How Stress and Coping in Nursing Affect Burnout in the Transition to Practice: A Literature Review and Proposed Study

Natalie Meade

College of Nursing, University of Tennessee Knoxville

Chancellors and Nursing Honors

Dr. Kimberly Brown

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Abstract

Literature has shown that there is a high burnout rate among nurses in the transition to practice period. The purpose of this literature review will be to evaluate the relationship between stress/coping in nursing school and stress/coping in the transition to practice. Afterwards, several solutions shown throughout literature are highlighted. Finally, a proposed research study outline is given.

How Stress and Coping in Nursing Affect Burnout in the Transition to Practice: A Literature Review and Proposed Study

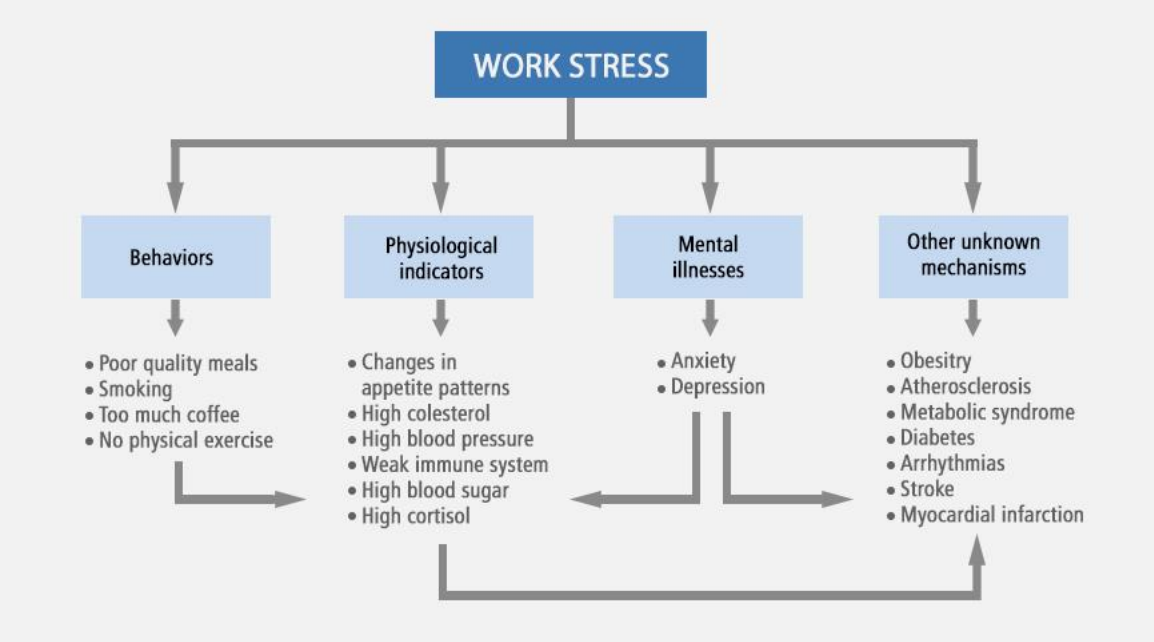
The strenuous nature of undergraduate school is designed to prepare students so that they will be well equipped to begin practicing as a nurse. Between balancing a rigorous class load and participating in long clinical days, student nurses face many stressors that require them to develop coping strategies to prepare for the transition to practice. Nursing students often are exposed to higher levels of stress compared to students in other formalized programs (Labrague et al., 2016). In spite of increased stress in nursing school, new graduate nurses still do not feel well prepared as research shows high turnover and burnout rates, up to 50%, among new nurses in the transition to practice period (Laschinger et al., 2019). This is a significant issue as short staffing and high turnover rates plague the nursing field (Chan et al., 2013). The profession relies on new graduates to attempt to keep up with the increasing demand for nurses; however, the high burnout and turnover in nurses within the first few years of working is amplifying the problem as opposed to solving it.

This research aims to address this problem through the exploration of literature involving stress and coping in nursing students and nurses in the transition to practice, which is defined as nurses within three years of practice for this research. Finally, various potential solutions from literature are highlighted and a proposed longitudinal study outline is given.

