

Navigating the New Normal: A Study on Junior Nursing Students' Stress Perception and Coping Mechanisms in Post-Pandemic Hospital Learning

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ABSTRACT

Background: This study delves into the clinical stress experienced by junior nursing students during their initial hospital-related learning experiences (RLE), exploring the relationship between coping strategies and stress alongside demographic variables.

Purpose: The primary objective was to examine the stress levels of 152 regular junior nursing students and assess how coping mechanisms vary based on demographic factors. The study aimed to shed light on the predominant stressors and coping strategies prevalent in this cohort.

Methods: A sequential mixed-method approach was employed, utilizing a tool adapted from Sheu (1997; 2002). The tool included a demographic information sheet, Perceived Stress Scale (PSS), Coping Behavior Inventory (CBI), and semi-structured interview questions. Data were collected from a diverse group of nursing students, encompassing aspects such as sex, age, socioeconomic status, stressors, and coping strategies.

Results: The study revealed a predominantly female (84.7%) student body with an average age of 21, and approximately 38% hailing from middle-income households. Key stressors included concerns about assignments, workload, daily life stressors, and perceived inadequacy in professional knowledge and skills. Coping mechanisms predominantly involved maintaining optimism and engaging in problem-solving. Importantly, demographic variables such as sex, age, and socioeconomic status did not show statistically significant distinctions in clinical stress perception.

Conclusions: Junior nursing students generally experience moderate stress levels, primarily attributed to assignments, workloads, daily life, and perceived deficits in professional knowledge and skills. Notably, maintaining optimism, problem-solving, and seeking support through transference were identified as prevalent coping mechanisms. The study emphasizes the need for prioritizing stress management support and implementing stress reduction strategies within nursing programs to enhance the well-being of junior nursing students during their initial hospital-related learning experiences.

Keywords: Clinical stress, moderate stress level, sequential mixed-method

BACKGROUND

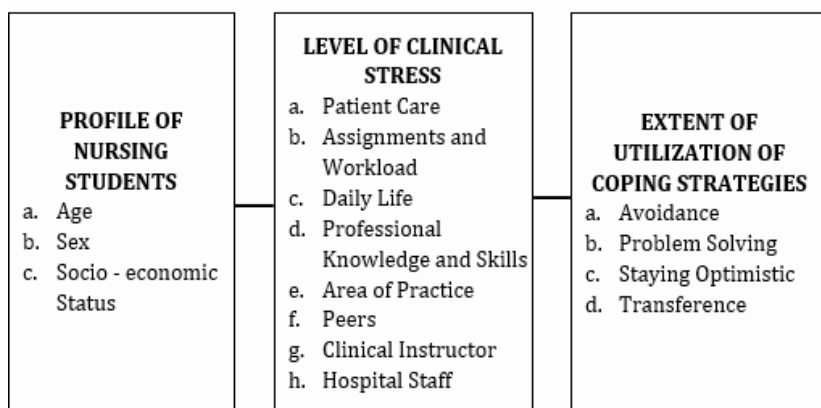
Nursing students undergoing hospital-related learning experiences (RLE) face substantial challenges, contributing to elevated stress levels (Tim, 2019). The clinical education component, marked by practical difficulties, induces anxiety and tension, especially during the initial stages of clinical practicum. Stressors include heavy workloads, perceived knowledge and skill gaps, fear of errors, and managing emergencies (Liu et al., 2022). Factors such as gender, family income, study duration, career choice, and health status influence stress levels (Liu et al., 2022). Clinical practice is essential for nursing students' growth, introducing them to a complex environment and various stressors (Alsaqri, 2017). The COVID-19 pandemic intensified stress, impacting mental health (Kim et al., 2022). Coping strategies, including stress management counseling, peer support, and hospital policies, play a crucial role in mitigating stress (Labrague et al., 2018).

