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Research Paper

Stress Level and Use of Coping Strategies Among Nursing Students During the Pandemic Period: Looking Back and Reflecting its Impact

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Abstract

This study aims to assess the stress level of nursing students in different settings and their use of coping strategies during the pandemic. The researchers used a descriptive-correlation research design for 288 nursing students purposively selected for the study. The study took place during the academic year of 2022-2023. The study also employed three (3) research tools for the data gathering. The data was subjected to descriptive and inferential analysis using SPSS 23. In general, the study found that in terms of stress level, the nursing students remarked "moderately high," as for the coping strategies, they "sometimes" used them. The inferential computation also observed significant variations in the stress level in the study in terms of gender, age, school, and year level.

Moreover, there was a low positive relationship between the level of stress and the use of coping strategies among the nursing students. To confirm the connection, perceived stress and external stressors were significant predictors of using coping strategies among nursing students. The researchers then gave several implications at the end of the study.

Keywords: *Stress; Coping strategies; Nursing students; COVID-19 pandemic; Correlation study*

INTRODUCTION

The COVID-19 pandemic has reshaped our world, affecting every aspect of our lives, including healthcare systems and the individuals working within them. Among those on the frontlines, student nurses were essential in combating the pandemic, facing unprecedented challenges and demands. Casafont et al. (2021) highlighted that nurses are critical in responding to the COVID-19 healthcare crisis. As the pandemic continues to evolve, it is crucial to assess the stress levels (Majrashi et al., 2021) experienced by student nurses during this period and understand their coping strategies. Wallace and colleagues (2021) also mentioned that the nursing faculty had the opportunity to address student stressors by designing remote courses to facilitate student engagement.

The pandemic has presented unique stressors for student nurses, including increased workload, fear of exposure to the virus, limited resources, and the emotional strain of witnessing the suffering of patients. From a previous study by Gallego-Gomez and company (2020), stress in nursing students increased dramatically during the pandemic lockdown. To support this finding, Urban et al. (2021) revealed that students have more stress during the pandemic than the faculty. According to Ulenaers and company (2021), despite the efforts of the nursing schools and clinical institutions,

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student nurses still needed to catch up in the chaos. These factors have undoubtedly profoundly affected their mental well-being and overall resilience. Exploring the stress levels they have encountered and the coping strategies they have employed contributes to understanding the challenges faced by this essential group of healthcare professionals. A previous study by Aslan and Pekince (2020) indicated that students have a moderate stress level during the COVID-19 pandemic. However, in the study of Suprapto et al. (2022), the perceived stress score indicated a high stress level among nursing students. In addition, the study by Sveinsdottir et al. (2021) also showed that nursing students that more than 50% of the variability in the students' burnout was due to perceived stress. Despite the challenges brought out by the pandemic, the students demonstrated a remarkable sense of resilience (Wallace et al., 2021). A comparative study by Huang et al. (2020) showed that the COVID-19 outbreak placed immense pressure on hospitals and frontline nurses. Student nurses struggled to have a healthy stress-coping strategy during the pandemic (Haadi et al., 2021). On the other hand, Asturias et al. (2021) concluded that diversity in the background contributes to additional stress for some nursing students.

In the Philippines, several studies also analyzed nursing students' stress levels and coping strategies. According to a previous paper by Ahmed et al. (2022), in the Philippines, the stress level was 79%, and coping strategies were 76.8% among the nursing students. Labrague's (2021) paper delved into the mediating effect of resilience between the stress associated with the COVID-19 pandemic, life satisfaction, and psychological well-being of student nurses. Another study by Berdida and Grande (2022) revealed that academic stress and COVID-19 anxiety are inversely associated with quality of life and resilience. Another study by Berdida and Grande (2022) showed that Filipino nursing students' gender and year level influence their quality of life and academic strength. Another paper from Valladolid (2021) explored the part of coping approaches in the resilience and well-being of students during the pandemic. Regarding technological aspects, the Galiendo et al. (2021) group explored the resources that nursing students used to cope with the stress brought about by the COVID-19 pandemic in their academic life.

From the literature above, the researchers found that despite the numerous studies published during the pandemic, they focused on describing the stress levels and coping strategies among nursing students. A few existing articles studied variables such as academic and clinical training, external influences, and the use of coping strategies in one setting. Although some tried to analyze the relationships between stress and coping strategies, there needed to be more in predicting the use of coping strategies among nursing students during the pandemic. Thus, the researchers conceptualized this study based on the research gap from the literature review.

