

## ORIGINAL RESEARCH

# An exploration of nursing students' stress, coping, and quality of life

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**Received:** September 6, 2022

**Accepted:** October 25, 2022

**Online Published:** October 30, 2022

**DOI:** 10.5430/jnep.v13n3p1

**URL:** <https://doi.org/10.5430/jnep.v13n3p1>

## ABSTRACT

**Objective:** The purpose of this phenomenological study was to identify stressors nursing students experience and examine the impact of stress on quality of life. A secondary aim was to identify coping mechanisms nursing students use to manage stress and to explore the effectiveness of these coping strategies.

**Methods:** Purposive and snowball sampling were used to recruit eight students from a baccalaureate nursing program in the southeastern United States. One on one interviews were conducted using a semi-structured interview guide. Data were analyzed using Colaizzi's method of data analysis.

**Results:** Three themes emerged and were identified as (a) the Culture of Nursing School, (b) Nursing School Impacts Quality of Life, and (c) Emotion-Focused Coping. The sub-themes identified with Nursing School Impacts Quality of Life included Personal Lives Altered and Fear of Failure. Within Emotion-Focused Coping emerged two subthemes, Misery Loves Company and Light at the End of the Tunnel.

**Conclusions:** The present study sheds light on the stressors nursing students experience. Many students feel unprepared and become occupied with the fear of failure, which interferes with concentration and academic performance. Stressful situations in nursing school are unavoidable, therefore students must develop effective coping strategies. Faculty need to incorporate coping education into the curriculum to produce resilient, successful nurses. Fostering adaptive coping strategies may help decrease burnout and improve physical and mental wellbeing in nursing students.

**Key Words:** Nursing student, Stress, Coping, Quality of life

## 1. INTRODUCTION

Stress is a physiologic phenomenon occurring in the human body as a response to internal and external stimuli.<sup>[1]</sup> Under normal circumstances, the body's response to stress is adaptive, but when subjected to high-potency or prolonged stress, responses become maladaptive. These stressors trigger excessive or sustained activation of corticotropin-releasing hormone (CRH), leading to chronic stress syndrome. Increased CRH stimulation may also contribute to the pathogenesis of many medical and psychiatric disorders, such as depressive disorders and other physical illnesses, including heart

disease, obesity, and metabolic syndrome.<sup>[1-3]</sup>

A population at risk for exposure to chronic stress is college students. The American College Health Association (ACHA) reported that 42.3% of college students experienced stress in the 2021 Fall Semester. Using the Kessler 6 (K6) Non-Specific Distress Scale, the ACHA found that 50.8% of college students experienced moderate psychological distress.<sup>[4]</sup> College students are exposed to stress due to changing environments, increased independence, financial strain, and increased academic workload.<sup>[5]</sup>

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## 1.1 Literature review

Nursing students are predisposed to increased stress. A quantitative study by Singh et al.<sup>[6]</sup> found that students from both private and public colleges had mild-to-moderate stress levels, with 62% and 60% of students experiencing stress, respectively. Results also showed female nursing students were 3.41 times more likely to develop stress than male nursing students. Additionally, students who were satisfied with their academic performance were less likely to develop stress.<sup>[6]</sup> Kacan and Pallos<sup>[7]</sup> using the Nursing Education Stress Scale (NESS), found high-stress levels both academically (in the classroom) and in the clinical setting, and female students also had higher stress levels than males. Other studies using the NESS had similar stress findings with higher scores in females.<sup>[8,9]</sup>

In a systematic review of studies<sup>[10]</sup> about nursing students in the Middle East and North Africa, stressors related to clinical training included the lack of patient care experience and the inability to meet superiors' expectations. Academic stressors included examination load, course load, fear of low grades, a lack of leisure time, and challenging instructors.<sup>[10]</sup> Academic motivation to complete a nursing degree is an important determinant of academic achievement. Motivation can be classified into three levels: intrinsic, extrinsic, and amotivation.<sup>[9]</sup> Intrinsic motivation is present when a person performs an activity because they enjoy it with no expectation of reward. A person displays extrinsic motivation when they complete an activity for the benefits they will obtain or to avoid punishment, and amotivation is simply the lack of motivation entirely.<sup>[9]</sup> Karabulut et al.<sup>[9]</sup> examined academic motivation and found that most nursing students had extrinsic motivation, followed by intrinsic and amotivation. The researchers also found that sophomore nursing students experienced the most stress. Students with high grade point averages (GPA) ranging from 3.01 to 4.00 had the highest levels of clinical practice stress, academic stress, and total stress. Students in this group also had the lowest levels of amotivation. Students with GPAs ranging from 0 to 1.99 had the lowest levels of clinical practice stress. Females had a higher extrinsic motivation than males, and students who entered the nursing field to help others had higher intrinsic and extrinsic motivation than students who did not voluntarily enter the field. From the results of this study, the researchers concluded that increased stress might increase intrinsic and extrinsic motivation or vice versa. However, the researchers found that some stress levels had a positive effect on the students' levels of academic achievement.<sup>[9]</sup>