The theoretical framework of cognitive appraisal and reappraisal by Lazarus and Folkman helps understand nursing students' stress during clinical practice (Lazarus & Folkman, 1984). Positive coping strategies correlate with lower stress levels, guiding interventions for stress reduction (Liu et al., 2022). Nursing education, particularly the Bachelor of Science in Nursing program, aims to produce competent and proficient nurses through a blend of theoretical and practical coursework, including related learning experiences (RLEs) (Candelasa, 2017). RLEs provide opportunities for students to develop competencies in diverse health contexts, contributing to their professional identity and integration into the clinical environment (Günay, 2018).

The stressors encountered during hospital RLE are multifaceted, including fear of unexpected events, equipment use, faculty interactions, and the theory-practice gap (Saifan et al., 2021). The rigorous nature of clinical education makes stress an inherent part of students' experiences, impacting psychomotor, affective, and theoretical aspects (Rafati et al., 2017). The COVID-19 pandemic further amplified stress levels, necessitating adjustments in nursing education (Leaver et al., 2022).

As the post-pandemic transition unfolds, the impact on nursing students' mental health remains significant (Gao et al., 2021). Educational institutions globally adopt flexible learning modes, with ongoing efforts to address the mental health implications of the pandemic on nursing students (CHED, 2021). Understanding the correlation between profile variables, perceived stress, and coping strategies is vital for tailoring support mechanisms and optimizing the learning environment (Kneavel, 2021; Alsaqri, 2017). This study aims to explore and address the perceived stress of nursing students during their initial hospital RLE, providing valuable insights for educational institutions and nursing programs to enhance student well-being and learning outcomes.

Figure 1
Research Paradigm



The study's conceptual and analytical framework adopts Lazarus and Folkman's transaction model of stress and coping, illustrated in Figure 1, to examine the impact of coping strategies on stress levels among junior nursing students. This paradigm investigates how factors such as age, sex, and socio-economic status influence stress-coping processes. Stressors, including patient care, assignments, daily life, and knowledge gaps, contribute to clinical stress. Coping mechanisms, such as avoidance, problem-solving, optimism, and transference, are employed to manage these stressors. The framework underscores the intricate interplay between individual characteristics and environmental factors in the stress-coping process, highlighting the role of personal attributes like sex, age, and socioeconomic status in shaping how nursing students manage stress. This model offers a nuanced understanding of nursing students' clinical stress experiences, informing targeted interventions to enhance stress management in this cohort.

OBJECTIVES

This study aimed to determine the stress and coping strategies of Catholic University junior nursing students during their initial hospital RLE in the first semester of academic year 2022-2023. This specifically aimed to answer the following:

1. What is the demographic profile of the nursing students that influences their stress and coping strategies?
2. What is the perceived level of clinical stress among nursing students?
3. What coping strategies do junior nursing students use?
4. Is there a significant difference in the level of clinical stress among male and female students?
5. Is there a significant relationship between students' age, socioeconomic status, and the level of clinical stress?
6. Is there a significant relationship between the perceived level of clinical stress of nursing students and their extent of utilizing coping strategies?

METHODOLOGY

This study employed a mixed-methods approach, integrating both quantitative and qualitative methodologies in a sequential design to examine the profiles, perceived stress levels, and coping behaviors of junior nursing students during their hospital-related learning experiences (RLE) within the academic context of the Catholic University. The research initiative began with a quantitative phase, utilizing a survey questionnaire adapted from Sheu et al. (1997; 2002). The instrument focused on collecting demographic information, assessing perceived stress through the Perceived Stress Scale (PSS), and evaluating coping behaviors using the Coping Behavior Inventory (CBI). After undergoing validation and reliability testing, the questionnaire was administered to 152 regular junior nursing students during the second semester of the academic year 2022-2023 within the School of Health and Natural Sciences at Catholic University, known for its nursing program performance and licensure exam success rates.

