THRIVING IN NURSING SCHOOL: DOES CREATIVE THINKING MODERATE STRESS? STUDY OF ASSOCIATE DEGREE NURSING STUDENTS IN A NORTHERN NEW JERSEY COMMUNITY COLLEGE

A dissertation submitted to the Caspersen School of Graduate Studies Drew University in partial fulfillment of The requirements for the degree, Doctor of Medical Humanities

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#### ABSTRACT

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#### Doctor of Medical Humanities Dissertation by

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**Background:** Thriving in associate degree nursing students has not been well studied. Nursing students frequently describe their education as very stressful. When self-care and stress management are inadequate, students' well-being is adversely affected, adversely affecting patient care.

**Objective:** This study examined whether creative thinking by nursing students in an associate degree nursing program moderates stress and promotes students' thriving. **Methods:** Eighty nursing students in a New Jersey suburban community college were studied. Relationships between demographic variables, creative thinking, and thriving were examined. Creative thinking was measured using Runco's Ideational Behavior Scale – Short Form (RIBS). Thriving was measured with the Ryff Scales of Psychological Well-Being (PWB). Distributions, bivariate relationships, and multiple regressions were examined. Seventeen follow-up interviews used Charmaz's grounded theory approach to elucidate nursing students' perceptions of stress, creative thinking, and thriving, and thriving during school.

**Results:** Inverse relationships between stress and thriving (r = -0.23, p = 0.044), and stress and environmental mastery (r = -0.33, p = 0.002) indicated that students' wellbeing was adversely affected since entering nursing school. A positive correlation between progress in nursing school and students' ratings of purpose in life was seen (p = 0.04). No quantitative relationships were found between other demographic variables, creative thinking, and thriving.

Interview data revealed that all interviewees used creative thinking but did not consider themselves to be consistently thriving. Students used creative problem-solving to individualize stress management skills to *survive* nursing school. A model was created to illustrate relationships between thriving and surviving in community college nursing students.

**Conclusions:** This study suggests that students do not report consistent thriving in nursing school, despite evidence that creative thinking is used. Research should continue to investigate creative thinking to mitigate stress in nursing programs.

Keywords: nursing student, associate degree, stress, creative thinking, creative problem-solving, thriving, surviving, Ryff Scales of Psychological Well-Being, Runco Ideational Behavior Scale, Short Form

## DEDICATION

To all the nursing students I have ever taught.

I learned so much more from you than you did from me.

Thank you!

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## LIST OF ABBREVIATIONS

BSN	Bachelor of Science in Nursing degree
IRB	Institutional Review Board
NCLEX-RN	National Council Licensure Examination – Registered
	Nurse
PWB	Ryff Scales of Psychological Well-Being
RIBS-S	Runco Ideational Behavior Scale – Short Form

#### GLOSSARY

- **accreditation**. a voluntary assessment process sought by institutions of higher learning for the purpose of assuring the public that quality standards are met by the institution. The accrediting body for the college in this study is Middle States Commission on Higher Education. The accrediting body for the nursing program in this study is the *Accreditation Commission for Education in Nursing (ACEN)*.
- **creativity**. The expression of an idea which is novel, appropriate, and valuable for a task, person, or social group.<sup>1</sup>
- **creative thinking**. The purposeful use of cognition to explore original, useful, and appropriate approaches that may be applied to interpretation of actual, potential, or hypothetical situations.<sup>2</sup>
- **creative problem-solving**. "The ability to entertain wide range of options or solutions and then select the best action or response" to an encountered problem.<sup>3</sup>
- **divergent thinking**. Synonym for creative thinking. Specifically refers to exploring and finding unique approaches to open-ended tasks.<sup>4</sup>
- **grounded theory**. A qualitative research method that begins with identification of an area of study. Rich qualitative data is then obtained and logically and systematically analyzed for patterns and relationships, allowing formation of a theory explaining those patterns and relationships.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> James C. Kaufman, "What is Creativity?" *The Psych 101 Series: Creativity 101*, 2<sup>nd</sup> ed, Springer Publishing Company (2016), accessed February 18, 2018, Credo Reference: http://ezproxy.drew.edu/login?url=https://search.credoreference.com/content/entry/spc/what\_is\_creativity/0 ?institutionId=1119.

<sup>&</sup>lt;sup>2</sup> Mark A. Runco, *Creativity: Theories and Themes: Research, Development, and Practice.* Burlington, Massachusetts: Elsevier Academic Press, 2007, x.

<sup>&</sup>lt;sup>3</sup> David K. Carson and Mark A. Runco, "Creative Problem-solving and Problem Finding in Young Adults: Interconnections with Stress, Hassles, and Coping Abilities," *Journal of Creative Behavior*, 33, no. 3, (1999), 168.

<sup>&</sup>lt;sup>4</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> Kathy Charmaz, *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis* (Thousand Oaks, Sage Publications, 2006), 51.

**National Council Licensure Examination** (*NCLEX-RN*). The licensing examination developed by the National Council of State Boards of Nursing to determine whether a candidate meets the minimum knowledge requirements to practice professional nursing. Successful completion of this exam is required to become a registered nurse in the United States.

non-traditional student. A student who meets one of the following criteria:

- 1. Delayed enrollment into post-secondary education (Age 25 or older)
- 2. Attends college part-time
- 3. Works full-time
- 4. Is financially independent
- 5. Has dependents other than a spouse
- 6. Is a single parent
- 7. Does not have a high school diploma<sup>6</sup>
- **stress.** A relationship between an individual and his or her surroundings that is evaluated by that individual as overstretching his or her coping abilities and, in the process, compromising his or her well-being.<sup>7</sup> The components in this relationship contributing to stress are termed **stressors** or **challenges**.
- **surviving.** Continuing to function in spite of something (nursing school).<sup>8</sup> The act of enduring, existing, living through, suffering, pulling through, weathering, withstanding, and persevering.<sup>9</sup>
- **thriving**. A developmental process that encompasses a sense of well-being, vitality, continuous personal growth and adaptation, autonomy, environmental mastery, purpose in life, positive relationships, and self-acceptance despite challenging circumstances. It is closely related to the concepts of well-being and flourishing.<sup>10</sup>

<sup>&</sup>lt;sup>6</sup> Stephen G. Pelletier, "Success for Adult Students," *Public Purpose*, Fall 2010: 2, accessed August 6, 2021,

https://www.aascu.org/uploadedFiles/AASCU/Content/Root/MediaAndPublications/PublicPurposeMagazi nes/Issue/10fall\_adultstudents.pdf.

<sup>&</sup>lt;sup>7</sup> Lazarus and Folkman, 23.

<sup>&</sup>lt;sup>8</sup> Learner's Dictionary, s.v. "Survive," by Merriam-Webster, incorporated, accessed June 14, 2021, <u>https://www.learnersdictionary.com/definition/survive</u>

<sup>&</sup>lt;sup>9</sup> Thesaurus.com, s.v. "survive (v.),", accessed May 12, 2022, <u>https://www.thesaurus.com/browse/survive</u>.

<sup>&</sup>lt;sup>10</sup> Coddington 13, Ryff and Singer 15-16, Flinchbaugh et al., 61, Fredrickson and Losada, 686.

#### CHAPTER 1

#### INTRODUCTION

#### **BACKGROUND OF STUDY**

Nursing students often describe their professional undergraduate education as the most stressful period of their lives.<sup>1</sup> It is well documented that stress is pervasive in nursing students' lives, and affects their studies, finances, families, and health and emotional well-being.<sup>2</sup> This stress is often accompanied by inadequate or negative coping mechanisms, which can then lead to psychological symptoms.<sup>3</sup> Continued severe stress can also lead to burnout, which can affect the student's (and later the nurse's) ability to provide optimal patient care.<sup>4</sup>

College students that begin studying in non-nursing disciplines must adjust to lifestyle changes, but nursing students face challenges in addition to the usual transition to college. During this researcher's experience as a professor at an associate degree nursing program, nursing students were required to do well in rigorous prerequisite classes and often faced fierce competition to progress from prerequisite courses to

<sup>&</sup>lt;sup>1</sup> Andrew T. Reyes, "Nursing Students' Understanding and Enactment of Resilience: A Grounded Study" (PhD thesis, The University of Western Ontario, 2015), accessed <u>https://ir.lib.uwo.ca/etd/28362-6,1-4</u>.; M. Regina Jennette, "A Phenomenological Study of the Lived Experience of Nursing Students Enrolled in an Associate Degree Nursing Program" (EdD diss, West Virginia University, 1995), 55-64.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Ibid., 8.

<sup>&</sup>lt;sup>4</sup> Phoebe Webster, "Avoiding Burnout and Keeping Well, "*Kai Tiaki Nursing New Zealand* 23, no. 1 (2017): 2, accessed February 11, 2018, <u>http://skynet.ccm.edu:2135/ehost/pdfviewer?vid=16&sid+9c7827el-331c-4468-87cf-</u> <u>f927b37715b7%40sessionmgr103.</u>

nursing courses, which were even more challenging. Failing one course often resulted in serious consequences for nursing students. Admission into the clinical program could be delayed, or complete dismissal from the program could occur.

In addition to their taxing and time-consuming classroom work, nursing students learned and were tested on numerous clinical skills in a nursing laboratory. Clinical tests required students to demonstrate competence under the judgmental eye of a nursing instructor. If not done correctly, students could be dismissed from the nursing program.

Nursing students were, and still are, expected to perform clinical practice in the hospital setting weekly, often for twelve hours at a time. This is a physically and emotionally demanding experience where for the first time many students come face to face with dying, critically ill, or demanding patients. In this setting, they are often fearful of making errors that will adversely affect patients' lives.<sup>5</sup> They are aware that their patient care skills are continuously being evaluated by nursing instructors and staff nurses who may be perceived as unsupportive and overly critical.

Community colleges are accessible to a greater variety of students than four-year universities where students frequently live on campus. Community colleges, typically offering two-year associate degrees, are local commuter schools, where students return to their home lives after class each day. Many students attending community college do so because of the ability to integrate their courses into their already established lives. The so-called "non-traditional" students (those not coming directly from high school) need this flexibility to continue working or caring for families during their education. Students are attracted to associate degree nursing programs because of their affordability and the

<sup>&</sup>lt;sup>5</sup> Reyes, 2.

perceived ability to achieve a nursing degree in two years. In reality, once prerequisites are factored in, most nursing students spend many more than two years completing their course of study. This means that many students balance employment, the care of children or parents, and managing a household with classes, studying, laboratory hours, skills tests, hospital clinical practice, difficult examinations, and time-consuming assignments, sometimes for six years. These demands on nursing students often exceed those experienced by students in other disciplines and contribute to their stress.<sup>6</sup>

#### **NEED FOR STUDY**

Many studies have examined the sources of nursing student stress and potential ameliorating factors.<sup>7</sup> Yet stress continues to be a major factor in nursing students' education. Research shows that ineffective means of coping with stress has negative effects on the "well-being and academic performance of nursing students and has resulted in their leaving their programs." <sup>8</sup>

Accrediting agencies that evaluate nursing programs measure success of these programs by examining students' attainment of program objectives, retention rates, program "pass" rates, and graduate scores on the National Licensing Examination -

<sup>&</sup>lt;sup>6</sup> Leodoro Labrague, Denise M. McEnroe-Petitte, Donna Gloe, Loretta Thomas, Ioanna V. Papathanasiou, and Konstaninos Tsaras, "A Literature Review on Stress and Coping Strategies in Nursing Students," *Journal of Mental Health* 26, no. 5 (2017): 471-480, accessed January 8, 2018, https://doi.org/10.1080/09638237.2016.1244721.

<sup>&</sup>lt;sup>7</sup> Ibid.

Registered Nurse (NCLEX-RN).<sup>9</sup> Although these accrediting agencies also assess student support services, their data does not capture students' level of well-being while traversing the demands of their nursing program.<sup>10</sup> Nicole Mentag stated that, as the nursing shortage is growing, we need to realize that the "emphasis on survival to a degree does not fully capture the dimensions of a successful nursing student."<sup>11</sup> There are many non-academic factors that can negatively influence students' well-being in college, and specifically in nursing school.<sup>12</sup>

However, some students are not only successful in nursing school, but also seem to enjoy it. They are doing more than surviving nursing school. They are thriving.<sup>13</sup> They are growing, evolving, and finding meaning in what they are doing and enjoying the challenges. Nursing faculty responsible for supporting students need to study factors contributing to students' well-being in the stressful nursing school environment.

#### STRESS BACKGROUND

The issue of stress has been well-researched since the 1950's.<sup>14</sup> Hans Selye's classic theory is specific. He defined stress as the body's "dynamic" reaction to a

<sup>12</sup> Ibid., 2.

<sup>13</sup> Ibid.

<sup>&</sup>lt;sup>9</sup> ACEN Accreditation Commission For Education in Nursing, *ACEN Accreditation Manual* - *Standards and Criteria* – *Associate*, 2020, accessed July 19, 2021, <u>https://www.acenursing.org/acen-accreditation-manual-standards-a/</u>.

<sup>&</sup>lt;sup>10</sup> ACEN, ibid.

<sup>&</sup>lt;sup>11</sup> Nicole M. Mentag, "The Lived Experiences of Thriving Nursing Students," (PhD diss., Nova Southeastern University, 2020), 17-18, accessed July 19, 2021, ProQuest Dissertations & Theses Global.

<sup>&</sup>lt;sup>14</sup> Richard S. Lazarus and Susan Folkman, *Stress, Appraisal and Coping* (New York: Springer Publishing Company, 1984), 1-2.

"noxious stimulus," and clearly outlined the responses to such stimuli in his "General Adaptation Syndrome."<sup>15</sup> He postulated that every stressor (every external/internal demand for change) produced the same response in the human body.<sup>16</sup> In Selye's biologically rooted view, stress required "fighting back" to achieve homeostasis.<sup>17</sup>

Starting in the 1960's, seminal work done by Richard Lazarus (joined later by Susan Folkman) provided groundwork that was used to offer a classic definition for stress.<sup>18</sup> Stress began to be seen as a "basis of ill health" even before the time of Lazarus, and today it still denotes taxing responsibilities and lifestyle demands, often related to environmental situations.<sup>19</sup> Lazarus and Folkman developed a *theory of cognitive appraisal* to explain individuals' responses to stress. Whereas Selye stated that every stressor produced the same physiologic response, Lazarus and Folkman's view was that an individual's response to a stressor was modified by that person's perception of that stressor, coining the phrase *cognitive appraisal*.<sup>20</sup> Forms of this theory of cognitive appraisal are still used today to explain a person's response to stress. Lazarus and Folkman developed the following definition of stress: "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his

<sup>15</sup> Ibid.

<sup>19</sup> Ibid.

<sup>20</sup> Ibid., 15.

<sup>&</sup>lt;sup>16</sup> Ibid., 2.

<sup>&</sup>lt;sup>17</sup> Ibid., 5.

<sup>&</sup>lt;sup>18</sup> Richard S. Lazarus and Susan Folkman. *Stress, Appraisal, and Coping*. New York: Springer Publishing Company, Inc., 1984, 22-30.

or her resources and endangering his or her well-being."<sup>21</sup> In the Lazarus theory, human beings experience stress based on some event. These events can be large, such as a lifethreatening illness or death of a loved one, or daily hassles - those everyday events that become obstacles to humans as they try to meet their goals for the day.<sup>22</sup> Individuals assess a stressful event's character, magnitude, and the personal effect the event might have on their own lives. Based on this evaluation, they categorize it as either *irrelevant* to themselves, *benign-positive* (having positive effects and being associated with happy emotions) or *stressful*.<sup>23</sup> The *stressful* category is then further classified into three groups. The first stress category these researchers list is *harm-loss*, in which something negative has already occurred, resulting in perceived damage to a person, either physically or psychosocially.<sup>24</sup> In the second category, individuals perceive a *threat*. They expect a loss in the future and may be able to begin planning for it (anticipatory coping). In the third category, the individual perceives the stress as a *challenge*, an opportunity for growing and developing, which can often also be accompanied by positive feelings of looking forward to new experiences.<sup>25</sup> In other words, people can suffer as a result of stressors, or they can see them as a challenge and thrive. Lazarus's theory of cognitive appraisal may help explain why, though most nursing students report stress, some are less affected by it

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>&</sup>lt;sup>21</sup> Ibid., 19.

<sup>&</sup>lt;sup>22</sup> Ibid., 13.

<sup>&</sup>lt;sup>23</sup> Ibid., 32-33.

than others. Using the Lazarus framework, these students may perceive the educational setting as a challenge for which they have the necessary coping skills.

A brief review of the physical implications of stress can elucidate why it can negatively impact nursing students. Robert Sapolski, in his comprehensive book on stress, outlined the neural and hormonal mechanisms linked to the physiological changes occurring in humans in response to stressors, and discussed how those changes can affect learning, memory, disease, and well-being.<sup>26</sup> In contemporary society, psychological stressors are much more common than the physical crises that the human stress response was designed for. However, psychological stressors trigger the same physiological stress responses that an actual physiological trauma does.<sup>27</sup> The difference is in the length of the response. Whereas human bodies were designed to react to stress quickly and efficiently for preservation, they were not designed for prolonged stress responses that cause our neural/hormonal reactions to continue for months due to an unresolved psychological stressor.<sup>28</sup> Hormonal and steroidal levels fluctuate which can interfere with our performance. It is well known that the autonomic nervous system (ANS), specifically the branch called the sympathetic nervous system (SNS), is a significant regulator of an immediate response to stress. SNS stimulation produces the striking physiological adaptations that accompany what is commonly known as the *fight or flight response*.<sup>29</sup>

<sup>29</sup> Ibid., 22.

<sup>&</sup>lt;sup>26</sup> Robert Sapolski, Why Zebras Don't Get Ulcers: The Acclaimed Guide to Stress, Stress-related Diseases, and Coping, 3<sup>rd</sup> ed. (New York: St. Martin's Griffin, 2004).

<sup>&</sup>lt;sup>27</sup> Ibid., 6.

<sup>&</sup>lt;sup>28</sup> Ibid., 5.

Sapolski added *fright* to this dyad of responses, as some of us react to intense stressors by freezing (being rooted in place, unable to move).<sup>30</sup>

In addition to the fight or flight response, our bodies also react chronically to stress: thinking about upcoming stressor can cause changes in the body for hours, days, or months.<sup>31</sup> Deleterious effects on the immune system and chronic organ damage can occur.<sup>32</sup> For nursing students, these stressors and their bodily responses are ongoing during nursing school and can affect their physical and mental well-being. Students' working memory and knowledge recall can become clouded. Students experience difficulty with critical thinking, clinical judgment, and ability to learn skills.<sup>33</sup>

Therefore, at a time when nursing students are experiencing large amounts of stress because of nursing school demands, students' ability to creatively problem-solve, learn, and retrieve needed information can be significantly hampered by the destructive effect of the stress response on the brain. Stress can decrease the chances of success in a nursing program.<sup>34</sup>

Knowing the possible effects stress can produce on nursing students, it becomes important to explore means to mediate these effects. Coping skills to manage stressors/challenges have been categorized in many ways. A common schema for

<sup>&</sup>lt;sup>30</sup> Ibid., 22.

<sup>&</sup>lt;sup>31</sup> Ibid., 34.

<sup>&</sup>lt;sup>32</sup> Ibid., 155.

<sup>&</sup>lt;sup>33</sup> Ibid., 218.

<sup>&</sup>lt;sup>34</sup> Darlene Del Prato, Esther Bankert, Patricia Grust, and Joanne Joseph, "Transforming Nursing Education: A Review of Stressors and Strategies that Support Students' Professional Socialization," *Advances in Medical Education and Practice, no. 2* (2011): 109, accessed February 18, 2019. DOI: 10.2147/AMEP.S18359.

examining coping skills is to classify them into problem-focused or emotion-focused coping strategies.<sup>35</sup> Richard Lazarus defined problem-focused coping as coping "by actions that change the actual relationship between a person and the environment."<sup>36</sup> Therefore, problem-focused coping skills usually involve considering and planning a response to the stressor or challenge, and then carrying it out. Lazarus defined emotion-focused coping as "a way of thinking that changes the relational meaning of a social transaction, though not the actual person-environment relationship.<sup>37</sup> Therefore, emotion-focused coping skills may include communicating feelings or changing one's expectations of a situation.<sup>38</sup> Although emotion-focused coping is sometimes considered less effective than developing problem-solving skills, adaptive coping strategies can also fall into this category. Seeking social support is one of these strategies.<sup>39</sup> Others include acceptance and positive reframing when responding to stress, as Lazarus and Folkman have suggested.<sup>40</sup>

Lazarus and Folkman proposed that cognitive reappraisal can mediate the interpretation, and therefore the effects, of a stressor to promote well-being.<sup>41</sup> When

<sup>38</sup> Ibid.

40 Ibid., 86.

<sup>&</sup>lt;sup>35</sup> Ruby Brougham, Christy Zail, Celeste Mendoza, and Janine Miller, "Stress, Sex Differences, and Coping Strategies Among College Students," *Current Psychology* (2009): 86, DOI 10.1007/s12144-009-9047-0, accessed May 3, 2022.

<sup>&</sup>lt;sup>36</sup> Richard Lazarus, *Stress and Emotion: A New Synthesis*, Springer Publishing Company, Incorporated (1999): 78, ProQuest Ebook Central, <u>http://ebookcentral.proquest.com/lib/drew-ebooks/detail.action?docID=435140</u>, accessed July 25, 2022.

<sup>&</sup>lt;sup>37</sup> Ibid., 116.

<sup>&</sup>lt;sup>39</sup> Brougham et al., 87.

<sup>&</sup>lt;sup>41</sup> Lazarus and Folkman, 33.

stressors are framed as challenges (an emotion-focused strategy), creative ways to problem-solve (problem-focused coping) can be sought and implemented. Many coping skills have been explored for managing stress and increasing well-being, but this researcher found no literature to indicate that the use of creativity and creative thinking may help to reinterpret challenge stressors in nursing students.

## CREATIVITY, CREATIVE THINKING, AND CREATIVE PROBLEM-SOLVING

A classic definition of creativity by Robert J. Sternberg and Todd I. Lubart stated that creativity is "the ability to produce work that is both novel (i.e., original, unexpected) and appropriate (i.e. useful, adaptive concerning task constraints)."<sup>42</sup> Society often equates creativity with making art. Sternberg and Lubart's broader definition of creativity encompassed not only art and music, but also science, engineering, and most other areas of life.<sup>43</sup> Creativity is accessible to each human being, not only those who are considered gifted.<sup>44</sup> David Carson and Mark Runco theorized that one aspect of creativity is the act of thinking creatively, which humans commonly utilize for solving everyday

<sup>&</sup>lt;sup>42</sup> Robert J. Sternberg, and Todd I. Lubart, "The Concept of Creativity: Prospects and Paradigms," *Handbook of Creativity*, New York: Cambridge University Press, October 28, 1998, 3.

<sup>&</sup>lt;sup>43</sup> Ibid., 3.

<sup>&</sup>lt;sup>44</sup> David K. Carson and Mark A. Runco, "Creative Problem-solving and Problem Finding in Young Adults: Interconnections with Stress, Hassles, and Coping Abilities," *Journal of Creative Behavior*, 33, no. 3, (1999), 167-190.

problems. Arne Dietrich also spoke of "insightful problem-solving" as a natural result of the creative thinking process. <sup>45</sup>

Creativity and creative thinking are attributes that have been associated with stress reduction, well-being, and thriving. Julia Cameron stated that "practicing our creativity is healing," and "creativity is medicine."<sup>46</sup> She asserted that each human being is creative. Whereas therapy helps us to accept a reality that the world accepts, creativity and creative thinking allow us to express the reality we see. Consequently, using creative thinking and expressing ourselves creatively can help us to change our perception of our reality, and thrive in spite of circumstances around us.<sup>47</sup> This reframing of our perceptions falls in line with Lazarus and Folkman's "cognitive reappraisal."<sup>48</sup>

Mark Runco postulated that creativity reduces stress, again referring to creativity as a mechanism a person can use to change thinking patterns.<sup>49</sup> He particularly emphasized the aspect of creativity known as creative thinking, which encompasses flexibility and adaptability in problem-solving.<sup>50</sup> Runco described that creative thinking can bring us closer to what Abraham Maslow described as "self-actualization," which is

<sup>50</sup> Ibid., 151.

<sup>&</sup>lt;sup>45</sup> Arne Dietrich, "The Cognitive Neuroscience of Creativity," *Psychonomic Bulletin & Review* (Psychonomic Society, Inc.) 11, no. 6. (n.d.): 1011+, accessed December 8, 2014, https://www.questia.com/read/1P3-978682721/the-cognitive-neuroscience-of-creativity/.

<sup>&</sup>lt;sup>46</sup> Julia Cameron, *Walking in This World: The Practical Art of Creativity* (New York: Jeremy P. Tarcher/Penguin, 2003), 58.

<sup>&</sup>lt;sup>47</sup> Ibid., 62-63.

<sup>&</sup>lt;sup>48</sup> Lazarus and Folkman, 15.

<sup>&</sup>lt;sup>49</sup> Mark A. Runco, *Creativity: Theories and Themes: Research, Development, and Practice*. Burlington, Massachusetts: Elsevier Academic Press, 2007, x.

closely related to the concept of thriving.<sup>51</sup> Runco quoted Carl Rogers to drive this point home: "the concept of creativeness and the concept of the healthy, self-actualizing, fully human person seem to be coming closer and closer together, and may perhaps turn out to be the same thing."<sup>52</sup> So the "creative thinking" aspect of creativity is seen here as an entity that promotes thriving of the individual, even in the face of stress.

Runco stated that as there is a great deal of disagreement about the definition of the creativity concept itself, it would be more specific to use the adjective "creative" and follow this with the idea being studied, such as "accomplishments" or "ideation."<sup>53</sup> Creative ideation is seen here as the precursor to creative action; in other words, creative thinking. However, Runco argued that creative ideas can also be considered products of the creative process in their own right.<sup>54</sup> These ideas are readily accessible to all, not just a few talented individuals, and do not belong to any one domain (such as art, literature, or engineering).

Many aspects of creativity have been and continue to be studied. Psychologists have studied whether creativity is general or specific (i.e. – if someone is creative in one area, are they also creative in others?). Researchers disagree on the answer. Many

<sup>54</sup> Ibid.

<sup>&</sup>lt;sup>51</sup> Ibid.

<sup>&</sup>lt;sup>52</sup> Ibid., 150.

<sup>&</sup>lt;sup>53</sup> Mark Runco et al., "Incremental Validity of a Short Form of the Ideational Behavior Scale and Usefulness of Distractor, Contraindicative, and Lie Scales," The Journal of Creative Behavior, 48, no. 3 (2013): 186.

individuals are creative in more than one area, and for others, creativity is "domain-specific" (specialized).<sup>55</sup>

There has also been much speculation about the relationship between intelligence and creativity.<sup>56</sup> One of the most enduring theories in this area is the "Structure of Intellect" model, developed by J.P. Guilford, who postulated that problem-solving can be done by "divergent" or "convergent" thinking.<sup>57</sup> Divergent thinking is defined as "the ability to generate many different solutions to an open-ended problem," whereas for convergent thinking, the one best answer is sought for a specific problem.<sup>58</sup> Divergent thinking has often been considered a significant component of, and even a synonym for, creativity.<sup>59</sup> In fact, tests of divergent thinking (ones in which creativity is assessed by the number and uniqueness of responses to a question) are frequently used as measures of creative thinking.<sup>60</sup>

<sup>57</sup> Ibid, 1.

<sup>60</sup> Ibid., 1.

<sup>&</sup>lt;sup>55</sup> James C. Kaufman, "The Structure of Creativity," In *The Psych 101Series: Creativity 101*, 2<sup>nd</sup> ed. (Springer Publishing Company, 2016), accessed February 18, 2018, <u>Http://ezproxy.drew.edu/login?url=https://search.credoreference.com/content/entry/spc/theories\_of\_creativity/?institutionID=1119.</u>

<sup>&</sup>lt;sup>56</sup> James C. Kaufman, "Creativity and Intelligence," In *The Psych 101 Series: Creativity 101*, 2<sup>nd</sup> ed. (Springer Publishing Company, 2016), accessed February 18, 2018. <u>Http://ezproxy.drew.edu/login?url=https://search.credoreference.com/content/entry/spc/creativity\_and\_intelligence0?institutionID=1119</u>.

<sup>&</sup>lt;sup>58</sup> Kaufman, Theories of Creativity, 2.

<sup>&</sup>lt;sup>59</sup> James C. Kaufman, "Measures of Creativity," In *The Psych 101Series: Creativity 101*, 2<sup>nd</sup> ed. (Springer Publishing Company, 2016), accessed February 18, 2018, <u>Http://ezproxy.drew.edu/login?url=https://search.credoreference.com/content/entry/spc/measures\_of\_creativity0?institutionID=1119.</u>

Other researchers categorized intelligence into "fluid" intelligence, which implied an ability to employ diverse mental maneuvers to solve new and different problems, and "crystallized" intelligence, which signified the breadth and depth of an individual's fund of accumulated knowledge.<sup>61</sup> Researchers today still use S. A. Mednick's 1962 remote associations theory, in which creativity is seen as the brain's ability to retrieve accumulated knowledge (memory) and fluidly apply this knowledge to novel situations.<sup>62</sup>

Dietrich took some of the mysticism out of the "associative" aspect of creativity by providing a neurocognitive description for the way creativity is postulated to occur.<sup>63</sup> He explained that the same neural circuits responsible for day-to-day functioning are also responsible for combining our remembered knowledge into new patterns.<sup>64</sup> They are basically the processes the brain uses for routine problem-solving.