Nayak<sup>[11]</sup> assessed the effect of procrastination and time management skills on academic stress in undergraduate nursing students. Third-year nursing students reported less procrastination than fourth-year nursing students. The fourth-year students also showed less academic stress than the other years. Academic stress decreased as students entered higher grade levels. Third-year students also displayed the highest time management scores compared to fourth-year students, who wasted more time than any other group of students. A positive correlation was noted between procrastination and academic stress; as procrastination scores increased, academic stress increased. These findings suggest either procrastination induces academic stress or academic stress increases procrastination in nursing students. Nayak<sup>[11]</sup> emphasized that nursing students identify their academic stressors and psychological needs to curb academic procrastination. Nursing students need support in identifying these challenges to develop effective time management and improve academic performance.

Nursing students are exposed to unique stressors as they progress through nursing school, especially when entering clinical experiences. Using a qualitative design, Weurlander et al.<sup>[12]</sup> investigated the causes of emotional stress and coping mechanisms among medical and nursing students. Students expressed feelings of unpreparedness, uneasiness, sorrow, and empathy when dealing with illness and death in the clinical setting. The students also expressed a need for fellow students and faculty support to help process these situations. As exposure to the clinical setting increased, the students learned what to expect and began managing their emotions resulting in increased confidence in similar situations. The ability to deal with emotionally challenging situations becomes part of a "hidden curriculum" of medical training and, in most cases, contradicts the formal curriculum students learn. Effectively managing and responding to emotions is an integral facet of good patient care.<sup>[12]</sup> Increased communication between new and seasoned medical professionals can help change the hidden curriculum to align with the theoretical curriculum.

The ability to cope with stress is integral to delivering quality patient care. Developing coping mechanisms early in nursing education provides students the confidence to handle different and emotional situations in the clinical setting. Rafati et al.<sup>[13]</sup> conducted a qualitative study with Iranian nursing students to explore coping mechanisms used in the clinical setting. The researchers determined that professional competency development was one of the most important coping strategies used when dealing with clinical stressors. These findings suggest clinical instructors must create an environment that encourages students to try new skills to develop professional competence. The students also reported a strong relationship with their peers allowed them to reflect on their experiences to cope and gain self-awareness. The research

findings also revealed that nursing students did not receive education regarding non-pharmacological measures such as meditation and deep breathing to decrease stress. Rafati et al.<sup>[13]</sup> concluded incorporating effective coping mechanisms into nursing education courses can help reduce maladaptive coping and replace them with more effective strategies.

Nursing students are at risk for mental health problems due to prolonged exposure to stress. Diaz-Godiño et al.<sup>[14]</sup> conducted a quantitative study using 1193 Peruvian nursing students to determine their lifestyles and prevalence of depression, anxiety, and stress. The researchers administered the Health Promoting Life Profile-II (HPLP-II) that evaluated the following dimensions of health promotion: nutrition, physical activity, responsibility for health, spiritual growth, interpersonal relationships, and stress management. They also administered the Depression and Anxiety Stress Scale-21 (DASS-21) to measure depression, anxiety, and stress levels. Results showed that 53.9% of nursing students had unhealthy lifestyles, and the majority did not report signs of depression (61.2%), but 19.7% had moderate depression. About a third of the students reported moderate anxiety (36.3%), with most of these students being females. Despite this anxiety, 59.9% of the students presented with normal stress levels. Further analysis revealed that the students who experienced mild, moderate, severe, and extremely severe levels of depression were single female students aged 20 to 29 who spent most of their time studying. Age was positively correlated with depression levels and was determined to be a risk factor for depression.<sup>[14]</sup> This study highlights the importance of identifying unhealthy lifestyles and signs of stress, anxiety, and depression in nursing students early in the curriculum. Timely identification of mental illness and stress can help the student develop strategies to prevent further deterioration of their mental health and academic performance.<sup>[14]</sup>