Through a quantitative assessment, this study utilizes a reliable and validated scale to examine the stress levels experienced by nursing students during the pandemic. The study also explores the coping strategies employed by student nurses, shedding light on the various approaches they have adopted to navigate the challenges they face. Finally, the study intends to discover the underlying relationships and predictors for using coping strategies among nursing students. The findings from this research will help identify effective coping strategies and highlight areas where additional support can be provided to enhance the well-being of student nurses.

The current study aims to delve into student nurses' experiences during the pandemic, shedding light on the psychological and emotional toll they have faced. By examining their stress levels and

the coping mechanisms they have utilized, this study seeks to provide valuable insights into the impact of the pandemic on this specific group of healthcare providers.

As we reflect on student nurses' experiences during the pandemic, we hope this research will foster a greater understanding of their unique challenges and contribute to developing sustainable strategies to strengthen and support this critical workforce in the face of future healthcare crises.

METHODOLOGY

Research Design

This study used a descriptive correlation study with the online survey as the primary data-gathering tool. Descriptive correlation research is a standard design researchers use to determine any underlying association between two or more variables in the study. Based on this premise, the authors also do not establish any causal connection between the association of the variables involved in the study. Stangor and Walinga (2019) discussed the same aspects of descriptive and correlation research as well as in Walters's book (2020). Since the main objective of this study is to assess student nurses' stress level and use of coping strategies and determine if a relationship exists between them, the descriptive-correlation design is appropriate for the job. In addition, at the end of the study, it also tries to establish which kind of stress influences the use of coping strategies among the respondents.

Respondents

The study's respondents came from three (3) different higher education institutions (HEIs) offering Bachelor of Science in Nursing courses in Olongapo City, Philippines. Two hundred eighty-eight (288) students participated voluntarily in the online survey from April to May 2022. In order to obtain the most suitable sample for the study, the researchers used a purposive sampling technique. As for the student-respondents to be able to participate in the said survey, the following criteria must be met: a) bona fide student taking up Bachelor of Science in Nursing in one of the three chosen institutions; b) currently enrolled within the semester or academic year; c) has internet connectivity and gadget in order to answer the online survey; and d) willing to participate voluntarily in the online survey.

Instrument

The researchers used adapted instruments to elicit the most essential data for the study. The first one was the Perceived Stress Scale-10 used by the group of Awoke et al. (2021), comprising ten indicators. Next was the Stressors in Nursing Students Scale, developed by Chaabane et al. in 2021, comprised of 60 indicators. Furthermore, the Brief-COPE Inventory used by the Garcia group in 2018 comprised 25 indicators. These instruments underwent validity and reliability examinations by international and local authors, meaning their contents are within the standards and acceptability among the respondents.

Statistical Analysis

The gathered data underwent descriptive and inferential statistical treatment with the help of Microsoft (MS) Excel and Statistical Package for Social Sciences (SPSS) 23 software. For the descriptive statistics, the study used frequency and percentage for the demographic characteristics. On the other hand, the study used mean for the students' responses to the stress level assessment and coping strategies. Regarding inferential statistics, the researchers used a t-test and ANOVA to test

differences in the students' stress levels and coping strategies. Then, the researchers utilized a Pearson-r Moment of Correlation in the relationship case. As for the predictors for the coping strategies, a linear regression was employed.

FINDINGS AND DISCUSSION

This study aims to determine the stress level and use of coping strategies among nursing students. It also intends to explore the relationship and factors that influence the use of coping strategies among nursing students. The following tables represent the study's findings with corresponding interpretation and discussion.

Table 1 provides information on the demographic characteristics of the student-respondents. The study used frequency and percentage distribution. In terms of age, there are 189 individuals in this age range, which accounts for 65.6% of the total population. On the other hand, there were 80 individuals in the 21-25 age range, representing 27.8% of the total population. Lastly, for those 26 years old and above, there were 19 individuals in this age range, comprising 6.6% of the total sample. In terms of gender, there were 69 males in the population, making up 24.0% of the total sample. Then, there were 219 females, accounting for 76.0% of the total. As for the schools, there were 80 individuals from College A, representing 27.8% of the sample. Then, 170 individuals came from College B, accounting for 59.0% of the sample. Finally, 38 respondents were from College C, comprising 13.2% of the total sample. In the case of year level, 152 students were in their first year, comprising 52.8% of the total sample. Then, the second-year level comes next with a frequency of 87, with a corresponding percentage of 30.2. Next was the third-year level, with 34 respondents, 11.8 percent of the total sample. And finally, the fourth-year level with a frequency of 15 or 5.2 percent of the total sample.