Although the pre-frontal lobe of the brain is often thought to be responsible for creative thought, the mechanisms for the creative mode of thought engage many brain areas. <sup>65</sup> The prefrontal cortex then integrates cognitive function from all these other brain areas and helps us "put it all together:"<sup>66</sup> It allows generation of creative thinking with knowledge that is relevant to solving a particular problem (creative problem-solving).<sup>67</sup>

- <sup>64</sup> Ibid.
- <sup>65</sup> Ibid., 2-5.
- 66 Ibid., 3.
- <sup>67</sup> Ibid., 5.

<sup>&</sup>lt;sup>61</sup> Ibid., 2.

<sup>&</sup>lt;sup>62</sup> Mednick, Sarnoff A. "The Associative Basis of the Creative Process." *Psychological Review*, no. 3 (1962): 220-232.

<sup>&</sup>lt;sup>63</sup> Dietrich, 2.

The brain is adept at new thoughts, but not all are appropriate. The prefrontal lobe sifts through these thoughts and finds suitable ones to apply to a given situation, thus completing the definition of creative thinking.<sup>68</sup> This thinking process can happen as an "aha" moment or systemized, deliberate thinking. Both are considered creative thinking.<sup>69</sup> So students seeking to solve a problem may experience such "aha" moments, but alternatively may have to work through many conscious processes to cope with their stressors.

James Kaufman analyzed the steps in the creative problem-solving process.<sup>70</sup> First, a problem must be discovered and categorized. Ideas must then be generated. Next, a chosen idea must be evaluated, planned, and implemented. Then solutions are evaluated. In essence, this process is similar to brainstorming and even to what nursing students are familiar with as the nursing process.

In the same vein, other researchers have explored the relationship between creativity and problem-solving. An earlier creativity researcher, Joy P. Guilford, stated: "I have come to the conclusion that wherever there is a genuine problem there is some novel behavior on the part of the problem solver, hence there is some degree of creativity."<sup>71</sup> David Carson and Mark Runco explored creative problem-solving and its

<sup>71</sup> Runco, 15.

<sup>68</sup> Ibid., 7

<sup>&</sup>lt;sup>69</sup> Ibid., 8.

<sup>&</sup>lt;sup>70</sup> Kaufman, "Theories of Creativity," 1.

relationship with coping, and, consequently, with a person's well-being.<sup>72</sup> They began by asserting that the perception of stressful events can negatively influence many aspects of a person's well-being, emotionally, relationally, and physically. From there, they concluded that people exercise resiliency in the face of stress by learning and exercising coping mechanisms. Carson and Runco then defined coping as an "action-oriented process" that includes problem-solving to promote health in the face of perceived stress. They stated that "crucial links in the chain of successful coping and adaptation include *creative* problem-finding... and problem-solving."<sup>73</sup> Runco also believed that creativity can be "reactive," that is, it can be a response to an experienced need.<sup>74</sup> These findings on creative problem-solving, coping, and reactivity have direct bearings on this study on nursing students, as the current study examined the relationships among stress, creative thinking, and well-being (thriving) as these students worked through nursing school.

Carson and Runco claimed that ordinary, "everyday" creativity can be beneficial in coping with stress positively and remaining well.<sup>75</sup> In effect, there are many different levels and expressions of creativity.<sup>76</sup> James C. Kaufman and Ronald A. Beghetto<sup>77</sup>

<sup>&</sup>lt;sup>72</sup> David K.Carson and Mark A. Runco, "Creative Problem Solving and Problem Finding in Young Adults: Interconnections with Stress, Hassles, and Coping Abilities," *Journal of Creative Behavior*, 33, no. 3, 168.

<sup>&</sup>lt;sup>73</sup> Ibid.

<sup>&</sup>lt;sup>74</sup> Runco, 308.

<sup>75</sup> Ibid.

<sup>&</sup>lt;sup>76</sup> James C. Kaufman, "Creativity and Mental Health," *The Psych 101 Series: Creativity 101*, 2<sup>nd</sup> ed, Springer Publishing Company (2016), accessed February 18, 2018, <u>Http://ezproxy.drew.edu/login?url=https://search.credoreference.com/content/entry/spc/creativity\_and\_mental\_health/0?institutionID=1119.</u>

<sup>&</sup>lt;sup>77</sup> James C. Kaufman and Ronald A. Beghetto, "Beyond Big and Little: The Four C Model of Creativity," *Review of General Psychology*, 13, no. 1 (2009): 1-12.

acknowledged that few individuals in history are eminent creators remembered for their contributions to society, but each individual is capable of "personal creativity."<sup>78</sup> The authors describe this personal creativity as the process that occurs in "transformative learning," when an individual is able to make connections that solidify learning, build knowledge, and cause personal growth.<sup>79</sup> The emphasis of personal creativity is on personal creative *potential*.<sup>80</sup> It is seen in personal growth, which can also include creative problem-solving at the personal level. The current study examined this creative problem-solving potential in the nursing student population.

Kaufman and Beghetto's theory underlined the belief that creativity is widespread throughout the general population. John S. Dacey and Kathleen H. Lennon stated that "simply getting through a typical day in the modern world requires some degree of creativity."<sup>81</sup> They described creativity as occurring commonly and believed the mental processes that resulted in creative outputs were similar in both brilliant creators and everyday individuals.<sup>82</sup>

Personality characteristics of creative people have also been extensively studied.<sup>83</sup> Traits such as autonomy and independence are generally positively associated with creativity, whereas conformity is not found as often in creative individuals. Creative

82 Ibid.

<sup>83</sup> Runco, 280.

<sup>&</sup>lt;sup>78</sup> Ibid., 3.

<sup>&</sup>lt;sup>79</sup> Ibid., 3.

<sup>&</sup>lt;sup>80</sup> Ibid., 4.

<sup>&</sup>lt;sup>81</sup> John S. Dacey and Kathleen H. Lennon, *Understanding Creativity: The Interplay of Biological, Psychological, and Social Factors*, (San Francisco: Jossey-Bass Publishers, 1998), 7.

people have also been found to score higher on measures of impulsiveness, adventurousness, and flexibility. They are open to new experiences and can tolerate ambiguity.<sup>84</sup> Although not limited to creative people, persistence and perseverance are elements that bring creative products to fruition.<sup>85</sup> Fulfilling a creative idea also requires "creative self-efficacy," or the belief that a creative outcome can be achieved.<sup>86</sup>

#### THRIVING AND RELATED CONCEPTS

Brown et al. stated that thriving individuals "grow or develop well and vigorously, and they may prosper and be successful."<sup>87</sup> If nursing students use creative thinking to reframe their stressors into challenges, it stands to reason that they would thrive. Cameron and Lane both stated that when persons practice creative thinking, healing occurs.<sup>88</sup> Carson and Runco also said that creative thinking promotes health and well-being.<sup>89</sup> Carol Flinchbaugh and her associates postulated that when students reframe their stressors into challenges, they are able to be resilient and thrive.<sup>90</sup> These terms —

<sup>84</sup> Ibid., 298.

<sup>85</sup> Ibid., 295.

<sup>86</sup> Ibid., 313.

<sup>87</sup> Daniel J. Brown et al., "Human Thriving: A Conceptual Debate and Literature Review," *European Psychologist*, 22, no.3, (2017), 167-179, accessed July 15, 202, DOI: 10.1027/1016-9040/a000294, https://econtent.hogrefe.com/doi/full/10.1027/1016-9040/a000294.

<sup>88</sup> Cameron, 58; Lane, 122.

<sup>89</sup> Carson and Runco, 168.

<sup>90</sup> Carol Flinchbaugh, Matthew T. Luth, and Pingshu Li, "A Challenge of a Hindrance? Understanding the Effects of Stressors and Thriving on Life Satisfaction," *International Journal of Stress Management*, 22, no. 4, (April 20, 2015):, 323, accessed September 20, 2018, http://dx.doi.or/10.1037/a0039136 health, thriving, well-being, growth, and resilience — have strong commonalities. Other terms that fall into this category are flourishing and self-actualization. Often these terms are used interchangeably. Taken together as a complex concept, they encompass a desirable outcome of successfully reframing a stressor into a challenge. Their definitions overlap and are dependent on the definer's perspective. For the current study, the word *thriving* was used as the overarching term to describe the collective concept encompassed by these various terms.

Carol Ryff has done extensive work on this concept and offered descriptions of some of the components of positive change.<sup>91</sup> Ryff and her associates used the terms "flourishing" and "well-being" interchangeably with thriving, and described them as "positive human functioning in the face of challenge."<sup>92</sup> Important in these concepts is the presence of positive outcomes, rather than just the absence of negative ones.<sup>93</sup> Other authors expand on the components of flourishing: "living within an optimal range of human functioning, one that connotes goodness, generativity, growth, and resilience."<sup>94</sup> Ryff went on to describe thriving as "particular heights of the human experience."<sup>95</sup> Carol Flinchbaugh and her associates were more specific: "Thriving describes a psychological

<sup>&</sup>lt;sup>91</sup> Carol D. Ryff and Burton Singer, "Flourishing Under Fire: Resilience as a Prototype of Challenged Thriving," Research Gate (January 2003): 15-36, accessed August 14, 2019. <u>https://www.researchgate.net/publication/232514332</u> Flourishing under fire Resilience as a prototype of challenged thriving/stats

<sup>92</sup> Ibid.

<sup>93</sup> Ibid.

<sup>&</sup>lt;sup>94</sup> Barbara L. Fredrickson and Marcial F. Losada, "Positive Affect and the Complex Dynamics of Human Flourishing," *American Psychology*, 60, no. 7, (October 2005): 678-686, accessed August 14, 2019, <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3126111/</u>.

<sup>&</sup>lt;sup>95</sup> Ryff and Singer, 16.

state in which individuals simultaneously experience vitality and learning in a given situation."<sup>96</sup> Thriving involves growth and adaptation, and a sense of control over one's own goals. It creates life satisfaction and is associated with subjective well-being. Vitality expresses energy and joy.<sup>97</sup>

According to Ryff, resilience always implied that adversity had been encountered, and that the person facing it had "prevailed."<sup>98</sup> Flinchbaugh defined resilience as "a psychological resource that allows individuals to bounce back and cope effectively following adversity."<sup>99</sup>

Where resilience always implies overcoming hardship, thriving and flourishing are often, but not always, described this way. Jane Coddington stated that although thriving is frequently "linked to resilience, rebounding and growth following an adverse event or trauma," other theorists do not stipulate that it follows an adverse event, preferring to emphasize growth and development.<sup>100</sup> Coddington's detailed definition of thriving is:

Growth in a positive capacity with greater cognitive and behavioral complexity combined with enhanced vitality and energy. Thriving is viewed as a normal developmental process that unfolds over time. As it has been linked with meaningfulness, sense of purpose and a sense of sense of continuous growth, it is likely that thriving manifests in vocation.<sup>101</sup>

97 Ibid.

<sup>99</sup> Flinchbaugh, Luth, and Li, 327-328.

<sup>101</sup> Ibid., 13.

<sup>&</sup>lt;sup>96</sup> Flinchbaugh, Luth, and Li, 327-328

<sup>98</sup> Ryff and Singer, 16

<sup>&</sup>lt;sup>100</sup> Jane Coddington, "Toward a Theory of Thriving" (PhD diss., Capella University, 2006), 3-4, accessed December 5, 2018, search.proquest.com/openview/14d24d00cf228ea1a732b30c68eeb50b/1?pq-origsite=gscholar&cbl=18750&diss=y.

Coddington added that little is known about thriving, as the social sciences have not valued it as an area for research. It is currently grouped under the canopy of positive psychology, which is less commonly studied than psychopathology. Psychological wellbeing is closely correlated to thriving, as both incorporate continuous growing, emerging, and evolving in a positive direction.<sup>102</sup>

Nicole Mentag, in her study on undergraduate baccalaureate nursing students, confirmed that some nursing students do more than achieve passing grades and graduate. She stated that thriving is a "phenomenon within higher education that expands on the traditional measures of success and integrates cognitive and psychological aspects of the college experience"<sup>103</sup> and defined thriving in college as "achieving optimal functioning as students engage intellectually, socially, and emotionally in their college experiences."<sup>104</sup>

#### SURVIVING AND LANGUISHING

The resources above discussed thriving in contrast to surviving. It is interesting to note that none of the above resources defined surviving. Merriam-Webster's most fitting definitions for "survive" in this context were: "to continue to be alive or to exist after [something], and to continue to function, succeed, etc., in spite of [something.]"<sup>105</sup>

<sup>&</sup>lt;sup>102</sup> Ibid., 14.

<sup>&</sup>lt;sup>103</sup> Nicole M. Mentag, The Lived Experiences of Thriving Nursing Students, (PhD diss., Nova Southeastern University, 2020), ix.

<sup>&</sup>lt;sup>104</sup> Ibid., 14.

<sup>&</sup>lt;sup>105</sup> Learner's Dictionary, s.v. "Survive," by Merriam-Webster, incorporated, accessed June 14, 2021, <u>https://www.learnersdictionary.com/definition/survive.</u>

Another source provides synonyms for the word "survive": to endure, exist, live through, suffer, weather, withstand, and persevere.<sup>106</sup> Although Mentag did not specifically equate passing grades and graduation with surviving, the implication is clear that, although most colleges use these measures as evidence of student success, these criteria fall short of thriving.<sup>107</sup>

Fredrickson and Losada use the term "languishing" to describe the other end of the flourishing/thriving continuum.<sup>108</sup> These authors describe languishing as "emptiness" or barrenness but not distressed enough to be considered mentally ill.<sup>109</sup> Languishing is associated with inadequate happiness and diminished effectiveness in relationships and everyday activities. Fredrickson and Losada estimated that only 20% of adults in the United States are flourishing or thriving; all the rest are either surviving, languishing or mentally ill.<sup>110</sup>

#### **STUDY FRAMEWORK**

Nursing students are at high risk for languishing or surviving, rather than thriving, in nursing school. Despite the extensive research done on nursing students' stressors, these stressors remain pervasive, and nursing students continue to report high levels of distress while in school.

<sup>110</sup> Ibid.

<sup>&</sup>lt;sup>106</sup> Thesaurus.com, s.v. "survive (v.),", accessed May 12, 2022, https://www.thesaurus.com/browse/survive.

<sup>&</sup>lt;sup>107</sup> Mentag, ix.

<sup>&</sup>lt;sup>108</sup> Barbara L. Fredrickson and Marcial F Losada, "Positive Affect and the Complex Dynamics of Human Flourishing," *American Psychologist* 60, no. 7 (2005): 678-686, accessed July 17, 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3126111/pdf/nihms305179.pdf

<sup>&</sup>lt;sup>109</sup> Ibid., 678.

This study used Lazarus and Folkman's theory of Stress, Appraisal, and Coping to postulate that when nursing students reframe their stressors as challenges, they can mobilize coping skills to help them not only survive the stressors but thrive in the midst of stress.<sup>111</sup> This study further postulated that creative thinking and creative problem-solving can be used to develop coping skills that assist students to reframe their stressors and thrive during the nursing education process.

#### **RELEVANCE TO HEALTH HUMANITIES**

Health Humanities promote the development of a deep understanding of the human condition of the patient. Its scope extends beyond the needs of patients to encompass the "healer's experience." It seeks "to provide renewal for the healthcare professional."<sup>112</sup> Health professionals, including nurses and nursing students, need to renew themselves if they are to be effective in providing humanistic care for their patients.<sup>113</sup>

It is not unusual for the healthcare system to "lose sight of the community – not only the patient, but also the healthcare worker."<sup>114</sup> Studies have shown that healthcare workers, including nursing students, can experience burnout and compassion fatigue from

<sup>&</sup>lt;sup>111</sup> Lazarus and Folkman, 22-30.

<sup>&</sup>lt;sup>112</sup> "Defining Health Humanities," *Health Humanities Consortium: Transforming health & Health Care Through the Arts and Humanities*, last updated July 18, 2023, https://healthhumanitiesconsortium.com/hhc-toolkit/definitions/.

<sup>&</sup>lt;sup>113</sup> Barret Michalec, Cynthia Diefenbeck, and Margaret Mahoney, "The Calm Before the Storm? Burnout and Compassion Fatigue Among Undergraduate Nursing Students," *Nurse Education Today*, 33 (2013): 314, accessed July 2021, http://dx.doi.org/10.1016/j.nedt.2013.01.026.

<sup>&</sup>lt;sup>114</sup> Susan M. Squier, "Beyond Nescience: The Intersectional Insights of Health Humanities," *Perspectives in Biology and Medicine*, 50, no. 3 (summer 2007): 334-47, The Johns Hopkins University Press, accessed August 12, 2023, https://doi.org/10.1353/pbm.2007.0039.

chronic stress, which can adversely affect patient care.<sup>115</sup> Health Humanities integrate creativity and social sciences into healthcare to establish a therapeutic environment that benefits both patients and healers. As creativity is a natural human trait, healers are able not only apply it to their patients, but also use it for self-care to reduce stress. This enables them to be more present for their patients' human experience. The idea of creative self-care can be applied to nursing students to improve their potential for creating positive and healing relationships with patients.

#### **RESEARCH QUESTIONS**

This study examines the relationships between nursing students' creative thinking and their ability to thrive during nursing school. The research seeks to answer these questions:

#### *Theoretical:*

How does the available literature describe the relationships among stress, creative thinking, and thriving?

#### *Empirical:*

- Is there a positive relationship between associate degree nursing students' scores on a measure for creative thinking when compared to a measure for thriving in one northern New Jersey community college?
- 2. In what situations do these students state they apply creative thinking skills?
- 3. Do relationships exist among stress, creative thinking, and thriving in this population?

<sup>&</sup>lt;sup>115</sup> Michalec, Diefenbeck, and Mahoney, 315.

## Synthesis:

How can insights derived from the empirical and theoretical study be used to foster thriving by creative thinking in nursing school?
### CHAPTER 2

## LITERATURE REVIEW

### **INTRODUCTION**

The literature review included the following electronic data bases: CINAHL, Academic Search Premier, EBSCO Host, ERIC, Medline, PsycARTICLES, OpenDissertations, Proquest, and Google Scholar. As relationships were sought among stress, creative thinking, and thriving, literature on related concepts was also examined. Terms searched included nursing student, stress, burnout, creativity, creative thinking, creative problem-solving, thriving, flourishing, and well-being. Although some  $20^{\text{th}}$ century seminal literature and several classic texts were used, an effort was made to find studies that reflected a broad overview of literature available pertaining to the current study's population, including the most recent studies available. In all studies, preference was given to studies investigating associate degree nursing students, and those that described students in Western (preferably U.S.) rather than countries where culture or nursing education would be significantly different than the U.S. This was done to increase validity of the current study. Some international studies were reviewed to provide a well-rounded view of nursing education throughout the world. There were stress-related studies available for the nursing student population, but very little nursing student research was found in the areas of creative thinking and thriving. This made it necessary to look at these variables in studies with diverse populations and extrapolate

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findings with caution when applying them to the nursing student participants. The paucity of research in nursing students' creative thinking use and thriving validated the need for the current study.

This study examined whether there are relationships among nursing students' stress levels during their education, their use of creative thinking, and their ability to thrive during nursing school; therefore, the three variables on which research is presented in this review are stress, creative thinking, and thriving.

Review of the literature yielded few studies describing thriving or similar concepts in nursing students. Some of the nursing school stress literature spoke of student physical and/or psychological distress, and one study, by Ian Dreary and associates, mentioned well-being in nursing students.<sup>1</sup> Thriving is defined here from a psychosocial perspective, and compared to the concepts of well-being, psychological well-being, and flourishing.

#### STRESS

There is evidence that nursing students were being "polled" about stress and difficulties in their educational programs as early as the 1930s.<sup>2</sup> Elsie MacMaster's 1979 study gathered students' subjective data using questionnaires to discover specific sources

<sup>&</sup>lt;sup>1</sup> Ian Dreary, Roger Watson, and Richard Hogston, "A longitudinal Cohort Study of Burnout and Attrition in Nursing Students," *Journal of Advanced Nursing* 43 no. 1 (2003): 76, accessed October 7, 2018, <u>https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2648.2003.02674.x.</u>

<sup>&</sup>lt;sup>2</sup> Martyn C. Jones, "The Nature, Measurement and Management of Student Nurse Stress, Distress and Coping," (PhD thesis, University of St. Andrews, 1998): 51, accessed October 7, 2018, <u>http://hdl.handle.net/10023/7279</u>: Emmy Hahn, "The Open Forum: Nursing Student Stress," *American Journal of Nursing* 36, 9 (1936): 952-953.

of nursing student stress. Even at that time, academics, clinical stressors, and personal/family issues were reported as her participants' sources of stress.<sup>3</sup>

Studies remain consistent in asserting that being a nursing student is a stressful experience, affecting many areas of student's life. A 1987 study of 200 associate degree nursing students examined differences in stress levels between first-year and second-year students.<sup>4</sup> Beginning first-year nursing students were found to have significantly higher life stress on a standardized test than second-year students ready to graduate. Interestingly, the second-year students had significantly higher physical illness scores on a standardized test than the beginning students. The study implied that continued stress during nursing school could have contributed to the development of symptoms of physical illness.<sup>5</sup>

M. Regina Jennette studied the "real world" of associate degree nursing students to discern how nursing curriculum could better prepare students for their social and emotional roles as nurses.<sup>6</sup> Her phenomenological study portrayed the lived experience of 160 associate degree nursing students.<sup>7</sup> Less than 5 percent of study participants were

<sup>7</sup> Jennette, 47.

<sup>&</sup>lt;sup>3</sup> Elsie MacMaster, "Sources of Stress in University Nursing Students." *Canadian Journal of Nursing Reseach* Archive 11, 3&4 (April 13, 1979): 92, accessed January 3, 2020, <u>https://scholar.google.com/scholar?hl=en&as\_sdt=0%2C31&q=Elsie+MacMaster+Sources+of+Stress+in+</u> <u>University+Nursing+Students&btnG=</u>.

<sup>&</sup>lt;sup>4</sup> Sylvia Jane Gray, "The Impact of a Nursing Program on Stress, Physical Illness, Anxiety, and Self-Concept of Participants in a Community College Nursing Program," EdD diss., North Texas State University, (1987): 1-2, October 7, 2018.

<sup>&</sup>lt;sup>5</sup> Ibid., 42.

<sup>&</sup>lt;sup>6</sup> M. Regina Jennette, "A Phenomenological Study of the Lived Experience of Nursing Students Enrolled in an Associate Degree Nursing Program," (doctoral dissertation, West Virginia University, 1995), 4.

traditional nursing students, that is, recent high school graduates. The others were second-career students, had spouses and/or families, or had full-time employment.<sup>8</sup> Her interview data described students that stated they did not have enough time for all the information to be learned. Students complained of lack of time with their families, neglected housework, decreased income and increased costs, and difficulty balancing schedules.<sup>9</sup> They experienced guilt, depleted energy, mental and emotional pressure, irritability, and frequent crying episodes. Statements made by her participants summed up the tone of nursing students in her study: "I've never felt this amount of stress in my life, especially over this extended period of time."<sup>10</sup> Another student stated, "My daily life is not my own, everything I do, say or think has to do with school."<sup>11</sup> One further comment was: "My family life has been altered forever, problems have increased and support has gone downhill."<sup>12</sup> A different student was succinct: "Living through this is hell!"<sup>13</sup>

In a dissertation studying nursing student stress and resilience, Andrew T. Reyes used a qualitative grounded theory approach to study 38 nursing students enrolled in a baccalaureate nursing program. He analyzed data to organize nursing students' stress response into three aspects: "(a) sources of stress or also called <u>stressors</u>; (b) <u>stress</u> which

- <sup>11</sup> Ibid., 70.
- <sup>12</sup> Ibid., 67.
- <sup>13</sup> Ibid., 63.
- <sup>14</sup> Ibid., 80.

<sup>&</sup>lt;sup>8</sup> Ibid., 78.

<sup>&</sup>lt;sup>9</sup> Ibid., 57.

<sup>&</sup>lt;sup>10</sup> Ibid., 63.

is considered a set of psychophysiological reactions to stressors; and (c) <u>coping</u> which refers to the person's attempts at dealing with these reactions."<sup>15</sup>

In Reyes' study, nursing students perceived multiple sources of stress. Coursework was frequently mentioned. Many cited stresses from tests and examinations, but also spoke of stress from lack of organization in the courses they took, and the overwhelming nature of these courses.<sup>16</sup> The clinical component of courses also sparked much anxiety and stress. Students were fearful of making errors in their work with patients and doubted their own skills. They also had difficulties with relationships with clinical staff. Students expressed anticipatory stress about working with dying patients and being in other emotionally charged situations.<sup>17</sup>

Personal stressors listed in Reyes' study included the financial difficulties of paying for school while simultaneously decreasing employment hours to make time for studying, caring for families, and commuting to school.<sup>18</sup> For many students, maintaining financial responsibility for a household added tremendously to stress. Reyes considered the conundrum of the cyclical effect on students' personal lives. Caring for families while going to school was a strain on the time needed to perform academically, while academics often caused disruption in family, personal, and social time, often adversely affecting relationships.<sup>19</sup>

- <sup>15</sup> Reyes, 2.
- <sup>16</sup> Ibid., 3.
- 17 Ibid.
- 18 Ibid.
- <sup>19</sup> Ibid., 3.

Reyes noted that high levels of nursing student stress have been shown to be related to "poor academic performance, memory and concentration problems, and deficiencies in problem-solving abilities."<sup>20</sup> He stated that stress could negatively impact students' care of patients, and their ability and desire to remain in the nursing program.<sup>21</sup>

Other manifestations of stress are the negative health effects experienced by students whose perceived level of stress is excessive. Students reported depression, anxiety, suicidal thoughts, and increased inappropriate substance use.<sup>22</sup> Their psychological distress included frequent feelings of being overwhelmed, overtired, lonely, and/or inadequate. They did not feel in control of the amount of work they had to accomplish, and often suffered decreases in self-esteem.<sup>23</sup> Physically, they gained weight, suffered gastrointestinal symptoms, chest pain, dizziness, headaches, and back pain.<sup>24</sup> Students complained of difficulty sleeping or not having enough time to sleep.

Reyes stated that not coping adaptively with stress can have negative effects on students' physical and psychological well-being.<sup>25</sup> This was quantitatively substantiated by Ian Dreary and associates in Scotland, who tested a total of 90 nursing students in a longitudinal study comparing stress with wellness and well-being (the General Health Questionnaire). As stress scores rose, self-reported wellness scores significantly

<sup>22</sup> Ibid.

<sup>23</sup> Ibid., 5.

<sup>24</sup> Ibid., 6.

<sup>25</sup> Reyes, 8.

<sup>&</sup>lt;sup>20</sup> Ibid., 4.

<sup>&</sup>lt;sup>21</sup> Ibid.

decreased.<sup>26</sup> Students reported stressors involving clinical, confidence, educational, and financial issues.<sup>27</sup>

Another study of 659 health profession and graduate students at a well-known university measured stress and well-being.<sup>28</sup> All students had high stress levels. Nursing students, who accounted for the largest number of participants (213), scored significantly higher than any other study group on the academic and external stress indices. (p = 0.031 and p = 0.001, respectively).<sup>29</sup> External stress included finances, residence issues, and outside employment. What concerned the author of this study was that more than 25 percent of the total sample of 659 students reported symptoms of depression, and 10 percent of study participants reported suicidal thoughts.<sup>30</sup> The author concluded that high stress levels in these students predicted increased depression.<sup>31</sup>

Chris Gibbons, Martin Dempster, and Marianne Moutray cited similar reasons for nursing student distress in the United Kingdom.<sup>32</sup> These researchers compared the findings on five scales administered to 171 nursing students during their last year of nursing school. One of these scales measured sources of stress specific to

<sup>&</sup>lt;sup>26</sup> Dreary et al., 76.

<sup>&</sup>lt;sup>27</sup> Reyes, 81

<sup>&</sup>lt;sup>28</sup> Tracy Stecker, "Well-being in an Academic Environment," *Medical Education* 38 (2004): 465-478, accessed August 14, 2019, <u>http://www.brainresearch.us/academic\_well\_being.pdf</u>.

<sup>&</sup>lt;sup>29</sup> Ibid., 469.

<sup>&</sup>lt;sup>30</sup> Ibid., 467.

<sup>&</sup>lt;sup>31</sup> Ibid., 477.

<sup>&</sup>lt;sup>32</sup> Gibbons, Dempster, and Moutray, "Stress, Coping, and Satisfaction in Nursing Students," 622.

nursing students. Although the structure of nursing programs differed from those in the United States, these authors listed examinations, time pressures, perceived lack of skills, work overload, and interpersonal conflicts as stressors that interfered with well-being of students.<sup>33</sup> Of note is the special mention these authors gave to the impact of nursing programs on the "work-life balance of female students with children." <sup>34</sup> This was echoed by Katrina Turner and Valerie Lander McCarthy in their review of 26 research studies. As Jennette also asserted, Turner and McCarthy emphasized that nursing school stress was magnified because many of the students were now "nontraditional," having responsibilities for families and providing household income.<sup>35</sup> These authors offered one more stressor, which mirrored the cyclical conundrum expressed by Reyes above: because of financial strains and severe time constraints, students may not be able to access an important stress-reducing resource: social support.<sup>36</sup>

Interestingly, not all stressors necessarily resulted in a decrease in well-being, or an inability to learn. Gibbons, Dempster, and Moutray explored this issue in two research studies related to stress in nursing students. One is described above, and the other is a qualitative study using focus groups with 16 students.<sup>37</sup> These authors postulated that many stressors that nursing students face are seen as "daily hassles," and are associated

<sup>&</sup>lt;sup>33</sup> Ibid., 622.

<sup>&</sup>lt;sup>34</sup> Ibid., 622.