Managing chronic stress requires individuals to develop effective coping mechanisms to address the constant exposure to stress. Developing coping skills to help reduce and prevent physical and mental illness before beginning their careers is vital. Nursing school is unique from other degree programs, and nursing students experience stress differently from other college students. Many quantitative studies confirmed the presence of stress in nursing students and the risk factors for experiencing stress.<sup>[7,9-11,14]</sup> The prevalence of qualitative studies on this topic was limited and focused primarily on clinical stressors rather than academic stressors or explored nursing students' experiences from a faculty perspective.<sup>[12,13,15]</sup> Since most studies were conducted outside of the United States, it is inferred that nursing students' experiences, both academically and clinically, will vary depending upon where their experiences occurred. The experiences of

American nursing students are underrepresented. This study aims to identify stressors nursing students experience and how those stressors impact their quality of life. A secondary aim of this study is to identify coping mechanisms nursing students use to manage stress and to explore the effectiveness of these coping strategies.

## 1.2 Theoretical framework

This study applied Betty Neuman's nursing theory, Neuman Systems Model. Neuman viewed clients as systems that openly interact with the environment.<sup>[16]</sup> The system is flexible, allowing the client to adapt to intrapersonal, interpersonal, and extrapersonal stressors. Intrapersonal stressors originate within the patient's system boundary. Interpersonal stressors originate outside the client's system boundary but occur proximal to the system. Extrapersonal stressors also originate outside the client's system boundary but occur at a greater distance from the system than interpersonal stressors. Defense mechanisms prevent the stressor from disturbing the system. The first defense mechanism is the flexible line of defense. The flexible line of defense acts as a buffer protecting the normal line of defense from the stressor. The normal line of defense is the system's normal level of wellness and the baseline for wellness-deviance determination. Lines of resistance are protective factors that activate when the stressor has penetrated the normal line of defense. The system's reaction to this invasion results in symptomatology.<sup>[16-18]</sup> Neuman's nursing theory defines health as the degree of system stability at any given time. Health "is viewed as a continuum from wellness to illness."<sup>[17]</sup> When the system's needs are met, wellness occurs. If needs are not met, illness occurs. Developing adaptive coping mechanisms strengthens the system's ability to remain stable in times of stress.<sup>[18]</sup>

Nurses play a vital role in maintaining stability in their client's systems. Unfortunately, nurses themselves are exposed to traumatic physical, emotional, and environmental stressors that impact their individual systems. These stressors cause instability in the nurse's system, impacting their physical and psychological well-being. Consequently, this instability prevents nurses from providing the support their patients need. Nurses need to strengthen their lines of defense to develop resilience and cope with the stressors they encounter.<sup>[18]</sup> Before entering the nursing field, nursing students must develop resilience by strengthening their lines of defense through adaptive coping strategies. Without resilience, nursing students will experience burnout and exhaustion before their career begins.<sup>[18]</sup> Undoubtedly, nursing students experience stress. This untapped stress can potentially cause mental health problems that could impact these students for the rest of their lives.

This theory guided this study in a variety of ways. In this study, the researchers viewed the students as individual systems and assessed how stress impacted their defense mechanisms and their system. The researchers also wanted to classify the stressors nursing students experienced into the categories Neuman identified: intrapersonal stressors and interpersonal stressors. This theory also formulated the Nursing Student Stress Inventory interview guide.

## 2. METHODS

### 2.1 Design

A descriptive qualitative phenomenological design following the Husserl approach was utilized to assess the lived experiences of the nursing students. The Husserl approach applies bracketing. Bracketing involves holding one's beliefs and assumptions aside while conducting research and analyzing data, thereby decreasing researcher bias and allowing a true understanding of the participants' lived experiences.<sup>[19]</sup> In addition to bracketing, descriptive phenomenology utilizes intuiting, analyzing, and describing the data collected.<sup>[19]</sup> The students were asked a series of questions from the Nursing Student Stress Inventory developed by the researchers. The questions were open-ended to prompt deeper discussion. The length of the interviews ranged from 15 minutes to 35 minutes.

### 2.2 Setting and sample

This study was conducted at a nursing school in southeast Louisiana. The nursing school curriculum includes five semesters of nursing courses taking students an average of two and a half years to complete. The program offers an accelerated option allowing students to complete nursing courses in 18 months and an LPN to BSN track. This nursing school has two campuses. The first and second semesters are taught at the university's main campus, and the third through fifth semesters are taught at the secondary campus in a different city. Clinical education begins during the second semester of nursing courses. Students in the nursing program are allowed two failed classes and are dismissed from the program on the third failure or failure of the same course twice. Because the campus is so widespread, virtual interviews were selected for better flexibility.