Table 1. Demographic Characteristics of the Student Respondents

Characteristics	Frequency	Percentage
Age		
Less than 20 years old	189	65.6
21 – 25 years old	80	27.8
26 years old and above	19	6.6
Gender		
Male	69	24.0
Female	219	76.0
School		
College A	80	27.8
College B	170	59.0
College C	38	13.2
Year Level		
First Year	152	52.8
Second Year	87	30.2
Third Year	34	11.8
Fourth Year	15	5.2
Total	**288**	**100.0**

Table 2. Respondents' Perceived Stress Level

Items	Mean	Interpretation
Perceived Stress 1	3.43	Fairly High
Perceived Stress 2	3.30	Moderately High
Perceived Stress 3	3.93	Fairly High
Perceived Stress 4	3.59	Fairly High

Perceived Stress 5	3.34	Moderately High
Perceived Stress 6	3.09	Moderately High
Perceived Stress 7	3.32	Moderately High
Perceived Stress 8	2.88	Moderately High
Perceived Stress 9	3.32	Moderately High
Perceived Stress 10	3.37	Moderately High
Average Mean	**3.36**	**Moderately High**

Legend: 1.00 – 1.80=Very Low; 1.81 – 2.60=Low; 2.61 – 3.40=Moderately High; 3.41 – 4.20=Fairly High; 4.21 – 5.00=Very High

Shown in Table 2 is the mean distribution of the respondents' perceived stress levels during the pandemic period. One can notice that item 3 presented the highest mean score of 3.93, corresponding to a perceived stress level of "fairly high" on the scale. However, it was item 8 that manifested the lowest mean with a score of 2.88, which equates to a perceived stress level of "moderately high." The average mean for all perceived stress level items was 3.36, which is a suitable interpretation of "moderately high" on the Likert scale. This result means that the respondents generally perceive their stress levels to be moderately high, with some statements indicating a relatively high stress level.

Table 3. Stress Level of Respondents on their Clinical Training

Items	**Mean**	**Interpretation**
SLCT 1	2.81	Moderately High
SLCT 2	2.55	Low
SLCT 3	3.00	Moderately High
SLCT 4	2.62	Moderately High
SLCT 5	2.85	Moderately High
SLCT 6	2.33	Low
SLCT 7	2.25	Low
SLCT 8	2.65	Moderately High
SLCT 9	2.90	Moderately High
SLCT 10	2.55	Low
SLCT 11	3.13	Moderately High
SLCT 12	2.33	Low
SLCT 13	2.68	Moderately High
SLCT 14	2.42	Low
SLCT 15	4.19	Fairly High
SLCT 16	3.80	Fairly High
SLCT 17	3.84	Fairly High
SLCT 18	3.49	Fairly High
SLCT 19	3.30	Moderately High
SLCT 20	2.77	Moderately High
SLCT 21	3.31	Moderately High
SLCT 22	3.09	Moderately High
SLCT 23	2.53	Low
SLCT 24	2.90	Moderately High
SLCT 25	2.78	Moderately High
SLCT 26	2.86	Moderately High
SLCT 27	2.45	Low
SLCT 28	2.43	Low
SLCT 29	2.52	Low
Average Mean	**2.87**	**Moderately High**

Legend: 1.00 – 1.80=Very Low; 1.81 – 2.60=Low; 2.61 – 3.40=Moderately High; 3.41 – 4.20=Fairly High;

4.21 – 5.00=Very High

Table 3 depicts the mean distribution for the stress level of the student-respondents during their clinical training period in the middle of the pandemic. As seen from the illustration, item 15 got the highest mean with a score of 4.19. This score corresponds to a stress level interpretation of "fairly high" on the scale. On the other hand, items 6 and 12 yielded the lowest mean score of 2.33. This result has a corresponding stress level interpretation of "low" on the Likert scale. In addition, the average mean for the stress level of students during their clinical training period was 2.87, which has a similar stress level description of "moderately high." The result further determines that many respondents experienced a moderately high stress level in their clinical practices since various factors significantly added to the strain of learning skills during the pandemic.