Stress and its importance

To begin, a foundational knowledge of understanding the negative impacts of chronic, unmanaged stress is imperative for emphasizing the importance of stress in nursing school and nursing practice. Stress is identified as, “interaction between the individual and the environment [where] demands, limitations, and opportunities related to work may be perceived as threatening to surpass the individual’s resources and skills” (Pulido-Martos et al., 2011). Acute stress can manifest physically as elevated heart rate, elevated blood pressure, sweating, tightness in the chest, headache, nausea, trembling, tiredness, or susceptibility to minor illnesses; emotionally as lack of attention, decreased self-esteem, disorganized thoughts, lack of control, difficulty making decisions, or loss of perspective; behaviorally as withdrawn, development of alcohol or drug abuse, under or over eating, impatience, aggression, or poor time management (Gomathi et al., 2017).

If these acute stressors are prolonged and unmanaged, they can continue and lead to chronic stress, and chronic high levels of stress can contribute to many unhealthy long-term changes such as obesity, hypertension, heart disease, worsening memory, and suppressed immune system (McEwen, 1998). Identifying nursing students and nurses in the transition to practice as a population at high risk for stress in turn means the population is at risk for the effects of acute and chronic stress. Therefore, identifying stressors and the most effective coping methods is crucial to help prevent this population from experiencing poor health outcomes related to stress.



From https://www.uml.edu/research/cph-new/worker/stress-at-work/long-term-effects-diagram.aspx

Stress and Coping in Nursing School

Stress

Identifying the most prevalent stressors for undergraduate nursing students is a crucial first step. The strenuous nature of nursing school combines both challenging academia and clinical experiences while students are expected to maintain their personal and social lives. The healthcare field continues to see high levels of stress in workers and nursing school attempts to prepare students for that with heavy workloads and intense clinical experiences.

The nature of healthcare work is inherently difficult as it involves decisions regarding life or death. In preparation for this in nursing school, examinations must be set to a level of difficulty that will ensure students are prepared for this line of work. Intense examinations require hours of coursework and studying that contributes to increased stress. In terms of clinical practice, many students enter nursing school

without any healthcare related experience. Clinicals can consist of long hours and an intense learning curve while students also must learn how to cope with seeing sick and dying patients. Ignoring or pushing aside responses to these highly emotional stressors can lead to unhealthy coping sooner or later (Pulido-Martos et al., 2011). In addition, traditional Bachelor of Science in Nursing programs see many college-age (18-22) students compared to accelerated programs that see higher numbers of older adult students. Older adult students may face issues with balancing nursing school and homelife with other work or kids (Pulido-Martos et al., 2011).

Pulido-Martos et al., (2011) performed a literature review that separated nursing school stressors into categories: academic stressors, clinical stressors, and personal/social stressors. The authors identified the primary academic stressors as testing and evaluation, fear of failure in training, and problems with workload; the primary clinical stressors as healthcare facility, fear of making mistakes, negative responses to the death or suffering of patients, and relationships with other members of the organization; the primary personal stressors as economic problems and imbalance between housework/schoolwork.

Stressors in Nursing School Identified by Pulido-Martos et al., 2011 Review of Literature

Academic	Clinical	Personal/Social
- Testing/Examination - Fear of failure - Workload	- Healthcare facility - Fear of mistakes - Response to death and suffering - Relationships with peers or superiors	- Economic problems - Housework/Schoolwork imbalance

Labrague et al., (2016) performed a literature review of 13 studies on nursing students' stress and coping strategies. The authors first identified that stress in nursing school is influenced by growing into the role of a nurse, meeting demands of the role, and dealing with uncertainties of the role. This research separated stressors into two categories: academic and clinical. The primary academic stressors indicated by Labrague et al., 2016, included the academic process, heavy assignments and workloads, and examinations; the primary clinical stressors include fear of the unknown, new clinical environments, clinical incompetence, experience of death and dying, and fear of making mistakes. Outside of these two primary categories, other reported stressors included peers, nursing staff and nurse educators, learning new responsibilities, negative interactions with instructors, and poor relationships with clinical staff. Of the academic and clinical stressors, the main stressors identified were caring of patients, assignments and workloads, and negative interactions with staff and faculty.