Purposive and snowball sampling was used to recruit participants from various semesters. Recruitment started with an email sent by the nursing school dean to all the students enrolled in the program. Inclusion criteria included any student over the age of 18 enrolled in the nursing school. Interested participants contacted the principal investigator via email, and an interview time was selected. The goal of sampling in this study was to reach saturation, or the point when

the data is robust and adequate to fully understand the phenomenon.<sup>[20]</sup> Saturation was reached with the fifth interview, and data collection continued to enrich the findings.

The sample included eight participants from various semesters. All participants were pre-licensure nursing students enrolled in a baccalaureate program. Five participants were female, two were male, and one participant identified as genderfluid/nonbinary. Participants were enrolled in various levels of the nursing curriculum, with four in their first semester of nursing courses, one from the second semester, two from the third semester, and one in their last semester. No participants from the fourth semester agreed to participate. Two participants were enrolled in the accelerated program, and one participant was an LPN to BSN student. The average age of the participants was 23.5 years old.

### 2.3 Ethical considerations

Ethical approval was obtained from the participating university's institutional review board (IRB). Participation in the study was voluntary, and informed consent was obtained prior to data collection. Because the subject matter of the questions could potentially cause distress, the researchers collaborated with the university's counseling center to refer students to use their services if needed. Confidentiality was maintained by using a system of participant coding consisting of a random number assigned by the principal investigator and pseudonyms chosen by the participants. Participants in the study received no monetary benefit.

### 2.4 Data collection and analysis

The Nursing Student Stress Inventory, a semi-structured interview guide developed by the researchers, was used to explore the lived experience of participants. The questions were formulated using principles from Betty Neuman's Systems Theory. Two experts in the field of qualitative research reviewed the interview guide prior to data collection. The questions were open-ended to prompt further discussion of the topics. Questions were listed in no order and were asked at different times during the interview as the conversation flowed. Before data collection began, the researcher conducted a pilot interview with a faculty member. The interviews were recorded to ensure accuracy and lasted approximately 30 minutes. Data collection spanned from October 2021 to December 2021.

The interviews were transcribed verbatim by the primary researcher. The transcripts were read and reread to obtain a general understanding of the viewpoints shared by the participants. After the interviews were transcribed, data were then analyzed using Colaizzi's seven steps of data analysis which included: 1) read and reread all interview transcripts to obtain a general feeling about the experience, 2) identify

significant statements and phrases from the transcripts, 3) describe the meaning of the statements and phrases, 4) categorize into clusters or themes, 5) create rich and exhaustive descriptions of the lived experiences, 6) conclusive and clear integration of clusters and themes, and 7) return to the participants for validation of the findings.<sup>[19]</sup> Significant statements were extracted using Colaizzi's method of data analysis.

The researchers formulated meanings to create a generalized restatement. The formulated meanings from each significant statement were compared and grouped into clusters of themes and subthemes. As the themes were identified, emergent themes became apparent. Finally, after identifying themes, the researchers aimed to validate the findings using member checking via email. In this study, member checking involved contacting the participants and presenting the study findings. The participants evaluated whether the findings were consistent with their experience.<sup>[20]</sup> Five out of the eight participants responded, and all five of the participants agreed with the analysis.

### 2.5 Trustworthiness

Rigor was established through the four components of trustworthiness: confirmability, transferability, dependability, and credibility.<sup>[21]</sup> Confirmability was established using researcher reflexivity and bracketing. Additionally, all interviews were transcribed verbatim, read, and reread for accuracy and truth. The researchers established transferability using purposive sampling, a rich description of the setting, and providing an in-depth description of the participants. Themes were described using rich descriptions in the participants' own words. Dependability was established using an audit trail during analysis detailing decisions and thought processes, which led to the final coding of themes. The researchers also provided a detailed description of the research methods and followed Colaizzi's method, an established, reliable method for data analysis.<sup>[19]</sup> More than one researcher conducted thematic coding, along with a researcher unaffiliated with the present study. Finally, credibility was established through member checking. Weekly meetings between the researcher and advisors well-versed in qualitative research were also conducted. The primary researcher is a nursing student, bringing a peer perspective to the topic. The participants may have been more willing to answer questions honestly and share information. Because the primary researcher was a student, experienced qualitative researchers oversaw data analysis and provided input to the interview guide and the methodology.