<sup>&</sup>lt;sup>35</sup> Turner and McCarthy, 22.

<sup>&</sup>lt;sup>36</sup> Ibid, 22.

<sup>&</sup>lt;sup>37</sup> Gibbons, Dempster, and Moutray, "Stress, Coping and Satisfaction in Nursing Students," 621-632; Chris Gibbons, Martin Dempster, and Marianne Moutray, "Stress and Eustress in Nursing Students," *Journal of Advanced Nursing (Blackwell Publishing, Ltd.)*, 61, no. 3 (2007): 282-289.

with a decrease in well-being.<sup>38</sup> However, Gibbons et al. conducted studies where nursing students reported high levels of stress, but, at the same time, found high levels of reported personal achievement, "suggesting that stress experiences can contribute to eustress" when learning is accomplished.<sup>39</sup> Eustress is defined by these authors as a positive or beneficial stress. Gibbons et al. did not find a significant correlation between eustress and well-being in their quantitative study; they did find that eustress did not contribute to poor scores on a well-being survey. Stress caused by daily hassles did significantly relate to lower well-being.<sup>40</sup>

This theory of eustress versus distress was tested in another form by Carol Flinchbaugh, Matthew T. Luth, and Pingshu Li.<sup>41</sup> These authors recruited 189 nonnursing college students to examine whether a relationship existed between what they called "challenge" stressors and self-reported life satisfaction and thriving. They administered assessments measuring life satisfaction, challenge and hindrance stressors, thriving, and resilience.<sup>42</sup> Like Gibbons et al. and Lazarus and Folkman, Flinchbaugh, Luth, and Li stated that not all stressors are evaluated by an individual as threatening. Some present a growth challenge, and are associated with thriving, which these authors define as "a psychological state in which individuals simultaneously experience vitality

<sup>42</sup> Ibid., 331-332.

<sup>&</sup>lt;sup>38</sup> Gibbons, Dempster, and Moutray, Stress, Coping and Satisfaction in Nursing Students, 623.

<sup>&</sup>lt;sup>39</sup> Ibid., 623.

<sup>&</sup>lt;sup>40</sup> Ibid., 621-632.

<sup>&</sup>lt;sup>41</sup> Flinchbaugh, Luth, and Li, 323-345.

and learning in a given situation."<sup>43</sup> Other stressors (the mundane, repetitive, non-valueadded tasks of daily life) can be seen as hindrance stressors, associated with decreased life satisfaction. Thriving is not evidenced when these stressors predominate. They are seen as hindering progress toward a goal.<sup>44</sup>

One final stressor reported in the literature focused on difficult faculty-student relationships.<sup>45</sup> As faculty members are experiencing a rise in their own stress levels due to increased expectations and responsibilities, this stress is reflected in their students. A review of relevant literature cited that just the presence of an instructor causes students to be anxious about their performance in the clinical area.<sup>46</sup> In qualitative studies using semi-structured interviews, students stated they felt incompetent and feared failure. They saw the clinical instructor as critical and threatening, hovering, and watching for every mistake. This attitude was seen by the students as a hindrance to learning.<sup>47</sup> Faculty incivility was also cited as a significant source of student stress. Students reported that faculty members were "aloof, intimidating, demeaning, arrogant, and unfair," and "created a negative learning environment."<sup>48</sup>

44 Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> Ibid., 112.

<sup>48</sup> Ibid.

<sup>&</sup>lt;sup>43</sup> Ibid., 327.

<sup>&</sup>lt;sup>45</sup> Darlene Del Prato, Esther Bankert, Patricia Grust, and Joanne Joseph, "Transforming Nursing Education: a Review of Stressors and Strategies that Support Students' Professional Socialization," *Advances in Medical Education and Practice* 2011, no. 2 (2011): 109-116, accessed February 18, 2019, DOI: 10.2147/AMEP.S18359.

### STRESS INTERVENTIONS

Many researchers have explored factors and characteristics that help college students interact with stress in a more positive way. Most of the literature here will address stress in nursing students, but some studies outline interventions used with a more general college population as well.

A study completed on 531 undergraduate university students enrolled in health courses found that overall student stress, including test anxiety and personal burnout, decreased over the period of a semester when students were taught a group of relaxation strategies including assessment of their own stressors, thought management, lifestyle balance, and coping skills.<sup>49</sup> Students also engaged in physical exercise and progressive muscle relaxation.<sup>50</sup> Another study of 117 college students majoring in management participated in one of two groups of stress management interventions during a one-semester management course.<sup>51</sup> One group of interventions included progressive muscle relaxation, deep breathing, guided imagery, and positive self-talk.<sup>52</sup> The second intervention group focused on gratitude journaling, which has been thought to lead to

<sup>&</sup>lt;sup>49</sup> Timothy Baghurst and Betty C. Kelley, "An Examination of Stress in College Students Over the Course of a Semester," *Health Promotion Practice*, 15, no. 3 (May 2014): 438-446, accessed October 28, 2022, <u>https://doi.org/10.1177/1524839913510316</u>.

<sup>&</sup>lt;sup>50</sup> Ibid.

<sup>&</sup>lt;sup>51</sup> Carol Flinchbaugh, E. Whitney G. Moore, Young K. Chang, and Douglas May, "Student Well-Being Interventions: The Effects of Stress Management Techniques and Gratitude Journaling in the Management Education Classroom," *Journal of Management Education*, 36, no. 2 (2012): 191-219, accessed October 28, 2022,

https://journals.sagepub.com/doi/pdf/10.1177/1052562911430062?casa\_token=JhDEACgXO1EAAAAA:H cNmmnt7L3JqYzXFPN-svJ\_TOJzu6IIfMIJJjjsITAY4a\_kVF0I9CG3oXRcmLDUg3Fx-ylOkJ3yC9g.

"positive well-being" outcomes.<sup>53</sup> Examining the students' narrative journal responses, the researchers concluded there was evidence that using this combination of stress interventions and gratitude journaling was helpful in increasing students' well-being.<sup>54</sup> One additional study involving 22 health science students measured the immediate effects of 30-minute yoga, humor, and reading interventions found that students' indicators of stress (blood pressure, pulse, and self-report) decreased significantly after participating in the interventions.<sup>55</sup> The practice of yoga has been found to moderate not only a person's response to stress but also their outlook on stressful circumstances, while increasing feelings of well-being.

Stress intervention studies involving nursing students, especially those that focus on community colleges, are few. In their literature review, Turner and McCarthy stated that most studies on nursing students stress interventions have had small sample sizes in which diversity was lacking. Most of these were convenience samples. For the most part, these studies were not longitudinal, so long-term effects of interventions are not known.<sup>56</sup> Studies in nursing schools may be difficult to design and implement because of the structured nature of nursing programs and the difficulty in instituting curricular changes. There may also be administrative constraints and lack of resources. Numbers of participants are small, making it difficult to generalize results.

<sup>&</sup>lt;sup>53</sup> Ibid.

<sup>&</sup>lt;sup>54</sup> Ibid.

<sup>&</sup>lt;sup>55</sup> Denise Rizzolo, Genevieve Pinto Zipp, Doreen Stiskal, and Susan Simpkins, "Stress Management Strategies for Students: The Immediate Effects of Yoga, Humor, and Reading on Stress," *Journal of College Teaching & Learning*, 6, no.8 ((December 2009): 79-88, accessed October 28, 2022, https://www.clutejournals.com/index.php/TLC/article/view/1117/1101.

<sup>&</sup>lt;sup>56</sup> Turner and McCarthy, 27.

However, some of these studies did have significant findings. An example of a small study with positive results examined an eight-week mindfulness intervention designed to decrease stress in sixteen baccalaureate nursing students. In pre- and post-intervention questionnaires, there were favorable responses in several stress dimensions. Attitude, time pressure, and total stress scores improved significantly from the start to the end of the intervention (P < .05). The mindfulness intervention included practicing attentiveness to inner sensations, hatha yoga, and walking meditation.<sup>57</sup> The researchers recommended a more comprehensive study and tailoring the intervention more specifically to the experiences encountered by nursing students.<sup>58</sup> Anecdotally, students expressed an increase in well-being after this cognitive-based intervention. No long-term follow-up data was obtained.<sup>59</sup>

In addition to examining sources of stress, Gibbons, Dempster, and Moutray also hypothesized that if nursing students see stressful events as challenges, and not as hassles, they should be able to maintain a high level of well-being.<sup>60</sup> Thus, the perception of the kind of stress experience should help mediate the effects of stress. Their complex study, referenced above, showed that students with high degrees of self-efficacy (those who believed in their ability to overcome stressful situations) experienced strongly significant (P < 0.01) high degrees of psychological health and well-being despite

<sup>&</sup>lt;sup>57</sup> Ibid., 307.

<sup>&</sup>lt;sup>58</sup> Ibid., 310.

<sup>&</sup>lt;sup>59</sup> Amy Beddoe and Susan Murphy, "Does Mindfulness Decrease Stress and Foster Empathy Among Nursing Students?" *Journal of Nursing Education* 43 no. 7 (July 2004): 305, accessed October 7, 2018, <u>https://pdfs.semanticscholar.org/300b/3ad60388f35a12b37fcada3267dce6a0cf9f.pdf</u>.

<sup>&</sup>lt;sup>60</sup> Gibbons, Dempster, and Moutray, "Stress, coping, and satisfaction," 621.

perceiving large amounts of stress.<sup>61</sup> A sense of control over their learning environment also significantly increased students' well-being and satisfaction.<sup>62</sup>

Reyes used constructivist grounded theory to study resilience as a characteristic capable of moderating stress in nursing students.<sup>63</sup> He defined resilience as the learning of behaviors that facilitate adaptation in adversity.<sup>64</sup> Reyes' qualitative study on the development of resilience in nursing students utilized T. M. Stephen's concept clarification on resilience. This was done to make characteristics of resilience more specific to the nursing student population in Reyes' study. Stephens emphasized "personal protective factors" that helped nursing students cope with obstacles encountered during their education process.<sup>65</sup> Students who overcome these obstacles accumulated successes, which in turn provide them with increasing confidence in their ability to cope and adapt.<sup>66</sup> Included in Stephen's protective factors were characteristics such as "support, perseverance, autonomy, empathy, high expectations, sense of purpose, optimism, honesty, and critical thinking."<sup>67</sup> Reyes's grounded theory work formed a basis

<sup>62</sup> Ibid.

<sup>63</sup> Reyes, 85.

<sup>64</sup> Ibid, 6.

66 Ibid.

<sup>67</sup> Reyes, 37.

<sup>&</sup>lt;sup>61</sup> Ibid., 628.

<sup>&</sup>lt;sup>65</sup> T. M. Stephens, "Nursing Student Resilience: A Concept Clarification," *Nursing Forum*, 48, no. 2. (2013): 125, accessed April 13, 2019, doi: 10.1111/nuf.12015.

for development of a resilience model appropriate to nursing school. This model posited that nursing students could cultivate resilience to promote their own well-being.<sup>68</sup>

### **CREATIVITY IN NURSING SCHOOL**

A study conducted on nursing students in 1970 measured changes occurring in creative thinking over the time that these students were in school.<sup>69</sup> From details given, it appears that these were diploma school students. The study was done in two steps. In the first section, 152 freshman, 44 junior, and 70 senior students were tested with a reliable measure of creative thinking. To account for possible differences in groups, the freshman students (totaling 60) were retested when they reached their senior year.<sup>70</sup> The results were clear. Freshman students showed relatively high levels of creative thinking. As students progressed in the nursing program, their creativity scores decreased significantly. During retesting, senior students who were originally tested as freshmen also demonstrated a significant decrease in creative thinking scores.<sup>71</sup> The researchers postulated that the nursing education process encouraged conformity. Nursing students may have been taught to do things "the right way."<sup>72</sup> During the 1970s, and especially in the diploma program structure, value was placed on following rules and respecting authority. Although attitudes toward authority have changed since the 1970's, it is

<sup>&</sup>lt;sup>68</sup> Ibid., 45.

<sup>&</sup>lt;sup>69</sup> Russell Eisenman, "Creativity Change in Student Nurses: A Cross-Sectional and Longitudinal Study," *Developmental Psychology* 3, no. 3 (1970): 320-325, accessed August 14, 2019, https://psycnet.apa.org/record/1971-04261-001.

<sup>&</sup>lt;sup>70</sup> Ibid., 321.

<sup>&</sup>lt;sup>71</sup> Ibid., 323.

<sup>&</sup>lt;sup>72</sup> Ibid., 324.

possible that the rigorous demands in current nursing programs still leave little tolerance for divergent thinking.

Other research has studied the inclusion of creative techniques into nursing program curricula. Zenobia Chan reviewed eight qualitative studies in which nursing programs of various levels used creative art, problem-based learning, storytelling, and other innovative strategies to further critical thinking in nursing students.<sup>73</sup> Chan concluded that four techniques can be instituted to further creative thinking in nursing students: "diversity learning [learning in unique ways], freedom to learn, learning with confidence, and learning through group work."<sup>74</sup> The focus of Chan's review was to examine the effect of creative thinking on the *nursing skills learning process* rather than on the *well-being of participants*.<sup>75</sup>

### **CREATIVE THINKING – THRIVING RELATIONSHIP**

Creative thinking has already been presented as problem-solving tool and a means to reframe "harm/loss" stressors and hassles into challenges. Only one study was found that related creative thinking to well-being and thriving. Because this study involved creative thinking and thriving, this study is reported here even though it involves a population far removed from New Jersey nursing students.

An Iranian study used an experimental design to assess whether teaching creative thinking skills to 15-year-old students would increase their scores on measures of creative

<sup>75</sup> Ibid.

<sup>&</sup>lt;sup>73</sup> Zenobia C.Y. Chan, "A Systematic Review of Creative Thinking/Creativity in Nursing Education," *Nurse Education Today* (2012): 3, accessed July 9, 2023, http://dx.doi.org/10.1016/j.nedt.2012.09.005.

<sup>&</sup>lt;sup>74</sup> Ibid., 5.

thinking and psychological well-being/thriving.<sup>77</sup> Forty students were randomized into a control group and an intervention group, which received 20 hours of creative thinking instruction. Pre-tests and post-tests showed a significant increase in creative thinking scores in the intervention group and also showed significant increases in psychological well-being/thriving.<sup>78</sup> There was no description of the content that was taught. This study demonstrated that creative thinking and thriving may be related. It also used the Ryff Psychological Well-Being Inventory, which was subsequently used to measure thriving in the current study.<sup>79</sup>

Positive emotions are often a component of well-being and thriving. A multicountry online study used a creative exercise to examine the effect of creative thinking on autonomous self-expression and emotions.<sup>80</sup> Four hundred seventy-eight adult participants with diverse backgrounds from five European countries were randomly assigned to an experimental or control group. A multigroup analysis found that creative thinking increased autonomy and then significantly increased positive emotions by its effect on autonomy.<sup>81</sup>

<sup>81</sup> Ibid., 190.

<sup>&</sup>lt;sup>77</sup> Flor Rezaei Kargar et al., "The Effect of Teaching Critical and Creative Thinking Skills on the Locus of Control and Psychological Well-Being of Adolescents," *Procedia – Social and Behavioral Sciences* 82 (July 3, 2013): 51-56, accessed August 14, 2019, https://www.sciencedirect.com/science/article/pii/S1877042813012901.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

<sup>&</sup>lt;sup>80</sup> Aleksandra Bujacz et al., "Why Do We Enjoy Creative Tasks? Results from a Multigroup Randomized Controlled Study," Thinking Skills and Creativity 19 (March 2016): 188-197, accessed August 18, 2019, <u>https://www.sciencedirect.com/science/article/pii/S1871187115300389</u>.

A similar study examined 171 university students in the U.S.<sup>82</sup> This study measured relationships among happiness, creative ideation, and locus of control. Although the authors' hypotheses regarding locus of control were not supported, there was a significant positive relationship between happiness and creative ideation. They suggest that "creative individuals are happier when they have a challenge to resolve."<sup>83</sup> The positive relationship found between creative thinking and happiness mirrors the positive emotion found by Bujacz et al.

# THRIVING

The word "thriving" is not well-defined in research literature. In common usage, it is understood to mean growing or developing well. Merriam-Webster's dictionary lists "flourishing" as a synonym for thriving and gives this additional definition: "to progress toward or realize a goal despite or because of circumstances."<sup>84</sup>

In a study of 23 high-thriving adults in a variety of vocations, Jane Coddington related thriving to "growth, well-being, and self-actualizing."<sup>85</sup> To seek clarification of what constituted thriving among these participants, she utilized grounded theory to gather these participants' subjective perceptions of thriving.<sup>86</sup> The analysis of her data validated

<sup>&</sup>lt;sup>82</sup> Tammy C. Pannells and Amy F. Claxton, "Happiness, Creative Ideation, and Locus of Control," Creativity Research Journal 20 no. 1 (2008): 70-71, accessed August 14, 2019, https://www.tandfonline.com/doi/abs/10.1080/10400410701842029.

<sup>&</sup>lt;sup>83</sup> Ibid., 71.

<sup>&</sup>lt;sup>84</sup> Merriam-Webster Dictionary, s.v., "thrive," accessed July 20, 2019, https://www.merriam-webster.com/dictionary/thrive.

<sup>&</sup>lt;sup>85</sup>Jane A. Coddington, "Toward a Theory of Thriving," (PhD diss, Capella University, November 2006), 3, accessed December 20, 2018, ProQuest Dissertations and Theses Global, i.

several elements of thriving: "Meaning and meaningfulness, growth, internal alignment and authenticity, autonomy, and relationships."<sup>87</sup> To validate interview data, she administered the Ryff Psychological Well-Being (PWB) scales to each participant. These scales measure six factors: "Self-acceptance, relationships with others, autonomy, environmental mastery, purpose in life, and personal growth."<sup>88</sup> The data Coddington obtained verified that, in her study, these scales were strongly linked to the thriving concept.<sup>89</sup> Consequently, these scales were used in this researcher's study.

Chris Gibbons stated the effects of stress in nursing students may be mediated by the potential for achieving "high levels of personal accomplishment."<sup>90</sup> In a study of undergraduate business students, Carol Flinchbaugh and associates described two kinds of stressors: those that students described as getting in the way of their goals (hindrance stressors), and others that helped them to grow (challenge stressors).<sup>91</sup> These researchers claimed that these challenge stressors are perceived by some students as opportunity for growth. As these students meet these challenges successfully, they "experience vitality and learning," and, through adaptation, they thrive.<sup>92</sup>

<sup>87</sup> Ibid., 135.

<sup>88</sup> Ibid., 63.

89 Ibid.

<sup>90</sup> Gibbons, "Student Life - The Two Sides of Stress," 61.

<sup>91</sup> Carol Flinchbaugh, Matthew T. Luth, and Pingshu Li, "A Challenge of a Hindrance? Understanding the Effects of Stressors and Thriving on Life Satisfaction," International Journal of Stress Management, 22, no. 4, (April 20, 2015), 323, accessed September 20, 2018, <u>http://dx.doi.or/10.1037/a0039136</u>.

<sup>92</sup> Flinchbaugh, Luth and Li, 327.

Schreiner, Louis, and Nelson studied undergraduate baccalaureate students for novel measures of student success.<sup>93</sup> These researchers contended that academic success and graduation rates constitute only a fraction of overall student success in college. They postulated that student success, or thriving, should have a wider definition: "optimal functioning in three key areas: academic engagement, interpersonal relationships, and psychological well-being."<sup>94</sup> Thriving students were engaged with learning, worked hard to reach goals, managed time well, maintained good relationships, found optimism, were happy with their choices, appreciated diversity, and desired to give back to their communities.<sup>95</sup> The authors found that scores on a thriving measurement tool explained 12 to 22 percent of "variation of student success outcomes, above and beyond other predictors."<sup>96</sup>

Nicole Mentag used Schreiner et al.'s thriving model on undergraduate baccalaureate nursing students.<sup>97</sup> She identified eight thriving students with a quantitative measurement tool (Schreiner's Thriving Quotient), then used qualitative interpretive phenomenology to study the students' lived nursing school experiences.<sup>98</sup> In interviews of this group of traditional nursing students, themes that emerged were: professors' and

- <sup>96</sup> Ibid., 20.
- 97 Mentag, ix
- 98 Ibid.

<sup>&</sup>lt;sup>93</sup> Laurie Schreiner, <u>Michelle C.</u> Louis, and <u>Denise .D.</u> Nelson, eds, *Thriving in Transitions: A Research-Based Approach to College Student Success (2<sup>nd</sup> ed.)*, University of South Carolina, National Resource Center for The First-year Experience & Students in Transition, 2020, <u>location 582</u>.

<sup>&</sup>lt;sup>94</sup> Ibid., location 637.

<sup>&</sup>lt;sup>95</sup> Ibid., location 638.

peers' support, seeing success and greater purpose through hardships, and achieving balance.<sup>99</sup> The students who thrived were the ones who made the effort to care for themselves among the challenges that nursing school posed. They viewed difficulties as challenges, and creatively sought "positive coping strategies" to overcome obstacles.<sup>100</sup>

### SUMMARY

The literature review has shown that stress in nursing school has continued despite much research to ameliorate it. Various coping skills have been explored, although a "one-size-fits-all" solution has not been found. However, some studies have shown that nursing students who can translate challenge into growth do more than survive, they thrive despite the obstacles.<sup>101</sup>

Theoretical Question:

How does the available literature describe the relationships among stress, creative thinking, and thriving?

The theoretical question was posed, "How does the available literature describe the relationships among stress, creative thinking, and thriving?" No direct relationships were observed among these concepts in the extant literature review. Gibbons, Dempster, and Moutray did find relationships in which high levels of stress in nursing students coexisted with high levels of psychological well-being when these students perceived

<sup>99</sup> Ibid.

<sup>&</sup>lt;sup>100</sup> Ibid., 90.

<sup>&</sup>lt;sup>101</sup> Flinchbaugh, Luth, and Li, 323-345.

control over their situations.<sup>102</sup> Flinchbaugh et al. found significant relationships between students who were able to perceive a "growth challenge" in the presence of stressors and these students' reports of thriving.<sup>103</sup> Some relationships were found between creative thinking and aspects of psychological well-being/thriving in several studies.<sup>104</sup>

None of these studies examined the effects of creative thinking in the presence of stressors on the ability of nursing students to thrive. Therefore, gathering data about the relationships among these concepts may decrease this knowledge gap. The current study sought to fill in this gap using both quantitative and qualitative inquiry into the experiences of associate degree nursing students.

<sup>&</sup>lt;sup>102</sup> Gibbons, Dempster, and Moutray, "Stress, coping, and satisfaction," 623.

<sup>&</sup>lt;sup>103</sup> Flinchbaugh, Luth, and Li, 323-345.

<sup>&</sup>lt;sup>104</sup> Kargar et al., 51, Bujacz et al., 190, Pannells and Claxton, 70.

#### CHAPTER 3

#### METHODOLOGY

### **INTRODUCTION**

This study was conducted using a mixed method approach. To answer the theoretical questions of the study, a narrative literature review was carried out. To answer the study's empirical questions, a survey study was administered and completed by participants. In addition to students' demographic data, self-reports regarding stress, health, and progress in the nursing program were obtained. Two measurement tools were administered: one for creative thinking and one for thriving. Lastly, an interview study was completed to obtain narrative data from student participants using methods derived from Kathy Charmaz's approach to grounded theory. Interviews provided information about students' lived experience regarding stress, creative thinking, and thriving during nursing school, and were used to explicate survey findings.

#### **STUDY SETTING**

The study was conducted in an accredited commuter college in suburban northern New Jersey. Just under 8,000 students were registered in the college at the time of this study. About 40 percent of the college's students attended full-time, the remainder parttime. The college grants associate degrees in science and in arts, as well as associate degrees in applied science. It serves students from the surrounding counties as well as some from more distant areas. The college's nursing program is well-known throughout the county for its rigor. Although the college is open to anyone with a high school diploma, and hundreds of students are registered in the prerequisite sciences for the nursing program, admission to the professional phase (which encompasses the core nursing courses) is highly competitive. Only 160 students per year are admitted into the first of four semesters in this professional phase. At the time of this study, approximately 280 students were registered in the entire professional phase. Of these, between 40 and 80 students are in the final semester of the program at any given time. The study sample was drawn from students in this final semester. Students registered in the nursing program range in age from recent high school graduates to students in their fifties and sixties. See Figure 3.1. To accommodate the diverse needs of the student population, courses in the nursing program are offered during the day and evening. Diversity in gender and ethnicity mirrors the diversity in the surrounding community and includes international students as well. See Figure 3.2. Many students have previous degrees in unrelated fields.







#### Figure 3.2 Ethnicities of Nursing Program Professional Phase Students

### INSTITUTIONAL REVIEW BOARD APPROVAL AND DATA PROTECTION

An application for Institutional Review Board approval was submitted to and approved by the Institutional Review Board Committee of the study site. This approved application was then reviewed and approved by the researcher's degree-granting university. (See Appendix 1.) Printed data were protected by storing in a locked cabinet within a locked office, with participants' names stored separately from data. Electronic data were password protected and stored on the researcher's personal computer, which is password protected. Again, participants' names were stored separately from electronic data and password protected.

## SURVEY STUDY

#### Permissions to Use Measurement Instruments

The demographic data sheet was created by the researcher; therefore no permissions were required. The researcher obtained permission from Mark Runco to use the short form of the Runco Ideational Behavior Scale (RIBS-S) to measure creative thinking. The researcher also obtained permission from Carol Ryff to use the Ryff Scales of Psychological Well-Being (PWB). See Appendix 2 for permissions.

#### Selection of Participants

Prior to study recruitment, the researcher met with the college nursing department chair to discuss the proposed research and received the chair's approval to approach the fourth semester nursing faculty team, which consisted of a team leader and three full-time faculty members. The researcher then joined the team leader and the three course faculty members during a regular team meeting. Here, the researcher reviewed study objectives, hypotheses, and methodology, and answered the faculty's questions. The team leader provided the researcher with suggested dates and times to conduct data collection and introduced the study to the fourth semester students.

Participants were recruited from two cohorts of students registered in the fourth (and final) semester nursing courses at the study site. The study site supplied the researcher with the roster of currently enrolled final semester students. The fourth semester students were targeted to avoid any potential partiality by the researcher, who was a professor in the third semester of the nursing program.

The researcher emailed students with an explanation of the study and an invitation to participate. The researcher then visited each fourth semester classroom, presented information about the study, and answered students' questions about the study. Research was also advertised with signs posted in the nursing classrooms and laboratory. Quantitative data collection was scheduled for a "free period" during a regularly scheduled nursing laboratory experience, so it was convenient for participants to attend. Thus, a convenience sample drawn from two fourth (and final) semester nursing student classes was obtained. The first cohort of students (Cohort 1) attended the daytime nursing program. The second group (Cohort 2) was enrolled in the evening nursing program. Both programs have the same curriculum including classroom and clinical hours.

#### Inclusion/Exclusion Criteria

All students registered in the fourth semester nursing course at the community college where the study was conducted were invited to participate in the study. Participants were included if they voluntarily agreed to participate without compensation. Any student not in the nursing program or not in the fourth semester nursing course of the approved community college was excluded. In addition, the data from one student who omitted the completion of two pages of study questions was excluded.

#### Implementation of the survey study

After giving informed consent, students completed the demographic data and the validated assessment tools measuring creative thinking and thriving. Copies of the consent and the measurement tools are available in Appendix 3. The researcher personally administered questionnaires to all participants.

#### Measurement Tools

a. Demographic Data

Demographic data was collected to consider the influence of life factors on study results. This data included age, living arrangements, credit load, work status, and selfreported health. Students were asked to rate their own success in the program, as personal records of the students were not accessed. As stress has long been confirmed in the nursing student population, it was thought that a separate measure for stress was not required. Instead, two stress questions were included in the demographic data:

$\square_1$ Not very stressed $\square_2$ Moderately stressed
$\square_3$ Very stressed
$\square_4$ Overwhelmed
<ul> <li>My stress is less now</li> <li>My stress is about the same</li> <li>My stress is slightly greater now</li> <li>My stress is moderately greater now</li> <li>My stress is much greater now</li> <li>My stress is overwhelming now</li> </ul>

### b. Runco Ideational Behavior Scale - Short Form

The short form of the Runco Ideational Behavior Scale (RIBS-S) scale assesses creative ideation, which "[reflects] an individual's use of, appreciation of, and skill with ideas."<sup>1</sup> Runco postulated that as there is a great deal of disagreement about the definition of the creativity concept itself, it would be more specific to use the adjective "creative"

<sup>&</sup>lt;sup>1</sup> Mark Runco, Jonathan A. Plucker, and Woong Lim, "Development and Psychometric Integrity of a Measure of Ideational Behavior," Creativity Research Journal, 13, nos. 3 and 4 (2000-2001): 393-400.

and follow this with the idea being studied, such as "accomplishments" or "ideation."<sup>2</sup> Creative ideation is seen here as the precursor to creative action, in other words, creative thinking. However, Runco argued that creative ideas can also be considered products of the creative process.<sup>3</sup> These ideas are readily accessible to all, not just a few talented individuals and do not belong to any one domain (such as art, literature, or engineering.) The objective behaviors measured in this scale are self-reported creative ideas. This makes the scale suitable for use by diverse populations, not just those who have produced tangible art. This test was shown not to be related to students' grade point average (GPA), and therefore is unlikely to be related to intelligence.<sup>4</sup> It was significantly related to a test of divergent thinking, which helped to confirm its validity for measuring creative, original thought. In the current study, the RIBS-S (short form) was used in order to better suit participants' schedules. Runco reported the Cronbach alpha of the short form to be 0.94. After comparing RIBS-S data to results from several other measures of creativity, he determined its validity to be adequate to measure creative thinking.<sup>5</sup> The tool consists of 23 items scored on a five-point Likert scale, with answers ranging from "never" to "very often." Consequently, scores on the RIBS-S can range between 23 (low

<sup>&</sup>lt;sup>2</sup> Mark Runco et al., "Incremental Validity of a Short Form of the Ideational Behavior Scale and Usefulness of Distractor, Contraindicative, and Lie Scales," The Journal of Creative Behavior, 48, no. 3 (2013): 186.