Stressors in Nursing School Identified by Labrague et al., 2016 Review of Literature		
Academic	Clinical	Other
- Academic process - Assignments and workload - Testing/Examination	- Fear of unknown - New clinical environment - Caring for patients - Lack of knowledge or skills - Fear of failure - Clinical incompetence - Response to death or suffering - Unfamiliarly with patient medical history - Unfamiliar patient diagnosis or treatment - Fear of mistakes - Administering medication to children - Lack of control in patient relationships	- Peers - Daily life and environment - Nursing staff and nursing educators - Finding new friends - Learning new responsibilities - Unfamiliar situations - Working with new people - Financial strain - Relationships with friends - Negative interactions with instructors - Lateness/absenteeism - Poor relationships with clinical staff

In a cohort study conducted by Gorostidi et al., 2007, 69 nursing students were sent a questionnaire regarding stress in nursing school. The most powerful stressors identified were lack of competence, uncertainty, relationship with patients, emotional involvement, lack of control, contact with suffering, relationships, and overload. However, the most notable result from this study was the determination that, while the highest stressors at the beginning of education remained the highest stressors at the end of education, these stressors were found to lose overall power throughout the course of nursing education. Gorostidi et al., 2007, attributed this statistic to the progressive exposure to clinical work.

The stressors faced in nursing school can be summarized as academic, clinical, and personal with the most prevalent being examinations, workload, fear of making

mistakes, responses to death and suffering, and relationships. First identifying these will guide the development of coping mechanisms for nursing specific stressors; moreover, these coping mechanisms will likely translate into the transition to practice and ultimately impact burnout.

Coping

As previously identified, there are many stressors faced in nursing school that can lead to unmanaged stress, and these chronic stress levels can be harmful to health and wellbeing while affecting learning, decision-making, and academic performance (Labrague et al., 2016). While stress in small amounts can lead to an increase in motivation, unmanaged stress can cause the student to experience negative emotions such as sadness, apprehension, anxiety, worry, anger, lack of self-esteem, guilt, grief, nervous breakdown, depression, loneliness, listlessness, or sleeplessness (Labrague et al., 2016). It is crucial to successfully manage this stress so that students do not face bad health outcomes **and** so that they are prepared to face the stressors presented during the transition to practice.

There is extensive research on the coping mechanisms utilized in nursing school and their effectiveness. Successful coping mechanisms result in reported managed levels of stress whereas unsuccessful coping mechanisms result in maladaptive behaviors such as depression, anxiety, and sleep disturbances (Charlton & Wofford, 2022).

Historically, coping has been separated into problem-focused coping and emotion-focused coping. Earlier research indicated that problem-focused coping, such as time management, was the overall better strategy; however, more recent research is

indicating that emotion-focused coping, such as distraction, in small amounts may be necessary for chronic or uncontrollable stress such as the stress experienced in nursing school.

Problem-Focused Coping	- Problem-solving - Time management - Instrumental social support
Emotion-Focused Coping	- Distraction - Emotional disclosure - Praying - Medication - Eating - Alcohol/Drugs - Journaling - Suppression

Information from https://www.simplypsychology.org/stress-management.html

In a literature review conducted by Labrangue et al., 2016, thirteen studies were reviewed regarding stress and coping in nursing students. The authors found that transference was a common theme among reported coping strategies by nurses. Transference falls under the category of emotion-focused coping and includes activities such as exercise, watching movies, taking a shower, eating, talking to someone, and sleeping. The students utilizing these coping strategies did not report feelings of managed stress. This could be from a lack of teaching regarding successful coping methods or a resort to the easiest solution.

On the other hand, Labrangue et al., 2016, found that problem-focused coping strategies such as problem solving, time management, and finding meaning in stressful events, were prevalent in nursing students with previous clinical experience and students in their senior year. The students utilizing these problem-focused strategies reported their coping as positive and effective. These findings draw similar conclusions

to those of Gorostidi et al., 2007 in that there is a positive indication that nursing students with experience either prior to nursing school or throughout nursing school show signs of increasingly effective coping strategies.

