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Review Article

Resilience in Your Profession: A Pre-Post Survey Study of Healthcare Students' Perception of Stress and Interventions

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Abstract

This exploratory study included a pre-post survey to evaluate a health professions course that includes nursing students, designed to address burnout, enhance resilience, and promote self-care among healthcare students. By fostering an understanding of burnout and offering coping strategies, the course aims to equip students with the tools to achieve long-term career satisfaction and well-being. Using a pre- and post-course survey design, students' (n = 297) knowledge of burnout signs and symptoms and their use of coping resources were evaluated. Participants were also asked to select and practice a stress-reduction tool for 2 weeks. Results from the post-survey indicate that a majority of students (95%; n= 80) found the course personally beneficial for managing burnout, stress, and coping. The most reported self-care techniques adopted from the course were yoga, meditation, exercise, journaling, and positive affirmations. A substantial number of students (100%; n= 83) in the post-survey reported an enhanced understanding of burnout and identified at least one self-care technique they could use in their professional and personal lives (97%; n= 81). The course's positive impact was further demonstrated by a 93% (n= 78) student recommendation rate. The findings from this exploratory study are encouraging and support integrating burnout and resilience education into healthcare professional training, which may help prevent career burnout, reduce turnover rates, and improve job satisfaction and patient outcomes.

Keywords: Burnout, resilience, self-care, nursing education, student well-being, stress management

Introduction

The environment in which nurses learn and practice is continually evolving, and nursing students are often confronted with challenges that test them mentally, emotionally, and spiritually [1]. The demands placed on bedside nurses today are greater than ever before. [2], found from a random sample of 155 Nursing Schools that only nine schools reported including resilience training within their curricula. As nursing educators, how can we best prepare future nurses not only to enter the healthcare workforce but to thrive within it? Stress and Resilience should become part of every Nursing School's curriculum.

Background

The prevalence of stress and burnout in the nursing profession has transitioned from an acute post-pandemic reaction to a chronic systemic condition. As of 2025, approximately 65% of nurses across the professional spectrum report high levels of stress and burnout [3]. Furthermore, 58% of nurses report feeling burned out most days, and 64% acknowledge that compassion fatigue has significantly impacted their physical and mental health [4].

The etiology of this stress is multifaceted, though several primary drivers consistently emerge. Short staffing remains the leading stressor, followed by inadequate compensation, a perceived lack of leadership support, and increasing instances of patient abuse [3]. These factors have led to a troubling erosion of professional commitment; only 60% of current nurses state they would choose the profession again, and a mere 39% plan to remain in their current positions over the next 12 months [4].

Addressing burnout during college is essential for fostering long-term self-care habits and preventing chronic stress. The college experience, while transformative, is also characterized by significant academic and personal demands that can place students at risk for burnout. This is particularly true for students in demanding fields such as nursing, who navigate not only the rigors of academic coursework but also the pressures of clinical training [1].

Academic burnout in nursing students

Burnout is a complex syndrome typically characterized by emotional exhaustion, depersonalization (or cynicism), a reduced sense of personal accomplishment, and decreased job performance [5]. Among nursing students, burnout is a significant concern. Studies have reported high levels of burnout symptoms among nursing students, with prevalence rates varying across populations and measurement tools. A systematic review and meta-analysis estimated the overall prevalence of burnout among nursing students at 46%, with over 22% experiencing severe burnout. Other research suggests a prevalence of around 19%, though emotional exhaustion is often higher, affecting approximately 41% of nursing students. These fig-

ures underscore the scope of the problem [6].

The unique stressors faced by nursing students contribute to this heightened risk of burnout. These include a rigorous curriculum, extensive study plans, demanding clinical experiences such as witnessing patient mortality and suffering, exposure to workplace hazards, and managing complex relationships. Balancing these academic and clinical pressures with personal life can be challenging. Stress levels among nursing students are notably high [1,6], and these stress levels, along with depression and anxiety, are significantly correlated with academic burnout. Burnout can negatively affect clinical performance, patient satisfaction, and the quality of care. Moreover, it has been linked to decreased academic achievement, lower professional efficacy, higher dropout rates, and greater intention to leave the nursing program [1]. This is particularly alarming, given the global nursing workforce shortage, which makes retaining nursing students a critical issue.