<sup>&</sup>lt;sup>3</sup>Ibid.

<sup>&</sup>lt;sup>4</sup> Runco, Plucker, and Lim, 397.

<sup>&</sup>lt;sup>5</sup> Runco et al., 195.

level of creative thinking) and 115 (high level of creative thinking), with a midpoint of

69. Below is an excerpt from this scale, which can be found in its entirety in Appendix 3.

I think about ideas more often than most	Never	Rarely	Sometimes	Often	Very
people.					Often
I often get excited by my own new ideas.	Never	Rarely	Sometimes	Often	Very
					Often
I come up with a lot of ideas or solutions to	Never	Rarely	Sometimes	Often	Very
problems.					Often

# c. Ryff Scales of Psychological Well-Being (PWB)

The Ryff Scales of Psychological Well-Being (PWB) were used to measure six dimensions of well-being. <sup>6</sup> See Appendix 3. The six dimensions measured are autonomy, environmental mastery, personal growth, purpose in life, positive relationships, and self-acceptance. Together, these dimensions overlap significantly with the characteristics of thriving.<sup>7</sup> Coddington validated these six dimensions as components of thriving when she found strong correlations between the PWB and themes found in her grounded research study of high-thriving participants, and agreed that the PWB is a good fit for the measurement of thriving.<sup>8</sup> Multiple studies support the validity of this multidimensional scale.<sup>9</sup> Ryff and Singer reported that the scale is sensitive to not only psychological

<sup>&</sup>lt;sup>6</sup> Carol D. Ryff and Burton H. Singer, "Best News Yet on the Six-Factor Model of Well-Being," *Social Science Research*, 35 (2006) 1103, accessed August 10, 2019, https://www.sciencedirect.com/science/article/abs/pii/S0049089X06000044.

<sup>&</sup>lt;sup>7</sup> Ibid., 1105

<sup>&</sup>lt;sup>8</sup> Coddington, 135.

<sup>&</sup>lt;sup>9</sup> Ryff and Singer, 1108.

correlates of well-being, but also sociodemographic, and biological correlates of well-

being.<sup>10</sup> This makes PWB a well-rounded tool for measuring the thriving concept.<sup>11</sup>

Table 3.1 provides Ryff's definitions for high and low scorers in each of the

dimensions of the PWB.

Table 3.1 Definitions of PWB Dimensions<sup>12</sup>

PWB	High Scorer	Low Scorer
Dimension		
Autonomy (A)	Is self-determining and independent; able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.	Is concerned about the expectations and evaluations of others; relies on judgments of others to make important decisions; conforms to social pressures to think and act in certain ways.
Environmental	Has a sense of mastery and competence in	Has difficulty managing everyday
Mastery (E)	managing the environment; controls	affairs; feels unable to change or
	complex array of external activities; makes	improve surrounding context; is
	effective use of surrounding opportunities;	unaware of surrounding
	able to choose or create contexts suitable to	opportunities; lacks sense of control
	personal needs and values.	over external world.
Personal	Has a feeling of continued development;	Has a sense of personal stagnation;
Growth (PG)	sees self as growing and expanding; is open	lacks sense of improvement or
	to new experiences; has a sense of realizing	expansion over time; feels bored
	his or her potential; sees improvement in	and uninterested with life; feels
	self and behavior over time; is changing in	unable to develop new attitudes or
	ways that reflect more self-knowledge and	behaviors.
D	effectiveness.	
Positive Dalationalization	Has warm satisfying, trusting relationships	Has rew close, trusting relationships
Relationships	with others; is concerned about the weifare	with others; finds it difficult to be
(DD)	of others; capable of strong empathy,	warm, open, and concerned about
( <b>rK</b> )	anection, and intimacy; understands give	intermensional relationships, act
	and take of numan relationships.	interpersonal relationships; not
		willing to make compromises to
		sustain important ties with others.

<sup>10</sup> Ibid., 1110-1111.

<sup>11</sup> Coddington, 135.

<sup>12</sup> Carol Ryff, Scales of psychological well-being (2008), obtained from Carol Ryff, University of Wisconsin, Institute on Aging.

Purpose in	Has goals in life and a sense of	Lacks a sense of meaning in life;	
Life (PL)	directedness; feels there is meaning to	has few goals or aims, lacks sense	
	present and past life; holds beliefs that give	of direction; does not see purpose of	
	life purpose; has aims and objectives for	past life; has no outlook or beliefs	
	living.	that give life meaning.	
Self-	Possesses a positive attitude toward the self;	Feels dissatisfied with self; is	
Acceptance	acknowledges and accepts multiple aspects	disappointed with what has	
(SA)	of self, including good and bad qualities;	occurred in past life; is trouble	
	feels positive about past life.	about certain personal qualities;	
		wishes to be different than what he	
		or she is.	

The reliability of the PWB is not reported for the scale in total, but rather for the individual dimensions. The most recent version of the PWB contains seven items in each dimension, for a total of 42 items; therefore, the absolute range for the PWB composite score on this PWB version is 42 to 252. For this scale, the internal consistencies were reported to range from .69 to .85.<sup>13</sup> Items are evaluated by the participant on a six-point Likert scale ranging from "strongly disagree" to "strongly agree". Examples of statements include:

- 1. I am not afraid to voice my opinions, even when they are in opposition to the opinions of others.
- 2. My decisions are not usually influenced by what everyone else is doing.
- 3. The demands of everyday life often get me down.
- 4. I do not fit very well with the people and the community around me.
- 5. I am quite good at managing the many responsibilities of my daily life.
- 6. I often feel overwhelmed by my responsibilities.

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<sup>&</sup>lt;sup>13</sup> Jennifer Morozink et al., "Socioeconomic and Psychosocial Predictors of Interleukin-6 in the MIDUS National Sample," *Health Psychology* 29, no. 6 (November 2010): 629, accessed August 30, 2019, <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2991411/</u>.

<sup>&</sup>lt;sup>14</sup> Ryff, Scales of Psychological Well-Being.

### Analysis of the Survey Study

The survey study was analyzed using the R language and environment for statistical computing and graphics.<sup>15</sup> The R program is software that provides tools for a wide variety of research data analysis. Distributions of data, bivariate correlations, and interactions among multiple variables were studied using this program.

Each survey's results (demographic data, RIBS-S, and PWB) were first examined for patterns independently, contrasting the total results with the results in each of the two cohorts, and comparing Cohort 1 and Cohort 2 with each other. For example, demographic data were examined for relationships between age and stress, perceived health and stress, or previous education and stress. Similarly, factors such as age, health, and stress in Cohort 1 and Cohort 2 were compared to each other.

In her explanation of the scale's intended interpretation, Ryff stated that there are no designated points for "defining high or low well-being" on the PWB but suggested a technique for reporting and interpreting results for a given sample.<sup>16</sup> First, the six dimensions of well-being could be combined into one *composite* score of overall wellbeing, or each dimension could be used individually. Ryff suggested that scores from a particular sample could be divided into quartiles (groups of 25% of sample scores), with the top scores in the sample considered "high well-being," and the bottom quartile considered "low well-being."<sup>17</sup> This technique was applied to the results in the current study.

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<sup>&</sup>lt;sup>15</sup> R Core Team, R: A Language and Environment for Statistical Computing, *R Foundation for Statistical Computing*, Vienna, Austria, (2013), accessed February 20, 2019, http://www.R-project.org/.

<sup>&</sup>lt;sup>16</sup> Ryff, 2.

<sup>&</sup>lt;sup>17</sup> Ibid., 2.

Data were analyzed using Microsoft Excel and the R statistical and graphics language. Relationships were sought by comparing each variable to each other variable in bivariate relationships. P values of less than or equal to 0.05 were sought. Demographic factors (age, employment hours, household income, progress in the nursing program, health, current stress, and change in stress) were compared to the overall results obtained in the RIBS–S and to the subscales (dimensions) and overall (composite) scale results obtained in the PWB. The results obtained in the RIBS-S were also examined in relationship with the subscales (dimensions) and overall (composite) scale results obtained in the PWB.

Scores were analyzed for each of the two cohorts (day students and evening students) individually. Data from the two cohorts were also combined to yield overall results.

#### **INTERVIEW STUDY**

#### Semi-structured interviews

As part of the informed consent packet for the study, the following statement was included: "I would be willing to answer a few questions about my nursing school experiences in a short, separate interview." Students were able to check "yes" or "no." Students were verbally informed that those who consented would be contacted by e-mail. A total of 58 participants consented to be interviewed on a date after the survey study: 36 from Cohort 1 and 22 from Cohort 2. The investigator sent a total of three emails to these participants requesting them to reply to the investigator for an interview appointment. Participants were told that the interview would last approximately 30 minutes. The semistructured interview questions were included in these emails so that participants would have an idea about interview content. If participants did not respond after the third email, they were invited to respond to the questions by email if they chose.

An appointment was scheduled with those students who agreed to be interviewed about their own experiences with stress, creative thinking, and thriving during nursing school. These interviews were done to elicit an understanding of how participants defined their experiences, and what factors contributed to their stress or thriving during this time. Participants spoke with the interviewer individually and privately, either in an empty classroom or in the researcher's private office, whichever was more convenient for the student. Interviews were scheduled at days and times requested by the students. During the individual interviews, participants answered questions from a semi-structured questionnaire. All interviewed students consented to be audiotaped. Some students chose to answer the semi-structured questionnaire via email. The actual interviews lasted between 30 and 90 minutes. The amount of time spent on each interview was guided by the participants' desire to share narratives and details related to their nursing school experience.

#### Grounded Theory

Kathy Charmaz's grounded theory approach was used as a general guideline for gathering and interpreting qualitative data obtained by interviewing students.<sup>18</sup> In this approach, the researcher starts with an area to study. In the current study, the researcher sought an intersection between stress, creative thinking, and thriving. Charmaz advocated

<sup>&</sup>lt;sup>18</sup> Kathy Charmaz, "The Search for Meanings – Grounded Theory," in J.A. Smith, R. Harre, & L. Van Langenhove (Eds.), *Rethinking Methods In Psychology* (1996): 27-49. London: Sage Publications.

for gathering and analyzing data simultaneously, so that deeper exploration on expressed themes can be done with succeeding participants.<sup>19</sup>

Charmaz stated that the researcher interviewing participants should be the one to analyze the data so that "nuances of meaning and process" can be explored, clarified, and then coded with understanding.<sup>20</sup> The interviewer/coder needs to possess a knowledge base that enables them to accurately explore participants' meaning. To be both interviewer and analyzer while avoiding bias, Charmaz advised researchers to ask themselves a series of critical questions about their data while they are interviewing to gain an accurate understanding of the participants' responses.<sup>21</sup> She encouraged researchers to ask themselves these questions:

> What process is at issue here? How can I define it? How does this process develop? How does the participant act while involved in this process? What does the research participant profess to think and feel while involved with this process? What might his or her observed behavior indicate? When, why, and how does the process change? What are the consequences of the process? <sup>22</sup>

These questions guided the researcher in exploring and clarifying participant

responses during each interview. In this way, the researcher worked to accurately capture

<sup>20</sup> Ibid., 35.

<sup>21</sup> Ibid.

<sup>22</sup> Kathy Charmaz, *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis* (Thousand Oaks, Sage Publications, 2006), 51.

<sup>&</sup>lt;sup>19</sup> Ibid., 37.
participants' interpretation and understanding of the nursing student experience. Illustrations were sought from participants when meanings were unclear.

To decrease bias and promote the researcher's accurate understanding of the participants' meanings, Charmaz also encouraged researchers to challenge their preconceptions concerning their participants and what is found in collected data.<sup>23</sup> She offered some strategies to reveal these preconceptions and advocated that the first step is to "achieve intimate familiarity with the *studied phenomenon*."<sup>24</sup> Charmaz went on to say that "Such familiarity not only includes an in-depth knowledge of people who contend with the phenomenon, but also a level of understanding that pierces their experience."<sup>25</sup> In the current study, the researcher has had twenty-five years of experience in interacting with nursing students in teaching, advisory, and counseling capacities. In addition to the researcher's intimate familiarity with nursing students' stress, creative thinking, and thriving (or surviving) developed through counseling and instructing students, a thorough literature search added to the researcher's knowledge of each of these concepts.

## Interview Process

Two cohorts of students were interviewed. As with the quantitative data, the first cohort of students attended the daytime nursing program, and the second cohort was enrolled in the evening program.

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>&</sup>lt;sup>23</sup> Ibid., 67-68.

An open-ended questionnaire was used to gather qualitative information about student's experiences with stress, creative thinking, and thriving. The semi-structured interview asked about difficult challenges students had experienced in nursing school. Below are examples of items in this interview:

- 1. Tell me about one time when you faced a difficult challenge while in nursing school. It could involve school, home, work, or any other aspect of your life.
- 2. What ways did you use to creatively cope with this challenge? In other words, in what ways did you come up with new/unique/unusual approaches to deal with this situation?

In addition, a related question was asked regarding what participants felt was the most difficult challenge for them during this time, and what factors helped the most and the least in dealing with the challenges they faced. As the participants responded to interview questions, the researcher tailored further questions using cues from their responses to clarify and elicit deeper information. Participants were encouraged to share anecdotes that illustrated their feelings and actions during the challenges that they faced. Clarifications were sought when the researcher was not sure of respondents' meanings.

As advocated by Charmaz, interview questions were revised for the second cohort, based on data obtained from the first cohort. For the second (evening) cohort, the semi-structured interview questions were expanded to include a descriptive paragraph outlining a definition of both creative problem-solving and thriving to stimulate students' discussions in those areas, as in the following example:

Researchers say that using creative thinking can be useful in solving everyday stress-causing problems. Creativity is the production of a new, useful, and appropriate thought, idea, action, or object. Although some people may be more creative than others, all of us are capable of creative thinking. Some research has also suggested that creative thinking decreases as a student progresses through nursing school. What are your thoughts about the above statements? How creative do you feel you are?

Each interview was recorded using a digital voice recording device using mp3 format. The recording was then uploaded onto the researcher's password protected computer and transcribed by the researcher. For coding, memo-writing, and documentation, participants' initials were used to protect their privacy. Later, pseudonyms were assigned to each participant.

Opportunities were provided for students to form small focus groups, but the participants in the interview study stated their preference for private interviews. Participants also stated that their schedules were very busy, making group meetings difficult.

## Analysis of the Interview Study

Recordings of the interviews were analyzed after collection to seek content related to nursing school stress, creative thinking, and evidence of either thriving or, conversely, distress. Using Charmaz's approach, participants were encouraged to expound upon their responses with examples and encouraged to clarify situations and responses where meanings could be construed inaccurately.

Once data were collected, the interviewer transcribed each interview and proceeded with Charmaz's "line by line" approach to coding.<sup>26</sup> Matthew Miles and A. Michael Huberman advocate using a matrix to analyze qualitative data.<sup>27</sup> After reviewing

<sup>&</sup>lt;sup>26</sup> Charmaz, "The Search For Meanings – Grounded Theory," 37.

<sup>&</sup>lt;sup>27</sup> Matthew B. Miles and A. Michael Huberman, *Qualitative Data Analysis: An Expanded Sourcebook, 2<sup>nd</sup> edition* (Thousand Oaks, CA: SAGE Publications, Inc, 1994), 239-244.

the line-by-line coding results, Miles and Huberman's approach was used to create a matrix to analyze data in more depth. Using Microsoft Excel, data was entered into this flexible matrix to categorize participants' verbalized challenges/stressors and evidence of creative coping. Direct participant quotes were used to support descriptive categories that arose from the interviews. Participants' statements that suggested surviving or thriving were also documented and categorized. Each interview was analyzed in turn.

Miles and Huberman stated that once matrix is formed, it should be used for "noting patterns, themes; making contrasts, comparisons; [and] clustering.<sup>28</sup> This process prepared the researcher for the next step, the creation of a map in which clustered concepts were arranged into tentative, "alterable" relationships, which could then be evaluated in comparison to the interview and coding data for validation. This process was used to as a tool to visualize how the concepts "fit together," much like a jigsaw puzzle would fit pieces in the most logical manner.<sup>29</sup> The concept map process also guided the researcher to implement Charmaz's next step, "memo-writing." This process was used to explicate the recurrent themes and their variations in a free-writing style prior to writing a more refined first draft of the interview findings.

# **COMPARING INTERVIEW FINDINGS WITH SURVEY STUDY FINDINGS**

Themes found in the interview study were then compared with the results of the survey study to elucidate possible explanations of study findings. A theoretical model was designed to explain study findings. Using the focused coding results, the model was

<sup>&</sup>lt;sup>28</sup> Ibid., 243.

<sup>&</sup>lt;sup>29</sup> Charmaz, *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*, 86-90.

reviewed and revised to create a best fit to research results. This process was also used to suggest areas for further research.

### CHAPTER 4

## **RESULTS AND FINDINGS**

#### SURVEY STUDY RESULTS

### Overview

A total of 81 students completed the quantitative data in the study. One participant did not finish the surveys completely and was excluded from the study; therefore, the final sample of survey participants consisted of 80 students.

The first cohort consisted of 47 of the 72 students registered in the final semester of the day program. The following semester, 33 evening fourth semester students completed questionnaires, out of a total of 49 registered for the course.

### Demographics

Participants self-reported data regarding age, gender, living arrangements, race/ethnicity, work details, sufficiency of income, nursing school progress, health, stress, and previous college degrees. The researcher had access to nursing program data which showed that this convenience sample was consistent with the student population in terms of age, gender, and race/ethnicity. Also, Cohort 1 and Cohort 2 reported similar demographics with few exceptions. These are listed in Tables 4.10 and 4.11.

The demographic survey asked participants to place themselves into age groups from 18 to 61 and older, as shown in Table 4.1.

Age Group	Total	Cohort 1	Cohort 2
	Participants N (%)	N (%)	N (%)
18-20	2 (2.5%)	2 (4.3%)	0 (0%)
21-30	52 (65.0%)	32 (68.1%)	20 (60.6%)
31-40	14 (17.5%)	7 (14.9%)	7 (21.2%)
41-50	7 (8.8%)	3 (6.4%)	4 (12.1%)
51-60	4 (5.0%)	3 (6.4%)	1 (3.0%)
61 or >	1(1.3%)	0 (0%)	1 (3.0%)
Total	80 (100%)	47 (100%)	33 (100%)

**Table 4.1 Study Participant Ages** 

Most of the participants were in the 21 to 30 age group. If one estimates the length of time a high school graduate needs to get through the prerequisites and into the nursing program (a minimum of 1 year, but more probably 2 to 4 years or more), the 18 to 20 and the 21 to 30 age groups are likely to contain all the recent high school graduates in the program ("traditional" students). Although these two groups accounted for the largest number of study participants, 32.6 percent of the total participants were at least 31 years of age, and thus considered "non-traditional" students, as they were not enrolling immediately after high school.

Gender distribution was also similar in both cohorts, with a total of 85% of the participants identifying as female, and 15% as male. See Table 4.2.

Identify as:	Total	Cohort 1	Cohort 2
	N (%)	N (%)	N (%)
Male	12 (15.0%)	6 (12.8%)	6 (18.2%)
Female	68 (85.0%)	41 (87.2%)	27 (81.8%)
Total	80 (100%)	47 (100%)	33 (100%)

The researcher reasoned that the participants' living arrangements could influence their perception of stress, so a demographic question was asked about what were thought to be the most likely living arrangements for these students. As demonstrated in Table 4.3, approximately 50% of students lived with their parents, while 20% lived with a partner. To estimate the percentage of participants with dependent children, the researcher combined Rows a, b, and c in Table 4.3. Seven participants in Cohort 1 did not answer this question; therefore, it is possible that participants had more dependent children than indicated in Table 4.3. In Cohort 2, the fraction of participants who stated they lived with their dependent children was 18.1%.

Lives with:	Total	Cohort 1	Cohort 2
	N (%)	N (%)	N (%)
Alone	3 (3.8%)	2 (4.3%)	1 (3.0%)
Spouse/Partner	16 (20.0%)	8 (17.0%)	8 (24.2%)
Parent(s)	41 (51.3%)	25 (52.2%)	16 (48.5%)
a. Dependent children	5 (6.3%)	4 (8.5%)	1 (3.0%)
b. Partner and children	4 (5.0%)	0 (0%)	4 (12.1%)
c. Parents and children	1 (1.3%)	0 (0%)	1 (3.0%)
(Total living with dependent children)	10 (12.6%)	4 (8.5%)	6 (18.1%)
Other arrangement, Not specified	3 (3.8%)	1 (2.1%)	2 (6.1%)
Not answered	7 (8.8%)	7 (14.9%)	0 (0%)
Total	80 (100%)	47 (100%)	33 (100%)

#### **Table 4.3 Living Arrangements**

Although the majority of participants were white (75%), several ethnicities were represented in this sample. The community surrounding the college has a significant Hispanic/Latinx population, and this is reflected in the study sample (12.5%). See Table 4.4.

### Table 4.4 Race/Ethnicity

Race	Total	Cohort 1	Cohort 2
	N (%)	N (%)	N (%)
American Indian or Alaska Native	0 (0%)	0 (0%)	0 (0%)
Asian or Asian-American	3 (3.8%)	1 (2.1%)	2 (6.1%)
Black or African-American	1 (1.3%)	1 (2.1%)	0 (0%)
Hispanic or Latinx	10 (12.5%)	7 (14.9%)	3 (9.1%)
Native Hawaiian or Pacific Islander	0 (0%)	0 (0%)	0 (0%)
White or Caucasian	60 (75.0%)	34 (72.3%)	26 (78.8%)
Other	6 (7.5%)	4 (8.5%)	2 (6.1%)
Total	80 (100%)	47 (100%)	33 (6.1%)

Participants were also asked the number of their weekly work hours, as it was possible that their employment schedule might interfere with time available for schoolwork. See Table 4.5. Some participants (13.8%) worked five hours or less. Ten percent of participants reported working 6 to 10 hours per week. Larger percentages of participants worked 11 to 20 hours (31.3%) and 21 to 30 hours (28.8%). Some respondents (16.3%) worked 31 hours or more per week.

Weekly	Total Participants	Cohort 1	Cohort 2
Work Hours	Hours	Hours	Hours
	N (%)	N (%)	N (%)
0-5	11 (13.8%)	8 (17.0%)	3 (9.1%)
6-10	8 (10.0%)	4 (8.5%)	4 (12.1%)
11-20	25 (31.3%)	14 (29.8%)	11 (33.3%)
21-30	23 (28.8%)	15 (31.9%)	8 (24.2%)
31 or more	13 (16.3%)	6 (12.8%)	7 (21.1%)
Total	80(100%)	47 (100%)	33 (100%)

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It was also not known what effect, if any, working in a health care environment while in nursing school might have on nursing students, so this question was included in the demographic questionnaire. Most of the participants (73%) did indeed work in health care at the time of this study.

The researcher reasoned that having an income insufficient to meet personal or family needs would be associated with a lower score on a measure for thriving; therefore, participants were asked whether they felt their income was sufficient to meet their needs. The majority of participants did indicate their income was sufficient (68.8%), but a significant percent of participants felt their income was not sufficient (23.8%), and another 7.5% were unsure. See Table 4.6.

Income Sufficient	Total	Cohort 1	Cohort 2
To Meet Needs	Participants	N (%)	N (%)
	N (%)		
Yes	55 (68.8%)	32 (68.1%)	23 (69.7%)
No	19 (23.7%)	11 (23.4%)	8 (24.2%)
Unsure	6 (7.5%)	4 (8.5%)	2 (6.1%)
Total	80 (100%)	47 (100%)	33 (100%)

**Table 4.6 Income Sufficient to Meet Needs** 

Table 4.7 provides a breakdown of participants' perceived income sufficiency according to age. In four out of the six age categories, a percentage of participants stated that their income was insufficient to meet their current needs.

 Table 4.7 Income by Age Group

Age Group	Number of Participants	Income Sufficient to Meet Needs					
		Yes		No		Unsure	
		Number	Percent	Number	Percent	Number	Percent
18-20	2	2	100	0	0	0	0
21-30	52	33	63.5	13	25	6	11.5
31-40	14	11	78.6	3	21.4	0	0
41-50	7	6	85.7	1	14.3	0	0
51-60	4	2	50	2	50	0	0
61 or older	1	1	100	0	0	0	0
Total	80	55	68.8	19	23.7	6	7.5

Another factor examined was the participants' perception of their own performance in the nursing program. It was thought that students who felt they were progressing well may have a higher level of thriving than those who felt they were in danger of failing. Most of the participants in this study were confident that they would successfully complete the program (96.3%). Two participants (2.5%), one from Cohort 1, and one from Cohort 2, stated they were "struggling," and no participants were worried about passing. See Table 4.8.

Participants' Perceptions of	Total	Cohort 1	Cohort 2
Nursing Program Progress	Participants	N (%)	N (%)
	N (%)		
Have done really well throughout program.	9 (11.3%)	6 (12.8%)	3 (9.1%)
Have done reasonably well throughout	50 (62.5%)	31 (66.0%)	19 (57.6%)
program			
Program has been difficult, but confident	18 (22.5%)	8 (17.0%)	10 (30.3%)
of finishing			
Struggling in the program	2 (2.5%)	1 (2.1%)	1 (3.0%)
Worried about passing	0 (0%)	0 (0%)	0 (0%)
Not answered	1 (1.3%)	1 (2.1%)	0 (0%)
Total	80 (100%)	47 (100%)	33 (100%)

**Table 4.8 Participants' Perceptions of Nursing Program Progress** 

Participants were also asked to rate their own health on a four-point scale, as perceived health may also influence perception of thriving. Again, most participants rated themselves as "generally healthy" (70%). Some considered themselves "very healthy" (15%), but others considered themselves "somewhat healthy" (13.8%) or "not healthy" (1.3%). Health reports from Cohorts 1 and 2 were similar. See Table 4.9.

Health Perception	Total Participants	Cohort 1 N (%)	Cohort 2 N (%)
	N (%)		
Very Healthy	12 (15.0%)	7 (14.9%)	5 (15.2%)
Generally Healthy	56 (70.0%)	32 (68.1%)	24 (72.7%)
Somewhat Healthy	11 (13.8%)	7 (14.9%)	4 (12.1%)
Not Healthy	1 (1.3%)	1 (2.1%)	0 (0)
Total	80(100%)	47 (100%)	33 (100%)

Table 4.9 Participants' Perceptions of Their Own Health

Participants were then asked to rate their current stress levels and how they perceived their change in stress levels since the start of the nursing program. See Tables 4.10 and 4.11. Only 3.8% of the participants indicated that they were currently not very stressed. Most were either moderately (38.8%) or very (40.0%) stressed, and 17.5% considered themselves to be overwhelmed by stress.

When asked to compare their current stress to the level they experienced at the start of nursing school, the largest percentage of participants considered their stress now to be much greater than at the beginning of the nursing program (42.5%). Only a few respondents stated their stress was "less now" (6.3%) or "about the same," (7.5%) and 7.5% considered their current stress overwhelmingly greater than at the start of the program. No significant differences were found between stress levels in Cohort 1 and Cohort 2 (p = 0.72)

Participants' Perceptions of current stress level	Total Participants N (%)	Cohort 1 N (%)	Cohort 2 N (%)
Not very stressed	3 (3.8%)	2 (4.3%)	1 (3.3%)
Moderately stressed	31 (38.8%)	19 (40.4%)	12 (36.4%)
Very stressed	32 (40.0%)	19 (40.4%)	13 (39.4%)
Overwhelmed	14 (17.5%)	7 (14.9%)	7 (21.2%)
Total	80 (100%)	47 (100%)	33 (100%)

Table 4.10 Participants' Perceptions of Current Stress Level

Table 4.11 Perception of Change in Stress Since Starting Nursing Program

Stress Comparison Since Starting	Total	Cohort 1	Cohort 2
Nursing Program	Participants	N (%)	N (%)
	N (%)		
Less now	5 (6.3%)	3 (6.4%)	2 (6.1%)
About the same	6 (7.5%)	2 (4.3%)	4 (12.1%)
Slightly greater now	13 (16.3%)	11 (23.4%)	2 (6.1%)
Moderately greater now	16 (20.0%)	8 (17.0%)	8 (24.2%)
Much greater now	34 (42.5%)	21 (44.7%)	13 (39.4%)
Overwhelming now	6 (7.5%)	2 (4.3%)	4 (12.1%)
Total	80 (100%)	47 (100%)	33 (100%)

Fifty-eight percent of participants did not have previous degrees. In this demographic, there was also a difference in percentage of students with previous degrees reported between Cohorts 1 and 2. In Cohort 1, the day program, 72.3% of students did not have any previous college degrees, whereas only 39.4% of Cohort 2, the evening program, did not have any degrees. The degrees held by participants ranged from associate to master's degrees. See Table 4.12.

