

BUILDING STUDENT RESOURCES FOR THE KANSAS CENTER FOR NURSING  
SCHOLARSHIP & LEADERSHIP

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### **Abstract**

The *Kansas Center for Nursing Scholarship & Leadership* (KCNSL) was recently created with the purpose of advancing nursing scholarship in Kansas through focused mentorship and broad-based collaboration. The Center is developing resources for nursing students, and stress management was identified as an area of need. High stress is common in nursing students and may negatively affect student success. The purpose of the study was to identify and describe sources of student stress and stress management strategies among nursing students. Senior nursing students from 13 pre-licensure baccalaureate nursing programs in Kansas were invited to participate in semi-structured interviews. A qualitative descriptive approach was used to describe the experience of student stress and strategies for stress management. Sources of stress among participants (n=2) included concern about studying for exams, balancing competing time commitments, and meeting deadlines. Stress management strategies included taking breaks, exercising, playing video games, smoking, and spending time with friends. Findings related to the stress experience and suggestions for stress management will be displayed on the KCNSL website as a resource for other nursing students.

## **Introduction**

### *Problem*

The present and future shortage of trained nurses poses a significant risk to healthcare. Duvall and Andrews (2010) estimate there will be a shortage of over one million nurses in the United States by 2020. Stress remains an inherent feature in nursing practice due to the challenging nature of the profession. It is likely this environment will not change. High workplace stress is a common reason nurses leave the profession (Fox & Abrahamson, 2009). Furthermore, O'Donnell (2009) found stress to be a significant risk factor for later attrition in nursing students. Stress in school and later occupational stress may be contributing factors to the nursing shortage. It is important to teach newly employed nurses how to effectively identify sources of psychological distress (Watson et al., 2009). Marshall (2011) found stress is associated with cardiovascular disease, suppresses immune function, and “may result in negative health consequences” (p. 136).

High stress remains a common health hazard nursing students experience while in school (Beddoe & Murphy, 2004; Gibbons, Dempster, & Moutray, 2008; Montes-Berges & Augusto, 2007; Murdock & Perlow, 2010; O'Donnell, 2009; Watson et al., 2009). Although several investigators have studied student stress, no studies have assessed Kansas pre-licensure students' perception of stress nor did they include a sample of students from the Midwest United States. This gap in knowledge should be investigated further, as stressors can vary based on geographic location. A survey of nurses working in rural acute care hospitals illustrated how the definition of nursing can change with respect to location. According to LeSergent and Haney (2005), “nurses in Canada's rural north find issues of nursing care stressful, because the meaning of nursing changes once one reaches the far north” (p. 321). Similar issues could be prevalent in other rural areas. LeSergent and Haney (2005) also noted that nursing in rural areas is stressful because “knowing your patient and their families because of the closeness of the community often leads to stress” (p. 321). A nurse working in rural Canada exemplified this sentiment:

These patients aren't just patients, they are friends, they are neighbors...there's a lot of emotions we deal with because of that, that makes nursing in the North particularly difficult, because at that point you have to separate yourself—am I going to be the relative here, or am I going to be the nurse, and it really takes some backbone to separate the two. (Moszczynski & Haney, 2002, p. 499)

Findings in rural areas of the United States, like much of Kansas, could be similar based on the student's familiarity with community members and systems of care. Little is known about how pre-licensure nursing students in Kansas experience stress. Discovering what types of experiences that are stressful for students is vital to designing helpful stress management interventions.

The *Kansas Center for Nursing Scholarship & Leadership* (KCNSL) was recently created based on recommendations from the Kansas Association for Colleges of Nursing and other nurses from across the state. The purpose of the Center is to advance the development and dissemination of nursing scholarship in Kansas through focused mentorship and broad-based collaboration. The Center has a virtual location so that nurses across the state have access its resources. Currently, there are no resources specifically relevant to nursing students on the Center website. The researchers in this study are active participants in the Center and seek to create student-centered resources for the KCNSL.

Stress is a major problem pre-licensure students commonly encounter throughout their nursing education. Using findings from the literature and from this study about student stress in Kansas, stress management resources for nursing students will be added to the Center website. In order for stress management resources to be created for the Center, a general understanding of the stress experiences of Kansas nursing students must be identified. Incorporating study findings on the KCNSL website is a unique step in dissemination of findings.