## 3. FINDINGS

All participants (N = 8) were undergraduate nursing students in a BSN program. The analysis of data involved multiple

readings of the transcripts to identify significant statements and phrases. The formulated meanings were analyzed into clusters to derive themes. Themes were grouped into categories to uncover the meaning of stressors and the impact on nursing students' quality of life along with coping strategies. Three themes emerged and were identified as (a) the Culture of Nursing School, (b) Nursing School Impacts Quality of Life, and (c) Emotion-Focused Coping. The sub-themes identified with Nursing School Impacts Quality of Life included Personal Lives Altered and Fear of Failure. Within Emotion-Focused Coping emerged two subthemes, Misery Loves Company and Light at the End of the Tunnel. Each theme and sub-theme, along with supporting evidence from verbatim transcripts, will be described.

### 3.1 The culture of nursing school

The first emerging theme was the culture of nursing school. In this study, participants commented on how the culture of nursing school created stressors in their lives. The culture of nursing school is unique from other degree programs. The students identified certain traits of nursing school that cause stress. These traits include altering study habits, challenging test questions, return demonstrations, increased expectations from faculty members, a narrow margin for failure, and increased workload. Many students stated that nursing school was not what they expected. One participant expressed their perception of the culture of nursing school by stating, "I didn't think it was going to be this hard. But it's so much more time-consuming and difficult than anything else that I've done" (participant 4, male, third-semester). The number of assignments, preparation, and studying was greater than high school and general education courses. Preparing for lectures became essential to success, whether reading textbooks or notes before the class date. Another participant stated, "... I'm still getting used to like having to actually read the textbook and convincing myself to sit down and read the textbook because I procrastinate so easily" (participant 1, first-semester, non-binary).

The students experienced pressure from faculty to succeed. Students described their relationship with faculty in a variety of ways. Faculty were both supportive and frightening due to high expectations of students' performances. One student described the experience as follows:

She (teacher) was so tough on us... I went to school, like, I wanted it to be fun... But just thinking about going, I was like, I know it's going to be terrible. She's going to grill me... so it's more the anticipation that it is stressful (participant 4, third-semester, male).

### 3.2 Nursing school impacts quality of life

The second emerging theme was nursing school's impact on quality of life. In this study, the participants described how nursing school changed their lives in ways they had not anticipated. While they expected increased academic demands, they did not anticipate the emotional stressors. Fear and preoccupation with failure was a common stressor, along with guilt associated with underperforming. Two sub-themes emerged (a) Personal Lives Altered and (b) Fear of Failure.

#### 3.2.1 Personal life altered

Nursing school disrupted many aspects of the students' personal lives. Due to academic demands, most study participants were either unemployed or only worked a couple of days per week. Because of the lack of consistent employment, a lack of financial stability seems imminent. One student described the effects of financial stressors as follows:

Teachers say in the beginning they're like you're going to feel like you don't have time but that just means that you're not doing it right. It's like, ok, what do you want me to do? Some of us have to work to afford to live (participant 7, first-semester, female).

Most students had financial support from parents or spouses, alleviating this stressor. Without financial stressors, the students had more time for academic endeavors. Students also discussed the lack of free time. Social lives with peers outside of nursing school suffer due to academic demands. One student describes their experience.

Yeah, I kind of just gave up on having a social life at this point. . . So now it's just kind of like impending doom or just-everything's like just waiting for the other shoe to drop. . . So I can't really enjoy anything right now (participant 5, first-semester, female).

The students perceived a lower quality of life related to the combination of academic stressors and alterations in their personal life. Friends who were not in nursing school had difficulty grasping the amount of time nursing school required. Nursing school can also impact family dynamics. Two participants had children, and they both expressed how nursing school stressors impacted their interactions with their children. Parenting becomes another stressor because of increased academic pressure and time constraints. One participant described how the stress impacted the relationship. "I get aggravated. It definitely makes me aggravated with [my kids] because they won't shut up" (participant 6, first-semester, female). Stress experienced by nursing students

infiltrates into their interpersonal relationships and families. Other participants stated their families were supportive but had a difficult time understanding the amount of dedication nursing school required. When describing their support system, this participant said, "My girlfriend, she's very, very supportive. . . He [Father] kind of gets annoyed. . . I can't hang out with him. . . He wants to fish, and he wants to hang out all the time. . . Same with my brother" (participant 4, third-semester, male).