Previous College Degrees	Total Participants N (%)	Cohort 1 N (%)	Cohort 2 N (%)
No previous degrees	47 (58.8%)	34 (72.3%)	13 (39.4%)
Associate	8 (10.0%)	3 (6.4%)	5 (15.2%)
Bachelor's	19 (23.8%)	6 (12.8)	13 (39.4%)
Associate and Bachelor's	3 (3.8%)	1 (2.1%)	2 (6.1%)
Master's	2 (2.5%)	2 (4.3%)	0 (0%)
Bachelor's and Master's	1 (1.3%)	1 (2.1%)	0 (0%)
Total	80 (100%)	47 (100%)	33 (100%)

**Table 4.12 Previous College Degrees** 

Participants were also asked how many credits they were enrolled in at college. There was very little variation in this statistic, as the final semester of the nursing program requires students to take a 10-credit theory-clinical course and a 1-credit online preparation for graduation nursing course. Students are usually not encouraged to take more credits because of the intense commitment entailed by the required courses. Ninetyfive percent of participants stated they were enrolled in 11 credits, and no students were taking more than 12 credits.

# Runco Ideational Behavior Scale, Short Form

Runco's Ideational Behavior Scale, Short Form (RIBS-S) uses 23 items to measure participants' perceptions that their ideas and actions reflect "original, fluid, and flexible thought."<sup>1</sup> Higher total scores are indicative of greater self-perceived creative ideation.<sup>2</sup> As previously stated, the possible range of scores on the RIBS-S is 23 to 115.

<sup>&</sup>lt;sup>1</sup> Sarah Zoller, "Age, Creativity, and Well-being: Benefits of Creative Behavior Among Younger and Older Artists and Nonartists." (2011). *All Theses and Dissertations (ETDs)*. 544. Accessed August 5, 2020. <u>https://openscholarship.wustl.edu/etd/544</u>.

The mean for the total participants in the current study was 69.9, and the range was 44 to 97. The results were bimodal, with 6 participants each scoring 71 and 73. See Figure 4.1.



Figure 4.1 RIBS-S Frequency Distribution for Total Participants

The RIBS-S means for Cohort 1 and Cohort 2 were 69.2 and 70.8,

respectively. No significant difference in scores was seen between the two cohorts. (P = 0.59)

## Ryff's Scales of Psychological Well-Being (PWB)

Ryff's 7-item PWB scale was used to measure thriving in this study. The range of possible composite scores for the 7-item PWB is 42 to 252 (where 42 is the lowest, 252 is the highest well-being, and 142 is the midpoint). Scores for each of the six dimensions were also compiled. The possible ranges for each dimension are 7 to 42, where 7 is the lowest, and 42 is the highest score possible in each dimension. To review, the six dimensions of well-being are listed here, with their abbreviations:

Autonomy (A) Environmental Mastery (E) Personal Growth (PG) Positive Relations with Others (PR) Purpose in Life (PL) Self-Acceptance (SA)<sup>3</sup>

The composite scores in this study ranged from 157 to 235 for the total group of study participants, with a mean of score 201.4. No composite score was below the PWB's midpoint (142). Each of the dimensions were also scored, as shown in Table 4.13 below. There was no significant difference in scores between Cohort 1 and Cohort 2.

Participal Scores	nt PWB	Composite Score	Α	Е	PG	PR	PL	SA
Total	Mean	201.4	29.6	29.8	38.1	36.3	37.3	31.9
	Range	157 - 235	14 - 42	15 -	25 - 42	27 - 42	23 - 42	16 - 42
				41				
Cohort	Mean	200.8	29.4	29.5	38.4	36.7	37.7	31.6
1	Range	157 - 233	15 - 41	16 -	31 - 42	27 - 42	23 - 42	16 - 42
				41				
Cohort	Mean	202.4	29.8	30.2	37.7	35.8	36.7	32.2
2	Range	160 - 235	14 - 42	15 -	25 - 42	28 - 42	26 - 42	18 - 39
	_			40				

 Table 4.13 Participants' PWB Composite and Dimension Scores (Mean and Ranges)

Using Ryff's recommendation for using quartiles to determine high and low scorers on the PWB, Table 4.14 shows the quartile ranges for the participants' composite scores and dimension scores. In other words, the participants' scores were arranged from lowest to highest, and split into four groups, with 20 participants' scores in each group. Cohort 1 and Cohort 2 mean scores did not differ significantly (P = 0.77). In Table 4.14,

Q1 (Quartile 1) represents the lowest scorers, and Q4 represents the highest scorers.

Quartiles	Composite	Α	Ε	PG	PR	PL	SA
	Scores						
Q1	157 - 192	14 - 26	15 - 25	25 - 36	27 - 32	23 - 34	16 - 28
Q2	193 - 206	27 - 29	26 - 30	37 - 38	33 - 37	35 - 37	29 - 33
Q3	207 - 218	30 - 33	31 - 33	39 - 39	38 - 39	38 - 40	34 - 36
Q4	219 - 235	34 - 42	34 - 41	40 - 42	40 - 42	41 - 42	37 - 42

 Table 4.14 PWB Quartile Ranges

Figure 4.2 further demonstrates the PWB Composite Scores for total participants

in bar graph format.





# Correlations

The Cohort 1 and Cohort 2 means and ranges for all surveys showed no significant differences from each other; therefore, the discussion of correlations will be limited to the total participants.

Demographic variables (age, employment hours, progress in nursing program, health, current stress, and change in stress) were examined for correlations. No significant relationships were found among demographic variables or between any individual demographic variable and RIBS-S scores.

Next, demographic variables (age, employment hours, progress in nursing program, health, current stress, and change in stress) were compared with the composite PWB score and each dimension of the PWB. Several significant relationships were found. A negative correlation was found between participants' current stress levels and their composite scores on the PWB (r = -0.23, p = 0.044). See Figure 4.3 below.





When examining relationships between demographics and individual dimensions of the PWB, two additional correlations were found. The Environmental Mastery dimension of the PWB, in which participants evaluate their ability to "manage everyday affairs" and their "control over the external world" demonstrated a strongly negative correlation with the amount of current stress participants perceived (r = -0.33, p = 0.002).<sup>4</sup> See Figure 4.4. A correlation was also found between perceived progress in the nursing program and higher scores on the PWB Purpose in Life dimension (p = 0.04). Positive progress in the program was associated with higher scores on the Purpose in Life dimension.



Figure 4.4 Correlation Between PWB Environmental Mastery Dimension and Current Stress

The next data comparison was used to answer the first empirical study question posed in Chapter 1 of this dissertation, which asked, "Is there a positive relationship between associate degree nursing students' scores on a measure for creative thinking when compared to a measure for thriving in one northern New Jersey community college?" Correlations were sought between data obtained from the Runco

<sup>&</sup>lt;sup>4</sup> Carol Ryff, Scales of Psychological Well-Being (2008).

RIBS-S and the PWB composite survey. None were found (p = 0.224). Each individual PWB dimension was also examined in relation to the RIBS-S, and no significant relationships were found with any of the dimensions.

### **INTERVIEW STUDY**

A total of ten participants made appointments to be interviewed by the investigator, who conducted the interviews in person. Four were from Cohort 1, and six from Cohort 2. The interviews lasted from 15 to 90 minutes. An additional six participants answered the interview questions by email, three from each cohort. Also, four participants made themselves available for a brief group discussion after the survey study data was collected. This short discussion was analyzed as one interview; therefore, although interview data was collected from a total of 20 participants, the interview data analysis matrix examined 17 interviews. The demographic data describing interview participants is summarized in Table 4.15. To protect confidentiality, participant names were changed. To facilitate references to particular participants, they are referred to using their pseudonyms and participant numbers, e.g. Gina (P1), in this study.

Participant	Participant	Age	Gender	Living	Income	Work	Health/Stress
number		Group		arrangements	sufficient	hours	
1	Gina	18-20	female	With supportive	Yes	11-20	Healthy,
				parents			very stressed
2	Natalie	41-50	female	With spouse, primary	Yes	0	Healthy, verv stressed
				caregiver for 3			
				adolescent			
				children			
3	Tessa	41-50	female	With spouse,	Yes	0-5	Healthy,
				caregiver for 2			very stressed
				adolescent			
				children (1			
		01.40	C 1	disabled)	* 7	01.40	<u> </u>
4	Ana	31-40	female	With spouse	Yes	31-40	Somewhat
							overwhelmed
5	Melanie	31-40	female	With supportive	No	0-5	Healthy,
				parents			overwhelmed
6	Shira	21-30	female	With supportive	Yes	6-10	Healthy,
				parents			moderately
7	Sharon	51-60	female	With spouse.	Yes	0-5	Somewhat
				primary			healthy, very
				caregiver for 2			stressed
				adolescent			
8	Group:		A 11	children			
0	Oroup.		female				
	Giana	21-30		With parents	No	21-30	Healthy, very
							stressed
	Linda	21-30		With remarks	Vaa	21	Comorphot
				with parents	res	51+	bealthy
							moderately
							stressed
	Lica	21_30		With spouse	Unsura	11_20	Healthy
	Lisa	21-30		with spouse	Ulisuie	11-20	moderately
							stressed
	Maya	31-40		With spouse, 2	Yes	21-30	Healthy, very
				young children			51105500

 Table 4.15 Interview Participant Descriptions

Participant number	Participant	Age Group	Gender	Living arrangements	Income sufficient	Work hours	Health/Stress
9	Jason	31-40	Male	With supportive parents	Yes	6-10	Serious pre- existing illness, currently healthy, moderately stressed
10	Carly	21-30	female	With supportive parents	Yes	11-20	Healthy, very stressed
11	Samantha	21-30	female	With supportive parents	Yes	31+	Healthy, moderately stressed
12	Jessica	21-30	female	With supportive parents and her preschool child	No	21-30	Very healthy, very stressed
13	Nina	21-30	female	With spouse (planning wedding)	No	31+	Very healthy, overwhelmed
14	Pattie	41-50	female	With spouse, has paid leave from LPN position	Yes	0-5	Healthy, moderately stressed
15	Kelly	21-30	female	With supportive parents	Yes	21-30	Recent surgery for new chronic illness, now generally healthy, moderately stressed
16	Margaret	61 +	female	With spouse	Yes	31+	Healthy, moderately stressed
17	Valeria	41-50	female	With spouse, primary caregiver for her two pre- adolescent children	Yes	0-5	Healthy, very stressed

Although most interview participants were in the 21- to 30-year-old age group, all age groups were represented in the interview data. Interview participants were employed from zero to over 31 hours per week. Four interviewees indicated that their household income was not sufficient to meet their own or their family, educational, or healthcare needs, and one was unsure about whether her income was enough to meet expenses.

Diversity was limited in the areas of race and gender. Only one male participant volunteered to be interviewed, and all interview participants identified as white/Caucasian. All participants were confident of completing the nursing program and rated themselves at least somewhat healthy. A range of living conditions were represented in this group, with some participants living with their parents, others living with partners/spouses, and others living with spouses and dependent children. Most of the participants interviewed indicated that they were moderately stressed (eight participants) or very stressed (nine participants). Three rated their stress to be overwhelming, and no interviewees chose the "not very stressed" option.

Levels of previous education were diverse in the interview group. Some participants had entered the program directly from high school. Two had vocational certificates, four had completed associate degrees, five had bachelor's degrees, and two held master's degrees.

As stated earlier, the semi-structured interview questions were modified based on transcriptions from the first cohort. See Appendix 4. While discussing the data gathering process, Charmaz stated, "...the interaction between the researcher and the researched *produces* the data, and therefore the meanings that the researcher observes and defines."<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Charmaz, 35.

She encouraged researchers to "do more work to discover the subtlety and complexity of respondents' intentions and actions." <sup>6</sup> In face-to-face interviews, the interviewer used participants' responses as a base to pose additional relevant questions or encourage participants to elaborate. This was done to better understand participants' meanings for their actions. For example, one participant stated, "I actually heard from [my husband], I did not think you could do it [complete nursing school]." The researcher then asked, "How did you feel about that?" Questions were structured more loosely during the short group discussion as well. While discussing stress, one student laughed and asked, "Do you want to know about my stress level before or after I started taking medication?" The researcher suggested, "Tell me more about that!" The student explained, "The stress this year got so bad that I went to the doctor for help! I'm much better on medication." These interview adjustments were not feasible for email respondents, although some participants were also frank and extensive in their email responses.

All interviews and discussions were transcribed and analyzed personally by the researcher. This action is supported by Charmaz: "I believe the grounded theory method works best when the grounded theorist engages in the data collection as well as the data analysis phases of research. That way, you can explore nuances of meaning and process that hired hands might easily miss."<sup>7</sup>

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

## CODING

After transcription, interviews were initially examined line by line. Charmaz recommended starting the coding process in this way for the purpose of "defining the actions or events that you see as occurring in it or represented by it."<sup>8</sup> Examining each line keeps the researcher close to the data, making it less likely that the researcher places his/her own ideas into what the participant is saying.<sup>9</sup> For example, one participant responded to a question about the most challenging part of dealing with nursing school by stating, "When I give meds, I'm so nervous! It's more the skill – the drawing up, setting up the pump." The researcher coded this information as "Lacking confidence/ unpolished skills." The participant's next line confirmed this code: "I don't have the confidence...It's so scary!"

Another participant stated that "[nursing school] makes you feel accomplished, and it almost gives you a new way to manage your time. I feel like it helps me, giving me that much work." The researcher coded this line as "personal growth." Charmaz commented that initial codes can "range widely across a variety of topics," and one statement may exemplify multiple concepts.<sup>10</sup> In the above example, "[nursing school] helps you feel accomplished," the researcher evaluated this statement as also indicating environmental mastery. There were many instances of multiple codes for multiple concepts in the data from the researcher's interviews. One participant, discussing her commitments, stated, "With work and school and clinical and a toddler it was just too

9 Ibid.

<sup>10</sup> Ibid., 39.

<sup>&</sup>lt;sup>8</sup> Ibid., 37.

much...finally realized what I was doing to myself and took it easy on myself." This statement was coded under the categories of "not enough time," "work as an obstacle," and "family obstacles."

After the initial data review by the researcher, an interview matrix was created and populated. Table 4.16 provides an explanation for each column in the matrix. Each interview was again reviewed line-by-line to discover data related to challenges/stressors, creative coping, and surviving versus thriving. Data corresponding to these three areas (challenges, creative coping, and the surviving – thriving continuum) were entered into the matrix and examined for patterns. Coding labels were applied to each matrix entry. It was then possible to group coding labels into themes and measure the number of times each theme was discussed by participants.

Column Label	<b>Position in Matrix</b>	Description
	(Column	
	identifying letter)	
Interview	В	Number/Identifier assigned to each interview
number		Range: 1-17
Challenge	С	Broadly classifies stressors (challenges) in 2
Venue*		categories:
		1. Inside Nursing School (any stressor directly
		related to classes, lectures, clinical
		experiences, other school demands)
		2. Life Responsibilities/Events (any stressor
		peripheral to nursing school, such as
		finances, work, family demands, health) A
		wide variety of life responsibilities were
		mentioned by participants
Challenge Codes	D	Labels given to the groups of challenges described
		by participants. These labels were made broad
		enough to encompass diversity in challenges while
		still seeing commonalities that united the
		challenges. See table 4.15 for a list of these labels
Challenge	Е	Participant statements illustrating/validating
Support Ouotes		specific challenge codes

 Table 4.16 Interview Matrix Column Labels and Descriptions

Column Label	<b>Position in Matrix</b>	Description
	(Column	
	identifying letter)	
Creative Coping	F	Labels given to the participants' descriptions of
Codes		positive methods they used to address their
		challenges/stressors, especially those that displayed
		what the researcher evaluated as original thought
Creative Coping	G	Participant statements illustrating/validating
Quotes		specific creative coping strategies used
Surviving Codes	Н	Labels given to participants' comments illustrating
		difficulties with well-being/thriving
Surviving	Ι	Participant statements illustrating or validating their
Quotes		feelings of struggling/surviving (rather than
		thriving)
Thriving Codes	J	Labels given to participants' comments illustrating
		thriving/well-being
Thriving Quotes	K	Participant statements illustrating/validating
		feelings of thriving/well-being
Continuum	L	Only one code was applied in this category:
Codes		"Somewhere in the middle." It was used to classify
		participants' statements showing fluctuations in
		their feelings of surviving versus thriving
Continuum	М	Participants' statements explaining the variations in
Quotes		their self-assessments regarding surviving versus
		thriving (the area between surviving and thriving)

\*Most challenges elicited from participants influenced them across venues; therefore, this column was not used in data analysis.

# CHALLENGE/STRESSOR DATA

The researcher asked semi-structured interview questions using the words "challenge" and "stressor" as interchangeable terms. The purpose of using both terms was to encourage participants to feel free to use the term with which they felt more comfortable. In conversation with participants, the researcher clarified these terms as applying to situations that they would find difficult and that might require the development of new coping skills. In other words, participants were encouraged to examine their behaviors in response to their stressors/challenges for evidence of creative problem-solving. Challenges encompassed stressors in all areas of participants' lives during the nursing school period, both those related to school and those related to participants' personal lives. These challenges were grouped into topical categories (themes), as seen in Table 4.17. Five categories and one sub-category emerged in the participants' responses: time, emotions (with the sub-category fear), relationships, self-care, and life concerns. These categories were derived from labels assigned to quotes stemming directly from examination of the interviews. There remained some overlap between such categories such as "consumed by school" and "not enough time – overwhelmed" but the interview content was different enough to warrant different labels. As previously mentioned, some interview content was assigned more than one label, as participants often mentioned several concerns in the same context.

Challenge	Challenge Code Labels	Sample Quote Supporting Category
Time	Consumed by school Not enough time/ overwhelmed Intense demands Juggling Schedule changes Knowledge deficit: Organization Sorting through the noise Busywork Work as an obstacle	Label Consumed by school: "I would say it [the decision to pursue a nursing degree] has 100% affected my daily life because I am 100% consumed by nursing school. Everything I do is geared toward the calendar, the test, the quiz, everything." Sharon (P7)
Emotions	Lacking confidence/ unpolished skills Feeling stressed/ anxious Not having control Expectations on self Emotional distress at clinical	Feeling stressed/ anxious: "The most challenging for me is the night before an exam. I find myself worrying too much, and it disturbs my sleep. The next morning, I have trouble focusing and not able to perform well even though I studied the material." Ana (P4)
Subcategory: Fear	Failure Future Causing harm	Fear of failure: "It was my total fear of failure, of having to face people after possibly failing, that made me obsessed with studying and setting my goals so high." Sharon (P7)
Relationships	Family/friend obstacles Unhelpful peers Professor/ clinical staff issues	Family/friend obstacles: "I think the most challenging part is I can't fully be there for my son all the time. So that's as a parent, that's hardto work, and [to go to] school, and have a child. My mother is basically raising him for me." Jessica (P12)

Table 4.17 Challenge categories and labels

Challenge	Challenge Code Labels	Sample Quote Supporting Category
Category		Label
Self-care	Neglecting self-care Tipping the scale	Neglecting self-care: [What helped least?] "Stressing over small things, procrastinating, not exercising or moving my body to make more time to studynot eating right, and not having an outlet." Kelly (P15)
Personal Lives	School worsened health issues Life crises and changes Finances School decreased creativity Coming back to school Pre-nursing program issues	Life crises and changes: "I remember I got a phone call in the library. My son smashed his head into a wall in school and I got told to take him to the ER, and I rememberObviously, I had to go take care of him, but I remember thinking I have to make up for theseI lost 8 hours [of study time]. I have to make up for that!" Sharon (P7)

### Challenge Code Frequencies

Tables 4.18–4.22 show how often each challenge code label was assigned to data in the interview matrix. Participants mentioned time-related concerns 43 times, emotions 39 times, and relationships 25 times. The other two categories, life crises and self-care, were mentioned 14 times and 6 times, respectively.

#### Challenges related to time

In the Time Challenge Category, the code label that was assigned most frequently was "Not enough time/ overwhelmed." This label was assigned 14 times. However, several labels in the time category were closely related to this one. See Table 4.18. Several participants described that they were "consumed by school," implying they had little time for anything else. The "consumed by school" label was assigned four times. Another closely related label was "juggling," wherein participants listed all the responsibilities they had to keep up with, describing them like "balls in the air." There were six occurrences of this label. Although there were shades of differences between each of the time category labels, the total frequency of these labels demonstrated that *time* was considered a significant issue by participants. In fact, only one interview participant did not mention time.

Challenge Code Label	Frequency of occurrence in matrix
Not enough time/ overwhelmed	14
Consumed by school	4
Juggling	6
Schedule changes	3
Knowledge deficit: Organization	3
Sorting through the noise	5
Busywork	5
Work as an obstacle	11
Total occurrences	51

**Table 4.18 Challenge Category: Time** 

Some of the participants' comments clearly showed their concerns about time. Maya (P8d) stated, "Nursing school requires so much of your time for reading, studying, doing assignments, etc. Sometimes I feel as though there isn't enough time in the day to complete everything that is needed to succeed in nursing school." Jessica (P12) verbalized, "And even working three days a week was too much for me. With work and school and clinical and a toddler, it was just too much." Nina (P13), when asked what the most challenging part of nursing school had been, wrote, "TIME MANAGEMENT!"

Participants described time challenges related to the quantity of information they were required to prioritize while learning to be a nurse. This challenge code was called, "Sorting through the noise." They also saw some of their assignments as "busywork," not necessarily valuable for learning. Tessa (P3) pointed out, "A curriculum that makes students Easter-egg hunt for material makes learning stressful. I feel like I spent hours and hours trying to figure out what the actual important content was, instead of actually studying the content." Carly (P10) discussed a required one-credit co-requisite colloquium class which focused on writing resumes and interview skills: "[This class] is extra work, I feel like we have so much studying to do [with Nursing 4], and that's everyone's main priority, and then there are care plans to do, and [this extra class] is just something that no one really wants to focus on."

Some participants focused on a different area of "noise." As in other areas of education, nursing students are encouraged to be active learners. Often, this means preparing for a lecture by reading beforehand, completing learning exercises, and answering questions. This process was frustrating for many of the participants, and several made comments to that effect. Valeria (P17), who spoke English as a second

language, expressed this in detail during her interview. She commented, "Nursing 2 was very painful. The material was so intense. It's a lot to understand. We are thrown a lot of information, but we are kind of left on our own to find it. The reading ahead...is frustrating, also, because there is so much in the book, that I get lost." She wondered, "Do I have the important information? Did I find what they [professors] wanted me to find? Not sure!"

Other participants expressed stress about schedule changes and conflicts. Tessa (P3) wrote, "The most difficult challenge of being a parent while in school is scheduling childcare...there are always conflicts when meetings are scheduled, weather delays happen, or babysitters can't come. We do not have helpful family nearby, so I have never had the ability to call someone last minute to come get a child on the bus." Nina (P13) wrote, "My job gets upset when I need to change my schedule, or if I have to leave early for something like a clinical assignment or a test." Valeria (P17), mother to a 12-year old and a 10-year old, worried, "I have a sitter coming at six o'clock in the morning. This week, my husband was traveling, and I had to leave the house at 5:30 so my kids sleep on their own for half an hour. And the fear is, what if one gets up and is sick or something. What do I do next?"

Several participants felt that their organizational skills needed improvement. Shira (P6) explained, "...And then I found out you need to be...organized and that is really not my strong suit. My room is a mess, I'm scatterbrained, but I also like to pick all my things from different places...I'm more abstract as a thinker...[At clinical] I would have seven papers, shove them into every pocket. It's still a challenge for me. Like managing my time, and knowing all about my patients." Samantha (P11) added, "What's been most

challenging is...organizing at clinical, how to organize my morning, to organize my care...I feel like it's been most difficult because I generally would describe myself as pretty organized, but this is a whole other level of organization when you're dealing with...a patient, keeping them alive." Other participants also emphasized that the quality of being organized was very important to success in the nursing program.

Work as an obstacle was coded in 11 instances. Time spent at work was seen as a distraction from studying. Carly (P10) explained, "When I'm super stressed, and I know I have to work the next day, I'm thinking that's more time that I can't study, and that makes it worse!" Samantha (P11) also discussed how her work situation and her school responsibilities conflicted with each other: "I still work full-time during the day, so I feel like at work I'm often not as focused as I used to be. I'm often thinking about school.... I'm helping the kids at work while I'm in my head half the day thinking oh my god, I have all this stuff due for school!"

## Challenges related to emotions

The interview survey invited participants to talk about difficult challenges they faced while in the nursing program. They were also asked specifically about how they coped with their stressors. In response to these survey questions, participants brought up many emotional concerns. Every interviewee mentioned stress at least once. Some chose to spend much of their interview time discussing emotional concerns. Those concerns were categorized to reflect what participants perceived to be some of the origins of their emotions, including fear of failure, lack of confidence in skills, and high or unrealistic expectations of themselves. However, participants often spoke of generalized stress or anxiety simply due to the cumulative effects of being in the nursing program. In this context, interview participants mentioned stress or anxiety 14 times. See Table 4.19.

Challenge Code Label	Frequency of occurrence in matrix
Feeling stressed/ anxious	14
Lacking confidence/ Unpolished skills	8
Not having control	4
Expectations on self	5
Emotional distress at clinical	1
Fear of:	
Failure	3
Future	2
Causing harm	2
Total occurrences	39

 Table 4.19 Challenge Category: Emotions

Illustrating the most-mentioned emotional challenge code label (feeling stressed/ anxious), a quote from Gina (P1) stated, "School has made my life a lot more stressful! I mean, I think it will be worth it in the end, but...right now, especially this semester, all I'm doing is working, studying, and going to school."

Natalie (P2) described how being a nursing student while also caring for three

adolescents impacted her emotional state:

I'm more anxious. I've had panic attacks. I've had to be put on a medication for when they [panic attacks] are so bad. While I'm driving, [I'm trying to figure out,] why am I anxious? But [I] don't realize...all of these things [at school and at home] are going on even though [I'm] not thinking about them at that minute. [I'm] compacting them. And I submerge everything.

One participant, Ana (P4), rated her health as only "somewhat healthy." She wrote, "The most challenging for me is the night before an exam. I find myself worrying too much and it disturbs my sleep. The next morning, I have trouble focusing and can't perform well even though I studied the material." Another participant, Lisa (P8c),

laughed and asked me, "Do you want to know how stressed I am NOW or BEFORE I started taking my medication?"

Sharon (P7) had a unique way of explaining how stress and anxiety affected her ability to learn: "This was how I described trying to study when stressed – it's like looking through opaque lenses. The anxiety is [the opaque glass], and you can't see through it clearly. It's there, it clouds your mind. In a way, if the anxiety were less [I] could learn for learning's sake." She followed this statement by her description of the testing environment in nursing school: "…and everybody really knows their stuff but...VERY rarely does anyone walk out of the exam and say, I rocked it, and got a 95. We go through all this studying and we're so ready. And then I get a 72. And I think, *HOLY CRAP!*"

Several participants spoke about how uncomfortable they felt because of their inexperience in patient care. Gina's (P1) statement demonstrated the "lacking confidence/ unpolished skills" challenge label: "When I give meds, I'm so nervous! ...It's the drawing up, setting up the pump. I don't have the confidence. It's so scary!" Kelly (P15) wrote, "I ... find it overwhelming, because unlike any other exams I've had to take in the past, I have to know this information, not only to pass, but to apply it to someone else's life!"

Sharon (P7) related a story exemplifying her lack of confidence:

When I was in Nursing 121 [the first nursing course], a nurse told me, *That patient has just been diagnosed with diabetes. You can go in and teach him.* Our professor hadn't even taught us about [diabetes] yet. But I went to the conference room, read everything through, and I went to see the patient, who was...mentally not 100% there, I learned when I met him. And that was it! [The nurse asked me] *Did you educate him?* You know, [she needed to] check the box! To the degree that I could, I did, but did he understand? [The patient's] mother came in, and I
said, *I want you to know that I tried to tell him what I knew but I didn't know that much!* And I felt crappy about that. It felt really bad, and wrong.

Valeria (P17) added a comment about not feeling secure in her ability to manage patient care: "I'm feeling in a position where I know a bunch of things from lecture, but in practice, how would I really react?... And I certainly wouldn't want to hurt my patient, and I would want to have the right [skills] to save this person, but I don't feel capable yet! I have all these things in my head, but in practice, I'm not capable." She added that the area in which she felt most afraid was in simulation exercises, which are monitored pre-programmed practice clinical scenarios performed by students in the nursing laboratory on a realistic-looking human patient simulator. She explained that she had always been more than competent in her former career, a human resource position. However, in these simulation settings where she was being scrutinized by her instructor and her classmates, she doubted both her clinical skills and her English language competence. She stated:

Those simulations are the worst for me...It's really hard for me to detach and be myself...I think too much, and I'm saying the wrong word, [not pronouncing medications correctly]. And those [clinical scenarios]. I'm shaking, and not being comfortable at all! ...It was me in my head! Seeing [my primary nurse assignment]! And knowing what it represents in the real-life situation. And in my head, I needed to step up! And show that I was this person. And I wasn't!

Some participants discussed their feeling of "not having control." Carly (P10) explained that between her work schedule and school schedule, she wasn't comfortable with how little control she had over her environment. She stated, "Tomorrow, I have clinical all day...and there are some days where I'll have babysitting and then go to class...so I haven't studied in three days, and that...will increase stress...If I have something that I can't manipulate a little bit, something that's set-in stone...then stress can increase."

Valeria (P17), who described her insecurity in clinical skills above, described how "not having control" felt for her:

In my life I had been able to control what I knew... outside [of nursing school], and I'm good at my job. I actually, while in nursing school, picked up being the director of the French after-school program for my kids...and I'm good at that! So I control everything, and then I come to school. I come to clinical and all of a sudden, I lose control. I don't know anything anymore, or...not as much as I should, and it's a strange feeling.

The expectations that participants had of themselves were also the source of emotional reactions. Shira (P6), who had excelled in her prerequisites for the nursing program, admitted, "...I walked out into the hall [after the first exam,] and I saw people crying, and [they scored] in the 40's. I got an 89. But even so, it was very hard for me to even get a B and not feel like I had ruined everything! I never feel, after a lecture, and before a test, that I'm totally proficient, the way that I have in other classes."