## **Background**

### *Definition of Stress*

A clear definition of stress is vital when examining student nurses' perception of stress. However, there is a lack of literature that gives a definition of stress defined by nursing students. One study (Wheeler, 1997) concluded that "interpreting nurse stress research results may be problematic because globally there is a tendency of many published works not to provide clear working definitions of stress" (p. 713). Wheeler (1997) suggests "studies must offer clearer and more realistic definitions and models of nurse stress" (p. 713).

A review of literature exposed varying definitions of psychological stress. Cohen, Miller, & Rabin, (2001) define stress as "the experience of negative events or the perceptions of distress and negative affect that are associated with the inability to cope with them" (p. 7). Cohen, Janicki-Deverts, and Miller (2007) offer a similar description of stress "when an individual perceives that environmental demands tax or exceed his or her adaptive capacity" (p. 1685). These definitions illustrate coping ability and individual perception as components of stress, both of which are modifiable. Laszlo and Kopp (2009) used a model to quantify stress but failed to adequately define

stress from the perspective of the sample population. Researchers (Newbury-Birch & Kamali, 2001) in England defined stress as, “a physical, mental, or emotional reaction resulting from an individual’s response to environmental tensions, conflicts, pressures, and similar stimuli” (p. 109). None of the definitions took into account the sample population’s input on definition of stress. Furthermore, stress can have different meanings based one’s personal beliefs, which is why it is important to understand stress from the perspective of the sample population. Finding what constitutes stress to a Kansas nursing student could help in developing stress management resources.

### *Effects of Stress*

Gaining acceptance into an accredited baccalaureate nursing program is difficult. In 2010, a total of 67,563 qualified applicants from baccalaureate and graduate nursing programs were denied entrance because of limited faculty and clinical resources (American Association of Colleges of Nursing, 2011). Gaining admission is only the beginning of school-related challenges, because successfully completing a nursing school curriculum is an arduous process for many students. Pre-licensure students are learning the fundamentals of a complex science through a rigorous academic course of study. Several studies confirm that nursing students experience high stress levels throughout nursing school (Beddoe & Murphy, 2004; Gibbons et al., 2008; Montes-Berges & Augusto, 2007; Murdock & Perlow, 2010; O’Donnell, 2009; Watson et al., 2009). Beddoe and Murphy (2004) suggest accumulating stress can “impede concentration, memory, and problem-solving ability . . . [and] may also diminish communication, interpersonal effectiveness, and empathy” (p. 305). Nursing students need to remain mentally sharp to achieve success in school, because a build-up of stress may have a negative effect on student success.

### *Student Stressors*

Some nursing school stressors are relatively similar among programs. Key stressors nursing students experience can be classified as academic, clinical, and personal (Gibbons et al., 2008). Montes-Berges and Augusto (2007) found that “students suffer from high stress levels which have important economic, psychological and physical consequences both for themselves and the patients” (p. 165). Due to the inherent nature of these stressors, nursing schools are in an opportune position to help students manage stress. Stress reduction education can be implemented into nursing school curricula (Billingsley et al., 2007; Montes-Berges & Augusto, 2007).

### *Effects of Stress Management Interventions*

Research has shown promising results with stress management interventions in the college student population. The interventions may be feasible to implement on a large scale. For example,

investigators (Billingsley, Collins, & Miller, 2007) at a large Midwestern urban university found a single 90-minute stress management workshop helped students develop a personal plan for managing stress and “the results of the workshop were overwhelmingly positive” (p. 51).

Using a randomized control group design, Winterdyk and colleagues (2008) examined the effects of mind/body interventions for college students living in a major urban center in western Canada. Students attended pre-and post-assessments and at least 4 of the 6 intervention sessions offered, each of which lasted approximately 60-minutes. Compared to control group participants, students in the experimental group reported (a) reduced self-reported psychological distress, (b) reduced anxiety, (c) reduced perceptions of stress, and (d) a positive influence in lifestyle behaviors.

