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ASSESMENT OF KNOWLEDGE REGARDING SOURCES OF STRESS AND COPING BEHAVIOUR AMONG NURSING STUDENTS DURING THEIR CLINICAL PRACTICE

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Abstract

INTRODUCTION: *Clinical training is a critical component of nursing education because it bridges theoretical learning with practical skills development. It allows nursing students to apply classroom knowledge in real-world settings, thereby honing their psychomotor abilities and clinical judgment . However, clinical training environments are often more challenging and stressful than classroom settings, placing significant demands on students.*

PURPOSE: *The purpose of this study was to assess the sources of stress among nursing students during their clinical practice and to identify the coping strategies these students use to manage that stress.*

METHOD: *A cross-sectional survey design was adopted, utilizing simple random sampling. Data were collected using a structured questionnaire that incorporated the* ***Perceived Stress Scale*** *and the* ***Coping Behavior Inventory****. A total of 230 nursing students in clinical training participated. The data were analyzed using descriptive statistics to determine stress levels, common stressors, and prevalent coping behaviors.*

RESULTS:*The mean perceived stress score among participants was 2.61 (SD ± 0.37) on a 0–4 scale, indicating a moderate level of stress overall. The most intense stressors reported were related to* ***caring for patients*** *(mean score 2.85, SD ± 1.21) and* ***lack of professional knowledge and skills*** *(mean 2.80, SD ± 1.22). In terms of coping, the overall mean coping score was 2.43 (SD ± 0.59). The most frequently employed coping strategy was* ***avoidance*** *(mean 2.98, SD ± 1.50), indicating that many students tended to evade or withdraw from stressful situations as a way to cope.*

CONCLUSION: *The findings suggest that nursing students in clinical practice experience considerable stress, especially from direct patient care responsibilities and feeling underprepared in terms of knowledge and skills. While students are aware of various coping strategies, they most commonly resorted to avoidance tactics. There is no guarantee that students will effectively use more adaptive coping methods even if they know about them. These insights highlight the need for interventions in nursing education that encourage the use of a healthy mix of coping mechanisms*

1. INTRODUCTION

1.1: BACKGROUND

Nursing is one of the most important professions worldwide, but it also comes with a level of occupational stress that often exceeds what other healthcare workers face. The field requires students to strongly combine what they learn in class with real-world practice. Most

Frontier in Medical & Health Research

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undergraduate nursing students handle the theoretical parts of their coursework okay, but clinical training is where things get tough. Clinical settings are unpredictable and high-pressure, which makes them especially challenging. In a way, theory provides the foundation for nursing, while hands-on rotations build the full picture of what it means to be a nurse. Good academic preparation helps students transition more smoothly into clinical work, making nursing stand out from other fields. But theory alone isn enough — without actual clinical experience, nursing education falls short. That's why students need to develop healthy coping strategies to deal with the stress they face during training (Lavoie-Tremblay et al., 2022).

Stress can be understood as the ongoing interaction between a person and what's happening around them (Alharbi, 2023). It includes all the different environmental pressures that test a student's mental, physical, and emotional limits. Studies show that between 56% and 72% of nursing students experience stress, and this number varies based on the clinical setting and whether there's enough medical equipment available. This stress starts right from the beginning of their education and is basically part of what it takes to become a qualified nurse (Deborah et al., 2026).

Research from around the world shows that nursing students feel the most anxious when they first start their clinical rotations. The biggest sources of stress they report include feeling unprepared with clinical skills, having too many assignments to handle, worrying about making mistakes, dealing emotionally with patient care, and managing urgent situations like emergencies (Liu et al., 2022). The environment where students train really matters. Positive experiences help them develop critical thinking, solve problems better, and build confidence in their professional identity. But negative experiences can hurt their self-confidence, make them less satisfied with their career choice, and leave them feeling like they're not useful as future nurses (Zheng et al., 2022).

Since clinical stress is just part of nursing education, learning how to manage it is essential. If students don't learn stress management, it can negatively affect their grades, health, how they act professionally, and how satisfied they feel in clinical roles. Studies show that nursing students use many different coping strategies — some are healthy, like problem-solving, while others are less helpful, like withdrawing from friends, avoiding thoughts about stress, crying, or even using substances (Rafati et al., 2017). Some research says students mostly use problem-solving, while others say they rely more on emotions or combine optimism with active coping. Since the coping strategy a student uses affects both their well-being and the quality of care they give patients, understanding these patterns is important for creating early support programs that help students cope in specific stressful situations (Rafati et al., 2017). Also, how well these strategies work depends on personal factors like personality, past experiences, and whether they have people to support them. Having strong social support is key to building resilience — it gives emotional comfort and practical help. That's why helping students develop healthy coping mechanisms is a core part of supporting them throughout their nursing education (Abdelmaksoud et al., 2026).

The purpose of this study was that many nursing students, especially in Pakistan, don't really know what's causing their anxiety during clinical training. They also often don't have proven strategies to handle this stress. This lack of awareness and stress-management skills puts both their academic success and mental health at risk. So, this study aims to look at how well nursing students understand the sources of their clinical stress and what coping strategies they actually use. The goal is to identify where schools and hospitals can provide better support or training, helping students manage stress more effectively and match their coping approach to what each situation needs.

1.2: Problem statement:

Nursing students undergoing clinical training often face considerable stress due to factors such as heavy workloads, emotional demands of patient care, and lack of experience in fast-paced healthcare environments. Many students are not fully aware of the specific triggers of their stress, and they may lack effective coping strategies to deal with these pressures. This gap in knowledge and skills can negatively affect both their academic performance and mental well-being.

Frontier in Medical & Health Research

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1.3: SIGNIFICANCE OF STUDY:

This study is significant because it shines a light on the psychological and practical challenges that nursing students encounter in real-world clinical settings. Understanding the extent to which students are aware of their stressors and how they cope with stress can help nurse educators and college administrators design more effective support systems. The findings might be used to develop workshops on stress management, mentorship programs, or adjustments in the curriculum to reduce unnecessary stressors. By addressing the stress and coping needs of students, nursing programs can improve the educational environment, enhance students' mental well-being, and ultimately foster the development of competent and confident nursing professionals.

1.4: RESEARCH OBJECTIVES

The objectives of this study are:

1. To assess the extent of nursing students' understanding of the major sources of stress that they perceive during clinical practice.
2. To identify the coping methods utilized by nursing students during their clinical practice.

1.5: RESEARCH QUESTION

Based on the above objectives, the study was guided by the following primary research question:

1. What are the major sources of stress that nursing students perceive during clinical practice?
2. What are the coping strategies do they use to deal with this stress?

1.6: Operational Definitions

➨ **Stress**

The physical, psychological, and emotional strain experienced by nursing students resulting from challenges within the clinical learning environment—such as heavy workloads, fear of making errors, and interactions with clinical instructors or hospital staff.

➨ **Coping Mechanism (Coping Behavior)**

The specific adaptive (constructive) or maladaptive (ineffective) responses used by nursing students to handle the emotional and practical pressures encountered during their hospital rotations.