Table 4. Stress Level of Respondents on their Academic Training

Items	Mean	Interpretation
SLAP 1	3.57	Fairly High
SLAP 2	3.60	Fairly High
SLAP 3	3.49	Fairly High
SLAP 4	3.49	Fairly High
SLAP 5	3.47	Fairly High
SLAP 6	3.25	Moderately High
SLAP 7	2.85	Moderately high
Average Mean	**3.39**	**Moderately High**

Legend: 1.00 – 1.80=Very Low; 1.81 – 2.60=Low; 2.61 – 3.40=Moderately High; 3.41 – 4.20=Fairly High; 4.21 – 5.00=Very High

Presented in Table 4 is the mean distribution of the stress level of the respondent on their academic training during the pandemic. One can deduct from the table presentation that item 2 generated the highest mean with a score of 3.60, which means it has a perceived stress level of “fairly high” on the scale. On the other hand, item 7 garnered the lowest mean score of only 2.85, which has a corresponding stress level interpretation of “moderately high.” The average mean was 3.39, corresponding to an overall stress level interpretation of “moderately high” among the respondents. This result further means that student respondents experienced stressful moments during their academic training amidst the pandemic.

Table 5. Stress Level of Respondents for External Stressors

Items	Mean	Interpretation
SLES 1	3.26	Moderately High
SLES 2	3.14	Moderately High
SLES 3	2.84	Moderately High
SLES 4	2.97	Moderately High
SLES 5	2.59	Low
SLES 6	2.75	Moderately High
SLES 7	2.96	Moderately High
SLES 8	2.41	Low
SLES 9	2.70	Moderately High
SLES 10	2.95	Moderately High
SLES 11	2.63	Moderately High
SLES 12	3.30	Moderately High
SLES 13	3.42	Fairly High
SLES 14	2.71	Moderately High
SLES 15	3.31	Moderately High
SLES 16	3.28	Moderately High

SLES 17	3.40	Moderately High
SLES 18	2.77	Moderately High
SLES 19	3.89	Fairly high
SLES 20	3.67	Fairly High
SLES 21	3.76	Fairly High
SLES 22	2.99	Moderately High
SLES 23	3.62	Fairly High
SLES 24	3.84	Fairly High
Average Mean	**3.13**	**Moderately High**

Legend: 1.00 – 1.80=Very Low; 1.81 – 2.60=Low; 2.61 – 3.40=Moderately High; 3.41 – 4.20=Fairly High; 4.21 – 5.00=Very High

Table 5 displays the mean distribution of the respondents' stress levels for external stressors during the pandemic. One can glean that item 19 has the highest mean score of 3.89, equating to a stress level interpretation of "fairly high." However, for the lowest mean score, item 8 obtained the lowest with 2.41, which corresponds to an interpretation of "low." To sum up, the average mean score for the stress level of students for external stressors was 3.13, which has a similar stress level interpretation of "moderately high" on the scale. This result shows that most respondents experienced a fair share of anxiety for outside strains and stress due to external factors.

Table 6. Use of Coping Strategies of the Respondents

Items	**Mean**	**Interpretation**
Coping Strategy 1	3.82	Fairly Often
Coping Strategy 2	3.95	Fairly Often
Coping Strategy 3	3.91	Fairly Often
Coping Strategy 4	3.89	Fairly Often
Coping Strategy 5	3.86	Fairly Often
Coping Strategy 6	3.51	Fairly Often
Coping Strategy 7	3.93	Fairly Often
Coping Strategy 8	3.27	Sometimes
Coping Strategy 9	3.30	Sometimes
Coping Strategy 10	3.70	Fairly Often
Coping Strategy 11	3.35	Sometimes
Coping Strategy 12	3.67	Fairly Often
Coping Strategy 13	4.00	Fairly Often
Coping Strategy 14	3.19	Sometimes
Coping Strategy 15	3.15	Sometimes
Coping Strategy 16	3.84	Fairly Often
Coping Strategy 17	3.50	Fairly Often
Coping Strategy 18	3.47	Fairly Often
Coping Strategy 19	3.16	Sometimes
Coping Strategy 20	3.55	Fairly Often
Coping Strategy 21	2.55	Almost Never
Coping Strategy 22	2.20	Almost Never
Coping Strategy 23	2.70	Sometimes
Coping Strategy 24	2.56	Almost Never
Coping Strategy 25	3.76	Fairly Often
Average Mean	**3.40**	**Sometimes**