#### 3.2.2 Fear of failure

Students expressed stress surrounding pressure placed on themselves while in nursing school. Failure was introduced as a stressor. Nursing school leaves little room for error, increasing the pressure for students to perform at their best ability constantly. This fear of failure becomes a preoccupation for the students, stunting their ability to focus. One student described the experience as follows. "I would. . . lay in bed just. . . thinking like, what if? What if Miss-so-and-so fails me, and I have to figure out another degree or whatever?" Preoccupation with failure caused stress and anxiety (participant 4, third-semester, male).

Students also expressed feelings of guilt when they were not studying or doing homework. This guilt preoccupied their minds, causing them to omit breaks from their schedules, leading to exhaustion and frustration. One of the participants describes their experience when taking breaks from studying.

I end up feeling guilty like I wasted three hours. I could have been practicing for this and studying for this. . . it just feels like a waste every time, even if I'm exhausted, and I'm not retaining any information. But if I stop studying, I feel really, really guilty (participant 5, first-semester, female).

Despite taking more time to study, some students said the time spent studying is not productive due to lack of focus and exhaustion.

### 3.3 Emotion-focused coping

The third emerging theme was emotion-focused coping, which identified how these students cope with the stressors and the effectiveness of these coping mechanisms in practice. Participants identified several coping mechanisms to handle stressful situations including video games, meditation, going on walks, smoking, sports, spending time with pets, and going to therapy. One coping mechanism mentioned by several students was crying. One student described their experience as follows. "I know it sounds messed up—but like I schedule a time during the day, where I cry for like

10 minutes” (participant 5, first-semester, female). For this student, crying is a cathartic experience that helps them deal with overwhelming emotions. Most students either did not know what coping mechanisms were or had difficulty naming healthy and effective coping mechanisms. When asked about coping mechanisms, this participant said, “I don’t like them at all. . . scheduling with a counselor is one of my [coping mechanisms] to deal with stress. But I don’t like the way I handle stress right now. I do cry a lot” (participant 3, second-semester, female). Two more sub-themes were identified from this main theme: (a) Misery Loves Company and (b) Light at the End of the Tunnel.

### 3.3.1 *Misery loves company*

The students spoke about their relationships with their peers and how that helped them deal with stress. Their peers were the only people they felt understood their stress. Several students spoke about how their clinical group became like a family. They understood how time-consuming nursing school was in comparison to their families. Another student spoke about how nursing school creates long-lasting relationships that sustained them during the semester.

We meshed really well; there were like six of us. We got really close, and they went on and I couldn’t. That was a huge stressor for me, losing a sense of family because they were moving on. . . We were all we had. Misery loves company (participant 2, third-semester, male).

While peer relationships help relieve stress in the students, these relationships can also cause stress. Nursing school is competitive, and students constantly perform at a high level. Instead of supporting each other, one of the students mentioned that this competitive nature was a stressor. They believed peer relationships should support one another’s successes rather than compete.

They stated, “That type of mentality really grinds my gears. I don’t care what I got [on an exam] or what anyone else got, as long as we are all passing and helping each other. That’s the goal” (participant 2, third-semester, male).

### 3.3.2 *Light at the end of the tunnel*

All the students expressed their motivation to finish nursing school despite the stress it caused them was the reward of nursing as a career. Many students stated that nursing offered them an opportunity to be financially independent. Nursing also satisfied their desire to help others, with the benefit of career advancement in the future. When asked how satisfied they currently were with their life, this student replied, “Yeah, I’m pretty satisfied, and I know that’s going to lead to something a lot better. And it’s [nursing school]

going to lead to a fruitful, hopefully, fruitful career, satisfying career, you know?” (Participant 4, third-semester, male). Another student stated that the reward for their efforts seems distant. They stated, “The reward for dealing with all this stress is passing my classes, getting through nursing school, and that seems so far away” (participant 1, first-semester, non-binary).

While acting as a motivation for some, this delayed gratification can be a stressor for others. A student in their final semester of nursing school described that the stress was becoming more manageable as the reward of starting their nursing career drew closer.

The discussion with these students reveals that the culture of nursing school can impact students’ quality of life. Students use different coping mechanisms to handle these changes. Relying on peers and remaining goal-oriented keeps these students engaged and satisfied while they are in nursing school.