➨ **CBI (Coping Behavior Inventory)**

The instrument evaluates coping behaviors on a 5-point Likert scale (ranging from 0 = Never to 4 = Always). It aggregates scores across four major subscales (or "factors")

1. Problem Solving
2. Staying optimistic
3. Transference
4. Avoidance

1.7 LIMITATION OF STUDY

While this study provides valuable insights, certain limitations must be acknowledged:

- **Limited Generalizability:** The study was confined to nursing students at the College of Nursing, Children's Hospital in Lahore. The experiences and stressors of these students may not be representative of nursing students in other institutions, regions, or countries. Therefore, the findings may not be directly generalizable to all nursing student populations.
- **Instrumentation:** The instruments used for measuring stress and coping (the Perceived Stress Scale and the Coping Behavior Inventory) are broad in scope. Although they are validated tools, they might not capture every nuance or specific stressor encountered in diverse clinical settings. Some unique stress factors relevant to the local context or specific clinical environments might have been overlooked because of the standardized nature of these questionnaires.
- **Self-Selection Bias:** Participation in the study was voluntary. It is possible that students who chose to participate had different levels of stress or different coping abilities compared to those who did not participate. For instance, extremely stressed students might have opted out due to time constraints or burnout, or conversely, students interested in the topic of stress might be overrepresented. This self-selection could introduce bias in the results.
- **Contextual Factors:** The study took place within a specific cultural and educational context – that of a single nursing college affiliated with a pediatric hospital in Pakistan. Cultural attitudes towards stress, coping, and seeking help can influence how students experience and report stress. Additionally, the clinical training protocols and environment at this institution might differ from other settings. As a result, stressors and effective coping strategies in one context may not be identical to

Frontier in Medical & Health Research

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those in another. Caution is advised in applying these results to nursing students in different cultural or institutional settings.

2.LITERATURE REVIEW

2.1 SOURCES OF STRESS AND COPING BEHAVIOUR AMOUNG NURSING STUDENTS: REVIEW OF STUDIES

This section summarizes relevant findings from previous research in different contexts.

Nursing students have been reported to perceive a higher level of stress due to workloads, academic demands, coursework and most especially during clinical placements leading to negative stress due to the combined effect of these factors. A descriptive cross-sectional design was adopted for the study; a multi-stage sampling technique was used to select 204 respondents. Data were collected using structured questionnaire and an adopted Coping Behavioral Inventory Scale for the coping mechanism. Data were analyzed using the statistical software SPSS 27.0; Chi-square and PPMC were used to analyze the relationship between variables at a significant level of 0.05. Findings reveal that 99% of students experienced moderate stress, primarily from patient care, academic workload, and clinical expectations. Notably, 27.9% reported stress from teacher comparisons, adding pressure from peers. Optimistic coping was prevalent, with 64.7% of students maintaining a positive outlook. A significant relationship between stress and ethnicity suggests cultural influences on stress perception. The findings indicate that only ethnicity is significantly associated with stress levels among the variables tested ($p = 0.025$), while age, gender, religion, and level of study show no significant relationships. Additionally, a positive correlation ($r^2 = 0.180$, $p = 0.010$) was observed between problem-solving action and stress, whereas optimistic coping, avoidance, and transference actions had no significant impact on stress levels.**(Abaribe, C., Uduhirinwa, C. & Onuiri, A. 2025)**

Since nursing students frequently endure high levels of stress as a result of academic demands, clinical placements, and personal life pressures, stress and coping during nurse education and training are widely acknowledged as significant research subjects. This study aimed to examine nursing students' stress levels and their coping strategies in clinical practice. A descriptive design was used in the study, which was carried out in the College of Nursing, ABHA, King Khalid University, Kingdom of Saudi Arabia. a convenience sample of 153 nursing students enrolled in the fifth, seventh, and eighth levels during the academic year 2022/2023.The Perceived Stress Scale and the Coping Behavior Inventory survey were the two instruments utilized to gather data. The study's findings show that 64.1% of nursing students experienced moderate levels of academic stress. The coping strategies that nursing students utilized the most frequently were problem solving and staying optimistic, while avoidance was the least common. Consequently, given these results, it is advised that the nursing curriculum include instruction in constructive coping mechanisms before clinical rotations**. (El Sayed SH, Alqarni AS, Bassuni EM, Ahmed KE, Bayoumi M, et al.2024)**

A cross-sectional study design was used with a convenience sample of 113 nursing students. The study team conducted the study at the Faculty of Applied Medical Science, Nursing Department at Prince Sattam bin Abdulaziz University. The researchers used three instruments for data collection and asked all nurse students to complete the online questionnaires, which utilized perceived clinical settings and academic stress. The mean age of the studied nursing students was 21.2 years old. The study observed students had moderate perceived stress levels furthermore, the total levels of the academic stress domain's mean and standard deviation in students were 90.5 ± 32. Also, a significant relationship between perceived stress and clinical setting hours per week in nursing students, and hospital clinical setting type in nursing students. There was a correlation between academic stress and the ages of students. Students' academic stress was statistically significantly correlated with their educational level**. (Mohamed NA, Ali SO, Ehrahim EEE, Ahmed AL, Wahba AM.2024)**

A cross-sectional survey design was used in Zhejiang Province, China, using a convenience sampling method. A demographic characteristics questionnaire, the Intern Nursing Student Stressor Scale, and the Simple Coping Style Questionnaire were used to collect

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

data. Data were analyzed using descriptive analysis, independent sample *t*-tests, one-way analysis of variance, Pearson's correlation analysis, and multiple linear regression analysis. A total of 158 nursing students were recruited, most of whom were female, undergraduates, and from rural areas. The nursing students perceived a moderate level of stress during the initial period of the clinical practicum. The need for knowledge and skills was the most common source of stress. Positive coping styles were most commonly adopted. Nursing students who were undergraduates, only children, and chose nursing major involuntarily experienced higher stress levels than those who were junior college students, not only children, and chose nursing major voluntarily. Nursing undergraduates were more likely to use positive coping styles than junior college students. Male nursing students and those experiencing higher stress levels related to the "environment and equipment of the wards" and the "nature and content of the work" were more likely to use negative coping styles. **(Liu, J., Yang, Y., Chen, J., Zhang, Y., Zeng, Y., & Li, J. 2022)**

In nursing students, high stress levels can lead to burnout, anxiety, and depression. Our objective is to characterize the epidemiology of perceived stress, stressors, and coping strategies among nursing students in the Middle East and North Africa region. Seven systematic reviews and 42 primary studies with data from Bahrain, Egypt, Iraq, Jordan, Oman, Pakistan, Palestine, Saudi Arabia, and Sudan were identified. Most studies included nursing students undergoing clinical training. The prevalence range of low, moderate, and high perceived stress among nursing students was 0.8–65%, 5.9–84.5%, and 6.7–99.2%, respectively. Differences related to gender, training period, or the type of tool used to measure stress remain unclear given the wide variability in the reported prevalence measures across all stress levels. Common clinical training stressors were assignments, workload, and patient care. Academic training-related stressors included lack of break/leisure time, low grades, exams, and course load. Nursing students utilized problem focused (dealing with the problem), emotion focused (regulating the emotion), and dysfunctional (venting the emotions) stress coping mechanisms to alleviate their stress**. (Chaabane, S., Chaabna, K., Bhagat, S. *et al.* 2021)**

Clinical practice is an important aspect of nursing education, where nursing students can learn and develop their psychomotor skills. The purpose to identify the sources of stress during clinical training and to determine the relationship between these stress sources and coping behaviors among nursing students at Arab American University Palestine (AAUP). A cross-sectional study, convenience sample with 131 participants from nursing students. The perceived stress level was low to medium with a mean of 47.2 (SD = 20.5). The most common type of stressors perceived was stress from assignment and workload (M= 1.71). The CBI participants' coping behavior was moderate (M = 35.34. The most common coping behavior utilized by the participants was transference (M= 2.00), while the avoidance was least frequently utilized (M = 1.72). Also, the study confirmed that avoidance, being optimistic, problem-solving, and transference as coping strategies are positively correlated to the stressors**. (A. Ayed, et, al, 2020)**