Legend: 1.00 – 1.80=Never; 1.81 – 2.60=Almost Never; 2.61 – 3.40=Sometimes; 3.41 – 4.20=Fairly Often; 4.21 – 5.00=Very Often

Table 6 presents the mean distribution for the student-respondents' coping strategies. In general,

a mix of responses came from the respondents. However, one can notice that it was item 13 that obtained the highest mean with a score of 4.00, which has an interpretation of "fairly often" on the scale. On the other hand, item 22 produced the lowest mean with a score of only 2.20, which corresponds to an interpretation of "almost never" on the scale. Overall, the average mean for coping strategies was 3.40, which falls under the interpretation of "sometimes" in the Likert scale. This result only shows that the student-respondents use various coping strategies wherein they use more than one method at a time to alleviate their stress levels.

Table 7. Differences in the Stress Level and Coping Strategies among Respondents when grouped according to gender

Variables	**Gender**	**N**	**Mean**	**SD**	***t*-value**	**Sig.**
Perceived Stress	Male	69	3.34	0.623	- 0.380	.704
	Female	219	3.36	0.482		
Stress Level in Clinical Training	Male	69	2.85	0.722	-1.192	.234
	Female	219	2.95	0.566		
Stress Level on Academic Training	Male	69	3.31	0.809	-1.081	.281
	Female	219	3.41	0.661		
External Stressors	Male	69	3.05	0.639	-2.011*	.045
	Female	219	3.22	0.583		
Coping Strategies	Male	69	3.37	0.393	-0.534	.594
	Female	219	3.40	0.479		

*Note: *p* < .05; df=286

For the study to determine if there is a significant difference in the stress level and coping strategies among student-respondents, the proponents performed an independent *t*-test. Based on the result of the computation in Table 7, one can expect that there was a significant difference in the response of the respondents regarding their stress level in terms of external stressors since the female has a higher degree of stress level (M=3.22; SD=0.583) than the males (M=3.05; SD=0.639). Furthermore, the study also obtained a $t(286)= -2.011$, $p= .045$, wherein the probability value was lower than the alpha significance level of .05. This result only means that the study rejected the null hypothesis. Thus, there is a significant difference in the stress level of respondents in terms of external stressors when grouped according to gender.

On the other hand, there was no substantial evidence to prove variations in the response of the respondents for the perceived stress [$t(286)= -0.380$, $p= .704$], stress level in clinical training [$t(286)= -1.192$, $p= .234$], stress level on academic training [$t92860= -1.081$, $p= .281$], and coping strategies [$t(286)= -0.534$, $p= .594$]. All the probability values mentioned were more significant than the .05 alpha significance level. Therefore, it is safe to assume that there were no existing differences in these variables when grouped according to gender.

Table 8 illustrates the result of the Analysis of Variance (ANOVA) for the respondents' stress levels and coping strategies when grouped according to age. The table shows that the study observed significant variations in two major variables. First was the stress level on academic training, wherein the study found $F(2, 285)= 4.328$, $p= .014$. Moreover, the second one was the stress level of the respondents on external stressors wherein $F(2, 285)= 5.836$, $p= .003$. Both of the *p*-values obtained were significant at a .05 alpha significance level. The result means that the study rejects the null hypothesis. Thus, there were significant differences in the stress level of respondents on academic training and external stressors when grouped according to age.

Table 8. Differences in the Stress Level and Coping Strategies among Respondents when grouped according to age

Variables	SS	df	MS	*F*-value	Sig.

Perceived Stress	Between Groups	1.301	2	0.650	2.445	.089
	Within Groups	75.806	285	0.266		
	Total	77.106	287			
Stress Level in Clinical Training	Between Groups	0.430	2	0.215	0.580	.560
	Within Groups	105.524	285	0.370		
	Total	105.954	287			
Stress Level on Academic Training	Between Groups	4.144	2	2.072	4.328*	.014
	Within Groups	136.441	285	0.479		
	Total	140.585	287			
External Stressors	Between Groups	4.076	2	2.038	5.836*	.003
	Within Groups	99.517	285	0.349		
	Total	103.592	287			
Coping Strategies	Between Groups	0.112	2	0.056	0.265	.768
	Within Groups	60.458	285	0.212		
	Total	60570	287			

Note: $*p < .05$

On the other hand, the other three variables of the study, namely, perceived stress [$F(2, 285)= 2.445$, $p= .089$]; stress level in clinical training, [$F92, 285)= 0.580$, $p= .560$]; and coping strategies, [$F(2, 285)= 0.265$, $p= .768$] did not yield enough to elicit significant difference among them. Furthermore, the obtained *p*-values were more significant than the alpha significance level of .05. This result also means that the study has to retain the null hypothesis wherein there is no significant difference in the perceived stress, stress level in clinical training, and coping strategies when grouped according to age.