Self-expectations were a serious difficulty for Sharon (P7), a parent and a secondcareer student. She admitted that she never told friends in her town that she was attending nursing school. She said, "I meet people in my town, and they ask, *You're going to nursing school?* Because I didn't want to tell anyone because if I don't make it out alive, I don't want anyone to know that I failed!" This same participant explained further: "I honestly walk out of tests saying, oh, I got an 83 – damn, damn, damn. But the other students, the younger ones, they're like, woo-hoo! I got a 72! And I'm thinking – Oh, my God! I would lose my bananas if I got a 72!" Valeria (P17) added, "And I feel like [because of] the fact that I'm older, I put a lot more pressure on myself." Fear was a significant theme in the emotion challenge codes, being assigned seven times. It was interesting to note that fears verbalized in the interviews varied in context. In three instances, participants discussed feeling fear of failing out of the nursing program. Twice they indicated a fear of their future roles as nurses and twice they discussed fears that their actions could hurt patients. Sharon's (P7) quote above about "not making it out alive" showed how seriously she feared failing out of the program, so much so that she would not tell acquaintances she was in nursing school. Another participant, Pattie (P14), stated, "...the fear of failure is very real now."

About fear of the future, Giana (P8a) asserted, "It's almost more stressful to contemplate your future, to decide which direction you want to go in. There are options, and there's a lot of fear about which direction is the right one." Valeria (P17) explained, "We really fast-forwarded (from nursing fundamentals) to critical care now. And, yeah, it's scary how things can happen so quickly, and it's intense as new nurses." She explained that her self-doubting and feeling a loss of control (quoted earlier) were associated with her fear of hurting patients. She came back to this point several times during her interview. She stated, "With people's lives now in our hands…if I screwed something up at [my old job] I could fix it up in the next payroll. But [in] this job…you've got one chance! That's the way I really feel!"

# Challenges related to relationships

The Relationships Challenge Category encompassed relationships with family, friends, peers, professors, and clinical staff. See Table 4.20.

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#### Table 4.20 Challenge Category: Relationships

Challenge Code Label	Frequency of occurrence in matrix
Family/friend obstacles	19
Unhelpful peers	3
Professor/clinical staff issues	5
Total occurrences	27

The individual challenge code label applied most frequently was "Family/friend obstacles" (19 occurrences). The participants shared diverse relationship concerns. Many stemmed from family responsibilities. Natalie (P2) stated, "If there's another challenging part, it's definitely having children. You don't know how many times I have to tell them, no, I can't do this, I can't do that...I'm only one person...my children keep me so busy, and then to say... I have to go sit at home and study...They get very upset." This participant also added, "...the marriage stress...I'm studying, so I'm not putting any effort into the marriage." She explained that she did not feel emotionally supported by her spouse and there was no one she could turn to for help with the children.

Jessica (P12) was in a relationship that she described as "toxic" with the father of her young son. She explained how she managed this situation. "I went through a breakup right before second semester...The relationship was holding me back from doing well in school because it was just so bad for us." This decision required significant life changes for her, including moving back to her parents' home. She also said, "I think the most challenging part is I can't fully be there for my son...my mother is basically raising him for me right now."

Nina (P13) stated "My fiancé is upset that we can't ever go anywhere because I'm constantly studying or sleeping. He is always responsible for dinner dishes, and often does laundry or shopping while I'm frantically trying to cram in my study sessions."

Kelly (P15) asserted, "...studying does take hours and hours out of my schedule, which also affects relationships with my family and friends."

Although several interview participants were grateful for their classmates' support and companionship, three participants shared that some peer relationships were difficult. Shira (P6) stated, "I find that I'm a very positive person generally, and negativity from other people [students] is the worst, most toxic thing." Samantha (P11) disclosed that she studied alone most of the time, explaining that she does not engage with students who have high stress levels. She stated, "I had experiences with people who were [more stressed], and I was [aware] that this is not healthy for me. It's like the other people make me more stressed."

Professor and clinical staff issues were listed as challenges by several participants, accounting for five assignments of this category. Natalie (P2) declared, "Drill sergeant professors make us crazy. I think if more professors understood [about caring for children while in nursing school] maybe it would help with students' stress. She continued, "...All those crazy emails, threatening to fail us if we don't get this next video [skills test] correct...and you're like, *what? I did all this work and because of this video, I'll fail?*" Tessa (P3) also expressed frustration about professors who "would misspeak facts about topics, then get angry when a student asked a clarifying question." Students were also stressed by professors watching over their shoulders during clinical experiences. Valeria (P17) acknowledged, "In clinical, it is nerve-wracking when you have your professor watching you give meds and asking you questions you may not know [the answer to] right away." Another participant, Jason (P9) verbalized frustration with nurses on the

hospital clinical units: "You're at a teaching hospital and the nurses don't want anything to do with us!"

# Challenges related to participants' personal lives

Participants expressed concerns about personal events, changes, and crises that impacted their lives during the nursing school experience. Events grouped into this category were diverse, from health issues to financial concerns to relationship crises. See Table 4.21. Participants coming back to school after years in the workforce or raising families remarked on the difficulty of that transition. One participant was affected greatly by problems he had had throughout his life prior to nursing school. Altogether, the personal lives category was assigned 14 times, with five of these occurrences being labeled life crises and changes.

 Table 4.21 Challenge Category: Personal Lives

Challenge Code Label	Frequency of occurrence in matrix
Life crises and changes	5
Neglecting self-care	2
School worsened health issues	2
Tipping the scale	2
Finances	2
School decreased creativity	3
Coming back to school	2
Pre-nursing program issues	1
Total occurrences	19

In the life crises and changes category, participants related major personal

events they faced while enrolled in the nursing program. Natalie (P2) related her biggest

crisis:

My best friend's mom died. And I was so close to them, I don't have a mother. And I remember my heart rate from the time she told me till I went to the funeral...was 200...and I couldn't concentrate. I had all the exams coming up, and I had grief. I didn't know if it was the stress from school, topped with my friend's mom dying, but for me that was the turning point, whether I was going to stay in nursing school or not.

For Natalie (P2), she considered this event "tipping the scale." If all else went well, she was able to cope with the stress, but she asserted, "If anything very significant like this happens on top of being in nursing school, that's my challenge!"

Sharon (P7) also shared, "I had some very big marital things happen that I'd have to put in a box. Literally put in a box. And put under the bed....It's like, oh my God, that has to all go on hold now! My husband will say we need to talk about this, and I'll say, we definitely will, but on May 17<sup>th</sup> (end of nursing program) we'll talk about it." Another participant, Nina (P13) revealed that she was planning her wedding, which would take place two weeks after graduation. Because of the myriad details that she needed to attend to for this event, she felt her stress was greatly increased.

Two participants felt that their pre-nursing health problems worsened once they were in school. Natalie (P2) divulged that her migraine headaches had become more severe, and another participant experienced an increase in insomnia, which she felt interfered with her test taking ability.

Several comments indicated that participants were concerned that their attention to their own health was impacted by the demands of the nursing program. Participants discussed instances where they were not able to take time for self-care. When asked which factors helped least to cope with stressors in nursing school, Kelly (P15) wrote, "stressing over small things, not exercising or moving my body to make more time to study, getting distracted by my phone while I'm studying...not eating right, and not have an outlet." Margaret (P16) explained, "it's [nursing school] impacted my life in that I used to work out at least two nights a week, and [now] I don't work out...And that stresses me out then too." Shira (P6) indicated that when she had a meditation routine and practiced yoga, it changed her quality of study. However, demands of school made it difficult to follow through with these practices now.

Some participants discussed their return to school after years away as a challenge. Valeria (P17) remarked, "Some of my classmates, who are much younger, just out of high school...they may not have that extra workload [of marriage, children, and maintaining a household] somewhere else, ...and a lot of their assignments can be done last minute, or, *I'll do that tonight, it's due tomorrow,* and for me, ...it needs to be so strictly organized, and...I'm doing it NOW because I don't want [it to interfere with family responsibilities.] Margaret (P16) explained, "I'm older, and people say, you're supposed to be winding down, right?" Patti (P14) wrote her thoughts succinctly. She listed "reentering the education system in general as an older individual" as the most challenging part of dealing with nursing school.

Another challenge raised by participants encompassed the financial conundrums they faced. Increased time spent studying meant that, in some instances, work hours were cut down. This resulted in less finances being available for daily needs and for nursingrelated needs. Nina clarified:

> I have to leave work early some days, and this semester I had to take off Tuesdays altogether, which has had an impact on my work stress and finances. I would warn [future students] about all the money you have to spend for graduation, NCLEX, licensing, and graduation fees, etc. My wallet is actually crying right now!

One challenge that was categorized under the label of personal lives was the decrease in creativity mentioned by three participants. This was coded by the researcher,

not so much because it was a concern for the participants, but because it was considered a significant finding in the study. One hypothesis for the current study suggests that students who use creative thinking to solve their problems may experience a greater degree of thriving. The participants' comments were noted because of their relationship with this study hypothesis. Kelly (P15), wrote, "It's funny that this question [about creativity] is being asked because I have recently felt like I don't have a creative outlet at the moment...I really do feel like I'm lacking creativity in my life. I often find myself thinking 'when I get out of nursing school, I am going to xyz.'" Ana (P4) said, "There is no time for creativity in nursing school!" Regarding her use of creativity in completing assignments, Pattie (P14) wrote:

I do feel I was more creative in the beginning. As of now, coming to the completion of the program, I feel I am more focused on completing tasks that take time away from reading and studying for exams...care plans and teaching plans are time consuming enough without putting extra creativity into the thought. It's like – just keep it simple and keep it moving.

One further challenge code was classified under the personal lives category. One participant described that his life prior to nursing school had been difficult. He had suffered from a serious chronic illness that had affected him both physically and mentally. He stated that he had spent much of his childhood in hospitals, which influenced the continuity in his early learning environment and had caused him a degree of stress no other participants had verbalized. His learning challenges continued in other college programs prior to nursing school. This participant, Jason (P9), declared that "this is the first time I'm doing something for me without really a struggle…it's kind of an epiphany of where was this my entire life?" Jason did work hard to maintain passing grades in the nursing program but found it much less stressful than his childhood

experiences. Among the participants in this research study, his story was unique, and his perception of his own stress level during nursing school was not echoed by any of the other participants.

#### Creative Behavior Codes

The interview data were analyzed for evidence of participants' creativity in their thinking process and problem-solving behaviors. Kaufman delineated two determinants of creativity. First, an idea or behavior must represent something new, different, or innovative for the individual expressing it. Second, the creative idea must be "appropriate to the task on hand."<sup>11</sup> When discussing the use of creativity to solve problems, Kaufman added another criterion: implementing the solutions decided upon during the creative thinking process.<sup>12</sup> All of these characteristics are subjective, and an effort was made by the researcher to be as inclusive as possible in evaluating evidence from participants' responses.

To elicit evidence of creative thinking and creative problem-solving, the interviewer first asked participants to describe a difficult challenge they faced while in nursing school. The next question the interviewer asked was, "What ways did you use to creatively cope with this challenge? In other words, in what ways did you come up with new/unique/unusual approaches to deal with this situation?" For Cohort 2, the semi-structured questionnaire was amended to include definitions of creativity and creative thinking.

<sup>&</sup>lt;sup>11</sup> Kaufman, "What is Creativity?" The Psych 101 Series: Creativity 101, 3.

<sup>&</sup>lt;sup>12</sup> Kaufman, "Theories of Creativity" The Psych 101 Series: Creativity 101, 4.

When asked about how they faced challenges in nursing school, participants discussed diverse coping behaviors. All participants verbalized strategies that ultimately worked for them. Participants did not always equate their new coping strategies with creative thinking and problem-solving, although the researcher saw evidence of creativity in participant responses. Participants decided on some coping strategies that were new for them; others were previously used strategies amended and applied to the new situations they encountered in nursing school. In other words, participants made associations between prior problem-solving episodes in other contexts and their current challenges, which is a creative act. Some coping tools used by participants helped them with emotional or physical adjustment to new challenges rather than solving the challenges or problems themselves. Other coping tools addressed practical problems where participants perceived their ability to implement changes.

Coping strategies fell into several broad contexts or environments. They were loosely grouped into the following categories:

- 1. Organizing and Prioritizing, and Balancing
  - a. Deciding which tasks must be done first
  - b. Deciding on activities to postpone or cancel
  - c. Finding time for necessary activities
  - d. Finding ways to balance multiple priorities
- 2. Finding resources or support
  - a. Brainstorming
  - b. Asking for help
  - c. Widening the search for options
  - d. Seeking and providing mutual support (networking)
  - e. Learning to communicate needs
- 3. Associating
  - a. Applying previously learned knowledge to a new situation
- 4. Working on the internal environment
  - a. Reframing, changing perspective
  - b. Becoming assertive
  - c. Suppressing
- 5. Caring for self

- a. Assessing own needs
- b. Prioritizing physical care: sleeping, eating, exercise
- c. Practicing relaxation techniques
  - i. Yoga, meditation
  - ii. Faith and prayer
  - iii. Other alternative practices
  - iv. Fun, play, distraction

### Creative behavior code frequencies

As with challenge codes and labels, some participant quotes fit into more than one creative behavior code. In one example, the group of behaviors titled, "finding resources or support" included a participant illustration that also demonstrated an "organizing and prioritizing" behavior. Carly (P10) stated, "A bunch of us started going through the PowerPoint [notes] together before class, and putting them in a Word document, and then, during class, we typed notes into the Word document, and it created a ready-made study guide, so it would save time."

Table 4.22 lists the number of times each creative coping category was assigned and provides a brief example quote from each category.

Creative Coping Category	Number of Quotes Demonstrating Category	Sample Quote Supporting Category Label
Organizing,	38	"But I think this semester, I've realized that I can't work
prioritizing, and		as much as I want to work, and I have to put school first,
balancing		soI only work one or two days a week." (Carly, P10)
Finding resources	39	"I created a flow sheet, and I sat down with a friend
and support		and she's a graphic designer, so we designed it. Now a
		bunch of people in our class use this for clinical." (Shira,
		P6)
Associating	7	"I had already started educating myself. I was a doula
-		before. I got involved, and I did a lot of reading [that
		helped when I got to nursing school]." (Shira, P6)

<b>Creative Coping</b>	Number of	Sample Quote Supporting Category Label
Category	Quotes	
	Demonstrating	
	Category	
Working on	37	"I have also really started understanding the meaning of
internal		You can't pour from an empty cup." (Kelly, P15)
environment		
Caring for self	16	"I go to yoga and meditation classes, also drink
		chamomile tea, [and] use essential oils" (Ana, P4)

# Organizing, prioritizing, and balancing

Participants almost universally placed emphasis on the importance of organizational skills and setting priorities to cope with the demands of the nursing program. In 17 participant interviews, only four interviewees made no reference to organization or prioritization. In some interviews, organization and/or prioritization were heavily emphasized. Jessica (P12) spoke at length about her efforts to prioritize activities and responsibilities in her life during nursing school. She described the changes she made:

I used to be a big workout junkie. During the first semester of nursing school, I was training two to three hours (a day) and running a Spartan race at the end of it, so I had to take a step back from that, and...not leaving my fitness life behind, but prioritizing what I want for my future...If you only work out twice a week, that's fine.

Another area in which Jessica (P12) rearranged her priorities was to decrease the time she spent working. She continually re-evaluated her work schedule and made gradual adjustments. As her time in the nursing progressed, she readjusted her work schedule downward and moved from employment in the fitness field to a position in the health field. Here, she was able to incorporate hands-on experience that would complement her learning in the nursing program.

Carly (P10) also spoke about setting school as a priority. She felt the need to limit

her work hours, and described how she creatively handled the decrease in her income:

I just realized that I don't NEED [the items I usually buy]. The most important thing is school, so that has to go before everything else...Thinking about the money...the reason I would need more money is because I'm buying [lunches and snacks] and I'm buying clothes, but that's when I realize I don't need that right now. You have to put the most important thing first and tell yourself why. Don't buy coffee every day, things like that. Little things.

Carly added that she was able to change her spending pattern by packing her

lunch daily and planning to "treat" herself to spending a small sum of money after each

successful exam.

Nina (P13) wrote about her creative thought process related to priority setting:

I did hear a quote recently that was something along the lines of 'If you died tonight, what would you not want to leave unfinished?' That really resonated with me and made me see how important prioritization is. It doesn't matter if your apartment is a little messy this week when you have a test to pass on Wednesday. You can clean after the test...I would tell future students that prioritization is key. Do not wait until the last minute, even if you only study a little every night, it is better than waiting until the last minute.

Participants also talked about their efforts at creatively organizing time. A specific

topic that was mentioned repeatedly was finding time to study. Gina (P1) developed an organizational scheme based on daily lists, stating, "I break it down. Every day I'll write down what unit I have to go over, and I try to make my work schedule around that, too." Melanie (P5) echoed this method of organizing and prioritizing: "I find that making a list of what I have to do with due dates helps me a lot. When I see the list right in front of me every day, it helps me prioritize what I need to get done first."

Carly (P10) described the effect of increased demands on her ability to organize:

"It almost gives you a new way to manage your time...I feel like it helps me, giving me that much work, and having to plan things. It makes you better, I've gotten better in time management kinds of things." About her assignments, she explained: "I'm very big on organization. If I write on a precept [assignment], and it's all over the place, I like just typing it...and then I go back and add. And I can easily erase...we [study group] color a few things and highlight and organize into different sections." She added that this process helped make studying for exams a streamlined process. Carly then summed up: "I think definitely organizing is the main thing that people need to focus on."

Jessica (P12) explained some of her practices:

I've gotten better with studying while working out. So, I'll bring my flashcards. I'll read my PowerPoint [notes] on the Stairmaster just to get in those extra 30 minutes of studying while I'm also doing what gets me moving. But that was a big change, too. That was prioritizing nursing school over something else that I really do enjoy [exercise].

Jessica finished her interview with the researcher with this advice to future students: "Prioritize ahead of time!" For her, success in the nursing program was dependent on creating and adapting priorities, and this thought was echoed by other participants as well.

Other interviewees likewise used creative ways to incorporate studying with other activities. Tessa (P3) wrote: "It was very helpful when I could listen and re-listen to the…professors' lectures while doing housework and running errands. I learned the material and eliminated my household stress by multitasking." Margaret (P16), who had a long commute to work, classes, and clinical sites, also studied by listening to recorded lectures while driving. Similarly, Melanie (P5) discussed making flashcards: "[It's good to] bring them with you when you if you have a doctor's appointment or somewhere else to be. The process of re-writing notes helps me a lot, so flashcards are essential to my studying." To emphasize studying as her priority, she added "I will study anywhere I can so that I don't feel like I'm wasting valuable study time."

Additionally, participants shared creative ways of organizing in the clinical practice setting. Shira (P6), who was quoted in Table 4.20, offered a story about her experiences with organization. She explained:

And then I found out you need to be organized and that is really not my strong suit...I'm scatterbrained, but I also like to "pick" things from different places. That's how I work in my mind...I'm more abstract as a thinker. In Nursing 2 I had Professor P...I really appreciated her, but she's not the softest person. She said... *I don't want you flipping through any notes*...*you'll keep them in a separate room. You'll have ONE paper [with you] to track everything [about your patient]*. My heart sank. I would...shove papers into every pocket...So I... took a piece of paper and...started putting down everything I might need to know about my patient, and I created a flow sheet, and I sat down with a friend [classmate] who's a graphic designer, so we designed it, and now, a bunch of people in our class use this for clinical. So it taught me a lot.

Samantha (P11) shared Shira's (P6) concerns about structuring her day effectively

during clinical practice. Samantha stated she had been most challenged by "organizing at clinical, how to organize my morning,...my care, when to do an assessment, and then look up medications, and get all the information [for care]." She described herself as being organized but stated, "This is a whole other level of organization when you're dealing with a person...keeping them alive." She explained that she became skilled at writing down her plan for what she wanted to do for her patients in a list format. At the clinical site, she then wrote down what she actually did, and added her incidental activities to this list as well. She gave examples: "When I would be walking the floor, and someone's call bell went off, and they wanted a cup of coffee ... or to know when they're being discharged, I would write it down, so I didn't forget, because then I feel like my brain just gets so jumbled with [information] so...definitely making lists helped."

For some participants, creativity was required to manage the seemingly insurmountable problem of organizing consistent childcare while they were fulfilling school responsibilities. Tessa (P3) sat down with her husband, an emergency department physician, and together they drew up a schedule that would meet their needs as a family. She stated:

My husband moved all of his shifts around so he would be there to get the kids on the bus in the mornings and be available the entire time I am at class or clinical on 12-hour days. It took some real maneuvering to make sure he had enough shifts per month that didn't include the days I was in school and clinical.

Valeria (P17) was also stressed by the needs of her family. She explained how she creatively approached this stressor: "[You make a flow chart] of everything. Going down to what's for dinner, and the rest of it...because that needs to happen too! So, yeah, it's very practical and it's everyday life, but it's creative!" She went on, "I actually now have notes on my blackboard with all the phone numbers of the neighbors and the friends and the sitters, and I just call it *It takes a village!*" Valeria described her attitude about organization:

My whole life now, it needs to be so strictly organized, and I know exactly when I'm studying, how long I'm studying, and what I'm doing, and, this care plan is due, and I'm doing it NOW...So in a way, it was a benefit to me, being a little older and having to juggle this. Because I've become SUPER organized! [laughs]

Although Nina (P13) was not responsible for childcare, she was responsible for maintaining a household while working full time and attending school. Another stressor for her was planning her own wedding, to take place the week after she graduated. She was not able to participate in a face-to-face interview but wrote extensive answers to the questions in the semi-structured interview in an email to the researcher. She explained her ideas on creative problem-solving during the nursing program: I believe that if I was not creative, there is no way I would have survived nursing school to this point. I often have to be creative in how I will get everything done and be able to balance everything I have to do in life. Being creative allows you to consider alternatives to problem-solving that may be 'off the beaten path,' but may help drastically improve your productivity thereby reducing your stress.

Nina described some of her time-saving ideas:

I've tried using online food ordering through ShopRite, I listen to lectures in the car on the way to work, I bring my notes wherever I go. I also live out of my car, everything I could possibly need is in there during the semester. At the end of the semester, it's like I am moving out of my car!

Most participants in this study had to maintain a delicate balance to meet all their responsibilities in and out of school. Some participants discussed this balance in terms of placing their nursing school role first and organizing their lives to meet this priority, to the exclusion of other aspects of their pre-nursing program lives.

Other participants expressed additional values that competed with the nursing program as priorities in their lives. Several mentioned that *balancing* these priorities appropriately was important to them. Nina (P13) stated, "I often have to be creative to balance everything I have to do in life. Being creative allows you to consider alternatives in problem-solving." She added, "I feel like I am challenging myself every day to balance all of the things in my life and that I am growing." Kelly (P15) had this to say about the nursing program: "It has definitely changed my priorities and studying does take hours and hours out of my schedule. I try to find a balance [between studying and relationships] but it can be difficult at times." Valeria (P17) spoke about balancing her priorities carefully to spend time with her children and on herself. She talked about taking time off after an exam: "And I was like, guess what! This weekend Mommy's off! No matter what lecture I know I need to listen to or whatever, I'm making the plan of not opening a book, because I want to show that, hey, I put in for it, it's my time." Valeria described other

times when balancing her school needs and her children's needs required careful, creative planning. She explained:

In terms of juggling logistics – they [children] want to pick up a new sport, and...I have classes that same night, and...I have a sitter who's dropping off one [child] there, and picking up the other, and I have this whole [schedule], like my Wednesdays are like this, where I disappear here at four and I have this whole background going on at home. For everything to go smoothly [juggling is needed]...It's really going back to juggling home and school and always being the sole person who is handling [it].

Valeria (P17) developed a creative plan to prioritize both her studying time and

her children's activities. Her approach contrasted with that of another participant, Natalie

(P2), who also had children but felt she was not able to balance both priorities. While

Valeria purposefully set out to create a balance that was satisfactory for her, Natalie did

not. Thus, this rift among priorities remained stressful for Natalie throughout the nursing

program:

[If there's another challenging part,] it's definitely having children. You don't know how many times I have to tell them, *no*, *I can't do this*, *I can't do that*....I'm only one person...my children keep me so busy, and then to say, *no*, *I have to go sit home and study*...they get very upset. *Oh, you can't take me here, you have to study*. If my daughter knew what I went through, she would understand that I had to say no for a reason.

Valeria (P17), on the other hand, related that her family grew because of her

decision to balance priorities:

So it [nursing school] taught them [my children], taught me to let go, a little bit, and let them handle the situation...And in the end I look at it as a very good example for my kids because all of those weekends, the weekend before an exam they don't see me. Daddy's in charge...And you know, I wanted to show them that...it takes work to get something you want.

The commonality in the organization, prioritization, and balancing category is that

the research participants, whether implicitly or explicitly, placed emphasis on their

priorities. Once priorities had been set, most participants used creative problem-solving

to develop individualized organization methods that helped them to achieve their goals while still meeting many of their non-educational responsibilities. Setting priorities gave participants their ultimate goal. Progress toward the goal was facilitated when participants brainstormed and implemented creative organizing techniques.

### Finding resources and support

Thirty-nine participant comments referred to resources and assistance that students sought and found during their nursing program. Supports sometimes included family members and friends. Although these supports may have been present prior to the nursing program, participants spoke of cultivating these supports creatively as their challenges increased. Some of the most valued supports were fellow students, with whom some participants formed new close friendship groups and emotional ties.

Participants also discussed creative methods of finding educational resources. Friendship groups originating in the nursing program often fulfilled more than just emotional needs. Study group networks functioned as forums for discussion about lecture information, where participants could ask questions, clarify concepts with each other, and share ideas for learning. Participants also sought out cooperation from staff nurses they encountered in the hospital setting, either at their clinical sites or their employment areas, for support or as resources. Nurses were mentioned less often as resources, but for some participants, the ability to collaborate with nurses allowed them to feel more confident about their clinical skills.

Some students preferred to study on their own but sought resources in the form of additional learning materials. These included extra textbooks, outside lecture notes, and online nursing content videos. Tessa (P3) gave examples: "I found NCLEX [nursing

licensure exam] preparation courses with lecture videos, YouTube free nursing content videos, and YouTube videos of nursing students explaining content." Sharon (P7) also used online videos and tutorials. She added, "You should see my house. It's filled up! People who've finished the program have given me books, and books, and books. And I have to lean on those hard...The more places I hear it [nursing information] the better. I'm recording lectures. I never used to do that."

Several participants spoke about how their fellow students provided educational

help and motivation, but also emotional support and validation. In the student-formed

networks, peers shared ideas and requested assistance and clarification from each other

and from professors.

Jessica (P12) spoke about her network during nursing school:

I have a really great study group that I started studying with in Nursing 2 when I realized I needed to get my butt into gear! And that my individual studying wasn't working for me. So, we became really good friends...They kind of keep me together, and we motivate each other to study.

Similarly, Shira (P6) shared her experience:

I landed myself in a really nice group (of classmates). I sit in the back (of the classroom) with them – they're career people. I really love them. They are very supportive people. They're like all moms. They give each other mom support. They say things like, *You got this* – *I believe in you*! I always say I must be the smartest person in the world because when I get a good grade, they all tell me *You have to go to med school*! and when I get a bad grade, they say, *You're too smart for the test*! So, no matter what, I win.

Sharon (P7) elaborated about her study group: "What we created on our own was

a round table where we can say, what was important about this [topic] again? Oh, yeah!

when we're talking face-to-face. We go to the library, get a study room, and talk." Sharon

emphasized the importance of this 'round table':

I used to just put myself in a library carrel and shove it [information] all in my head, but I find that for this kind of material [nursing] it's better for me to sit at a table and talk it out with people, and I was never that kind of person. It helps, and also it helps to know that I am NOT crazy, that everyone feels this level of anxiety...I think I could not have gotten through this program without the few people I that I met...we rely on each other. Not just for emotional support. Literally, I'll text someone at 8 o'clock in the morning, and someone will text me right back. And it's not like, *I hope you're doing well*, it's *What was that number again? Why do we have to know about blah, blah, blah? Oh, here's a chart, here's a video*, etc.

So, it's the camaraderie, but also the understanding that everyone else is also working at this at all crazy hours. So, while you think you're such a loser [you have no life], you have to spend all these hours studying; everyone else is pretty much in the same place.

Other participants turned to their families for emotional, physical, and practical support. Gina (P1) stated, "[I get support] from my parents. My sister's also a nurse and she did our college's program, so I have someone to ask [when I have questions]." Jason (P9) emphasized, "The impact of my family...has skyrocketed." Samantha (P11) explained, "I feel like [school] has brought me close to my parents because I'm at home a lot more, studying and stuff. I study best by myself, so studying at home, I was with my parents more." Jessica also received significant support from her family: "So, I had a toddler all through nursing school! But I'm lucky. I have a supportive family to help with that...and a mother [who] will help me financially with whatever I need. Otherwise, if I didn't have that support with a kid, I wouldn't be in nursing school!"

Some family support was simpler. Margaret (P16) recounted her gratefulness for her support: "What else has helped it that my husband makes me lunch and my dinner...I don't have to buy crappy food because I try to eat healthy. That's helped a lot!" Valeria's (P17) pre-teen children cheered her on: "When I got home yesterday, that was the first question – So! How was your test? How did you do? I said I passed! And they were dancing around, shouting yay, yay! It was so exciting."