After completing the quantitative phase, the research design incorporated a qualitative methodology that comprised semi-structured interviews with 30 students. These interviews encompassed four open-ended guide questions aimed at assessing their perceived stress, understanding its individual impact, exploring the interventions they employed to cope, and identifying potential interventions the nursing department could implement. Additionally, the interviews sought insights into the resources that could aid nursing students in their clinical training. This qualitative approach was undertaken to provide further clarification and validation of the findings obtained from the preceding survey. The integration of quantitative and qualitative methodologies in this study is underpinned by a triangulation approach, wherein qualitative findings function to corroborate and enrich the comprehension derived from quantitative data. Specifically, in

instances where the quantitative data indicate elevated levels of perceived stress among students, the qualitative interviews are designed to unveil precise stressors or coping mechanisms contributing to or alleviating this stress. This methodological amalgamation facilitates a more comprehensive and nuanced interpretation of the experiences encountered by junior nursing students during their hospital-related learning experiences, thereby contributing to a sophisticated understanding within the scholarly context.

The research respondents were purposefully selected from the Bachelor of Science in Nursing program, specifically targeting junior students who commenced their nursing education as online learners during the academic year 2020-2021. Stringent exclusion criteria were applied to maintain a focused investigation on the designated target population. The data collection process adhered to ethical standards, encompassing a thorough ethical review, the dissemination of consent forms, and strict adherence to health protocols.

Data treatment involved a meticulous analysis using frequency counts, percentages, means, and standard deviations, providing insights into profile variables, perceived stress, and coping behaviors. The study explored perceived stress levels among nursing students, categorized through qualitative descriptions. The relationship between profile variables, perceived stress, and coping behaviors underwent scrutiny using appropriate statistical tests, guided by established correlation coefficient scales.

The study's significance lies in its exploration of stressors and coping mechanisms experienced by junior nursing students, incorporating both quantitative and qualitative dimensions. The research findings present an understanding of the factors influencing clinical stress and coping behaviors. The thematic analysis of qualitative data complements the quantitative results, ensuring a holistic interpretation. The research underscores the importance of addressing stress in nursing education and offers practical insights for educational institutions to support nursing students during their hospital-related learning experiences. The research design, methodology, and analysis position this study as a noteworthy contribution to the literature on nursing education and student well-being.

RESULTS AND DISCUSSIONS

Section 1. Profile of the Junior Nursing Students

In this study, data was collected from a cohort of 152 junior nursing students engaged in clinical training, with a corresponding distribution of questionnaires. Out of the total, 123 responses were obtained, and after the exclusion of 5 incomplete entries, the final participant count was 118, resulting in a commendable response rate of 78%. The demographic composition revealed a predominantly female representation in the nursing cohort, constituting 84.7%, potentially influenced by societal perceptions of women as more naturally suited to the compassionate and nurturing aspects of nursing. Age distribution highlighted a concentration of respondents at 21 years (51.3%), with the majority belonging to middle-income households (38%), indicative of the socioeconomic diversity within the participant pool.

Section 2. Level of Clinical Stress as Perceived by Catholic University Junior Nursing Students

Stressors	Overall Mean	Level
1. Stress from taking care of patients	2.44	Low
2. Stress from assignments and workload	3.01	Moderate
3. Stress from daily life	2.94	Moderate
4. Stress from lack of professional knowledge and skills	2.57	Moderate
5. Stress from area of practice	2.48	Low
6. Stress from peers	2.07	Low
7. Stress from clinical instructor	2.49	Low
8. Stress from nursing staff	2.28	Low

Junior nursing students confront moderate stress levels primarily arising from academic demands, encompassing assignments, workloads, and the inherent challenges of daily life. Notably, the transition from didactic learning to practical application in healthcare settings intensifies pressure, as proficiency in comprehending intricate medical concepts and executing complex skills becomes imperative. The imperative to excel and adhere to deadlines constitutes a significant stressor in nursing programs. Contrarily, the study discerns that the lowest stress levels emanate from clinical instructors, the area of practice, patient care responsibilities, and peer interactions. This suggests that the clinical training milieu and interpersonal engagements with instructors and peers represent comparatively low-stress facets of the educational journey. In conclusion, although stress is pervasive among junior nursing students, its origins are multifaceted, contingent upon the nuanced dynamics of their academic and professional milieu.