Ahmed & Abdel Hameed (2019): In a descriptive cross-sectional study at Al-Baha University in Saudi Arabia, Ahmed and Abdel Hameed assessed the stress levels of nursing students during clinical practice and identified the coping strategies they used. A sample of 125 nursing students was selected randomly, and data were gathered via a self-administered questionnaire which included demographic questions, the Perceived Stress Scale, and the Coping Behavior Inventory. The participants were almost evenly split by gender (48% male, 52% female) with a mean age of approximately 21 years (SD ± 1.56); the majority (88%) were single. In terms of clinical training satisfaction, just over half (52%) reported being very satisfied and about one-third (33%) were somewhat satisfied. The study found that the main stress triggers reported by these students were environmental and logistical factors: noise was cited by 16% of the students as a significant stressor, followed by the challenges of moving between training locations (7.2%), difficulties in social interactions (5.6%), and personal health issues (5.6%). Additionally, the students identified key domains of stress in their clinical practice, including taking care of patients,

Frontier in Medical & Health Research

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handling assignments and workload, lacking professional knowledge and skills, adjusting to the field of practice, dealing with peers and daily life issues, and interactions with teachers and nursing staff in the hospital. To cope with these stressors, students employed various strategies. The most commonly reported coping behaviors were problem-solving approaches (tackling issues directly), maintaining an optimistic outlook, using transference (distracting or mentally distancing oneself from the stress), and avoidance of stressors.

Bektaş, Terkeş & Özer (2018): Bektaş and colleagues conducted a descriptive study to evaluate stress and coping methods specifically among first-year nursing students in Turkey. The sample consisted of 90 first-year nursing students enrolled in a baccalaureate program. The researchers used a questionnaire comprising demographic items, Pagana's Clinical Stress Questionnaire (CSQ) to measure stress, and the Ways of Coping Questionnaire (WCQ) to assess coping strategies. Data collection occurred at two points: at the end of the students' very first day of clinical practice and again at the end of their last day of clinical practice for that year. The average age of participants was 19.7 years (SD ± 1.32), and 78.9% were female. The findings revealed that students experienced a notable level of stress associated with clinical practice, and this stress tended to increase as they progressed through their initial clinical training period. Specifically, the mean CSQ stress score was 50.50 (±9.36) at the first measurement (after the initial day) and rose to 52.07 (±9.87) by the end of the training period. Similarly, coping scores also increased: the mean WCQ score was 71.06 (±13.64) initially, compared to 77.63 (±17.03) at the final measurement.

Albaqawi (2018): Albaqawi's research employed a cross-sectional analytical approach, incorporating regression analysis, to examine how various demographic factors might affect perceived stress and coping strategies among nursing students in northwestern Saudi Arabia. The study had 200 participants (with a response rate of 38%, indicating that 200 out of an estimated 525 invited or eligible students responded). It utilized Cohen's standardized Perceived Stress Scale (which measures general stress) and Carver's COPE inventory (a comprehensive measure of coping strategies). The data showed that a majority of the participating students (61%) reported a moderate level of perceived stress in their role as nursing students. When it came to coping, many students favored **emotion-focused coping strategies**, especially those connected to religious practices. This might include coping methods such as praying, seeking spiritual support, or finding comfort in religious activities, reflecting the cultural context. The regression analysis offered insights into which demographic factors were linked with higher stress or particular coping styles. One key finding was that female nursing students tended to have a higher perception of stress compared to their male counterparts. These findings suggest that personal life circumstances and the structure of the educational program can influence how nursing students experience stress and how effectively they cope with it.

Labrague et al. (2018): Labrague and colleagues performed a systematic review to synthesize research on stress perceptions and coping styles among nursing students in Saudi Arabia. Using four databases (SCOPUS, CINAHL, PubMed, Ovid), they located 11 relevant studies published from 2010 onward. The review revealed that Saudi nursing students generally reported moderate to high stress levels, with the major stressors being heavy academic and clinical workloads and the responsibility of patient care. When examining stress in relation to student demographics, the findings were somewhat inconsistent; however, there were indications that students in higher years of study might experience greater stress, likely due to increased responsibilities and expectations. In terms of coping, the nursing students employed a mix of active coping strategies (problem-focused) and passive strategies (emotion-focused) to manage their stress.

Al-Gamal, Alhosain & Alsunaye (2018): This descriptive correlational study concentrated on undergraduate Saudi nursing students (specifically female students) and examined their stress levels and coping strategies during clinical education. A total of 121 students participated, completing the Perceived Stress Scale and the Coping Behavior Inventory along with a demographic questionnaire. The results showed that, among various sources of stress measured,

Frontier in Medical & Health Research

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the factor "stress from taking care of patients" had the highest mean score, suggesting that providing patient care was the most stressful aspect of training for these students. Regarding coping strategies, the study found that the **problem-solving** approach was the most commonly used coping strategy among the students. This implies that when faced with clinical stressors, many students tried to cope by actively finding solutions, seeking information, or taking steps to improve the situation, rather than avoiding the issue or simply venting emotions.

3.METHODOLOGY

3.0 INTRODUCTION

This chapter describes the methodology of the study, including the research design, target population, sampling process, data collection methods, instruments used, and the procedures for data analysis. It also outlines the ethical considerations observed during the research.

3.1 RESEAECH DESIGN

A **cross-sectional** research design was utilized for this study. This means that data were collected at a single point in time (or over a short, defined period) from a sample that represents the population of interest.

3.2 SAMPLING TECHNIQUE

The study employed a **simple random sampling** technique to select participants from the target population. This means every nursing student in the target population had an equal chance of being selected for participation. The intent of using simple random sampling was to minimize selection bias and ensure that the sample would be representative of the wider student population at the College of Nursing.

3.3 TARGET POPULATION

The target population for this study was the nursing students at the College of Nursing, Children's Hospital and Institute of Child Health Sciences in Lahore.

3.4 SETTING

The study was conducted at the College of Nursing affiliated with the Children's Hospital and the Institute of Child Health Sciences, located in Lahore, Pakistan. All data collection activities were carried out in this setting, which includes the academic facilities and potentially the clinical training sites associated with the college.

3.5 DURATION OF STUDY

The research was completed over a period of approximately six months. Data collection and analysis spanned from July 2024 to January 2025.

3.6 SAMPLE SIZE

A sample size of 230 students was determined for the study. This number was derived using a standard sample size calculation formula for a finite population, to ensure representativeness while accounting for the total number of students at the college. The calculation considered a 95% confidence level and a margin of error of 5%. Initially, the formula $n = (Z^2 * p * (1-p)) / e^2$ was used, where Z is the z-score for the confidence level (1.96 for 95%), p is the estimated proportion of the attribute of interest in the population (a conservative estimate of 0.5 was often used if the true proportion is unknown, to maximize the required sample size), and e is the margin of error (0.05). This preliminary calculation yielded an approximate sample size of 384 for an infinitely large population. However, since the total population of nursing students (N) at the college was around 569, the sample size was then adjusted using the finite population correction formula:

$n_{adjusted} = n_0 / (1 + (n_0 - 1)/N)$

Where n_0 is the initial calculated sample size (384) and N is the population size (569). Plugging in the values, the adjusted sample size was approximately 230. Thus, 230 students were targeted to participate in the study, balancing feasibility with statistical rigor.