Burnout can affect the workforce and lead to high costs for healthcare corporations. According to the 2025 NSI National Health Care Retention & RN Staffing Report, the average cost of turnover for a single bedside Registered Nurse (RN) is $61,110, an increase of 8.6% from the previous year. For the average hospital, this translates to an estimated annual loss of between $3.9 million and $5.7 million. The report highlights significant financial repercussions and labor market dynamics affecting the acute care hospital sector, drawing on data from 450 hospitals across 37 states [7].

The role of resilience and self-care

Recognizing the signs of burnout early is crucial for intervention. Students can implement strategies such as time management, setting healthy boundaries, and seeking support to enhance their overall well-being. Prioritizing self-care during this formative period helps prevent exhaustion and mental fatigue, equipping students with the resilience and coping mechanisms needed for future challenges. Resilience, the ability to adapt and "bounce back" from adversity [8], is closely linked to self-care practices. Studies have shown a significant inverse relationship between resilience and burnout, meaning that higher resilience is associated with lower burnout levels among both nursing students and professionals [9]. In nursing students, resilience can act as a protective factor against emotional exhaustion and depersonalization.

Self-care encompasses various activities designed to maintain or enhance one's own health and well-being. Effective self-care behaviors, such as stress management, sufficient rest, and strong interpersonal relationships, can mediate the relationship between resilience and burnout [9]. The course on Resilience in your profession adopted the resilience concept described by [8], and the self-care concept described by [9].

Aims

The purpose of the surveys and the implementation of this course was to evaluate nursing students with structured education on self-care and resilience. By introducing this course before students enter the healthcare workforce, the goal is to equip them with strategies to recognize early signs of stress, develop effective coping mechanisms, and build resilience. For those already working in healthcare and seeking to further their education, the course serves to enhance their existing knowledge and provide additional resources to strengthen their ability to manage workplace challenges. The authors hypothesized that students completing this course would gain an understanding of stress, burnout, resilience, and self-care techniques. Ultimately, the long-term effectiveness of this course could reduce burnout rates, improve coping skills, and foster resilience among current and future healthcare professionals.

Methodology

A self-created Qualtrics questionnaire was used to assess the course's impact on students' understanding of burnout and coping mechanisms. Participants completed pre- and post-course surveys, both delivered via the Qualtrics platform. The pre-course survey was used to collect general demographic data and establish a baseline understanding of the signs and symptoms of burnout, as well as awareness and utilization of relevant resources. The post-course survey measured students' knowledge gains from the course content and their self-reported plans for implementing specific coping strategies in their professional practice. In addition, the survey was designed to assess students' understanding of burnout, including its recognition, signs, symptoms, and potential impact on personal well-being. Items also evaluated students' ability to identify and select appropriate coping strategies to prevent or mitigate burnout in clinical settings. See Table A in the appendix for a list of pre- and post- course survey questions.

Appendix

Table A.

Pre-Course Survey Questions
Do you agree to participate in this brief survey regarding your knowledge and experience on burnout?
What professional license(s) do you hold?
What is your current age?
How many years have you been in your current profession?
Have you personally experienced burnout in your current area of work? 1= Definitely not; 2= Probably not; 3= Might or might not; 4= Probably yes; 5= Definitely yes
How does currently being enrolled as a student add to your level of stress? 1= No stress; 2=Very little stress; 3= Some stress; 4= Moderate stress; 5= Very high stress
Do you feel that you have a peer or supervisor at work that you can talk to about burnout? 1= Definitely no; 2= Probably no; 3= Might or might not; 4= Probably yes; 5= Definitely yes
Which of the following signs/symptoms do you associate with burnout? (Select all that apply)
Do you believe that burnout can be prevented at the personal and/or organization level?
Do you feel that the organization you work for has resources in place to help prevent burnout?
List in order the top three self-care techniques you personally use most often.
Post-Course Survey Questions
Do you believe that burnout can be prevented at the personal and/or organization level?