Stress and Coping in Transition to Practice

Stress and Burnout

Based on previous discussion, it is seen that nursing students face high levels of stress compared to other formalized programs, and the primary stressors are academic (testing, fear of failure, workload) and clinical (response to death/suffering, fear of failure, fear of unknown.) Students may be utilizing ineffective emotion-focused coping methods as opposed to problem-focused. However, research indicates that experience prior to nursing school or throughout nursing school is beneficial in alleviating stress. Next, stressors experienced throughout the transition to practice period for new nurses can be analyzed to determine similarities or differences.

Stress factors during the transition to practice can be categorized into clinical (work environment, workload) and self (lack of self-compassion, support) (Dames, 2019). In addition, the transition to practice period can be separated in stages: doing, being, and knowing (Hampton et al., 2021). “Doing” lasts roughly three to four months and is marked by transition shock; “being” lasts four to five months and transforms into feelings of excitement; “knowing” progresses as nurses continue to increase in confidence and decrease in stress (Hampton et al., 2021). It is well known that the nursing field sees high levels of burnout after time in the profession, but it is a key concept to note that the transition to practice period presents its own timeline of stress

to overcome. Based on these three stages, it is seen that the first two, doing and being, pose the highest risk for stress related to confidence and competence whereas the last stage, knowing, transitions to stress from the healthcare organization or system (Hampton et al., 2021).

Hampton et al., 2016 conducted a literature review highlighting stressors seen at various points during the transition to practice. Many of these were new elements of stress specific to practice while some elements of stress stayed constant from undergraduate nursing education. The novice nurses struggled to manage new clinical stressors such as delegating while managing continued stressors such as fear of making mistakes. Transition shock was an additional element that was present in several studies where new nurses reported a disconnect between their undergraduate experience and the real world of nursing.

Stressors in Transition to Practice Identified by Hampton et al., 2016 Review of Literature

Clinical	Non-Clinical
- Communication from physicians and interdisciplinary team - Encounters with unkind or unsupportive nurses - Delegating - Supervision of unlicensed assistive personnel - Rotating to different work units - Fear of making mistakes - Fear of asking questions	- Socialization - Growing professionally - Feeling supported - Transition shock - Personal feelings

In a qualitative descriptive study conducted by Clark & Springer, 2012, thirty-seven new graduate nurses were interviewed regarding the entirety of their transition to practice experience. The authors allowed the nurses to talk freely and prompted them

with specific questions such as asking the nurses where they predicted their practice in ten years. They pulled out several themes from the interviews such as value and learning; however, the most prominent theme was stress. The new nurses expressed stress from not knowing, being involved in conflict, being underprepared by their nursing education, lack of communication, poor time management, and having unsupportive preceptors. This study is beneficial as it gave nurses freedom to speak so that they did not have to try to box their answers into a survey or scale. These findings not only draw parallels between the literature reviews with stressors indicated such as conflict and communication, but they also pointed to a specific area of problem: under preparation in nursing school.

Coping in Transition to Practice

If nursing students utilize poor stress management and foster feelings of intimidation, they are likely to continue to utilize these behaviors in the workplace during the transition to practice (Dames, 2019). As discussed, there are several changing and constant stressors present during the transition to practice period. On top of stressors, new nurses face many workplace environmental factors that can add to feelings of stress and burnout.

It is hypothesized that the most effective coping methods fall under the problem-focused category with emotion-focused coping strategies being beneficial if used as supplement for chronic stress. The transition to practice period presents an environment of chronic stress, so ideally new nurses should be relying on problem-focused coping with incorporation of some emotion-focused strategies.

There are several classifications of burnout noted. “Frenetic” burnout types work to the point of exhaustion in search of success, the “under-challenged” types must cope with unstimulating conditions that do not provide satisfaction, the “worn-out” type gives up when faced with stress (Montero-Marin et al., 2014). Each burnout type must develop various coping strategies.