Although supportive classmates and family members were essential to some participants, several also stated that it was important for them to make time for supportive friends outside of the nursing program. Samantha (P11) expressed that although she studied much and worked full-time, her friends were also important: "But then I tried to balance it [workload] too because I feel like's that it's such a good distraction to be with friends." Melanie (P5) also wrote, "It is also important for me to spend time with family and friends whenever I get the chance." Valeria (P17), when asked what helped her most in the nursing program, replied:

My village. Starting with my husband, my kids, and all the sitters, yes, my support. And then I have a really close group of friends and we put dates on the calendar – a birthday, or anything coming up...And we get together and have a party. And they usually time it right after an exam. So, I can really breathe! And that has really, really helped me.

Still other participants explored reaching out beyond their families and friends, especially when family needs could not be met by immediate household members. Tessa (P3) described her childcare situation: "We put out the word far and wide that we were looking for a *very reliable sitter*. Our preference was for someone to be available on-call the whole school day...but [we] reworked our thinking just to having them consistently in the mornings...I don't think anything we did was unique or unusual, we just had to be creative in changing parameters for the sitter."

Valeria (P17), the participant who stated, "It takes a village," also worked hard to find childcare, and eventually was able to create a matrix of people and support networks. She said, "I found a really good person who was with us [for childcare] for the first semester, and I was able to have someone else who was wonderful for the second semester." A quote earlier in this research recounted how Valeria had accumulated a blackboard full of support people whom she could depend on to provide care for her children. She explained further: "It's sometimes nerve-wracking...because...in the middle of an exam...[you're] not reachable for two hours. And usually I say that at the school bus stop, and my two 'best' moms say, *That's ok, we'll pick up the emergencies*.... And we become creative with...people around us to make...this program happen."

To help with some of their challenges in clinical practice, some participants were able to forge relationships with staff nurses either where they worked or during their clinical experiences. Interacting with these professionals helped them gain valuable practice experiences that gave them confidence. Gina (P1) stated, "I try to ask them [the nurses] to let me do that [clinical skills]...I learn way more at work than I do at clinical. I need to work, just so that I can learn." Samantha also found that networking with the staff nurses in her clinical practice site was helpful for her: "I'm not one of those people at clinical who's nervous to ask the nurses things. You kind of have to seek out your own learning experiences." She provided an example: "The other day, a nurse [told me] 'I'm going to do a bladder scan on this patient, and she's probably going to need to be [catheterized]. Does anybody want to [volunteer]? And I was trying to 'ring in' because I just feel like you're never going to learn unless you do it."

Participants credited the development of their support networks and their skill in finding resources with much of their success in the nursing program. The creative use of these support networks and resources helped with meeting the challenges that the nursing program produced.

# Associating

Mednick's remote associations theory postulated that creativity was, at least in part, the ability to apply previously gained knowledge to new situations.<sup>13</sup> In the current study, the researcher observed this phenomenon in some of the participants' comments. Some remarks explained how students associated learning in clinical to previous experiences. Sharon (P7) explained, "I equate it to Tetris [computer block-sorting game]. All of what I'm learning [in the classroom] is hanging suspended up there, and then when something happens in clinical [in the hospital], it falls and fits into the box, and now you don't have to think about it anymore, because you saw it, you experienced it."

Other participants made associations from previous learning to current situations when managing their responses to stressors in other areas. Kelly (P15) stated, "Obviously nursing school has the ability to cause this kind of stress, but... at my job in a clinical setting, I have really learned the power of stopping and taking a moment." Kelly was now applying this previously learned skill to challenges she was facing in the nursing school environment. Similarly, Samantha (P11) was employed in an eating disorders unit while in the nursing program. She spoke of how she used her experiences working with children on this unit to help her cope with challenges in nursing school:

We talk about...reframing for them [the patients], so I do a lot [of reframing] with myself, like thinking *what's the worst that can happen*, and saying, *ok this is not so bad, and this test is one step closer to me graduating*. Instead of saying, *oh my gosh, I have two more care plans left, I say, after this one, I'll have only one more left!* I think a lot of the people that I work with, we all kind of talk about this...a lot of the stuff that we teach the kids, we also apply to ourselves. It's so relatable sometimes.

<sup>&</sup>lt;sup>13</sup> Kaufman, "Creativity and Intelligence," 5.

Valeria (P17) spoke in general terms about how she applied the skills from her years employed in human resources to help her in the clinical area: "I think that's a good quality I have outside of school, like knowing, anticipating people's needs, and then coming to my patient, and [saying] ok! What should I be doing?" She continued, "…something [else] I learned in nursing school, too, because I learned from my 'village,' [that it's ok to] get help!" In other words, Valeria applied what she learned from seeking childcare *outside* of school to meet her needs *in* school in her clinical practice. She began asking classmates for help when she needed it.

### Working on internal environment

When participants were not able to make changes in their external environment during the nursing program, many of them provided comments about ways they examined and adapted their own attitudes and expectations to better cope with their challenges. Lazarus classified this behavior as emotional coping.<sup>14</sup> The ways in which participants accomplished this coping often contained elements that were novel, useful, and adaptive for mitigating their new nursing program stressors; therefore, these behaviors can also be considered creative.

One group of techniques described by participants was reframing, in which participants worked on changing their perspective, placing thoughts in a new, more optimistic outlook.<sup>15</sup> Samantha (P11)'s comments about reframing were discussed earlier, as she became familiar with this method of examining and adapting thoughts in her work

<sup>&</sup>lt;sup>14</sup> Lazarus, 78.

<sup>&</sup>lt;sup>15</sup> Lazarus and Folkman, 15.

with children with eating disorders. Samantha regularly applied what she learned at work about reframing thoughts to help her with the challenges that faced her in the nursing program. Although she was the only study participant to use the term "reframing," other participants described similar behaviors. Sharon (P7) summed it up this way: "Then I take the test, and I say, two more, two more!" Kelly (P15) described how working with her thinking pattern helped her: "Knowing that even though I'm feeling overwhelmed, my tasks will get completed... Everything will get done...just focus on the very next step." Likewise, Kelly elaborated on her methods for dealing with stress using mental focus. She counted "positive thinking" as one of the things that helped her the most with nursing program stress:

I have really been practicing grace and the power of positive thinking in stressful clinical situations. I have really been trying to apply this in all areas of my life. Of course, I'm never perfect, but a lot of times it really is the little things.

Several other participants focused on seeing their situation in a more positive light. Jessica (P12) explained, "I feel like a lot of it is mindset because then you just get depressed, if you don't have that positive mindset. If you're stressing out about everything else that's happening or not happening in your life...you can't *do* that to yourself!"

Nina (P13) described her growth in positivity during the nursing program: "When I started nursing school, I would let stress rule my life. Now that it is almost over, I am able to let things go, to know you cannot finish everything in one day." Pattie (P14) gave this advice for new nursing students: "Take the negative experiences regardless of what they are, a failed test, bad clinical day, anything, and learn from them, the rewards are worth the stress, struggles, and hard work!" Some participants modified their thinking by visualizing the successful

completion of the program. Natalie (P2) stated, "I picture a new life for myself...a new career, and a new house, and my kids just being in college and that's what drives me to get it done. There's a second life for me. I have a plan." Imagining herself at graduation was also a tool that Natalie used to cope with the present: "I'm very excited. My father... there's six of us, and I'm the only one that's graduating [college] out of all six. So he's flying in from Arizona for pinning and...I know I'm going to cry." Another participant, Carly (P10), simply said, "The light's at the end of the tunnel!"

Another participant looked back for his encouragement. Jason (P9), who had struggled most of his life with chronic illness, compared where he had been to where he was now: "I've met every match...There's a quote that if there's a roadblock in front of you, find a way around it... I don't go around...I break through them. The only roadblock left is myself! And, no, I'm not going to back down!"

Participants also used tools other than reframing and positive thinking to work on their internal environments. Some encountered life crises during their nursing school tenure. More than one participant chose to cope with particularly strong challenges by suppressing them until a more suitable time for dealing with them. Rui Miguel Costa defined suppression as "the defense mechanism by which individuals cope with distressing mental contents by voluntarily making efforts to put them out of conscious awareness until there is an opportunity to cope adaptively with those stressors." <sup>16</sup> Because it is voluntary and adaptive, suppression is considered a mature defense

<sup>&</sup>lt;sup>16</sup> Rui Miguel Costa, s.v. "Suppression (Defense Mechanism)," In Encyclopedia of Personality and Individual Differences, last updated 2020, accessed October 20, 2022, https://doi.org/10.1007/978-3-319-24612-3\_1431.

mechanism useful for coping with anxiety. This contrasts with denial or repression, in which individuals do not recognize or acknowledge a challenge or stressor and thus do not manage it.<sup>17</sup>

Jessica (P12) was one of the participants who chose to use suppression. She experienced a major relationship breakup in the middle of the semester and kept going with her schoolwork. She explained, "My coping mechanism was just to try to block it out as much as I could...I think you push it away and then...Yeah, I'm pretty sure I felt it in December, and I had my breakdown then [between semesters.]"

Natalie (P2) stated, "And I submerge everything...I pick my battles at the right moment. If there's a test coming up, I'm not fighting with anybody." She also discussed how she used suppression to cope with a personal tragedy she suffered during the nursing program: "I was there for my friend [when the friend's mother died] and I just kept studying...I bottled everything in. It does come out eventually...deal with it during the break [between semesters.]"

Sharon's (P7) marital struggle mentioned in the challenges section of this paper was a classic example of suppression. She described having to put that significant life situation "in a box" to be openly discussed with her husband directly after graduation. She did not deny the problem's existence but was successful in "putting it away" until she could devote her full attention to it.

Another creative coping skill utilized by some participants was assertiveness. Several participants cultivated and applied their assertiveness skills to meet challenges.

<sup>17</sup> Ibid.

Shira (P6) described an episode in which she, as a class representative, had a

disagreement with the Nursing Department Chairperson:

And...I just said [to myself], I'm an adult. I have to communicate. So I just emailed Professor H. and told her how I felt...we were being chastised for trying something positive...and I didn't think it was a proper way to treat a student, and that I want to understand [your] rationales so I'd appreciate if we could talk. And she actually apologized and explained what was going on...and we met. And we kind of worked things out. And it was really nice.

Valeria (P17) explained that prior to being in the nursing program, she was

careful to work around her family's schedule while she took classes but realized that she

needed to learn to assert herself to be successful in the nursing program. She considered

this one of her biggest challenges:

It's really going back to juggling home and school and always being the sole person who is handling the home...now I have to put my studies also up front. And be assertive...because at first, I was taking one class per semester, between naps, and between everybody's schedule, and so I would not bother anyone. I would still be here when needed. At some point, I was like, I have an exam, and this has to be done, and *you guys [family] have to handle it*, and... I have to put boundaries up now! It was hard. It was hard for the whole family.

Jason (P9) encountered resistance from staff nurses that were unhelpful in

allowing him to meet his objectives at his hospital learning experiences. He explained

that he found it difficult to receive information from his primary nurse when he came

onto the hospital unit and sensed that staff nurses were irritated by students' constant

questions. In response, he developed a creative, assertive approach that improved his

relationships with staff nurses. Jason explained:

So I've developed a method...I know report [exchange of patient information at shift change] is a big thing, but I found that I will go approach my two nurses...and I'll say, *I have Patient A and Patient B. I understand...you want to go home...so I'll just listen. I won't disturb you [during your report].* That's where I guess my creativity helps because I'm giving them their space...and it's worked!

Other participants applied assertiveness skills in the hospital units by asking nurses for opportunities to practice procedural skills with them and their patients. In all of these situations, assertiveness helped participants gain mastery over some of their challenges.

### Caring for self

In the current sample of participants, most reported they had excessive stress. This is in line with several studies, including one by Mary Ann Stark et al., who stated that "college students often do not have healthy lifestyles," citing that this population frequently had poor nutritional habits, inconsistent sleep patterns, and more anxiety than non-students.<sup>18</sup> Stark et al. asserted that it was difficult for nursing students to develop "self-nurturing lifestyles" when they had so little time.<sup>19</sup> However, introducing self-care skills, such as health consciousness, self-assessment, exercise, good nutrition, and stress management would contribute to their own and their patients' well-being.<sup>20</sup> Many of the current study's participants recognized the value of integrating self-care routines and counted their self-care activities as valuable coping skills for the stressors of nursing school. Integrating self-caring activities often required creative structuring of time. Participants' care for themselves took many forms. Some worked to assess their own needs and made efforts to meet the most basic of these needs, such as eating well, engaging in exercise, and making time for sleep and rest. Participants' comments showed

<sup>&</sup>lt;sup>18</sup> Mary Ann Stark, Juanita Manning-Walsh, and Sally Vliem, "Caring for Self While Learning to Care for Others: A Challenge for Nursing Students," Journal of Nursing Education 44, no.6 (June 2005), 266-267,

<sup>19</sup> Ibid.

<sup>&</sup>lt;sup>20</sup> Ibid.

that although consistent self-care was difficult to achieve during this period of their lives, many strove to incorporate at least some healthy activities. They often listed them as *what helped them most* in nursing school.

Several of the interview participants tried to incorporate meditative practices such as yoga for help with stress management. Research has supported this practice as a creative, mindful way to increase well-being and promote relaxation.<sup>21</sup> But as with other forms of self-care, participants faced a conundrum. During this high stress time, when meditative practices would have been so helpful, the participants could not utilize them because they could not fit them into their schedules. Sharon (P7) admitted, "I'm really trying to incorporate yoga, and I know, I don't do it…regularly, and I miss it." Shira (P6) also stated, "when I had a meditation routine, and yoga, it changed everything. My quality of study, my presence." She confessed that she does not practice yoga or meditate right now because of school responsibilities. However, at least three other participants included current involvement in yoga as one of their beneficial practices.

Some participants depended heavily on the benefits they derived from other physical exercise. This practice is also supported in extant literature.<sup>22</sup> Jason (P9) stated, "So I found I [was able to get back to being myself] with sports and running." He added that exercise particularly helped his concentration on schoolwork. Margaret (P16) concurred with the need for exercise: "I try on weekends in the early morning to go out for a walk. I live on a lake, so I go around...the lake." She would then be able to spend the rest of the day on her studies. Jessica (P12), who gave up her job as a physical trainer

<sup>&</sup>lt;sup>21</sup> Rizzolo et al., 80.

<sup>&</sup>lt;sup>22</sup> Baghurst and Kelley, 439.

to focus on the nursing program, still depended on exercise. She conceded, "It was a big mindset change...to focus on training to be healthy right now rather than training to be an athlete." Carly (P10) also utilized exercise to help manage stress: "I've gone to the gym more, and do things, even though I don't have the time in the day, I still make the time... to do things that I know will make me happier, [and give me] stress relief."

Participants verbalized a variety of other stress-relief methods, some of which have been studied in research literature. Ana (P4), who spoke of suffering from a lack of sleep due to anxiety and too many current obligations, wrote, "I go to yoga – meditation classes, also [drink] chamomile tea, [use] essential oils and positive thinking." Carly (P10) stated, "I try to eat decent[ly]." When asked what helped her the most in nursing school, Kelly (P15) detailed some practices important to her: "Positive thinking, gratitude journal, time outdoors, yoga, time with loved ones, creating space for breaks, eating wholesome foods, coffee, following inspirational nurses on social media, and prioritizing sleep." Nina (P13) concurred, and listed: "Yoga, meditation, coffee, and prioritization."

Some participants shared other creative outlets they used to balance their stressors. Shira (P6) stated she used journaling to derive meaning from her challenges: "It's really valuable to me, to look back on the perspectives, even at the way that I thought." She continued, "I really like to write. I...like writing stories and poetry." Samantha (P11) engaged in other means to diffuse stress: "I like to color...those intricate adult coloring books. And I love listening to podcasts. Something like that can stimulate my brain in a different way. And crafts. I've always loved doing crafts, whether it's origami or what else." Samantha went on to say that the podcasts she listened to helped her to think creatively. She and her friends would discuss these podcasts and "bounce ideas off each other" about new ways of thinking. But Samantha also discussed simpler methods of self-care. She placed a special emphasis on taking hot showers after stressful clinical experiences, not only for "cleaning up," but also to "de-stress," and spoke about how helpful this simple technique was for her.

Kelly (P15) was quoted above as stating that she created "space for breaks" This was a significant technique used by participants to care for themselves and has been mentioned in other contexts in this study. Valeria (P17) used the time after exams to relax with her family. Margaret (P16) stated, "Typically the weekend after a test, I do nothing. We'll [husband and self] do something together." Carly (P10) described her pattern of taking a pause from the intense pace of the nursing program:

I give myself breaks definitely. I think that's super important... We have tests, and some people are studying 2 days after, and I give myself a nice week, because I need to relax. Because you're studying every day. You can't just keep doing that because then I feel like I...would get so tired by the end that I wouldn't be studying anymore...Or spoil yourself – go shopping. I think that's important, especially in nursing school.

Margaret (P16) explained that she relied heavily on her faith and on prayer to cope with the challenges of nursing school life. She summarized, "I have faith! So, God brought me to this. He'll get me through it." She described failing an important clinical exam: "How did I deal with it? Well, I studied again, made sure I went through it all...and then...something I do before every exam...something I probably did not do before that [clinical] exam that I make sure I do now. I prayed...So before I take any test, I pray."

Although there were commonalities among the ways in which participants cared for themselves (meditation, exercise, nutrition, and rest), each participant chose and implemented individualized self-care strategies. Participants determined how best to integrate these strategies into their own lives. During this study, participants frequently mentioned these self-care strategies when asked what helped them most with nursing school challenges.

#### Summary of Creative Behaviors

When asked which techniques they used to meet the challenges they faced during life in nursing school, participants described creative coping skills that fell into three broad categories: those having to do with time management (organizing, prioritizing, and balancing), those having to do with resources and support, and those having to do with adjusting their thoughts, expectations, and attitudes. Caring for themselves was also an important goal for them, but one that was less consistently obtained. During interviews, the researcher was also able to pinpoint episodes where participants made *associations* between their previous learning to a new nursing school challenge.

It was clear from the interview data that although there were coping themes shared by many of the participants, there was no one universal method that participants utilized to meet all the challenges they encountered during the nursing program. As with the self-care behaviors, the participants in this study assessed their challenges, considered their possibilities, and developed and implemented individualized coping strategies that they utilized to meet their challenges.

#### Surviving versus Thriving

Participants in the interview survey described many ways in which they coped with their challenges. The question remained, however, whether these participants were thriving or just surviving. In other words, how did the data shed light upon the participants' overall well-being? The interview data was again examined, this time for evidence of thriving or surviving. The presence of or absence of thriving was assessed using dimensions from Rvff's Scales of Psychological Well-Being.<sup>23</sup> These dimensions, or components of thriving, were defined in Table 3.1. They included having a sense of autonomy, being able to master complex environments comfortably, experiencing personal growth, developing and maintaining positive relationships with others, possessing a purpose in life, and accepting themselves. Ryff provided explanations for how thriving would appear in each dimension and has validated these dimensions in her research.<sup>24</sup> She also described what would be seen if thriving was not present, in other words, if a participant were simply surviving rather than thriving. For example, if autonomy were lacking, a participant might be "concerned about the expectations and evaluations of others."<sup>25</sup> Table 4.22 has summarized the Definitions of the PWB Dimensions originally shown in Table 3.1, highlighting the key points the researcher used to analyze interview data for indications of thriving or surviving. As with challenge codes and creative behaviors, specific participant quotes often provided evidence for more than one dimension of surviving or thriving. These quotes were categorized in more than one group. Many of the same statements made by participants to indicate stress, challenge, or coping also provided data to substantiate the presence of thriving or surviving described in Table 4.23; therefore, some of those statements are repeated or summarized here.

<sup>&</sup>lt;sup>23</sup> Ryff, Scales of Psychological Well-Being.

<sup>&</sup>lt;sup>24</sup> Ryff and Burton, "Best News Yet on the Six-Factor Model of Well-Being," 1106.

<sup>&</sup>lt;sup>25</sup> Ryff, Scales of Psychological Well-Being.
PWB	Thriving participant	Surviving participant	
Dimension			
Autonomy	Independent, self-motivated,	Relies on expectations and	
	evaluates self by personal	judgments of others	
	standards		
Environmental	In control of complex activities,	Struggles to meet daily needs,	
Mastery	uses opportunities, able to meet	Perceives lack of control over	
	own needs	external world	
Personal	Continually growing and	Feels stagnant, bored, unable to	
Growth	developing, realizing potential,	grow or mature	
	open to new experiences		
Positive	Develops and maintains	Closed to relationships, isolated,	
Relationships	mutually satisfying, trusting	not willing to compromise to	
with Others	relationships, shows caring	sustain bonds with others.	
Purpose in	Has direction and goals for life	Lacks direction and meaning in	
Life	experiences meaning,	life, experiences doubt about	
		purpose	
Self-	Thinks positively about self, has	Dissatisfied with self and	
Acceptance	realistic self-concept, accepts	personal qualities, disappointed	
	self	with life, wants to be different.	

Table 4.23 Summary of PWB Categories <sup>26</sup>

For Cohort 1, the semi-structured interview was left open-ended regarding the concepts of surviving and thriving. It was hoped that when participants provided information about their difficult challenges during nursing school, they would also provide statements about whether they successfully met them, and whether meeting them improved their well-being (thriving) during the nursing program. Since some early participants made no statements that could be classified as either thriving or surviving, the researcher clarified this point for Cohort 2 by adding a statement in the interview questionnaire directing participants to evaluate themselves:

Thriving is described as a state of well-being, self-acceptance, having positive relationships with others, feeling like you have some autonomy

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<sup>26</sup> Ibid.

over your life, and experiencing personal growth, sometimes in the midst of challenging situations. People who are thriving are happy with their life's direction. Many other people are simply surviving, struggling to get through each day, feeling empty, not fulfilled. Can you describe how **you** feel about life right now?

When analyzing participant statements, the researcher also noted that many participants used comments describing both surviving and thriving during the same interview. In Cohort 2, after receiving a description of thriving noted above, five participants made comments indicating that they sometimes survived, and sometimes thrived. One participant in this cohort described thriving and surviving as a "continuum," which she was continuously navigating. See Tables 4.24 for numbers of occurrences in each surviving and thriving dimension. Table 4.25 shows the number of comments attributed to surviving, thriving, and the area between thriving and surviving for each interview participant.

Dimension	Surviving	Thriving	Between Surviving	Total
			and Thriving	Occurrences
Autonomy	2	11	0	13
Environmental	11	18	3	32
Mastery				
Personal Growth	1	18	1	20
Positive	1	6	0	7
Relationships				
with Others				
Purpose in Life	1	8	1	10
Self-Acceptance	1	4	0	5
Total	17	65	5	87
Occurrences				

Table 4.24 Frequencies of Surviving and Thriving Quotes by Dimension

Participant Number	Participant	Surviving Quotes (#)	Thriving Quotes (#)	Between Surviving and Thriving Quotes (#)
1	Gina	0	0	0
2	Natalie	4	4	0
3	Tessa	0	3	0
4	Ana	3	0	0
5	Melanie	0	0	0
6	Shira	0	10	0
7	Sharon	1	6	0
8	Group	2	0	0
9	Jason	1	9	0
10	Carly	0	5	0
11	Samantha	1	8	0
12	Jessica	1	3	1
13	Nina	1	1	1
14	Pattie	0	5	0
15	Kelly	0	3	1
16	Margaret	2	1	1
17	Valeria	1	7	1
Total		17	65	5

Table 4.25 Surviving and Thriving Quotes by Participant

## Autonomy

Those who thrive enjoy a degree of independence in making decisions about their own lives. Although they live in society, they recognize their own values and are motivated to make decisions based on them. Thrivers are able to assert themselves when faced with the opinions of others.<sup>27</sup> When considering autonomy as a dimension of thriving or surviving, the researcher analyzed data for the presence or absence of self-

motivation, self-evaluation, and independence. Two participant comments demonstrated surviving rather than thriving.

When explaining why she could not be creative during nursing school, Ana (P4) stated, "I have to do things the way it is expected of me," demonstrating her reliance on the *expectations of others*. In this case, the *others* were the professors in the nursing program. Ana saw the nursing program guidelines as rigid, not allowing her the freedom to decide how to learn.

Sharon's (P7) comments about her fears of failing out of the nursing program were already mentioned. She openly admitted her fear of experiencing judgment from people she knew in her town. She did not tell friends and acquaintances about being in nursing school because, in her words, "if I don't make it out alive, I don't want anyone to know that I failed...It's my own personal stuff." Although in other contexts Sharon did show autonomy, her comment here emphasized the weight she placed on the judgments of others. The very use of the phrase "make it out alive" indicated her emphasis on survival in this context.

Many other comments, however, demonstrated participants' self-motivation, selfevaluation, and independence. Natalie (P2) clearly stated, "Of course I could do it! I can do anything!" She credited her success to "just my drive, my internal drive," showing the degree of self-motivation she possessed.

Shira's (P6) comments showed evidence that she was thriving even prior to entering nursing school, and this pattern continued during her passage through the nursing program. The observations she offered revealed her ability to evaluate herself: "That's also how I work in my mind. I like drawing things from all different places...I'm more abstract as a thinker." "Drawing things from all different places," or making associations from various spheres of knowledge (a creative process), had been her usual means of thinking prior to nursing school, and she was now consciously using this to achieve success in the nursing program. Shira demonstrated two other aspects of autonomy as well: self-motivation and independence. She stated, "So I had already started educating myself. I was a doula before [nursing school]...I got involved, and did a lot of reading."

In the autonomy dimension of thriving versus surviving, Sharon's (P7) quotes exhibited both sides. As discussed, she exhibited a strong fear of failing. However, she was also highly motivated to succeed, a characteristic of thriving. To achieve her goal, she avidly sought out resources to increase her nursing knowledge:

My way of studying was always just to take the material that I'm taught and learn it up and down and sideways. For these [nursing] tests you can't really do that so I have incorporated... videos, tutorials, lots of accessories. You should see my house. It's filled up. People who finished this program have given me books, and books, and books. And...I ... lean on those hard.

The researcher has already discussed Sharon's (P7) formation of a group of students, a "round table," through which she established supportive social and academic relationships that she credits with helping her to flourish during school. As Sharon discussed her activities with this group, evidence supporting a number of thriving dimensions became apparent: Sharon demonstrated not only her autonomy, but also her ability to form positive relationships. The creative steps she instituted to achieve environmental mastery are discussed below.

### Environmental Mastery

Those who thrive are able to adapt to their environment, even as that environment changes. They assess and obtain resources needed to manage complex activities They are able to choose and navigate appropriate processes for carrying out these activities successfully, according to their values and needs. Thrivers look for and utilize opportunities that bring them closer to their goal.<sup>28</sup>

One of the hallmarks of nursing school is the complexity of the demands made on nursing students during their studies. Students need to master this nursing program environment alongside the rest of their responsibilities to reach their goal of completing the program. The environmental mastery dimension was inversely related to stress in the survey study (r = -0.33, p = 0.002), suggesting that stressed participants did not perceive control over their current environments. It is no surprise that the dimension of environmental mastery was assigned to participants' surviving and thriving data more frequently than any other category. Therefore, this researcher sought evidence that demonstrated how participants felt about meeting the increased demands that encompassed life during nursing school. Eleven comments were coded as demonstrating "surviving." In other words, participants did not feel in control over their current life situations. They verbalized difficulty organizing complex situations related to increased workload or conflicting demands. Some had difficulty meeting their own needs. Others had difficulty in balancing their school needs with their family, work, and health obligations.

Margaret's (P16) comments typified the survival attitude in reference to the environmental mastery dimension: "I'm plugging along. The end is in sight." Natalie explained in more detail: "Just getting up in the morning, even if you're tired, or...whatever happened the night before, get to class, come home, redo that lecture, and just make time, and just...*get through it.*" She continued, "I'm a lot different emotionally after nursing school. Physically, too, I mean whatever's going on in there [points to chest] has *never* happened to me before." She attributed her new palpitations and worsened migraines to the increased stress of nursing school. These health issues were now ongoing and not well controlled.

Similarly, Maya (P8d), a member of the focus group, scheduled a personal interview appointment with the researcher but had to cancel because she had no time. During the short focus group in which she was able to participate, she discussed her stress in nursing school: "It was such a big change that there is no comparison – a new baby, a job, a long commute, studying." She admitted to difficulty balancing all the challenges she now faced.

Carly (P10) described some areas where she sensed a lack of control over her responsibilities. She observed:

When I'm super stressed, and I know I have to work the next day, I'm like, that's more time that I can't study, and that...makes it worse...there are some days where I'll have babysitting and then go to class, so I really don't have much time...and I'm like, I haven't studied in three days!

Jessica (P12), the mother of a toddler, felt a lack of control in a different area: "My mother is basically raising him [Jessica's son] right now...he won't remember a lot of it, but that's the guilt that still kind of gets to you...the mom guilt...When I study, he's just sitting there and watching TV." On the other hand, 18 comments showed evidence that participants were able to gain some mastery over their environments during the nursing program. These participants stated they were able to positively cope with their challenges; thus, the comments that these participants made indicated that they experienced some thriving in this area. Tessa (P3) demonstrated one aspect of environmental mastery by describing how she re-listened to lectures while doing housework. She said simply, "I learned the material, and eliminated my household stress by multitasking."

Shira's (P6) efforts to organize her clinical paperwork was discussed earlier. On the first day of clinical practice in the hospital, her professor announced, "I allow you *one* paper in clinical." Shira confronted her anxiety about her organizational skills directly. When she and her classmate took the initiative to create their comprehensive clinical flow sheet, she was taking strides toward mastery of her own clinical environment. At the same time, by sharing her work with her classmates, she was pivotal in helping them to achieve environmental mastery as well.