## 4. DISCUSSION

The results of this study outlined the aspects of nursing school that caused these nursing students the most stress. Students also identified coping mechanisms that they used to handle these stressors. Nursing school has unique facets that cause stress. When the students spoke about these facets, they often identified return demonstrations. They mentioned that being watched by faculty was intimidating. This observation suggests that the presence of faculty could impact student performance due to their high expectations for their students. A mixed methods study by Nakayama et al.<sup>[22]</sup> measuring heart rate variability in a group of nursing students during a simulation in Japan revealed that students were objectively more stressed when interacting with their instructor after the simulation. Students also reported that they were stressed during the simulation because they felt that their instructor was watching them.<sup>[22]</sup> These findings suggest that the environment in which nursing students are taught fosters anxiety rather than comfortability.

According to Neuman’s Systems Model, faculty expectations are an interpersonal stressor.<sup>[18]</sup> For some students, this stressor is so intense that it penetrates their normal line of defense, causing symptoms that affect performance during return demonstrations. This poses a potential problem because students rely on instructors for guidance in unfamiliar situations. A qualitative study conducted on nursing students in Sweden by Weurlander et al.<sup>[12]</sup> confirms this finding. Their study found that students need support from their peers and supervisors to reflect on emotional experiences in the clinical setting. Students looked to their superiors to help them

process these experiences, and supervisors had the opportunity to teach these students ways to manage their emotions. Managing emotions is vital in professional development.<sup>[12]</sup> These results suggest that students and instructors must establish a stable, supportive relationship. This stable relationship allows students to develop a stronger flexible line of defense, preventing further stressor invasions.<sup>[18]</sup>

Many participants expressed frustrations with the academic rigor of exams in nursing school. The students spoke about a lack of preparedness for the academic demands of nursing school. In the study conducted by Weurlander et al.<sup>[12]</sup> nursing and medical students spoke about similar feelings of unpreparedness regarding end-of-life situations. This unpreparedness is a stressor to the students' systems. When the system is stressed, these students cannot perform at their highest level, reducing their ability to adequately provide nursing care to their patients in the scope of Neuman's model.

Enrolling in nursing school altered these students' lives in ways they did not expect. These alterations included increased study time, lack of time for personal endeavors, and a lack of financial independence. This lack of free time negatively impacted a few students' moods, affecting their relationships with their families, significant others, and children. A study conducted on nursing students in Peru found that signs of depression were more prevalent among female students who dedicated most of their time to studying.<sup>[14]</sup> These findings suggest that students must find a work-life balance to decrease the risk of developing mental health disorders. The ability to establish a work-life balance would strengthen all lines of defense in these students, decreasing the degree of reaction and reducing physical symptoms of stress and anxiety.

When discussing the cause of stress, a subtheme of a fear of failure emerged. Many students felt that failure was out of their control. This finding suggests that these students may experience low self-esteem relating to their academic abilities.<sup>[23]</sup> Kumar<sup>[24]</sup> conducted a quantitative study of nursing students in India and reported high levels of self-esteem. An additional finding suggests the students' self-esteem was impacted by relationships with peers, faculty, and the academic environment. We did not objectively measure self-esteem in our study, which could explain this contradiction. Our findings are consistent with signs of low self-esteem and an external locus of control. An improvement in self-esteem may help internalize this locus of control, increasing resilience and strengthening lines of defense.<sup>[23]</sup>

Students in the present study identified coping mechanisms to deal with nursing school stressors. Some coping mechanisms mentioned were considered healthy, like exercising

and therapy. Other students used distraction techniques, such as playing video games or spending time with pets. A study by Rafati et al.<sup>[13]</sup> with Iranian nursing students revealed coping mechanisms these students used to handle stressful situations in clinical situations. The main theme revealed in this study was that the students were using coping mechanisms to seek well-being.<sup>[13]</sup> This theme parallels some coping mechanisms in the present study, like exercising. When discussing coping mechanisms with the students in the present study, many found it difficult to identify positive strategies they used to deal with stress. Many students identified crying as a coping mechanism. Crying was described as a cathartic experience, helping the person release the physical tension caused by stressors. In the same study by Rafati et al.<sup>[13]</sup> the nursing students found talking to other people about their experiences had a similarly cathartic effect. Support from loved ones was a common coping mechanism identified by students in the present study and the literature. Communicating with other nursing students helps students reflect on their experiences, including what they did well and what they did wrong. Reflection is a positive coping strategy that nursing students can adopt to improve their practice and their stress levels.<sup>[13]</sup> Reflection with peers also made medical and nursing students feel less alone, adding a sense of relief.<sup>[12]</sup> In the study by Rafati et al.<sup>[13]</sup> the nursing students rarely mentioned using techniques to reduce the physical effects of stress, such as deep breathing and relaxation. This result parallels findings in the present study. Only one student mentioned using meditation to cope with stress. Several students stated that they did not engage in relaxation techniques because it interfered with extra study time, even if that extra study time was not productive. Engaging in other activities led to feelings of guilt. Nursing students must be taught to incorporate relaxation techniques and self-care into their routines before starting their nursing careers. Decompression is essential in the development of resiliency and professional competence.<sup>[13]</sup> Nurses must take care of themselves before they can perform quality patient care.<sup>[18]</sup>