A sample size of 230 population is estimated with a margin of error of 5% using the following formula.

$$n = \frac{z^2 p(1-p)}{e^2}$$

Where:

- n = sample size
- Z = Z-score corresponding to the desired confidence level(1.96)
- p = estimated proportion of the population
- e = margin of error (commonly 0.05 or 5%)

$$n = \frac{1.96^2 . \ 0.57(1-0.5)}{0.05^2}$$

Frontier in Medical & Health Research

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$$n = \frac{3.8416 \cdot 0.57(0.5)}{0.0025}$$

$$n = \frac{3.8416 \cdot 0.285}{0.0025}$$

$$n = 384.16$$

$$n = 384$$

Now , we will use this formula;

$$nadj = \frac{n}{1+\frac{(n-1)}{N}}$$

Where:

- n = sample size (384)
- N = total population size (569)

$$nadj = \frac{384}{1+\frac{(384-1)}{569}}$$

$$nadj = \frac{384}{1+\frac{(383)}{569}}$$

$$nadj = \frac{384}{1.67}$$

$$nadj = 230$$

3.7: SAMPLE SELECTION

Inclusion Criteria: Nursing students currently enrolled at the College of Nursing, Children's Hospital, Lahore.Students who were actively involved in clinical practice/rotations at the time of the study (meaning they had direct patient care experience as part of their coursework).

Exclusion Criteria: Students who were on leave or otherwise absent during the data collection period were not able to participate.Any students who chose not to give informed consent were excluded, as participation was voluntary and required agreement to partake in the survey.

3.8: DATA COLLECTION PROCEDURE

Data collection was carried out after obtaining the necessary ethical approvals and permissions from the relevant authorities of the College of Nursing and the affiliated hospital. Participants were first briefed about the study's objectives and what their participation would involve. Those who agreed to take part were asked to sign a written informed consent form. After giving consent, students received the structured questionnaire prepared for the study. In this case, the questionnaire was made available electronically via Google Forms (an online survey platform) for convenience and ease of distribution. The choice of an online form helped in collecting data efficiently and allowed students to complete the survey at a time and place of their choosing, within the data collection period. The survey was kept open for a specified duration to allow all selected students ample time to respond. Reminder messages (either in person at classes or through WhatsApp, etc.) may have been sent to the selected students to encourage participation and to thank those who had already responded.

As the students submitted their responses through Google Forms, the data were collected in a structured digital format (e.g., a spreadsheet). The responses were monitored to ensure the target sample size was achieved and to check for completeness of data.

Throughout the data collection process, measures were taken to ensure confidentiality—no personal identifiers (such as student names or ID numbers) were asked on the survey, aside from basic demographic information necessary for the study. The data were stored securely with access limited to the research team.

3.9 INSTRUMENTS

The study utilized an **adopted structured questionnaire** consisting of three parts. Each part corresponded to a different set of variables needed to meet the research objectives. The instruments used are described below:

Part 1: Demographic Information. This section gathered background information on the participants. It included questions about the student's age, gender, academic year in the nursing program (1st, 2nd, 3rd, or 4th year), any prior experience in a healthcare or nursing role (for instance, if they had worked as a nursing assistant or had clinical exposure before enrolling), and whether they had any family members working in the medical or nursing field. Additionally, students were asked about their current clinical posting or rotation area (e.g., pediatrics, surgery, community health) to contextualize their stress experiences.

Part 2: Perceived Stress Scale (PSS) for Nursing Students. To measure the level of stress and identify stressors, the study used a specialized version of the Perceived Stress Scale developed by Sheu et al. (1997) tailored for nursing students in clinical settings. This scale consists

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

of 29 statements describing potential stress-inducing situations in clinical training, and respondents rate how much stress each situation caused them on a 5-point Likert scale (where 0 could represent "Never" and 4 "Extremely" or "Always," depending on the scale's specific anchors). The 29 items are grouped into six sub-categories reflecting different domains of stress:

- **Stress from taking care of patients:** 8 items (e.g., feeling unsure about how to provide proper care or how to handle patients' problems).
- **Stress from teachers and nursing staff:** 6 items (e.g., feeling stressed by how teachers or staff evaluate or interact with the student).
- **Stress from assignments and workload:** 5 items (e.g., stress from completing clinical assignments, paperwork, or balancing workload).
- **Stress from peers and daily life:** 4 items (e.g., competition or comparison with fellow students, or managing personal life alongside clinical duties).
- **Stress from lack of professional knowledge and skills:** 3 items (e.g., feeling unprepared or lacking necessary nursing skills and knowledge in practice).
- **Stress from the clinical environment:** 3 items (e.g., stress from being in an unfamiliar hospital environment or due to the pace and nature of the clinical setting).

For each item, students indicated how much stress it caused them, and item scores could be summed (or averaged) to give scores for each subscale and an overall stress score. The total possible score ranges from 0 to 116, with higher scores indicating higher perceived stress. This instrument has established reliability and validity in prior studies. Sheu et al. (1997) reported a Cronbach's alpha of 0.89 for internal consistency of the scale, indicating a high level of reliability. They also reported a test-retest reliability of 0.60 ($p < 0.01$) over a one-week interval, suggesting that the scale yields reasonably stable results over short periods (which is acceptable given that stress levels can fluctuate).

Part 3: Coping Behavior Inventory (CBI). To assess how students cope with stress, the Coping Behavior Inventory developed by Sheu et al. (2002) was used. The CBI consists of 19 items, each describing a coping behavior or strategy, and students rate how often they use each strategy on a 5-point Likert scale (typically 1 = "Never", 2 = "Rarely", 3 = "Sometimes", 4 = "Often", 5 = "Always"). The 19 items are categorized into four types of coping behaviors:

- **Avoidance behaviors:** 6 items. These items reflect efforts to avoid dealing with stressors or to withdraw from stressful situations. For example, avoiding difficult tasks during clinical practice, keeping away from strict teachers, or wishing for miraculous solutions so as not to face the problem.
- **Problem-solving behaviors:** 6 items. These represent proactive efforts to manage or resolve the stressful situation. Items might include actions like coming up with a clear plan to handle the stress, prioritizing tasks, seeking information or help to solve the issue, and drawing on past experiences to tackle current problems.
- **Optimistic behaviors:** 4 items. These involve maintaining a positive attitude and emotional outlook despite stress. For instance, trying to keep an optimistic view on things, having confidence in overcoming difficulties, or encouraging oneself that everything will work out.
- **Transference behaviors:** 3 items. These items indicate strategies where the student shifts their focus away from the stressor temporarily. Examples could include engaging in leisure activities, watching TV or movies, sleeping, or exercising as a way to relax and mentally take a break from the stress.

Each coping behavior category can be scored by summing the responses of its items, and a higher score in a category means the student uses that type of coping more frequently. For the overall instrument, Sheu et al. (2002) reported a Cronbach's alpha of 0.76, indicating acceptable reliability. The test-retest reliability coefficients for the four subscales over a one-week period were 0.57 (avoidance), 0.57 (problem-solving), 0.59 (optimistic), and 0.55 (transference), all with $p < 0.001$. While these test-retest values are moderate (reflecting that coping can change from week to week), they were statistically significant and suggest the instrument is reasonably stable for measuring coping tendencies.

The questionnaire used in this study was adopted with permission from these established

Frontier in Medical & Health Research

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instruments and possibly modified slightly to fit the local context or language, while ensuring that the reliability and validity of the original scales were preserved.

3.10 DATA ANALYSIS

After data collection, all responses were compiled and imported into the computer software **Statistical Package for the Social Sciences (SPSS)** for analysis. The analysis strategy was primarily descriptive, focusing on summarizing the data to address the research objectives and question.