Do you feel that the organization you work for has resources in place to help prevent burnout?
How did this class enhance your understanding of burnout?
1= Not enhanced at all ; 2= It has been enhanced a little 3= It has been enhanced somewhat; 4= It has been enhanced a lot; 5= It has been highly enhanced
Did you find at least one self-care technique throughout this course that you can use?
List in order the top three self-care techniques you personally use most often.
On a personal level, how much has this course helped you personally with burnout, stress and coping?
1= it has not helped at all; 2= it has helped a little, 3= it has helped somewhat; 4= it has helped a lot; 5= it has helped tremendously
Would you recommend this course to others in the healthcare professions?
Please identify two things that you liked about this class.
Please identify two things that you would suggest to improve the class.
In one year we would like to follow up about stress in the workplace and the stress relief skills that you are using along with any organization tools available to you. Please provide an email address that is not your Weber one, that we could send a brief survey to.

Participants

Participants were asked to indicate their age group. Among all individuals who completed the course between 2019 and 2026, 201 participants were between 18 and 24 years old, 48 were between 25 and 34 years old, 31 were between 35 and 44 years old, 8 were between 45 and 54 years old, and 9 were 55 years or older.

Of the 297 participants who completed the survey, 2 students were EMTs, 1 student was a paramedic, 147 students were either nurse's assistants or medical assistants, 127 students were either LPNs or RNs, and the remaining 20 students listed other as their occupation.

There were 187 students with less than 2 years of experience in the healthcare field, 66 with 3-5 years, 27 with 6-10 years, and 13 with more than 10 years.

Data Collection

Data was collected via two separate self-developed Qualtrics surveys embedded within the Canvas course orientation module. To establish a baseline, students were asked to complete the survey before beginning their coursework. The study utilized a convenience sample consisting exclusively of students enrolled in the course, and participation was strictly voluntary. To maintain anonymity and focus, demographic data were limited to age groups; no information regarding gender, race, or socioeconomic status was collected. The ten-item instrument primarily used Likert-scale questions to assess personal experiences with burnout and resource awareness, supplemented by a 'select all that apply' item to identify specific burnout symptoms. See full list of survey questions in the appendix Table A.

At the conclusion of the coursework, students were administered a follow-up survey using Qualtrics. This survey assessed which tools participants found most valuable, their ability to integrate burnout prevention strategies into their routines, and their overall impressions of the course's effectiveness and importance.

Validity and Reliability

The validity and reliability of the Qualtrics survey were supported by the voluntary and anonymous nature of participation. Students were free to respond openly, with no incentives or consequences tied to specific answers, which reduced the likelihood of response bias. The Qualtrics survey was self-created and was not an established tool. As with any self-reported data, results relied on participants' honesty and accuracy. While this introduces the potential for subjective variation, the absence of external pressures or incentives strengthens confidence that the responses reflected the participants' genuine perceptions and experiences.

Ethical Considerations

An IRB exemption was obtained through Weber State University, and ethical considerations were carefully addressed in administering the assessment, and in course content focused on burnout, given the potential for students to experience distress or for certain topics to trigger symptoms and behaviors related to stress and burnout. To mitigate these concerns, the course frequently emphasized the importance of seeking professional mental health support if students experienced symptoms that raised personal safety concerns or interfered with their well-being. Resources for professional assistance were provided throughout the course, reinforcing that while the class aimed to raise awareness and teach prevention strategies, it was not a substitute for professional mental health care.

Data Analysis

Using descriptive statistics, the data were independently reviewed by both authors, and any incomplete responses were excluded from the final analysis to ensure accuracy and reliability of the reported results. Results from the unpaired pre- and post- Qualtrics surveys were compiled and organized into tables and graphs to enhance visual interpretation of the findings. There was a lack of a control group, and a volunteer enrollment in the survey was utilized, which may have biased the results. The study consists of unpaired aggregate data.

Findings

Participants were surveyed regarding their experiences with burnout. A total of 87.9% (n=254) reported experiencing burnout at both the personal and organizational levels, while 5.3% (n=16) reported experiencing burnout only at the personal level.