To determine the difference in the respondents' stress levels and coping strategies when grouped according to school, the study performed an Analysis of Variance (ANOVA). Table 9 reveals the result of the calculations. As one can deduce from the presentation, all stress-related variables obtained enough evidence to elicit significant differences when grouped according to the school. The study obtained the following results; for the perceived stress [F(2, 285)= 4.354, p= .014]; stress level in clinical training [F(2, 285)= 10.164, p= .000]; stress level on academic training [F(2, 285)= 5.672, p= .004]; and external stressors [F92, 2850= 4.797, p= .009]. The obtained probability values were all lower than the alpha significance level of .05. Therefore, it is safe to assume a significant difference exists in the perceived stress level in clinical training, academic training, and external stressors when grouped according to schools.

Table 9. Differences in the Stress Level and Coping Strategies of Respondents when grouped according to school

Variables		SS	df	MS	*F*-value	Sig.
Perceived Stress	Between Groups	2.286	2	1.143	4.354*	.014
	Within Groups	74.820	285	0.263		
	Total	77.106	287			
Stress Level in Clinical Training	Between Groups	7.054	2	3.527	10.164*	.000
	Within Groups	98.900	285	0.347		
	Total	105.954	287			
Stress Level on Academic Training	Between Groups	5.382	2	2.691	5.672*	.004
	Within Groups	135.203	285	0.474		
	Total	140.585	287			
External Stressors	Between Groups	3.374	2	1.687	4.797*	.009
	Within Groups	100.219	285	0.352		
	Total	103.592	287			
Coping Strategies	Between Groups	0.864	2	0.432	2.063	.129
	Within Groups	59.706	285	0.209		

	Total	60.570	287

*Note: *p* < .05

However, only coping strategies needed to garner more to show difference when grouped according to school. The result obtained based on the computation was F(2, 285)= 2.063, p= .129. The probability value was more significant than the alpha significance level of .05, which means it is safe to assume that there was no significant difference in coping strategies when grouped according to school.

Table 10 reveals the Analysis of Variance (ANOVA) result for the stress level and coping strategies when grouped according to year level. It can be deduced from the table that there was a significant difference in the responses for the stress level on academic training and external stressors. The study gathered the following results: for stress level on academic training, $F(2, 284)= 2.867$, $p= .037$; and for external stressors, $F(3, 284)= 5.369$, $p= .001$. Both variables' p-values were significant at a .05 alpha significance level. Thus, it is safe to conclude that a significant difference exists in the stress level on academic training and external stressors when grouped according to year level.

Table 10. Differences in the Stress Level and Coping Strategies of Respondents when grouped according to Year Level

Variables		SS	df	MS	*F*-value	Sig.
Perceived Stress	Between Groups	1.335	3	0.445	1.667	.174
	Within Groups	75.772	284	0.267		
	Total	77.106	287			
Stress Level in Clinical Training	Between Groups	0.962	3	0.321	0.867	.458
	Within Groups	104.992	284	0.370		
	Total	105.954	287			
Stress Level on Academic Training	Between Groups	4.132	3	1.377	2.867*	.037
	Within Groups	136.453	284	0.480		
	Total	140.585	287			
External Stressors	Between Groups	5.560	3	1.853	5.369*	.001
	Within Groups	98.032	284	0.345		
	Total	103.592	287			
Coping Strategies	Between Groups	0.356	3	0.119	0.560	.642
	Within Groups	60.214	284	0.212		
	Total	60.570	287			

*Note: *p* < .05

However, perceived stress got $F(3, 284)= 1.667$, $p= .174$; stress level in clinical training garnered $F(3, 284)= 0.867$, $p= .458$; and coping strategies yielded, $F(3, 284)= 0.560$, $p= .642$. All three variables' probability values were insignificant at a .05 alpha significance level. Therefore, it is safe to assume that there was no significant variation in the perceived stress, stress level in clinical training, and coping strategies when grouped according to the year level of the respondents.