Finally, nursing students in the present study spoke about how their career prospects motivate them to continue with nursing school. Almost all students reported that the financial independence and career advancement opportunities in nursing provide incentives to finish their degree despite the stressors. One student in their last semester of nursing school reported that their parent's expectations of their success motivated them to finish their degree. Kumar<sup>[24]</sup> found that parental support had a positive impact on students' perceptions of the academic climate and that nursing as a career provided them with a sense of confidence. Karabulut et al.<sup>[9]</sup> found that nursing students who chose the profession of nurs-



ing to fulfill their desire to help others had higher levels of academic motivation. Almost all the students in the present study stated that they wanted to be a nurse because of their desire to help others in need. The career opportunities nursing provides these students serve as the “light at the end of the tunnel” that motivates them to achieve their goals.

#### 4.1 Recommendations and implications for nursing practice

The current study sheds light on the degree of stress nursing students experience on a daily basis. Nursing school administrators must collaborate with students to improve faculty and students’ relationships. Stress management courses in the curriculum need to be incorporated into nursing education. The country is experiencing a nursing shortage that will continue to worsen. Nursing schools must equip new nurses with the skills to manage stress and burnout before starting their careers. Premature burnout may contribute to the nursing shortage, despite the demand for healthcare increasing.

A quantitative study with a larger sample size would yield more generalizable results with a greater portion of the nursing student population represented. Including multiple nursing schools would also expand findings to better reflect the viewpoints of nursing students. The results of the present study highlight the importance of supporting nursing students during their education. Faculty, peers, and loved ones become lifelines for these students to deal with emotional and academic stressors. Nursing students need to develop healthy coping mechanisms during their education to develop resilience and professional competency. Advocating for nursing students is vital to the profession of nursing because students are the future of nursing. The American Association of Colleges of Nursing (AACN)<sup>[25]</sup> has included personal development as an essential area of competence and vital to the framework of nursing practice. Personal development includes “participation in activities and self-reflection that foster personal health, resilience, and well-being, lifelong learning, and support the acquisition of nursing expertise and assertion of leadership.”<sup>[25]</sup>

#### 4.2 Limitations

While saturation was reached, the sample size was limited. The sample also lacked diversity among participants. More

than half of the participants were female, and most were White. The sample’s lack of diversity may be attributed to the predominance of white students in the nursing school’s program. Also, most of the participants were in the first semester of nursing school. Additionally, participant characteristics such as marital status and current social support systems were not obtained with demographic information and could have contributed to a deeper understanding of the phenomenon. The researcher could not find a participant enrolled in the fourth semester, so perspectives from students at this level were absent. This study was conducted during the COVID-19 pandemic, which may have affected the stress levels of the students interviewed. Lastly, sampling from multiple nursing schools would also expand findings to better reflect the viewpoints of nursing students.

## 5. CONCLUSION

The present study sheds light on the stressors nursing students’ experiences from their perspective. Many students feel unprepared and are blindsided by how their personal lives are altered. Students also become occupied with the fear of failure, which interferes with concentration and academic performance. Since the stressors of nursing school are unavoidable, students must develop effective coping strategies. The present study showed that students primarily utilized negative emotion-focused coping strategies, putting them at risk for symptomatic stress. Faculty and staff at nursing schools need to incorporate coping education into the curriculum to produce resilient, successful nurses. Unfortunately, students’ stress will not end once they graduate from nursing school or pass the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Fostering adaptive coping strategies may help decrease nurse burnout, improve nurse satisfaction, and increase professional competence, as evidenced by positive patient outcomes.

## ACKNOWLEDGEMENTS

The researchers would like to thank the participants of this study for providing candid insight into the experiences of nursing students.

## CONFLICTS OF INTEREST DISCLOSURE

The authors declare that they have no competing interests.

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