Section 3. Coping Strategies Utilized by the Catholic University Junior Nursing Students

Coping Strategies	Overall Mean	Level
1. Avoidance	1.84	Low
2. Problem Solving	2.85	Moderate
3. Staying Optimistic	3.12	Moderate
4. Transference	2.79	Moderate

The coping strategies employed by junior nursing students in the Catholic University were diverse and multifaceted, revealing nuanced approaches to managing stress during their hospital-related learning experiences. The study categorized coping strategies into four main domains: Avoidance, Problem Solving, Staying Optimistic, and Transference.

Avoidance Strategies:

The students displayed a low utilization of avoidance coping strategies, with means ranging from 1.62 to 2.04 (Sheu et al., 1997; 2002). This suggested that they rarely resorted to avoiding difficulties, quarreling with others, or expecting miracles to evade challenges during clinical practice.

Problem Solving Strategies:

Problem-solving coping strategies were moderately utilized, with an overall mean of 2.85. The students demonstrated a proactive approach by frequently identifying factors contributing to stress, adopting different strategies, setting objectives, and leveraging experience to solve problems. Confidence in performing as well as senior schoolmates was the least emphasized aspect (M=2.75).

Staying Optimistic:

Staying optimistic was a moderately employed coping strategy, with an overall mean of 3.12. The students consistently maintained a positive attitude, saw events objectively, had confidence in overcoming difficulties, and expressed vulnerability when necessary. This optimistic approach was highlighted as a prevalent and effective coping mechanism.

Transference Strategies:

Transference coping strategies were also moderately utilized, with an aggregate mean of 2.79 (Wachholtz & Sambamoorthi, 2011) supported utilization of positive religious coping strategies and daily prayer emerged as the primary coping behavior, followed by opportunities for leisure, spending time with family, occasional relaxation activities, and infrequent exercise and yoga.

Overall Coping Strategy Utilization:

Junior nursing students showcased a preference for active and positive coping strategies, emphasizing problem-solving and staying optimistic. Avoidance strategies were less favored, indicating a proclivity for confronting stressors directly. The importance of sleep, social support, effective time management, and seeking knowledge also surfaced as critical coping mechanisms during qualitative interviews.

Post-Pandemic Coping Trends:

In the post-pandemic landscape, staying optimistic became a prominent coping strategy, reflecting resilience and a positive mindset (Noor et al., 2020). Additionally, sleep, often combined with leisure activities, emerged as a vital means to regulate emotions and enhance overall well-being.

Diverse Coping Strategies:

The qualitative interviews unveiled a spectrum of coping strategies, including seeking social support, effective time management, positive thinking, sleep prioritization, occasional indulgence in comfort eating, breaks to prevent burnout, and a proactive approach to knowledge acquisition.

Section 4a. Difference of the Level of Clinical Stress of the Respondents in Terms of Sex

Independent Samples T-Test for the Sex of the Respondents

Perceived Clinical Stressors	Sex	N	Mean	SD	t	df	Sig. (2-tailed)
Stress from taking care of patients	Male	18	2.3611	.48926	-.712	116	.478
	Female	100	2.4483	.47655			
Stress from assignments and workload	Male	18	3.0139	.59081	.041	116	.968
	Female	100	3.0075	.61695			
Stress from Daily Life	Male	18	2.8611	.57664	-.620	116	.537
	Female	100	2.9500	.55732			
Stress from lack of professional knowledge and skills	Male	18	2.5556	.56011	-.124	116	.902
	Female	100	2.5750	.62198			
Stress from area of practice	Male	18	2.4630	.50018	-.148	31.193	.884
	Female	100	2.4833	.71755			
Stress from peers	Male	18	2.0185	.61007	-.330	29.859	.744
	Female	100	2.0733	.83630			
Stress from clinical instructors	Male	18	2.5741	.53082	.680	115	.498
	Female	99	2.4690	.61471			
Stress from hospital staff	Male	18	2.2111	.50630	-.469	115	.640
	Female	99	2.2889	.66898			