In a quantitative research study conducted by Deklava et al., 2014, the coping strategies correlated most strongly with feelings of successful stress management in novice nurses included problem solving, self-controlling, positive reappraisal, accepting responsibly, and seeking social support. The strategies correlated with feelings of unsuccessful stress management were confrontive coping and escape/avoidance.

Progression of Burnout from Dall’Ora et al., 2020

Low/Inadequate Staffing		Turnover
Low Schedule Flexibility		Sickness
Time Pressure		Absence
High Job/Psychological Demands		Reduced Job Performance
Low Task Variety		Poor Quality of Care
Role Conflict	Burnout	Poor Patient Safety
Low Autonomy		Adverse Events
Negative Team Relationship		Patient Negative Experience
Negative Physician Relationship		Medication Errors
Poor Supervisor Support		Infections
Job Insecurity		Patient Falls
		Intention to Leave

Possible solutions

The goal of this research regarding stress and coping in nursing was to determine what kind of competencies nurses should best acquire or what kind of interventions could be implemented to best assist nurses with a successful transition to practice. These solutions look to decrease stress among new nurses and promote the best learning and working environment so that coping mechanisms are sufficient to handle any stress faced during the transition to practice.

Preceptor/Mentor

One area of research focuses on the leadership of preceptors in relation to how successful undergraduate education is at preparing a new nurse. Preceptors are used in undergraduate school during clinicals and in the workplace during a new hire's orientation. The student or new hire stays with the preceptor throughout the whole shift as the preceptor teaches and orients. The preceptor and relationship with the preceptor can greatly inhibit or help the student or new hire.

Giallonardo et al. (2010) used a non-experimental descriptive study using a sample of 170 nurses that had less than three years of experience and worked in an acute care setting. The study found that preceptors that demonstrate "high levels of authentic leadership" (Giallonardo et al., 2010) are more successful at preparing new graduate nurses.

Additionally, Dames, 2019, found that mentorship, whether in the form of a preceptor or more experienced nurse, promoted self-actualization. In her study, she found that nurses reported feeling empowered when their mentors advocated for them

and gave them a safe space to talk and ask questions. A nurse in the study that did not feel she had a reliable mentor felt overwhelmingly stressed and unsupported and often called in sick.

Workplace Environment

The workplace environment exposes new nurses to a wide range of factors that can either add to or take away from stress. It is impossible for nursing school to prepare each student for the exact workplace environment they will be entering, so nurses must rely on coping and workplaces must strive to maintain a safe and encouraging environment.

Dames (2019) conducted a qualitative study to determine what factors (workplace and developmental) allowed new nurses to thrive. Dames conducted three face-to-face interviews with eight different nurses for a total of 24 interviews. The only qualification was that the nurse had to have less than one year of work experience in nursing. The author found five themes in the study, three of which related to the workplace: a stable environment without the threat of being floated to other short-staffed floors, a schedule and workload that allowed time for rest and recharge, and an absence of workplace violence.

Laschinger et al. (2012) used a descriptive correlational design to determine negative and positive influences for new nurses. The researchers sent 1,400 questionnaires and received 420 usable responses. The questionnaire consisted of several standardized scales including the Areas of Worklife Scale, the Negative Acts Questionnaire, the Practice Environment Scale, the Psychological Capital Questionnaire, the Maslach Burnout Scale, and the Mental Health Index. The findings

indicated that job demands such as workload and bullying were indicators of burnout and poor mental health and job resources such as supportive practice environment and control were indicators of work engagement and lower turnover intentions.

Wang et al., 2015 identified several strategies for workplace managers to implement to facilitate a smooth transition and promote effective coping for new nurses. These included strengthening training of professional skills, building a positive environment to help promote new nurse psychological health, maintaining flexible scheduling, respecting and caring for new nurses, and improving new nurses' adaptation ability.

Education

Undergraduate nursing education often presents a student's first clinical experience. An alarming quote from a participant in the study conducted by Clark & Springer (2012) was, "It seems like nothing can really prepare us and that nursing school was a waste of time." Nursing school is the only preparation a new nurse has to rely on, so it is crucial that it prepares them for the transition to practice. The educational experience is largely impacted by clinical experience and didactic and clinical instructors. One important element for educators would be to incorporate learning programs on successful coping and self-compassion (Dames, 2019). If these skills, such as problem-focused coping strategies, are specifically taught in nursing school, students are more likely to utilize them during both undergraduate education and during the transition to practice.