Table 11. Correlation Matrix between Perceived Stress, Stress Levels, External Stressors, and Coping Strategies

Variables	1	2	3	4	5
1. Perceived Stress	1				
2. Stress Level in Clinical Training	.413*	1			
3. Stress Level on Academic Training	.348*	.597*	1		
4. External Stressors	.457*	.615*	.650*	1	
5. Coping Strategies	.380*	.223*	.241*	.398*	1

*Note: *p* < .05

In order to analyze the relationships between the study variables, the proponents performed a Pearson-r Moment of Correlation. In general, there were substantial associations between the variables of the study. More specifically, there is a low positive interrelationship among the variables in the study. The study obtained the following results: for perceived stress, r= .380; for stress level in clinical training, r= .223; for stress level on academic training, r= .241; and for external stressors, r=.398. All probability values are significant at a .05 alpha level of significance. These results only mean that the study rejects the null hypothesis. It is safe to assume a significant relationship exists between perceived stress, stress levels in clinical and academic training, external stressors, and coping strategies for the respondents.

Table 12. Linear Regression to Predict the Coping Strategies of the Respondents

Model	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
	B	Std. Error	Beta		
(Constant)	2.009	.176		11.447	.000
Perceived Stress	.236	.053	.267	4.416	.000
Stress Level in Clinical Training	-.063	.054	-.083	-1.153	.250
Stress Level on Academic Training	-.018	.048	-.027	-.364	.716
External Stressors	.263	.059	.344	4.461	.000

Note: F(4, 283)=19.188, *p*= .000; R^2= .213

Table 12 displays the linear regression to determine the predictor for the coping strategies among the respondents. As seen from the table, the overall results showed that the coping strategies predictive model was significant, *F*(4, 283)= 19.188, R2= .213, *p*= .000. The perceived stress and external stressors explained the large amount of variance between the variables (21.3%). The results further revealed that both perceived stress and external stressors formed a significant positive predictor of coping strategies (β= .236, *t*= 4.416 and β= .263, *t*= 4.461, *p*= .000).

In addition, other factors also correlated but not to a significant extent. This idea means that factors like stress level in clinical training and stress level in academic training also account for the coping strategies of the respondents.

Discussion

In this particular paper, the main aim of the researchers is to assess the stress level and coping strategies of student nurses during the pandemic period. The study's results provided some interesting findings that can contribute to the body of knowledge and the nursing course itself.

Starting with the demographic characteristics of the student-respondents, more than two-thirds of the respondents were less than 20 years old, and the majority were females, coming from College B and studying at their first-year level. Based on these findings, one can determine that the respondents were typical college students. In a previous Asturias et al. (2021) study, demographic factors influence stress. The said characteristics almost coincide with the paper of Thai et al. (2021), wherein their respondents were primarily females. However, their respondents were much older.
In terms of stress level, the respondents gave the following remarks for the study: moderately high for the perceived stress, stress on clinical training, stress on academic training, and external stressors. In relation, Ahmend et al. (2022), in their systematic review, also exposed a similar assumption that nursing students have high-stress levels, just like what the group of Majrashi (2021) in their scoping review revealed that the COVID-19 pandemic was a stressful event to nursing students. Moreover, another study by Fitzgerald and Konrad (2021) mentioned nursing students' concerns about handling academic workloads. In addition, Gallego-Gomez et al. (2020) reported that those students with better academic performance reported less stress on their side. Nevertheless, the preceptor's role is critical during the COVID-19 pandemic to prepare students for

specific competencies (Ulenaers et al., 2021).

On the other hand, coping strategies among the students were only marked "sometimes." A related study by Huang et al. (2020) recommended that hospital institutions focus on psychological support provision among nurses and student nurses and training in coping strategies. Sehularo et al. (2021) also identified several coping strategies for nurses to cope with the pandemic, such as wearing protective measures, avoidant strategies, and social support.

The study obtained significant differences from the calculations. In terms of gender, there was a significant difference found in the case of external stressors. In addition, as for age, there was also a significant difference found for the stress level on academic training and external stressors. The previous research about nursing students' perceived stress levels by Aslan and Pekince (2020) supported this result, where age and sex yielded significant variations. As for the school case, there was also a significant difference in perceived stress, stress level in clinical training, academic training, and external stressors. Lastly, for the significant difference in year level, the study showed variance in stress level on academic training and external stressors.