The study conducted an independent samples t-test to examine potential significant differences in clinical stress levels between male and female respondents. The analysis revealed no statistically significant distinction in clinical stress levels between the two genders, indicating that women and men experienced comparable levels of stress across various aspects, including patient care, assignments, workload, daily life, professional knowledge and skills, area of practice, peer interactions, clinical instructors, and interactions with hospital staff (Kneavel, 2021). This finding contradicts previous research suggesting that women generally report higher stress levels and possess larger social support systems than men. The perspectives

shared by participants further supported this observation, emphasizing that gender per se does not exert a discernible influence on stress perception and coping strategies. Instead, individual experiences in Related Learning Environments (RLE), environmental factors, companionship, and prior experiences were identified as more influential determinants of perceived stress and coping strategies. Participant testimonies, particularly exemplified by Participant B1 and B6, underscore the nuanced nature of stress perception and coping mechanisms, positioning them beyond a simplistic gender-based paradigm.

Section 4b. Relationship Between the Level of Clinical Stress of the Respondents and Profile Variables

Correlation Between the Perceived Clinical Stress of the Respondents and their Age (Pearson) and Socio-economic Status (Spearman correlation)

Perceived Stress		Age	Socio-economic Status
Stress from taking care of patients	Correlation	.125	-.036
	Sig. (2-tailed)	.186	.697
	N	113	116
Stress from assignments and workload	Correlation	.028	.064
	Sig. (2-tailed)	.770	.492
	N	113	116
Stress from Daily Life	Correlation	.094	-.025
	Sig. (2-tailed)	.324	.788
	N	113	116
Stress from lack of professional knowledge and skills	Correlation	.027	-.037
	Sig. (2-tailed)	.775	.690
	N	113	116
Stress from area of practice	Correlation	-.116	.051
	Sig. (2-tailed)	.221	.587
	N	113	116
Stress from peers	Correlation	-.015	-.058
	Sig. (2-tailed)	.872	.539
	N	113	116
Stress from clinical instructors	Correlation	.017	.125
	Sig. (2-tailed)	.857	.184
	N	112	115
Stress from hospital staff	Correlation	.004	.003
	Sig. (2-tailed)	.966	.971
	N	112	115

Results reveal associations between age, socioeconomic status, and reported clinical stress, assessed using Spearman correlation for socioeconomic status and Pearson correlation for age, with corresponding significance levels (p-values) and sample sizes (N) provided. The analysis indicates a non-significant relationship between age and perceived clinical stress, though a subtle positive correlation exists with daily stress, implying a minor tendency for older respondents to experience slightly higher daily stress. Age alone is not a significant predictor of perceived clinical stress. Similarly, socioeconomic status demonstrates no significant connection with stress levels, with weakly positive but statistically insignificant correlations with stress from workload and assignments, as well as stress from clinical instructors. Overall, the relationships between various stressors (patient care, assignments, workload, knowledge and skills, area of practice,

peers, clinical instructors, and hospital staff) and perceived clinical stress are typically insignificant and weak. These findings suggest that neither age nor socioeconomic level significantly influence clinical stress perceptions, prompting further investigation into unexplored variables impacting stress levels in healthcare settings.

Section 5. Significant Relationship Between the Perceived Stress of Nursing Students and Their Coping Strategies

Correlation Between the Perceived Stress of Nursing Students and Their Coping Strategies

Perceived Stress		CA	CPS	CSO	CT
Stress from taking care of patients	Pearson Correlation	.391**	-.182	-.156	-.103
	Sig. (2-tailed)	.000	.050	.093	.271
	N	117	117	117	117
Stress from assignments and workload	Pearson Correlation	.091	.173	.166	.124
	Sig. (2-tailed)	.327	.062	.074	.182
	N	117	117	117	117
Stress from Daily Life	Pearson Correlation	.028	.188*	.091	.072
	Sig. (2-tailed)	.765	.043	.330	.440
	N	117	117	117	117
Stress from lack of professional knowledge and skills	Pearson Correlation	.180	-.035	.067	-.075
	Sig. (2-tailed)	.052	.706	.474	.419
	N	117	117	117	117
Stress from area of practice	Pearson Correlation	.331**	-.128	-.121	-.122
	Sig. (2-tailed)	.000	.170	.194	.189
	N	117	117	117	117
Stress from peers	Pearson Correlation	.521**	-.211*	-.262**	-.140
	Sig. (2-tailed)	.000	.023	.004	.132
	N	117	117	117	117
Stress from clinical instructors	Pearson Correlation	.434**	-.062	-.194*	-.141
	Sig. (2-tailed)	.000	.510	.036	.128
	N	117	117	117	117
Stress from hospital staff	Pearson Correlation	.474**	-.075	-.218*	-.150
	Sig. (2-tailed)	.000	.419	.018	.107
	N	117	117	117	117