The following steps and statistical methods were used:

- **Data Cleaning:** Initially, the dataset was reviewed for any data entry errors or incomplete responses. Any questionnaires that were largely incomplete or had obviously invalid responses would have been excluded or addressed as per a pre-defined protocol (for example, if a participant skipped a section).
- **Descriptive Statistics:** The main analysis involved calculating descriptive statistics for key variables:
- For continuous or scale variables (like age, and the stress and coping scores), measures of central tendency and variability were computed. This included the mean and standard deviation (SD) for the overall perceived stress score, the mean and SD for each stress subscale (patient care, assignments and workload, etc.), and the mean and SD for each coping category (avoidance, problem-solving, optimistic, transference). The mean values provided an average level of stress or coping usage, while the standard deviations indicated how much variation there was among students' responses.
- For categorical variables (such as year of study, gender, presence of healthcare family member, interest in nursing, etc.), frequencies (counts) and percentages were calculated. These described the distribution of the sample's characteristics and some contextual information like what proportion of students had family in healthcare, or how many were in each year of the program.
- **Tabulation:** Results were organized into tables for clarity. For example, a table was created (Table 1) to show the demographic breakdown of the sample (number and percentage in each category of age group, year, etc.). Another table (Table 2) summarized the mean scores of stress items and categories, highlighting which stressors were rated highest. Yet another table (Table 3) summarized the coping behavior scores, indicating which coping strategies were most frequently used.
- **Interpretation:** Finally, the analyzed data were interpreted in light of the research questions. Descriptive findings were used to answer how much stress students perceived on average, what the top stressors were, and what coping strategies were commonly employed. If any significant differences or correlations were found (like different stress levels by year of study), these were noted and considered in the context of existing literature.

3.11 ETHICAL CONSIDERATION

The research adhered to important ethical principles throughout its design and execution. Key ethical considerations included:

- **Informed Consent:** Prior to participation, each student was informed about the purpose of the study, what their participation would involve, and how the data would be used. They were assured that participation was voluntary and that they could withdraw at any time without any consequences to their academic standing.
- **Confidentiality:** All information gathered from participants was kept strictly confidential. The data collected were stored in a secure manner (e.g., password-protected files for digital data) and were accessible only to the researchers. When reporting results, only aggregate data (like group averages or percentages) were presented, ensuring that no individual's identity or responses could be discerned.
- **Anonymity:** The study design respected the anonymity of participants. Students did not have to write their names or any identifying personal details on the questionnaire beyond general demographic categories. In any publications or presentations of the research, no information that could identify specific participants was disclosed.
- **No Harm to Participants:** The survey topics of stress and coping were not expected to pose significant psychological risk to participants, but the researchers remained sensitive to any distress. Participants were free to skip any question they were uncomfortable with or to stop the survey entirely at any point. If any student had become

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

upset or anxious as a result of survey questions (for instance, reflecting on stressful experiences), the researchers were prepared to provide support or referrals (e.g., suggesting speaking with a counselor). However, no major issues were anticipated given the nature of the survey.

- **Ethical Approval:** Before commencing data collection, the research proposal was reviewed and approved by the relevant Institutional Review Board (IRB) or ethics committee. In this case, the College of Nursing and/or the Children's Hospital's ethics committee would have granted permission, as evidenced by an ethical approval letter (as noted in the annexures). This process would have ensured that the study met all ethical standards for research involving human subjects, including fairness in participant selection, risk minimization, and obtaining informed consent. By addressing these ethical considerations, the study aimed to respect the rights and well-being of the student participants and to maintain the integrity of the research process.

4. ANALYSIS AND RESULTS

This chapter presents the key findings of the study, organized according to the main focus areas: the demographic profile of participants, the stressors perceived by nursing students during clinical training, and the coping behaviors they reported using. The results include both descriptive statistics in narrative form and summary tables.

4.1 DISTRIBUTION OF STUDENTS BY DEMOGRAPHIC CHARACTERISTICS

The study included N = 230 nursing students. **Table 1** provides an overview of their demographic characteristics, including age, gender, year of study, whether they have family in the medical field, and whether nursing was their field of interest by choice.

Table 1: Demographic Characteristics of Participating Nursing Students (N = 230)

Characteristic	Category	N (%)	Mean	SD
Age			2.05	0.794
	< 20 years	67 (29.1%)		
	20–24 years	85 (37.0%)		
	> 24 years	78 (33.9%)		
Gender			1.00	0.000
	Male	0 (0.0%)		
	Female	230 (100%)		
Year of Study			2.82	1.073
	1st Year	39 (17.0%)		
	2nd Year	39 (17.0%)		

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

Characteristic	Category	N (%)	Mean	SD
	3rd Year	76 (33.0%)		
	4th Year	76 (33.0%)		
Medical/Nursing Personnel in Family			1.54	0.499
	Yes	125 (54.3%)		
	No	105 (45.7%)		
Interest in Nursing (by choice)			1.58	0.495
	Yes (self-chosen field)	133 (57.8%)		
	No (not first choice)	97 (42.2%)		

Note: The "Mean" and "SD" columns for categorical variables represent how these were coded for analysis. For example, Gender was coded (1 = female, 0 = male) so the mean of 1.00 reflects that all respondents were female.

Key observations from Table 1:

- All participants in the sample were **female nursing students**. (This could be due to the college being a women's nursing college or simply the composition of those who responded.)
- The **age distribution** was fairly even across the three categories, with the largest group being 20–24 years old (37.0%). This likely corresponds to the typical age of students in a nursing program (late teens to early twenties), with one-third being above 24 years (perhaps students who started later or repeating a year).
- Participants were drawn equally from the **3rd and 4th years** of the program (33% each), and each of the junior years (1st and 2nd) contributed 17% of the sample. This suggests a slight oversampling of more senior students, or simply that more senior students were available or willing to respond.
- Just over half of the students (54.3%) reported having a **family member in the medical or nursing field**. This is a notable proportion, indicating that many students might have personal or familial exposure to healthcare professions.
- About 58% of the students indicated that **nursing was a field of their interest or choice**, whereas 42.2% said it was not their personal choice (meaning they might have entered nursing due to other circumstances, such as family pressure, availability of seats, or it being a second choice). This factor could potentially influence motivation and stress.

These demographic factors were collected to contextualize the findings on stress and coping. Next, we examine the specific stressors that students reported during their clinical training.

4.2 STRESSORS DURING CLINICAL TRAINING

The nursing students were asked about various potential stressors they might encounter during clinical practice, using the structured Perceived Stress Scale (PSS) questionnaire. Each item in the scale represents a specific situation that could cause stress, and students indicated how much stress each situation caused them. The responses provide insights into which areas are most stressful for students.

Table 2 summarizes the findings from the PSS, showing the average stress scores for each category of stressors as well as for individual

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

items within those categories. Scores ranged from 0 (not at all stressful) to 4 (extremely stressful). For ease of interpretation, the table is organized by the six major categories of stress, and within each category, the items are listed.