Another variation of education revolves around focused implemented education programs for new nurses. Although clinical experiences are vast and cover a range of

areas, it is impossible to experience every situation. Therefore, some nursing students leave undergraduate school anxious to face these experiences for the first time as a new graduate nurse. Short et al. (2019) conducted an experimental study to determine the effectiveness of a skills course in preparing new nurses. The skills course focused on specific topics of stress for new nurses such as code situations. They implemented an eight-hour program including lectures and hands-on activities that covered several critical care nursing skills. They used a sample size of 106 newly hired nurses. The results found that 89% of the components taught in the course were positively affected. A follow up survey was sent to participants with 20 responses received. Of these responses, 75% indicated that the skills day changed their practice and increased their confidence. This experiment highlighted a great example of incorporating a hands-on class to focus on skills/tasks that may stress new nurses if they feel they do not understand all their responsibilities.

Conclusion

In all, nursing students face many stressors, both academic and clinical, and must develop sufficient coping mechanisms, primarily problem-focused with supplementary emotion-focused. As these nurses transition to practice, the profession sees a high rate of burnout and turnover. New graduates are faced with new workplace environment factors that they must again learn how to successfully cope with. There are several potential solutions regarding preceptors/mentors, workplace factors, and education. Whether it takes one or a combination of factors, it is crucial that new graduate nurses feel better equipped to begin practice.

Proposed Study Outline

The literature thus far has laid a solid foundation for stressors/coping in school and the transition to practice as well as attempted solutions to combat burnout in new nurses. However, further research is necessary because research is still lacking in examining the **development** of stress and coping throughout the transition to practice.

The purpose of this research study is to examine the stress and coping in newly hired nurses at two different times during their transition to practice to determine why these nurses burnout so quickly. Secondly, this data will be used to determine a possible intervention to better prepare nursing students to cope with the stressors they will face as new nurses in the workplace.

Methods

A mixed-method non-experimental design will be used to determine the stress, coping, and burnout among nurses transitioning to practice. Approval for the study will be obtained from the University of Tennessee Knoxville Institutional Review Board.

Sampling Plan

The target population is nurses in the transition to practice period (one to three years of working.) The accessible population is nurses at the University of Tennessee Medical Center and recent graduate nurses from the University of Tennessee Knoxville. There will be a section at the beginning of the survey to obtain informed consent for all participants. A convenience sampling plan will be used to recruit 100 subjects. There is a potential for sampling bias due to the use of a convenience sample as well as all the participants working at the same hospital and/or attending the same university.

Data Collection Plan

An email and self-report online survey will be sent to eligible nurses. After six months, the survey will be sent again to each participant that answered the first survey so that answers can be compared, and a trend can be identified. The information will be completely confidential but not anonymous as an identifier will be needed so that a second survey is only sent to those that completed the first.

Measurement

The survey will consist of two standardized scales. The Perceived Stress Scale (PSS) is a five-point Likert-type scale that will be used to determine stress. This scale has been deemed valid and reliable with an alpha score of 0.78 (Baik et al., 2019). The abbreviated COPE Inventory is a four-point Likert-type scale that will be used to determine coping. This scale has been deemed valid and reliable with an alpha score of 0.77 (Garcia et al., 2018).

Analysis

A descriptive analysis will be conducted to describe sample characteristics. Frequencies will be reported for education level, gender, demographic location, and race. Range, mean, and standard deviation will be reported for age.

Descriptive statistics will be reported for the Perceived Stress Scale (PSS) and the Stress Coping Skills Test (SCST). Frequencies will be reported for each individual item on each scale. Range, mean, and standard deviation will be calculated for the total scores of both scales.

The hypothesis is that there will be a relationship between stress levels/coping strategies and subsequent burnout in new graduate nurses. A Pearson's correlation will be conducted, and the p-value will be set at less than or equal to 0.05.

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