When asked whether burnout could be prevented, 94% (n= 79) of participants indicated that they believed prevention was possible at both the personal and organizational levels.

Participants were also asked about organizational resources for preventing burnout, and 34% (n=29) indicated that their workplace provided some resources, 26% (n=26) reported having few resources, and only 16% (n=14) reported having extensive resources.

Regarding supervisory support, 36% (n=105) of participants reported they probably had a supervisor they could talk to about burnout, while 23% (n=68) reported they definitely did. In contrast, 14% (n=41) indicated they probably did not have a supervisor they felt comfortable approaching on this issue.

Survey results also demonstrated positive outcomes for the course. Specifically, 97.6% (n=82) of students reported that the course enhanced their understanding highly, a lot, or somewhat in managing burnout, stress,

and coping. The most frequently reported self-care techniques were yoga, meditation, exercise, journaling, and positive affirmations. Students valued the course for increasing their ability to recognize burnout and for providing a variety of strategies to reduce stress and prevent it.

Furthermore, 94% (n=79) stated they would recommend the course to other healthcare profession students, and 97.6% (n=82) indicated they identified at least one self-care technique that they could use moving forward. Overall, students reported that the course enhanced their understanding of burnout and available prevention strategies.

Discussion

The findings of this exploratory study indicate that a structured, curriculum-based intervention can significantly enhance healthcare students' understanding of burnout and their ability to implement practical self-care strategies. With 100% (n=84) of post-survey respondents reporting an enhanced understanding of burnout and 97% successfully identifying at least one self-care technique to utilize moving forward, the data suggest that proactive resilience education is both well-received and highly effective.

These results align closely with existing literature on burnout prevention. As noted by [10], preparing students to persevere through adversity is essential for maintaining their long-term health. The specific interventions most frequently adopted by our students—namely yoga, meditation, exercise, journaling, and positive affirmations—mirror the evidence-based mindfulness and cognitive-behavioral strategies highlighted by [11], in their evaluation of Stress Management and Resiliency Training (SMART-3RP). By requiring students to select and practice a stress-reduction tool for two weeks, this course successfully transitioned theoretical knowledge into actionable, habit-building behaviors, a critical step in bridging the gap between resilience theory and practice [9].

The implications of these findings extend beyond the classroom and directly address the chronic systemic stressors currently facing the nursing profession. The 2025 AMN Healthcare report indicates a troubling erosion of professional commitment, with only 39% of nurses planning to remain in their current roles. Furthermore, the financial burden of RN turnover averages $61,110 per nurse [7]. Equipping students with coping mechanisms before they enter high-stress clinical environments serves as a crucial preventive measure. If widespread adoption of resilience curricula can foster long-term self-care habits, healthcare institutions could see a parallel reduction in emotional exhaustion, a decrease in novice nurse turnover, and ultimately, a preservation of institutional resources [12-16].

Limitations

While the outcomes of this study are encouraging, several limitations must be acknowledged. The study utilized a convenience sample from a single institution, which may limit the generalizability of the findings to other nursing programs or geographical regions. Additionally, the lack of a control group prevents a definitive causal link between the course content and the reported reduction in stress. The reliance on a self-developed, self-reported survey instrument introduces the potential for response bias, as students may have felt inclined to report positive outcomes. Finally, while students reported an intent to use these coping skills in the future, this study did not measure long-term adherence to the self-care techniques. Future research should prioritize longitudinal studies with paired data and control groups to assess whether pre-licensure resilience training translates to decreased burnout rates in the years following clinical practice entry.

Conclusions

Overall, the majority of students found the class beneficial. Student presentations on self-care techniques demonstrated to be impactful in decreasing stress levels. This course benefits students by teaching them about burnout, coping, and resilience. Students discovered several self-care techniques and coping skills to use in their professional and personal lives. The authors recognize this is one course at a large institution and may not extrapolate to other nursing programs. It is hoped that the authors encourage other programs to review their curricula and stress management. Ongoing research is encouraged in this area.

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