Table 2: Perceived Stressors Among Nursing Students During Clinical Training (N = 230)

Stress Category and Items	Mean	SD	Category Rank
Overall Perceived Stress Scale Score	**2.61**	0.37	–
I. Stress from Taking Care of Patients (8 items)	**2.85**	1.21	1 (Highest)
1. Lacking experience/ability in providing nursing care and making judgments.	2.49	1.09	
2. Not knowing how to help patients with physical, psychological, or social problems.	2.65	1.10	
3. Feeling unable to meet one's own expectations of performance.	2.80	1.19	
4. Difficulty responding appropriately to questions from doctors, teachers, or patients.	3.00	1.28	
5. Worrying about not being trusted or accepted by patients or their families.	2.82	1.22	
6. Feeling unable to provide patients with good nursing care.	3.23	1.27	
7. Not knowing how to communicate effectively with patients.	3.23	1.29	
8. Difficulty transitioning from the role of a student to that of a nurse.	2.51	1.15	
II. Stress from Assignments and Workload (5 items)	**2.20**	1.07	6 (Lowest)
1. Worrying about poor grades.	2.00	1.01	
2. Pressure from the nature and quality of clinical practice work.	2.18	1.06	
3. Feeling one's performance does not meet teachers' expectations.	2.51	1.15	
4. Requirements of clinical practice exceed physical and emotional endurance.	2.30	1.12	
5. Clinical practice schedule affects one's family and social life (dull or inflexible routine).	2.11	1.01	
III. Stress from Lack of Professional Knowledge & Skills (3 items)	**2.80**	1.22	2

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

Stress Category and Items	Mean	SD	Category Rank
1. Unfamiliarity with medical history and terminology.	2.75	1.21	
2. Unfamiliarity with certain nursing skills/procedures.	2.93	1.23	
3. Unfamiliarity with patients' diagnoses and treatments.	2.73	1.23	
IV. Stress from the Environment (3 items)	**2.58**	1.18	3
1. Feeling stressed by the hospital environment of clinical practice.	2.58	1.17	
2. Unfamiliarity with ward facilities and layout.	2.83	1.24	
3. Stress due to rapid changes in patients' conditions.	2.34	1.13	
V. Stress from Peers and Daily Life (4 items)	**2.44**	1.13	5
1. Experiencing competition from peers in school and clinical practice.	2.37	1.06	
2. Feeling pressure when teachers compare students' performance.	2.11	1.13	
3. Clinical practice hinders involvement in extracurricular activities.	2.37	1.14	
4. Inability to get along well with peers in the clinical group.	2.90	1.20	
VI. Stress from Teachers and Nursing Staff (5 items)	**2.54**	1.13	4
1. Experiencing a gap between theory and practice (theory–practice gap).	1.94	1.00	
2. Not knowing how to discuss patients' illnesses with teachers or medical staff.	2.85	1.24	
3. Perceiving medical staff as lacking empathy or unwilling to help students.	2.80	1.22	
4. Feeling that teachers do not give fair evaluations.	2.45	1.21	
5. Feeling a lack of proper guidance and care from teachers.	2.65	1.21	

Looking at **Table 2**, we can identify which areas are most stressful for the students:

- The category **"Stress from Taking Care of Patients"** has the highest mean score (2.85 out of 4) among all categories, indicating that

Frontier in Medical & Health Research

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direct patient care responsibilities are the most stressful aspect of clinical training for these students. Within this category, two specific items stand out with the highest individual stress scores:

- *"Feeling unable to provide patients with good nursing care"* and *"Not knowing how to communicate effectively with patients"* both have a mean of 3.23. These were among the highest item scores in the entire survey, suggesting many students feel significant anxiety about the quality of care they deliver and their communication with patients. This makes sense, as students often worry about making mistakes or saying the wrong thing due to inexperience.
- Other notable items in this category include difficulty handling questions from professionals (mean 3.00) and worry about patient trust (2.82), reinforcing that interacting with patients and the healthcare team is a major source of stress.
- The second highest stress category is **"Stress from Lack of Professional Knowledge and Skills"** with a mean of 2.80. This highlights that students feel stressed when they encounter situations where they feel their knowledge or skillset is lacking. The item *"Unfamiliarity with certain nursing skills"* scored highest in this category (2.93), indicating that technical skills (like performing procedures) are a prominent worry.
- The third ranked category is **"Stress from the Environment"** (mean 2.58). Within this, *unfamiliarity with ward facilities* scored fairly high (2.83), indicating that not knowing the physical layout or how things work in a particular hospital ward adds to stress. The hospital environment's general atmosphere and the need to respond to rapidly changing patient conditions also contribute to stress, though slightly less.
- **"Stress from Teachers and Nursing Staff"** (mean 2.54) is the fourth category. The highest stressor here was *communication with teachers/medical staff about patient illness* (2.85) and the perception that some staff lack empathy or willingness to teach (2.80). Students also felt stress about fair evaluations and getting adequate guidance. Notably, the "theory-practice gap" (where what is taught in class doesn't match what is practiced in the ward) had a lower score (1.94), suggesting that was less of a concern compared to interpersonal dynamics and feedback.
- **"Stress from Peers and Daily Life"** scored a mean of 2.44. Within this domain, difficulties in peer relationships in the clinical setting (not getting along with group mates) was a significant stress point (2.90). Feeling competitive with peers or feeling compared by teachers were also present but slightly lower, as was missing out on social or extracurricular life due to clinical commitments.
- **"Stress from Assignments and Workload"** had the lowest mean score at 2.20. This indicates that, relative to other factors, students found assignments and workload slightly less stressful (though still with an average in the low-to-moderate range). Within this category, a notable concern was feeling that their performance might not meet teachers' expectations (2.51) and feeling that the demands might exceed their physical/emotional endurance (2.30). Worrying about grades had a mean of 2.00, which is on the lower side among these items, and suggests that while grades are certainly a concern for students, they were not rated as highly stressful as, say, communication or hands-on care issues.

4.3 COPING BEHAVIOURS UTILIZED BY NURSING STUDENTS

Using the Coping Behavior Inventory (CBI), the study also asked nursing students how frequently they used certain coping behaviors when dealing with stress in their clinical training. The CBI covers four categories of coping strategies: avoidance, problem-solving, staying optimistic, and transference. Each item is a specific behavior, and students rated how often they engage in that behavior under stress.

Table 3 provides the mean scores for each coping category and the individual behaviors within those categories. Like the stress scale, the coping scale ranges from 1 (meaning "never use this coping method") to 5 ("always use this method").

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

Table 3: Coping Behaviors Reported by Nursing Students (N = 230)

Coping Category and Items	Mean	SD	Category Rank
Overall Coping Behavior Inventory Score	**2.43**	0.59	–
I. Avoidance (6 items)	**2.98**	1.50	1 (Most used)
1. Avoiding or evading difficult situations during clinical practice.	2.49	1.09	
2. Keeping a distance from or avoiding interactions with teachers.	3.14	1.24	
3. Quarreling with others or losing temper when stressed.	3.49	1.26	
4. Hoping for a miracle so one doesn't have to face the difficulty.	3.15	1.23	
5. Expecting others (someone else) to solve the problem.	3.32	1.32	
6. Attributing the situation to fate (believing nothing can be done).	2.32	1.21	
II. Problem Solving (6 items)	**2.05**	0.93	4 (Least used)
1. Trying different strategies to solve the problem.	1.92	0.77	
2. Setting up objectives or a plan to resolve the issue.	2.00	0.88	
3. Making detailed plans and listing priorities to deal with the stressor.	2.03	0.96	
4. Finding personal meaning or lessons in the stressful incident.	2.18	0.99	
5. Using past experiences to figure out solutions.	2.02	0.93	
6. Having confidence to perform as competently as senior students.	2.12	1.02	
III. Staying Optimistic (4 items)	**2.29**	1.02	2 (Tied 2nd)
1. Keeping an optimistic, positive attitude about everything.	1.96	0.86	
2. Trying to view things objectively, without panic.	2.02	0.93	
3. Having confidence that difficulties can be overcome.	2.09	0.99	
4. Releasing emotions by crying or feeling moody, sad, and helpless.	3.07	1.28	
IV. Transference (3 items)	**2.29**	1.06	2 (Tied 2nd)

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

Coping Category and Items	Mean	SD	Category Rank
1. Indulging in food or taking a long sleep to forget stress.	2.55	1.11	
2. Ensuring enough rest and sleep to stay healthy for coping.	2.20	1.06	
3. Relaxing through entertainment (TV, movies) or exercise.	2.13	1.01	

Interpreting **Table 3**, we can see which coping mechanisms are more commonly used and which are less favored by the students:

- **Avoidance** coping has the highest average score (2.98), making it the most frequently used category of coping among these students. This is a noteworthy finding because avoidance strategies are typically considered less effective in the long-term management of stress. The items under avoidance reveal some concerning tendencies:
- The highest-rated avoidance behavior is "*Quarreling with others and losing temper*" (mean 3.49). This suggests that when stressed, many students find themselves getting into arguments or becoming irritable with those around them (which could include peers, family, or even patients and staff). It's a reactionary behavior indicating frustration.
- Other high avoidance responses include "*Expecting others to solve the problem*" (3.32) and "*Hoping for miracles*" (3.15). These imply a passive approach—wishing the stress would just go away or someone else would deal with it, rather than actively addressing it.
- Avoiding teachers (3.14) is also notably high, meaning if students feel stressed or perhaps unprepared, they might dodge contact with instructors or supervisors, which could hinder learning.
- Interestingly, *attributing to fate* is lower (2.32) but still above the midpoint of 2.0, showing that some students resort to a fatalistic attitude that nothing can be done.
- **Staying**

Optimistic and **Transference** are tied as the second most used coping categories, each with a mean around 2.29. These are moderate in usage:

- Under *Staying Optimistic*, most items like keeping a positive attitude or confidence are around 2.0, but one item stands out: "*crying or feeling moody, sad, helpless*" has a mean of 3.07. This indicates that emotional release through crying or feeling down is actually a commonly experienced reaction (though one might argue this is more of an emotional response than an active "optimistic" strategy—its inclusion in this category is interesting and could represent the expression of emotions as a coping mechanism).
- The fact that "crying and feeling helpless" is relatively high suggests many students do feel overwhelmed to the point of tears or sadness at times, which is an emotional coping response.
- Under *Transference*, the items show moderate use of distraction techniques: e.g., "having a good meal and long sleep" is 2.55, meaning occasionally students might cope by eating or sleeping more than usual. Engaging in relaxing activities (watching TV, movies, or exercising) is slightly lower at 2.13 on average.
- Ensuring enough rest to handle stress is 2.20, implying that some students do try to cope by taking care of their physical health (sleeping enough), but not all do this frequently.
- **Problem Solving** has the lowest mean score (2.05), indicating that active problem-solving behaviors are the least commonly used coping strategies among the group. Most items in this category hover around 2.0, which corresponds to "rarely" on the Likert scale:
- Students infrequently reported doing things like systematically planning, setting objectives, or drawing on past experiences to solve the problem. For instance, making detailed plans or trying multiple strategies were not commonly done (means around 2.0).
- One slightly higher item was "finding meaning in the stressful incident" at

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

2.18, showing that occasionally students reflect on what they can learn from a stressful event.

- Having confidence to perform as well as senior students was about 2.12, which might reflect that many students do not yet feel confident and thus do not use that mindset as a coping strategy.
- The **overall mean coping score** of 2.43 (out of 5) suggests that on average, students are only sometimes using any given coping strategy. They are not consistently employing many strong coping techniques frequently (as many scores are below 3, which would indicate an "often" frequency). Instead, a lot of potentially constructive coping (like problem-solving or staying optimistic through positive reframing) is underutilized, whereas more negative or passive behaviors (like avoidance and emotional venting through anger or sadness) are relatively more common.
-

5. DISCUSSION

This study set out to evaluate the common sources of stress experienced by nursing students during clinical practice and to understand the coping strategies they employ. The findings from the analysis offer a detailed picture of student nurses' stress and coping profiles, and several important points emerge when we compare these results with existing literature and theoretical expectations.

Firstly, the overall level of stress among the nursing students was moderate (mean PSS score of 2.61 on a 0–4 scale). This indicates that, as a group, students were not overwhelmed by extreme stress on a daily basis, but they did consistently experience stress at a notable level. Clinical training is widely acknowledged to be a stressful period in nursing education, since students must apply knowledge, perform skills, and make clinical decisions often for the first time in real patient care settings. Our findings reinforce this, showing that virtually all students felt some degree of stress, with certain areas causing particularly high stress. This aligns with previous research pointing out that clinical placements tend to be more stressful than classroom learning for nursing students

5.1: KEY STRESSORS ENCOUNTERED DURING CLINICAL TRAINING

One of the most striking findings in our study was that *stress related to patient care* was the top stressor category. Students felt high stress in situations where they doubted their ability to provide safe and effective care, or when they were unsure how to communicate with patients. This result is in line with numerous studies across different countries. For example, **Chan et al. (2009)** also found that "lack of professional knowledge and skills" was a chief stressor in Hong Kong nursing students, and our students similarly reported feeling stressed by their own unfamiliarity with certain clinical skills or medical knowledge. The fear of making mistakes with patients, which was implicit in items like worrying about not giving good care or not being trusted by patients, echoes findings by **Ziaullah & Ullah (2017)** and others, who noted that nursing students commonly fear harming patients or being criticized for errors. Additionally, the responsibility of caring for actual patients can be daunting; our results resonate with **Al-Gamal et al. (2018)**, where "taking care of the patient" was the highest stress subscale for Saudi nursing students.

We also observed significant stress arising from interactions with **teachers and nursing staff**, which included concerns about unfair evaluation, lack of guidance, or harsh treatment. This reflects themes from qualitative studies like **Msiska (2016)**, where students felt that some lecturers induced stress by being overly critical or not supportive enough, and from **Hamaideh et al. (2017)**, which identified "teachers and nursing staff" as a key stressor. An interesting point is that the item related to the gap between theory and practice was relatively low in stress rating for our sample. This suggests that, at least from the students' perspective, the *content* of what they learned in class versus what they saw in hospital was not as big a problem as the *social dynamics* and expectations in the clinical setting. Students can perhaps adapt to procedural differences or new clinical conditions, but feeling unsupported or harshly judged by instructors and staff can deeply affect their stress levels and confidence.

Another area of moderate stress was **the clinical environment itself**. Our respondents indicated stress from being in an unfamiliar hospital

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

environment and dealing with sudden changes in patient conditions. Clinical settings, especially busy hospitals, have been cited as inherently stressful for students (McCarthy et al., 2018, noted clinical environment issues as a prime stress source). The unpredictability of clinical work (a patient's condition deteriorating unexpectedly, or an emergency occurring on the ward) is something students often feel unprepared for, which can heighten anxiety.

In terms of academic stressors (assignments, workload, grades), our study found these to be the lowest among the categories, yet still present. Many participants worried about meeting their teachers' expectations and balancing the workload, although pure academic concerns like exam grades were less intense than clinical worries. **Pulido-Martos et al. (2012)** identified academics as major stressors in general, but in the context of clinical training, perhaps the immediacy of patient care duties overshadows typical academic stress. It might also be that this study was conducted during active clinical rotations, so academic stress (like final exams) was not at its peak at that moment.

The prevalence of stress in our cohort is consistent with the broader literature that suggests nursing students often have higher stress levels than peers in less demanding programs (Gomathi et al., 2017). Importantly, high stress in students has been connected with negative outcomes: for instance, health issues (Al-Gamal et al., 2017) and emotional problems like anxiety and depression (Pereira et al., 2014; Zhao et al., 2014). Our findings of students frequently feeling sad, crying, or losing temper under stress (as seen in coping results) could be early indicators of such emotional strain.

