their mental health, even in a pandemic situation. This result was anticipated. The results of this study revealed a substantial positive link between nursing students' proactive coping and mental wellbeing, implying that as proactive coping improves, so does mental wellbeing. This research implies that as students practice proactive coping more regularly, their mental health improves. This is in line with research findings that show how coping, and adjustment are related. According to research by Gan, Hu, and Zhang (2010), proactive coping positively affects college students' adjustment during their time at the university. Students who used more proactive coping techniques also reported having better mental health. Numerous studies on adolescents proactive coping have found that it is an effective stress management approach and is connected with adolescent well-being, adjustment, and self-efficacy (Tharbe, 2006; Gan, Hu, & Zhang, 2010; Bogdan, Rioux, & Negovan, 2012; Kadiravan & Kumar, 2012; Kumar & Bharti, 2018).

Previous studies have shown that healthy coping mechanisms are related to a student's capacity to make healthy behavioral adjustments as well as a reduction in depressive symptoms and suicidal ideation (Savitsky *et al.*, 2020). According to Logel, Oreopoulos, and Petronijevic (2021), as students suffer mental health concerns during the pandemic, understanding the coping mechanisms they employ may help illuminate their experience and point to ways in which schools might support their performance and well-being.

The findings would indicate that avoidance coping, and emotional support seeking were the least frequently

employed methods and that only a small percentage of respondents had deteriorating mental health. This may be since nursing students are more familiar with healthy methods of stress management and coping, as well as having a greater awareness of mental health and knowledge of how to maintain mental health. This is consistent with research findings that medical and healthcare students are more likely than students in other fields to use adaptive coping methods to manage stress or mental health issues (Al-Dubai *et al.*, 2011).

The proactive person strives for betterment in his or her life and surroundings. Proactive coping discusses what pushes people to set lofty goals and commit to personal quality management. Individuals who score high on the Proactive Coping subscale are perceived to have beliefs that have a strong potential for change, particularly in ways that benefit themselves and their surroundings (Schwarzer & Taubert, 2002). Self-improvement and taking charge of one's own destiny, in a manner of speaking, thus have a positive impact on the mindset of a proactive person. This is especially true in an uncontrollable situation such as a pandemic or a time of great change such as the transition back to online classes. Nursing educators should strive to strike a balance between selecting appropriate teaching methodologies and offering a supportive role in safeguarding their students' mental well-being (Kishore, Kunjukunju, & Yusof, 2022).

The expected outcome of this study would be to utilize this research to support education initiatives and policies at the community, municipal, and regional levels. This can be done through awareness-raising activities by incorporating the findings into workshops and learning sessions for faculty members. The findings of the study may be advantageous to the following target beneficiaries in numerous ways:

**Nursing Students.** This study will aid students in evaluating their mental health and stress management as they transition to in-person classrooms following a stressful occurrence such as a pandemic.

**Educators.** In addition, this research will help educators embrace their responsibilities toward students and become more empathetic. Due to their direct responsibility for their students' academic achievement, teachers must provide adequate supervision during this transition period.

**Parents.** This study's findings will provide parents with recommendations on how to motivate their children to achieve academic success. Students have the greatest need for their parents' undivided attention and assistance.

**Guidance Counsellors.** This study will advocate for the mental health of all students by raising awareness and issues and recommending academic, career, and social/emotional development evaluation and advice, short-term counseling interventions, and referrals to community resources for long-term support by the school counselor.

## **CONCLUSION**

This study demonstrated that some demographic variables, including age, marital status, year level, monthly family income, and living situation, were significantly correlated with improved mental health among undergraduate nursing students during the period of returning to face-to-face university classes. This partially confirmed the hypothesis that demographic factors would predict students' mental health during the transitional period. In addition, it is abundantly clear from the findings of this study that the utilization of proactive coping strategies emerged as the single most significant predictor of mental wellbeing among nursing students. Given this context, it can be inferred that students who employ proactive coping strategies are more likely to achieve positive mental well-being, encompassing aspects such as autonomy, personal growth, sound interpersonal connections, clear life goals, and self-acceptance.

Thus, it can be concluded that using proactive coping mechanisms assists nursing students in maintaining their mental health when they make the transition from online to face-to-face classes. The findings of the current study indicate that proactive coping strategies offer a significant degree of protection to the mental health of nursing students. These findings may provide helpful and insightful recommendations for protecting college students from issues related to their mental health.

The findings of this study lend credence to the contention made by Lazarus (2013) in their Transactional Model of Stress and Coping Theory that coping can take on a number of different forms. As a result of the findings of the study, it is possible to draw the conclusion that nursing students utilized problem-focused, emotion-focused, and meaning-focused coping strategies in order to manage the stress brought on by the transition from online to face-to-face instruction.

## **Conflict of Interest**

The author declares no conflict of interest in preparing this research.

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