Practicing meditation has been shown to effectively reduce stress in the college student population. A randomized controlled trial was conducted with a sample of undergraduates enrolled at a Roman Catholic university in California. The study examined how meditation management of stress interventions affected stress and well-being. Training meetings lasting 90-minutes each over an 8-week period (one meeting per week) were used to teach participants meditation-based stress-management techniques. Oman and colleagues (2008) found that the treatment group had lower levels of perceived stress and suggested that undergraduate students practicing integrated meditation will have reductions in perceived stress.

#### *Gap in Literature*

Although several studies have investigated nursing student stress, most have been conducted in urban areas. No studies have been conducted in the Midwestern United States, which has unique characteristics that may influence stress experiences and stress management strategies. Nursing schools in Kansas are located in both urban and more rural areas, so this study has the opportunity to discover new information about stress experiences and stress management strategies of nursing students in both urban and rural communities. Findings from this study may be useful in helping nursing students recognize and manage school-related stress, to foster success while in nursing school. The research report along with resources developed from this study will be disseminated on the KCNSL website, which serves as a unique approach to addressing student stress.

## **The Study**

### *Purpose*

The purpose of the research was to identify and describe sources of pre-licensure student stress and stress management strategies among students in Kansas. Study findings will be used to develop nursing student-identified stress management resources for the KCNSL. Also, an aggregated description of stress experiences of Kansas pre-licensure nursing students will be included on the website.

### *Specific Aim*

The specific aim of the research was to identify common school-related stress experiences and stress management strategies described by pre-licensure nursing students in Kansas.

## **Methods**

A qualitative descriptive approach was used to describe the experience of student stress and strategies for stress management. Research from Sandelowski (2000) provided a methodological structure and helped guide the study. Semi-structured interviews lasting 15-30 minutes were conducted over the telephone to collect information from participants. The researcher took field notes during the interview and developed a narrative for each participant based on the responses from questions. Interview questions focused on stress experiences of the participant. A narrative for each interview was created describing the participant stress experiences and stress management strategies. Demographic information was collected to help describe the sample. Following explanation of the study through an introduction letter, oral consent was obtained from participants. After consent was obtained, data collection began. The research presented no more than minimal risk of harm to subjects and involved no procedures for which written consent is normally required outside the research context.

### *Methodological rigor.*

Rigor was maintained throughout the research process. A consistent protocol in data collection ensured a similar interaction between interviewer and each interviewee. An audit trail was kept to ensure confirmability. The audit trail included detailed field notes from the interviews and completed demographic information sheets. Rich, thick descriptions from participants were taken to reflect the breadth of stress experiences. Member checks were utilized to ensure strong credibility. The preliminary findings from the data analysis were emailed back to the participants seeking their input concerning the accuracy, completeness, and interpretation of the data. Participants were asked to correct any inaccuracies of the data.

### *Data security*

All information connected to participants was kept confidential. No information about individual participants was released to any outside parties. Pseudonyms were used to protect the privacy of the participants. All documents pertaining to the study were kept in a locked file cabinet in the office of the principal investigator at the University of Kansas School of Nursing. All electronic information was stored on a flash drive, which was also stored in the locked file cabinet in the principal investigator's office when not in use. Only the researchers had access to the locked file cabinet. Data collection sheets contained no identifiable information about the participants.

### *Sample*

A purposive sample of senior pre-licensure nursing students currently attending a Kansas baccalaureate nursing program was the primary participant selection criterion. Inclusion criteria included: (a) currently a senior nursing student, (b) currently attending an accredited (Commission on Collegiate Nursing Education or National League for Nursing Accrediting Commission) pre-licensure BSN program, and (c) currently expecting to graduate in Spring 2011. An email was sent to each dean of baccalaureate nursing school with a pre-licensure program in Kansas (13) along with a letter of introduction. After administrative approval, the Deans disseminated an email and a letter of introduction to nursing students who met inclusion criteria. The first eligible participant to respond from each school was chosen for the sample. Of the 13 Kansas Deans that were emailed, 9 agreed to email those students who met inclusion criteria in their respective school. A total of two nursing students participated in the study (n=2), Don and Mandy. Participants were between the ages of 20-25 when interviewed.