5.2: COPING STRATEGIES

Turning to **coping strategies**, our study revealed a somewhat concerning tendency: students most commonly resorted to avoidance behaviors. This included actions like avoiding interactions (e.g., staying away from teachers), emotional outbursts (quarreling, losing temper), or wishful thinking (hoping someone else solves the problem or a miracle happens). Avoidance as a primary strategy is generally viewed as maladaptive when it comes to long-term stress management. It might provide immediate relief by temporarily removing the stressor from the student's attention, but it does not solve the underlying issue and can sometimes exacerbate it (for example, if a student avoids seeking help when they don't know how to do a procedure, they remain unskilled and the stress reappears in full force when they must perform it). This reliance on avoidance was also noted by **Chan et al. (2009)** in a subset of students (particularly those facing stress from certain interpersonal issues). Moreover, a thesis or review by **Sendir & Acaroğlu (2008)** in Turkey observed that some nursing students coped by avoidance, but such strategies were not advisable since they don't fundamentally solve problems. The prominence of avoidance in our sample might be attributed to a lack of coping skills training—students might not have been taught or had role-modeled how to effectively cope, or they might feel disempowered to change their situation, thus defaulting to avoidance.

On the other hand, **problem-focused coping** (active coping) was the least used category among our students. This contrasts with findings from studies like **Khater et al. (2014)** and **Alsaqri (2017)**, where problem-solving was reported as the most common coping strategy. This discrepancy could be due to cultural or educational differences, or perhaps differences in the year of study of participants. Our sample included a significant portion of third-year students (who might be in the thick of clinical training without yet having the experience of final-year students). It might be that more senior students, as noted in **Chan et al. (2009)**, lean more on problem-solving as they gain confidence and skills, whereas our mix of students still felt uncertain and thus didn't employ as much active coping. It's also possible that students intellectually know about problem-solving techniques (as part of their curriculum or orientation) but in the moment of stress find it easier to slip into avoidance or emotional release.

The moderate use of **optimistic coping** and **transference** indicates that some students are trying to keep their spirits up and distract themselves in healthy ways. The use of optimism (belief that they can overcome difficulties, trying to be positive) was present but not strong. Some literature suggests that optimism and positive reframing can mitigate stress effects, but perhaps students have not fully

Frontier in Medical & Health Research

ISSN: (e) 3007-1607 (p) 3007-1593

embraced these techniques or find them challenging to maintain when under pressure. **Hamaideh et al. (2017)** observed that staying optimistic was a common strategy, and our students did report using it sometimes (mean ~2.3), but it wasn't as dominant as one might hope. Transference behaviors like watching TV, sleeping, or exercising to relieve stress are generally harmless or even beneficial (especially exercise and rest), and our results show a number of students do use these methods occasionally. Encouraging these could be useful, as they at least provide a break and maintain health.

The emotional aspect revealed by the coping section—that many students cry or feel very down (mean ~3.07 for that item)—is significant. It underscores that the stress they feel isn't just an intellectual challenge; it affects them deeply emotionally. Emotional coping, such as venting by crying, can be a natural and sometimes necessary response to release tension, but if a student is frequently driven to despair, it signals that their stress level might be bordering on overwhelming at times. Prior research by **Chernomas & Shapiro (2013)** and others has documented students facing anxiety, depression, and insomnia due to stress, which our findings also hint at (with emotional and avoidant coping indicating internal turmoil).

Comparing our findings with a **recent perspective**, a study by **Alanazi et al. (2023)** highlighted that nursing students often use a mix of strategies—problem-solving, optimism, transference, and avoidance—to reduce stress during initial clinical training. Our findings similarly revealed that students engage in all these types of coping, though in our cohort, avoidance emerged as the most frequently used strategy. This could suggest that while students are aware of multiple coping methods (they did report using optimism and some problem-solving occasionally), they might default to less effective ones due to habit, personality, or insufficient coping support.

It's also possible that the students tried a combination of coping strategies. Some might first avoid and then later try to problem-solve, or vice versa. The interplay of coping strategies can be complex. Our data showed that **transference behaviors** (like relaxing with entertainment or sleeping) were moderately used but didn't strongly correlate with lower stress in the hardest areas. It could be that while taking breaks is helpful, it alone doesn't alleviate stress related to critical issues like feeling unprepared for patient care or lacking support from teachers. In other words, a short-term distraction (transference) or just "staying positive" might not fully counteract the anxiety from, say, having to perform a new procedure on a patient the next day. This observation aligns with the idea that emotion-focused coping alone might not be sufficient for performance-related stressors—practical solutions or skill improvements (problem-focused coping) would more directly address those.

5.3: IMPLICATIONS AND FUTURE RESEAECH

The combination of high stress from critical responsibilities and a tendency to avoid or only emotionally cope with these stressors suggests an area for intervention. Nurse educators and mentors could focus on **stress management training**, emphasizing effective coping strategies. For instance, workshops could be held to practice problem-solving in common stressful scenarios (like dealing with a mistake or communicating with a difficult patient). Simulation exercises might also help bridge the gap between theory and practice, building confidence and reducing stress due to unfamiliarity.

Another implication of our findings is the importance of **support systems**. Since students cited issues with teachers and staff as stressors and often avoided them when stressed, improving the mentorship and feedback style of clinical instructors could significantly lower stress. If instructors are perceived as approachable and fair, students might be less inclined to avoid them and more inclined to seek guidance (a form of problem-focused coping). Studies have pointed out that supportive clinical environments and good preceptor-student relationships can buffer stress (McCarthy et al., 2018; Msiska, 2016). Therefore, training for clinical educators on how to provide constructive feedback, empathize with students, and encourage questions might be as important as training students to cope.

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It is also worth noting some demographic considerations. Even though we did not find strong differences in stress or coping reported here by year or other demographics (this would require inferential analysis beyond descriptive goals of our study), literature suggests, for example, that female students may experience or at least report stress differently than male students found female students had higher stress perception). Our entire sample was female, which removes gender comparison but also means our findings specifically reflect female nursing student experiences. Cultural factors might also play a role in coping preferences; for example, the high reliance on religious coping in Saudi contexts (Albaqawi, 2018) was not directly measured in our study, but could be embedded in some students' optimistic outlook or acceptance (fate attribution). The context of a single college in Lahore could mean students share certain cultural attitudes, like respect for authority which might contribute to stress with teachers or reluctance to question them (leading to avoidance). These nuances warrant further qualitative exploration.

In summary, our study found that nursing students in clinical training are most stressed by the core demands of clinical practice—caring for patients and feeling underprepared—along with the pressures from their supervisors and environment. They are least stressed by assignments and tests in comparison, although those are still sources of stress. When it comes to coping, many students are not consistently using the most effective strategies; instead, they often withdraw or rely on less constructive means of coping, despite knowing of other possible strategies. This indicates a gap between awareness and practice of coping methods.

The implication for nursing education is clear: simply introducing coping strategies (for instance, telling students about problem-focused vs. emotion-focused coping in a lecture) may not be enough. Students might need more practical training, mentoring, and support in implementing those strategies. They might also benefit from structural changes, such as lower student-to-instructor ratios in clinical settings (for more support), or peer support groups where they can share experiences and coping tips.

5.4: CONCLUSION

In conclusion, while many nursing students understand in theory how they could handle stress, they do not always manage to do so in practice. Schools of nursing should take these findings as evidence that more robust support systems and coping-skills training are needed. This could include mindfulness programs, peer mentoring, stress management workshops, and creating a more open culture where students feel comfortable discussing their stress and seeking help. By addressing these needs, educators can help nursing students not only survive their clinical training with better well-being but also prepare them for the high-stress profession of nursing with resilience and effective coping toolkits.

5.5: RECOMMENDATIONS

To mitigate stress among nursing students, the College of Nursing, Children's Hospital Lahore, should:

- Conduct stress management workshops
- Offer mental health support services
- Integrate stress management modules into the nursing curriculum
- Establish peer support programs

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