As for the test of relationship in the study, there was a weak to moderate positive relationship between the stress variables and the respondents' coping strategies. Hamadi et al. (2021) supported this result, wherein they found that during the COVID-19 pandemic, there was a reliable association between stress and coping strategies.

To determine which stress variable significantly influences coping strategies, the study found that perceived stress and external stressors influence the use of coping strategies among the respondents. A study by Sveinsdottir et al. (2021) revealed that students' perceived stress, support, and educational levels predicted academic burnout among the study's respondents. It is, therefore, essential that nursing students working as healthcare aids have continuous support and follow-up (Casafont et al., 2021).

CONCLUSIONS

Based on the preceding results and discussions, the researchers presented the following conclusions in this study. The demographic profile of the respondents includes those who are less than 20 years of age, are female, are studying in College B, and are at the first-year level. From this descriptive analysis, one can assume that the respondents were typically young and considered nursing students for the time being. For the stress levels of the student-respondents, the perceived stress, stress level in clinical training, stress level on academic training, and external stressors yield a result of "moderately high." As for the coping strategies, the respondents gave "sometimes" remarks. In this context, it is evident that in terms of stress, the respondents perceived this to be high on their part. Different factors play a role in their experience of stress, like academic and clinical learning and training, which further increases the gravity of stress. This perception also compensates with using their coping strategies among the respondents. From the list of coping strategies, respondents used various strategies to handle the stress. There were also significant differences found in terms of aging (stress level on academic training and external stressors), gender (external stressors), school (perceived stress, stress level in clinical training, stress level on academic training, and external stressors), and year level (stress level on academic training and external stressors). With these results, one can tell that by grouping the respondents according to their age, gender, institution, and year level, they typically conceive variations in their perception. The perception of stress and coping strategies are part of a student's life in learning to survive at the tertiary level of learning. Lastly, significant relationships were found between perceived stress, the stress level in clinical training, the stress level in academic training, external stressors, and coping strategies among the respondents. Perceived stress and external stressors influence the coping strategies among the respondents. The study supported previous results in the field and strengthened the growing notion regarding stress and coping strategies among nursing students.

Also, it introduces a new idea of predicting coping among students: the perception of stress and the influence of external stressors.

IMPLICATIONS

The result of the study provided the researchers with some vital information essential for developing relevant interventions relative to the subject matter. For nursing students, stress levels should be managed occasionally. The demands for nursing education and profession are critical and very strict since one deals with a patient's life and care. Diligence, presence of mind, and self-awareness are essential to working out the stress related to nursing education. It is equally important to rest in general aspects (i.e., body and mind). Savoring all of the possible opportunities for learning and developing skills in nursing is a daunting task to accomplish.

Nevertheless, one has its limits and can do so much. For the clinical and academic instructors, educating students in the nursing field is quite stressful to both. Appropriate allotment of balanced academic and clinical training is vital to minimize students' stressful moments, which may affect their performance. In addition, appropriate rewards and recognition mechanisms should be applied to motivate the students and give them a sense of accomplishment despite the stressful events that they experience. Promoting a student-friendly curriculum for the institution helps alleviate the stressful environment, and providing mechanisms to support the nursing students' psychological and emotional well-being is handy. These mechanisms can include academic wellness breaks, frequent psychological checks among students, promotion of sports, and other leisure activity facilities in the college, among others. For the dean, dealing with students suffering from stress in their clinical and academic training is a hassle. Thus, promoting a healthy mindset with the instructors and students and facilitating an appropriate working environment for both will benefit both parties. Training for wellness and stress coping among faculty and clinical instructors can also result in a more appropriate student-faculty relationship.

LIMITATION & FUTURE RESEARCH

This study also has several limitations that other individuals may find an opportunity to study in the future. First, the participants of the study. The study only used nursing students. Future studies may use other paramedical or healthcare-related students like midwives, caregivers, nursing aids, and laboratory technicians. Second, regarding the locale of the study, the researchers only considered three nursing colleges located in the exact location, considering other colleges from nearby provinces are highly considerable. Third is the variables involved in the study. In particular, future studies may add other related or not yet explored phenomena with stress and coping strategies. Lastly, future researchers may use Structural Equation Modelling (SEM) to explore other realms and possibilities in the research design.

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