### *Data Analyses*

The researchers read and re-read the narratives and formed themes from the data. Common phrases from field notes and narratives were highlighted. The researchers compared notes and narratives collected from participants and identified commonalities. Simple, broad themes reflecting the experiences of the participants were formed. Previous stress research has been criticized for failing to define a working definition of stress. The current study avoided this problem by directly asking participants their definition of stress. A common definition of stress was developed based on responses to the question, "What is your definition of stress?"

### *Don's narrative.*

Don is a non-Hispanic Caucasian male student attending a pre-licensure nursing program in Kansas. He is expecting to graduate in the spring of 2011 with a Bachelor of Science in Nursing



degree. He has no prior post-secondary degrees, is single, unemployed, and has no children. Don is fulfilling clinical coursework in a critical care setting.

When asked to define his definition of stress, he took some time to think about the question and responded, "anything that causes me to worry." Don has many stressors, including: finishing projects, completing clinical hours, studying for exams, applying for jobs, saving money, studying for the state board licensure exam, and making time commitments to school. Most of these stressors are directly related to nursing school. When questioned about what causes him the most stress, he claimed studying for exams is the source of most of his stress.

Don uses both healthy and unhealthy behaviors for managing stress. Healthy coping was defined as "responding to a psychological and physical challenge by recruiting available resources to increase the probability of favorable outcomes in the future" (Kent et al., 2010, p. 227). When questioned about ways he manages his stress, he replied, "smoking cigarettes, eating snacks, procrastinating, playing video games, working out, watching TV, complaining, and drinking alcohol." Don finds that smoking cigarettes best reduces his stress. He went on to say, "Smoking a cigarette takes all my cares away for a few minutes. It's like a mini vacation."

As a senior nursing student, Don feels that access to an online voiceover PowerPoint (VOPP) lecture about coping strategies and ways to prevent stress would have been helpful to have upon entering nursing school. He emphasized the importance of making the strategies relevant to nursing students.

#### *Mandy's narrative*

Mandy is a non-Hispanic Caucasian female student attending a pre-licensure nursing program in Kansas. She is expecting to graduate in the spring of 2011 with a Bachelor of Science in Nursing degree. She has no prior post-secondary degrees, is single, and has no children. She is currently employed as a nurse technician and works an average of 12 hours per week. Mandy is fulfilling clinical coursework in a critical care setting.

Mandy's definition of stress is, "anything that puts demands on you." She believes that the stressor must be something significant to her in order to cause stress. For example, if one does not care about a potential stressor, then no stress will accrue. Mandy experiences both physical and emotional stress. A major stressor is the significant amount of time she must devote to nursing school along with meeting deadlines. She spoke of these stressors and graduation stating, "The amount of information we have to learn and getting things done on time [is stressful]. The fact that nursing school takes up most of your life (*sigh*) it's hard to find personal time. The most stressful

thing about graduating is all the accountability and responsibility you have as a nurse.” Of her many stressors, Mandy claimed that meeting deadlines is her greatest source of stress.

Unlike Don, Mandy’s stress management strategies were mostly healthy. Her stress management activities included: spreading work out so she does not have to do everything at once, not putting things off and procrastinating, spending time with her friends and fiancé, having a movie or game night, and taking breaks from studying. Mandy feels she has not procrastinated as much, which has proven to be her best stress management strategy.

As a senior nursing student, Mandy feels that access to an online resource that connects students together would have been helpful to have upon entering nursing school. It would be helpful in connecting with others who are experiencing the same transition. Students could share advice on common problems encountered in school (i.e. hard classes, where to buy books). When questioned about the possibility of interacting with resourceful seniors she suggested, “Connecting with seniors is good because they have the most experience but any connection on any level is helpful because you can learn ways to deal with stress to get through school easier.”

### **Findings**

The participants shared many of the same demographic characteristics. Both participants were non-Hispanic Caucasians with no prior post-secondary degrees. Also, they were single with no children.

High stress, especially related to school, was common in the sample. However, the participants only had two stressors in common: the large amount of time one must devote to school, and meeting deadlines. The two participants shared no similar stress management strategies. Procrastination was an interesting behavior between the two participants. Don utilized procrastination as a stress management strategy, whereas Mandy avoided procrastination as it contributed to her stress. This highlights a fundamental difference in the way the two manage stress.