** Correlation is significant at .01 level; * Correlation is significant at .05 level

Legend: CA-Avoidance, CPS-Problem Solving, CSO- Staying Optimistic, CT-Transference

This study conducts a thorough examination of stressors and coping mechanisms among nursing students, focusing on the interplay between perceived clinical stress and adaptive strategies. Utilizing precise Pearson correlation analyses, the research scrutinizes stress in various domains, encompassing patient care, academic assignments, daily life, professional knowledge gaps, clinical practice areas, peer interactions, clinical instruction, and interactions with hospital staff. A notable proclivity towards avoidance emerges as a coping mechanism, positively correlated with heightened stress levels across dimensions. In contrast, the nuanced relationships observed with problem-solving, staying optimistic, and transference underscore the intricate dynamics of stress-coping within the dynamic context of nursing education. The study elucidates the multifaceted nature of stressors encountered by nursing students and reveals the intricate associations between stress and coping mechanisms within the demanding milieu of clinical education.

CONCLUSION

1. The study achieved a robust 78% response rate, well surpassing the acceptable threshold. Representing the traditionally female-dominated field of nursing, 84.7% of respondents were female, aligning with gender-

related expectations. The majority of participants were aged 20 or 21, predominantly from middle-lower income households, indicating a sample of mostly female young adults from average-earning families.

2. Junior nursing students experience moderate stress, primarily attributed to assignments, workloads, daily life, and a lack of professional knowledge and skills. While stress is a common experience, its sources vary, influenced by the nature of the academic and professional environment.

3. Junior nursing students employ coping mechanisms such as optimism, problem-solving, and transference, indicating a proactive and positive approach to stress management. Avoidance as a coping mechanism is less utilized, suggesting a preference for confronting and addressing stressors. Effective coping strategies are crucial for enhancing academic and clinical performance.

4a. Analysis using an independent sample t-test found no significant gender differences in clinical stress levels among respondents. Both males and females experience similar levels of clinical stress across various dimensions, indicating that sex is not a differentiating factor in stress levels.

4b. Age and socioeconomic status show no significant connection with respondents' perceptions of clinical stress. While a subtle positive relationship between age and daily stress exists, it is not statistically significant. Socioeconomic status is not significantly linked to stress levels, as weakly positive correlations do not reach statistical significance.

5. Higher stress levels in patient care are associated with a greater tendency to employ avoidance as a coping strategy, while problem-solving is negatively correlated with stress. Assignment-related stress shows a positive but not significant trend towards using problem-solving. Daily life stress is significantly positively correlated with problem-solving. Stress from a lack of professional knowledge and skills is moderately positively associated with avoidance. Different practice areas show a significant link to avoidance but not to other coping mechanisms. Peer-related stress is significantly positively associated with avoidance and negatively associated with problem-solving. Stress from clinical instructors and hospital staff interactions is significantly associated with avoidance and negatively correlated with staying optimistic.

RECOMMENDATIONS

Considering the study's findings, nursing programs should prioritize student stress management through support services and stress reduction strategies. Curricula should be assessed for a balanced transition from theory to practice. Promoting peer support, providing gender-neutral resources, and understanding the holistic nature of stress factors are also essential. Likewise, encouraging effective coping strategies, continuous research, and faculty/staff training, and considering implementing wellness programs would be beneficial. Longitudinal studies can offer insights into long-term well-being for nursing students.

Conflict of Interests

The authors have no potential conflicts of interest related to the development and publication of this review.

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