Although the sample size was limited, we created an aggregate definition of stress based on the responses to the question, “What is your definition of stress?” As defined by the participants, “Anything that causes worry or puts demands on one,” described stress.

### **Discussion**

The findings in this study support prior research that high stress is common in nursing students. Stressors students experienced were not caused by clinical sources, which is in opposition to previous studies. This finding could be attributed to the level of clinical experience in the

students because of their progression in school. Participants likely had competent clinical abilities, which did not contribute to their stress. Common stressors, time commitments to school and meeting deadlines, in the participants support previous findings. For example, Montes-Berges and Augusto (2007) identified “time pressure” (p. 163) as a common stressor nursing students experience.

Current literature lacks a description of stress defined by nursing students. We developed a definition, albeit from limited responses, which can help future researchers understand stress from a student perspective. We offer a simple definition of stress compared with the literature. Prior definitions include exceeding demands on an individual, which is also present in the definition based on participants’ responses. Although coping abilities is a component in some definitions of stress, the participants did not perceive this as relevant in their definition. Our definition uses a broad sense of environment, “anything”, but is congruent with an existing definition of stress regarding “environmental tensions, conflicts, pressures, and similar stimuli” (Newbury-Birch & Kamali, 2001, p. 109).

The most significant limitation of the study was the lack of participants. This gives a limited perspective on student stress experiences and stress management strategies. Transferability of findings remains weak because of the small sample size. Thirteen schools were invited to participate; nine of which chose to participate and still only two responses were received. Reasons for why schools chose to not participate remain unknown. For the schools that did participate, we offer two explanations for the low number of responses. First, timing of recruitment may have attributed to the low sample size. The email from deans to students calling for volunteers was sent in mid-March/early-April. Many students graduate in May and take the NCLEX-RN exam soon after graduation, leaving little time for extra activities such as volunteering in a research study. Second, high stress in the study population may have prevented students from volunteering. Participating in research may have been perceived as an added stressor and therefore a low priority. Reasons for refusal may be more complex and other explanations are possible. We could have addressed this by asking participants the question, “Why did you choose to volunteer for this study?” Future research examining reasons nursing students participate in research is needed.

### *Recommendations*

The KCNSL should create a resource for their website helping connect students with each other to facilitate communication. This intervention could help students better manage stress. An open discussion board available to students and a link to upload videos are some specific examples. We also recommend the Center create a voiceover PowerPoint (VOPP) about coping strategies and

ways to prevent stress. The VOPP must be relevant and feasible to students. To make strategies feasible to most students, the VOPP (Appendix A) should not include expensive interventions such as getting a massage every day or taking frequent vacations. These techniques may be effective at reducing stress, but are unrealistic for the average student to afford. Stress management strategies found in this study should be included in the VOPP. Recommendations for stress management strategies should focus on *healthy* coping techniques.

Nursing professors have some control over student stress because meeting deadlines was found to be a common stressor. We recommend nursing professors collaborate to ensure deadlines for class (i.e. tests, projects) are spaced appropriately to reduce student stress. To facilitate dissemination of findings, nursing school deans should place a link on their school's website that directs users to the Center's student resources.

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#### **Human Subjects Approval**

The research presented in this study was approved by the University of Kansas Medical Center Institutional Review Board and the Fort Hays State University Institutional Review Board.

## **Appendix A**

### **Content Outline for Stress Management Voiceover PowerPoint (VOPP)**

- I. Introduction
  - A. Background on VOPP
    - 1. What study this information came from
    - 2. How it was obtained
  - B. Definition of stress defined by Kansas nursing students
- II. Effects of Stress
  - A. On academics
  - B. On clinical abilities
  - C. On personal life
  - D. On working RNs
- III. Potential Stressors
  - A. Immense time devotion to school, meeting deadlines, graduation, NCLEX, finding employment, saving money, studying for exams
- IV. Healthy Stress Management Strategies
  - A. Not procrastinating, exercise, spending time with friends, taking breaks from studying, game night, movie night
- V. Non-healthy Stress Management Strategies
  - A. Eating, smoking, drinking alcohol, complaining, TV, video games
- VI. Recommendations for Identifying and Managing Stress

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