Jason (P9), who survived a serious chronic illness in childhood, had a different experience, which was described in part under "challenge codes." He explained that for most of his life before nursing school, he had had difficulty thriving. Throughout his childhood, he was unable to control the circumstances of his life. Although he knew his chronic illness would always be with him, he stated he was excited to be in nursing school and felt that he was more "in control" now than at any other time in his life. He felt validated in the nursing school environment: "I see a lot of doctors that just quietly come up (to me) and shake my hand and say...*We know what you've been through*.

WOW! This doctor saw the struggle I was going through. He now sees me in nursing school, and he's telling me *I can't wait to work with you.*"

Some comments demonstrated that participants learned to master their new environments by trying new avenues of coping, or creative behaviors, as discussed above. Interestingly, some of the participants whose comments were interpreted as "surviving" also discussed times during their studies where they felt successful, situations in which they demonstrated thriving. They found ways to master their environments by learning coping skills to meet the obstacles they encountered.

One of these participants, Sharon (P7), spoke at length about her fears of failing out of nursing school. In response to these fears, she and her classmates created a study group which increased their mastery of the demanding nursing curriculum. She explained how this group became a think tank for discussion of difficult nursing topics: "We created our own…a round table where we can say, *What was important about this again? Oh yeah!*" During her interview with the researcher, Sharon was able to state, "When I pass these tests, it gives me confidence, so like, *ok, yes, you can do it*!"

Carly (P10) expressed satisfaction about managing the nursing school environment:

It has its moments, but usually...it makes me feel good most of the time because even though it is stressful, you feel accomplished and it almost gives you a new way to manage your time...I feel like it helps me giving me that much work, and ...having to plan things. It makes you better, I've gotten better in time management kinds of things...Yeah, I'm definitely able to manage it [the workload].

When asked whether she was surviving or thriving, Samantha's (P11) statement gave the impression that she considered surviving and thriving to be on a somewhat fluctuating scale. She spoke about her ability to succeed in situations that arose in nursing school: "I feel like I would say more thriving [than surviving]...Even though I do feel

stressed a lot of the time, I feel like I've always been able to manage it."

Valeria (P17) demonstrated another component of environmental mastery

described by Ryff: finding and using opportunities.<sup>29</sup> In particular, she discussed her

decision to take the opportunity to enter the nursing program:

[My academic counselor] actually told me, you almost finished your prerequisites to get into the nursing program, and it got to me, and I was like, *Really? Can I do this? Can I really do this?* And so I fast-forwarded those pre-requisites and applied, and I got in, and now I'm in Nursing 4, and I'm still waking up sometimes and I'm like, *I really got in? I got into this?* And I enjoy it. It's really opened up so many other opportunities.

However, like Sharon (P7) and Samantha (P11), Valeria (P17) wavered in her

evaluation as to whether she was surviving or thriving in nursing school, specifically in

the area of environmental mastery. She described that her feelings vacillated with the

timing of her exams:

I feel like it's kind of a continuum! [laughs] I explained like, with the exams, the weekend before an exam, it's surviving mode, and...it's building up, like I feel like I forget to breathe. Come Wednesday [and the exam], and the pressure comes down, lucky I passed the exams so far!

And so then is the thriving, when I end the exam, and I'm done, and I did well, and I really got a good grasp on the material...and this feeling of excitement, and proud also! And I want to share it with the entire family, who's been like, *You can't talk to her right now!* So it's really, really good, and empowering, too...it's surprising to me, because I can't believe that I'm 40 years old and I'm doing this, and I'm actually successful at it!...It feels good!

Several additional participants also had multifaceted views about whether they

were currently surviving or thriving, especially in the area of environmental mastery.

Nina (P13) explained her feelings this way:

<sup>29</sup> Ibid.

I do not feel empty or not fulfilled, but I do feel like I am struggling to get through each day and am simply just surviving. My grades are not where I want them to be, my apartment is not as clean as I like it, I am out of shape for myself, haven't seen friends or family and am way behind on wedding planning. Although I feel stressed out, and that I am just barely getting by, I know that I am close to the end and that everything is about to come together. Being in nursing school is very fulfilling for me. I feel like I am challenging myself every day to balance all of the things in my life and that I am growing.

Although Nina stated she was just surviving and supported her opinion with solid

rationales, there are elements of thriving (being fulfilled and growing) in her response as

well. Still, she clearly expressed difficulty meeting her daily responsibilities.

Likewise, Kelly (P15) hesitated to claim she was in control of her environment,

but maintained a positive outlook:

I really do like to think of life as glass half full. Although school is stressful, I am honestly really grateful and blessed to be in the position I am right now. I wouldn't necessarily describe myself as thriving, because I still have so much to learn, but to be healthy enough to take care of someone else in need is something I often remind myself [to be grateful for] during the stress. It really is a privilege.

Interview participants made many comments that voiced concern over their ability to navigate the nursing program environment simultaneously with their other obligations. The comments showed that thriving was not considered by them to be an "all-or-none" phenomenon. This was never more evident than in the environmental mastery dimension of thriving. For these participants, signs of thriving existed right along indications of surviving. Ryff defined the environmental mastery dimension of thriving as being in control of complex activities, using opportunities, and being able to meet one's own needs, while surviving was defined as struggling to meet one's daily needs and perceiving lack of control over external world.<sup>30</sup> Participants gave multiple indicators that they struggled with activities and demands that became increasingly more complex while in the nursing program, but their comments also showed that they worked on making the necessary adaptations to continue to move forward in the program.

### Personal Growth

A total of 20 interview responses were categorized into the personal growth dimension of the thriving scale. Based on the definitions for thriving in this dimension, the researcher sought evidence that participants were growing and developing. The personal growth dimension also included participants' openness to novel experiences and recognizing potential in themselves and their current situations.<sup>31</sup> Of all of the responses in this dimension, only one was coded as "surviving," in other words, demonstrating that the participant felt unable to grow or mature, or was bored. By the nature of the nursing school environment, learning and growing are required to keep pace in the program, so it seemed more likely that comments would reflect growing and developing than stagnation.

One participant, Ana (P4), made a comment that shed doubt on her ability to grow in the nursing program. She said, "There is no room here to be creative." She followed with a comment that has already been quoted in this chapter, "I have to do things the way it is expected of me."

Other participants clearly described their growth during their time in the nursing program. Shira (P6) discussed her journaling practice, in which she charted her own

<sup>31</sup> Ibid.

<sup>&</sup>lt;sup>30</sup> Ibid.

growth: "I really wanted to write about every patient. I didn't get to write about every one, but I did write about a lot. It's really valuable to me. To be able to look back on the perspectives, even at the way that I thought." She also recalled her change in outlook since the beginning of nursing school:

One thing also that changed...as a result of nursing school is that before I started, I wanted to get it done as quickly as possible, and I wanted to check this off of my list, and more and more I realize I need to savor each time period, and...40 more days left! I'm like *STOP! Glean what you can and be here, and enjoy it...what am I racing against?* 

While Shira (P6) expressed growth in an overall sense, Jason (P9) was more specific when speaking about his growth: "It [nursing school] has given me structure. I'm a very all-over-the-place person, but [now] I can be structured at the same time. [The structure] has helped me to learn to [stay on task] and it's helped me actually find myself." He continued, "I'm definitely thriving. I'm definitely finding myself, correcting my wrongs, being able to just focus straight out." He finished by describing that the structure he learned in the nursing program was something he had been missing while growing up with chronic illness. He emphasized that this structure was instrumental in his current success. This was the area in which he had experienced a large amount of personal growth.

Carly (P10) evaluated her growth by examining how her time management skills had grown:

I think [I'm] more thriving because it's like, you get put in a situation where you have to figure out your time management. I don't know, I feel like I've gone to the gym more, and I do things...even though I don't have the time in the day, I still make time in the day to do things that I know will make me happier, [contributing to] stress relief. Some participants discussed growth in their ability to approach situations from a different perspective, using new coping skills. Kelly (P15) spoke about learning how to recognize her symptoms of stress: "I know when I do get really overwhelmed or nervous my mouth dries up and my thoughts go completely blank sometimes!" She then described how she was able to adapt her life view. Her personal growth is evident in her explanation:

Small actions can really make such a big difference... knowing that even though I am feeling overwhelmed, my tasks will get completed. I have really been practicing grace and the power of positive thinking in stressful clinical situations. I have really been trying to apply this in all areas of my life. Of course, I'm never perfect, but a lot of times it really is the little things.

Sharon (P7) likened the amount of expected learning in nursing school to being

blasted by a fire hose. Nevertheless, she described her excitement about her own growth:

So I love the learning....I'm amazed at how much I know, and then, the more I know, the more I realize how much I don't know. It's like opening the door a little bit, and seeing, oh my God, look at all the stuff I don't know! I love the learning part, just wish it weren't so fire-hose-ish!

Samantha (P11) commented on her frustration with clinical instructors who were

not very structured. However, she reframed these clinical experiences to maximize her

own clinical development, reflecting that she grew in this process:

But then I guess you can spin it too that it's been helpful for me to just kind of figure out my own way to organize and be self-sufficient. I'm not one of those people at clinical who's nervous to ask the nurses things. You kind of have to seek out your own learning experiences.

As with the environmental mastery category of thriving, participants whose

comments were categorized as exemplifying personal growth showed some ambivalence

or hesitation related to their level of thriving. Participants such as Sharon (P7), Samantha (P11), and Kelly (P15) recognized growth in themselves but mentioned the opportunity for more growth. Many participants, when considering their personal growth, placed themselves on a surviving-thriving continuum: they felt they were closer to experiencing thriving than just surviving. Only one, Jason (P9), felt he was definitely thriving. Other participants, when evaluating their growth, described variations or fluctuations between surviving and thriving.

### Positive Relationships with Others

When individuals are thriving, they demonstrate the ability to develop and nurture strong reciprocal relationships.<sup>32</sup> Conversely, surviving individuals may be less able to form relationships, and can remain insular and solitary. Some of the participants in this study found the concept of relationships to be reciprocal in its effects. Participants who made the effort to establish and maintain friendships found themselves supported by these friendships. Participants' relationships were often instrumental in helping them to cope more confidently with nursing school stressors.

In the current study, at least one participant revealed that she had not established positive relationships while in nursing school. Natalie (P2) stated clearly, "There's really no outside help for me." She also did not have close associations with her classmates. As noted previously in this researcher's interview with her, she had also mentioned that she had several difficult relationships (with her husband and her children) with which she was grappling on a daily basis. She commented, "…I'm not happy. Not where I am."

<sup>32</sup> Ibid.

Natalie's statements pointed to her belief that she needed to be done with nursing school to be happy.

Earlier in this chapter (Finding Resources and Support), the researcher provided evidence that many participants developed solid relationships with other students in order to cope with their challenges. Pattie (P14) stated, "I've made amazing friends…" Sharon's (P7) interview responses demonstrated that she also developed such relationships during nursing school. (See p. 116) She depended on the support she received from people with whom she became friends, and her friends were able to depend on her. As already quoted, she stated, "I think I could not have gotten through this program without the few people that I met, and…we rely on each other." In a context discussed earlier in this chapter, Sharon explained how she felt comfortable calling or texting these trusted friends at any time of day for support. She described how group members shared her feelings and fears, and how this camaraderie helped sustain each member.

Shira (P6) also described how the friendships she formed in nursing school were a source of consistent support for her. As a young student coming to the nursing program after high school, she developed close relationships with students in a different stage of life: "They're career people. I really love them. They're like all moms. They say things like, *You got this – I believe in you*."

After struggling in her Nursing 2 course, Jessica (P12) likewise formed friendships with nursing students, who helped her study more effectively than she could alone. She commented, "We became really good friends."

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Valeria (P17) credited her "village" (her network of family and friends) with being one of the most important factors contributing to her success in nursing school. She was able to surround herself with people with whom she formed close friendships both in and outside of nursing school during her time there. These connections sustained her. In her interview, she spoke often about her relationships with her children and husband, and how these bonds strengthened during her time in school. Valeria consciously used her challenges and experiences in nursing school to help her children grow and become more independent. As quoted earlier, she stated, "And in the end I look at it as a very good example for my kids..." She allowed her children to see both her difficulties and her successes, and their relationship matured in the process.

Valeria also spoke warmly of a group of friends outside of nursing school. Since her extended family was many miles away, she made it a point to maintain these relationships despite her involvement with her studies:

I have a really close group of friends, and we put dates on the calendar – a birthday, or anything coming up...and we get together and we have a party. And they usually time it right after the exam, so I can really breathe! Yeah, it's four French families, and...the kids like each other, too, so it's usually a family event, and that really, really helped me.

Several other participants noted how their relationships with family members deepened during their time in nursing school. Jason (P9) stated that while he was in nursing school, his relationships with both his family and his girlfriend strengthened: "The impact of my family, and me with my family has...skyrocketed. It's been more positive [since being in nursing school]." Similarly, Samantha (P11), Jessica (P12), and Gina (P1) expressed increased closeness to members of their family during this time. Most of the participants, with the notable exception of Natalie (P2), verbalized sharing strong bonds with family members, friends in nursing school, or friends outside of nursing school. They valued and nurtured these relationships. For these participants, building positive relationships was one area in which they demonstrated thriving. Conversely, participants also credited these relationships with helping them survive the challenges they faced in the nursing program.

### Purpose in Life

Another characteristic of thriving is to possess realistic objectives and aspirations for one's life.<sup>33</sup> Feelings of self-doubt or uncertainty about life's direction may lead to dissatisfaction with life rather than thriving. As the participants in this study were all in their last semester of nursing, the researcher expected that these participants would have developed a degree of clarity about their own life's purpose. Erin Fraher et al. stated that only 58% of students who begin associate degree nursing programs complete them.<sup>34</sup> In this study, participants were all enrolled in their final nursing course in the associate degree program, having completed all previous nursing courses successfully. Based on this information, the researcher felt it reasonable to assume that participants were looking forward to a career in nursing. However, some participants' comments did demonstrate

<sup>34</sup> Erin Fraher, Daniel W. Belsky, Katie Gaul, Jessica Carpenter, "Factors Affecting Attrition From Associate Degree Nursing Programs in North Carolina," *Cahiers de sociologie et de demographie medicales*, 50, no. 2 (April-June 2010) 213–246, accessed November 29, 2022, https://pubmed.ncbi.nlm.nih.gov/20653220/#:~:text=Only%2058%25%20of%20students%20entering%20 ADN%20programs%20complete%20the%20degree.

<sup>&</sup>lt;sup>33</sup> Ibid.

some doubt, uncertainty, or dissatisfaction in this dimension. Insecurity about one's goals is more closely aligned with surviving rather than thriving.<sup>35</sup>

Margaret (P16), a second-career student who depended on her current full-time employment for income, especially voiced concern about her goals for the future:

I'm having trouble with the thriving – being happy with my life's direction. Because I thought I would be able to graduate, and then get a part time job as a nurse to get experience in nursing. I want to go on and get my APN [Advanced Practice Nurse Certification]...So what I'm finding out is, that may not be an option...because you have to orient full time for like six months before you could do per diem work...and I can't give up my full-time job...Yeah, so I'm a little discouraged.

A participant from the focus group, Giana (P8a), also expressed uncertainty about her goals after nursing school: "It's almost more stressful to contemplate your future, to decide which direction you want to go in. There are options, and there's a lot of fear about which direction is the right one."

Other participants were more positive about their direction. Pattie (P14), a participant who had worked as a licensed practical nurse for many years, expressed satisfaction about her current situation: "I couldn't ask to be in a better place! I've been given the opportunity to thrive in a field I love, and I'm loving every minute of this time." Kelly (P15) also expressed that she was happy with her direction in life: "I am so grateful to be learning something I am very passionate about, and I really am so lucky to be a part of such a great nursing program."

Shira's (P6) perspective changed as she progressed through the nursing program. She initially thought of the nursing program as a *steppingstone*. Now, toward the end of her associate degree program, she reconsidered her initial goals and decided she wanted

<sup>&</sup>lt;sup>35</sup> Ryff, Scales of Psychological Well-Being.

to make the most out of each part of her education journey. She stated, "In the future, like, I thought, I'm going to do this, straight away, then I'm going to do midwifery right away, and now I'm like...I want to be the best nurse I can be right now! And I'm not going to get that by trying to skip steps."

Several participants expressed validation of their decision to become nurses. Sharon (P7) stated, "And on the positive end, you know, I feel like I'm working toward something I've always wanted to do." Jason (P9) explained, "[Nursing school] has helped me find who I am with my patients, my drive of why I want to be in nursing, why I want to be at the bedside." He added, "I found my calling, and I'm going there."

Samantha (P11), a second-career student, spoke about how her experience in nursing school confirmed her purpose in life: "It's given me just a better perspective on things... how much of an impact nurses have. I feel like that's impacted my life because it's showed me that this is really what I wanted to do...now I feel like I'm on the right path that I was meant to be on."

As with other thriving dimensions, participants commenting on their purpose in life did not always see thriving and surviving as either-or conditions. Jessica's (P12) comments illustrated that for her, rediscovering her purpose in nursing school and seeing herself thriving came later in the nursing education process:

In the first couple semesters, not being comfortable around [patients] and just everything being so new, I feel like maybe that was more just surviving through it, but then... last semester, when we went through OB [Obstetrics], it reminded me why I was doing it [nursing school], and then, having my nursing assistant positions, being more comfortable in the workforce, and I got a job...on the mother-baby unit. So, I got my foot in the door a little bit. So, just being around it more changes your mindset, and it reminds you why you're doing it. I mean, it's [nursing school] really hard now. Nursing 4 is hard! But maybe [I'm] more toward the thriving side [now] than just surviving.

Even though she evaluated herself as thriving, Jessica still used comparative, rather than absolute, terms when speaking of thriving versus surviving. She, too, saw thriving and surviving on a continuum. Her story illustrated that she viewed the transition from surviving to thriving as a process that she actively worked to create.

Although a recognition of their purpose and direction in life was expressed by many participants, not many claimed to have achieved a state of thriving. As with other thriving dimensions, participants who spoke about their purpose in life positively were likely to express evaluations of their own thriving variably. Kelly (P15) was one of the participants who clearly appreciated her purpose in life but did not feel that she had reached the state of thriving. Her quote below was used earlier in this document, but demonstrates how she felt about her thriving versus surviving experience:

I really do like to think of life as a glass half full. Although school is stressful, I am honestly really grateful and blessed to be in the position I am right now. I wouldn't necessarily describe myself as thriving, because I still have so much to learn, but to be healthy enough to take care of someone else in need is something I often remind myself [to be thankful for] during times of stress. It really is a privilege.

### Self-acceptance

The final dimension of thriving examined in this study was self-acceptance, the ability to maintain a realistic but healthy self-concept. Individuals who thrive have the ability to see both their strengths and weaknesses yet maintain a positive attitude about themselves. Evidence that participants are merely surviving would be comments demonstrating disappointment with oneself and with life. Participants who were not thriving would verbalize the desire for things to be different. Participants made very few statements that were categorized into this dimension.

Only one participant openly verbalized being dissatisfied with her current life. Natalie's (P2) statement has already been quoted, but bears mentioning again. She stated, "Because I'm not happy. Not where I am." She spoke about how she came to the decision to be a nurse:

I worked...since I was 18 years old in doctor's offices. I was an echo technician, and then I met my husband. I worked for him for 10 years, and I had all his children. When I didn't work, ... I would keep hearing, *What did you do all day?*... I said [to myself], *you know what? I don't like this! I'm going to do something. I'm going to go to nursing school. I'm going to become a nurse.* 

Of all participants, Natalie was the most vocal about her dissatisfaction in her current situation. As she had these feelings prior to entering the nursing program, it was not clear how they were affected by the stress she experienced in nursing school. In terms of accepting herself and her situation, the comments above did not indicate that she was thriving. However, later in the interview, she did verbalize confidence in her own abilities: "Of course I could do it! I can do anything!" As Natalie expressed dissonance in this self-acceptance dimension, it was difficult to evaluate whether she was truly thriving, and whether the nursing program had an impact on her self-worth.

Other participants demonstrated that they were more comfortable with their own evaluations of themselves. Shira (P6) was one of them. She spoke about her creative thinking process: "That's also how I work in my mind. I like drawing things from all different places...I'm more abstract as a thinker." She credited this mode of thinking for supporting her ability to succeed in nursing school. Samantha (P11) was also acutely aware of her own strengths, including her learning style: "I have to figure it out for myself...I figure out my own way to organize and be self-sufficient... I feel like sometimes people are like, you study at home, how do you do that? I [say], this is just what works for me."

Of all participants, Jason (P9) had the most to say about self-acceptance:

You have to be strong, self-motivated; you have to be self-aware [so] you can admit [when] you're wrong...I feel like...trust is really in everything. Because if you don't have trust in yourself, to trust [yourself and] others, you're not going to get anywhere.

### <u>Thriving and Surviving – A Summary</u>

While analyzing the participants' responses for evidence of thriving versus surviving, the researcher found that their experiences were multifaceted. Participants expressed complex states of emotions that sometimes varied over time. When asked directly if they were thriving, only one participant, Jason (P9) confirmed this unequivocally. As described above, others were more circumspect – using terms such as "more thriving," "not thriving yet," or "more toward the thriving side." Thriving was seen by at least one participant, Valeria (P17) as a fluctuating entity. Most interview participants showed signs of both surviving and thriving. Responses also varied across the thriving dimensions, suggesting that since thriving is not one discrete entity, it is possible to experience degrees of well-being in one of its aspects, while struggling with others.

#### SUPPORT FOR EMPIRICAL RESEARCH QUESTIONS

Is there a positive relationship between associate degree nursing students' scores on a measure for creative thinking when compared to a measure for thriving in one northern New Jersey community college?

No relationship was found between the participants' creative thinking scores on Runco's Ideational Behavior Scale (Short Form) when compared to their composite thriving scores or scores in individual dimensions on Ryff's Scales of Psychological Well-Being.

### In what situations do these students state they apply creative thinking skills?

The interview participants in this study identified their application of creative thinking skills in several key areas. They specified that organization and prioritization were two important skills in which they were able to apply creative thinking. These skills were important for their academic work as well as for their family lives and employment. In this vein, creativity was also used to devise plans to balance their many responsibilities with each other and their self-care activities.

Participants frequently detailed their use of creativity in finding resources and support. They planned care for their families, formed groups to enhance their studying, and became proficient at searching out academic resources to augment their learning. They recognized the importance of relationships and found creative ways to nurture those relationships both inside and outside of the educational environment.

Participants also applied creative thinking to their self-talks and internal adjustments to the challenges encountered in both their educational and home settings. They reframed their thinking processes and found ways to motivate themselves in difficult circumstances. Participants also found ways to care for themselves creatively. Some found time to exercise or practice meditation techniques. Many spoke of the importance of finding ways to take mental breaks.

Although not all participants recognized their own creativity, analysis of the interview data revealed that many of the participants utilized creative thinking and problem-solving to progress in nursing school. They brainstormed new coping skills and applied previously learned coping skills to novel situations successfully.

### Do relationships exist among stress, creative thinking, and thriving in this population?

Quantitative measurement in this population demonstrated several relationships clearly: A negative correlation was found between participants reported current perception of stress and their composite scores on the PWB (p = -0.044), indicating that as stress levels rose, participants' thriving scores decreased.

Additionally, a strongly negative relationship was found between participants evaluations of their current stress levels and their scores on the Environmental Mastery dimension of the PWB (p = -0.002). This finding was consistent with the probability that participants' perceptions of increased current stress in nursing school were related to difficulty with managing their everyday activities or controlling their external world.

One quantitative outcome exhibited a positive correlation. The demographic data tool asked the question, "How are you doing in the nursing program?" Higher self-ranked scores on this question were positively related to higher scores on the PWB dimension for Purpose in Life. indicating that participants who expressed confidence in their nursing school progress also expressed confidence in their goals for the future (p = 0.04).

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No quantitative relationships were found among stress, creative thinking, and thriving. Both the quantitative and qualitative evidence disclosed that stress was abundant in this population.

The semi-structured interview, which sought to clarify the quantitative findings, yielded mixed results regarding the relationships among stress, creative thinking, and thriving in the participants of this study. Evidence suggested that stress acted as a stimulant for using new and creative coping techniques. However, it was not clear that the use of these techniques was linked with participants' perceptions of thriving. The data pointed to the more likely explanation that applying new and different ways of thinking and coping helped participants *live through* nursing school, which more closely fit the definition of surviving. The data also found that while participants demonstrated some characteristics of thriving, most did not consciously link the use of creative techniques with thriving, and only one participant definitively claimed to be thriving. Rather, many participants evaluated themselves to be experiencing variations of thriving, either seeing thriving as a continuum on which they traveled back and forth, or as a partially achieved goal.

The participants in this sample were part of the remnant that had successfully reached the fourth and final semester of the associate degree nursing program in the study college, which aimed for a minimum program completion rate of only 60% of those students who entered the professional phase of the program.<sup>36</sup> Thus, these students were the "survivors" of the high attrition rate that is typical of associate degree nursing

<sup>&</sup>lt;sup>36</sup> County College of Morris Systematic Plan for Evaluation Academic Year 2017-2019 (Randolph, NJ: County College of Nursing Department Report, 2019).

programs in the United States.<sup>37</sup> More specifically, the graduation rate of the class from which Cohort 1 participants were drawn was 62%.<sup>38</sup> Cohort 2 participants came from a class which achieved a graduation rate of 65%.<sup>39</sup> Participants in this study made many statements that indicated they were struggling in areas of their life. Declarations such as: "Juggling everything just gets overwhelming sometimes," and "I am just getting by," as well as, "Was I cut out for this?" indicated that participants did not consistently feel in control of their environments and their lives while in nursing school. There were times when they were "living through," "weathering," and "persevering" – all descriptions of surviving.

The next chapter will discuss the last research question of this study, the synthesis question, which seeks to apply the current research findings to the nursing education environment. It will also examine the limitations of this study and directions for future research.

<sup>&</sup>lt;sup>37</sup> Erin Fraher et al., "Factors Affecting Attrition From Associate Degree Nursing Programs in North Carolina," *Cahiers de sociologie et de demographie medicales*, 50(2), 213–246, accessed November 29, 2022,

https://pubmed.ncbi.nlm.nih.gov/20653220/#:~:text=Only%2058%25%20of%20students%20entering%20 ADN%20programs%20complete%20the%20degree..

<sup>&</sup>lt;sup>38</sup> Ibid.

<sup>&</sup>lt;sup>39</sup> Summary Report on January 2020 Graduates and Spring 2018 Freshmen, County College of Morris Nursing Program, February 23, 2022.

# CHAPTER 5

### **DISCUSSION AND CONCLUSIONS**

## SYNTHESIS QUESTION

The synthesis question in this research study sought to apply study findings to improve

the experience of students in an associate degree nursing program by promoting creative thinking

in this population, which was postulated to foster thriving:

How can insights derived from the empirical and theoretical study be used to foster thriving by creative thinking in nursing school?

A model (Figure 5.1) was constructed to analyze study findings. The model, described

here, will be used to redirect the synthesis question to fit the evidence found in the current study.



### Thriving and Surviving in Nursing Students: A Model

The evidence in this study showed that creative thinking and problem-solving had a stronger impact on *surviving* nursing school than promoting thriving. Figure 5.1 demonstrates a model postulating the relationships among thriving, surviving, challenges, and creative thinking in the associate degree nursing students who participated in this study. This theoretical model uses an outer large circle to indicate some of the environments in which participants in this study lived and took an active part. In the first layer of the large circle, the home, work, and family environments are depicted. Students entered the nursing program (represented by the inner color-filled circle) from this environment.

Purple arrows signify challenges and stressors that presented themselves throughout the nursing program. It is understood that all human beings experience challenges and stressors. This is recognized by the purple arrow that points from the challenges label to the outer circle. However, for the participants in this study (as in many other nursing student studies<sup>1</sup>) challenges dramatically increased once they had to meet the rigorous demands of the nursing program. Such challenges continued in various degrees throughout the program, as indicated by the three remaining purple arrows. In this study, those challenges included time, emotions, relationships, inadequate self-care, and stressful situations in participants' personal lives.

Blue arrows pointing into the middle circle represent some of the creative thinking and problem-solving techniques participants used to encounter their stressors throughout their nursing program experience. In this study participants successfully explored organization, resources and support, and caring for themselves to cope with their challenges. The discovery

<sup>&</sup>lt;sup>1</sup> Labrague et al., 471.

and use of these techniques may have originated at any point in the nursing school journey, but techniques were often sought and implemented when challenges appeared along the way.

Inside the nursing program circle, four colors blend into each other. Each of these colors represents varying states of well-being in this study's nursing student population. The thin upper green area represents thriving. A larger area, symbolizing surviving, fades from yellow to orange, recognizing that the experience of surviving can fluctuate, becoming more difficult at some times than others.

Finally, below a straight line at the lower end of the circle, a dark red area fills approximately 30% of the circle. This area represents the experience of the students who ultimately exited the program before graduating. None of the current study participants fell into this category. Nationally, approximately 30% of students exit community college nursing programs prior to graduating, which approximates the red area in Figure 5.1's model.<sup>2</sup>

In the current study, graduation rates were roughly similar to the national average. Cohort 1 participants were drawn from a class in which 36 of 94 (38%) students did not complete the nursing program in the timeframe allotted.<sup>3</sup> Similarly, 20 of 57 (35%) students in Cohort 2's class also did not complete their program with their classmates.<sup>4</sup> Some of the students who failed a nursing class were ultimately able to complete the program, bringing the graduation rate up to approximately 70% overall. However, 30% of students remained unsuccessful. The term *languishing* is suggested for this part of the model, but as the "exiting" experience and the

<sup>&</sup>lt;sup>2</sup> Karen Fontaine, "Effects of a Retention Intervention Program for Associate Degree Nursing Students," Nursing Education Perspectives 35, no. 2 (March/April 2014), 94, accessed June 20, 2023, doi: 10.5480/12-815.1.

<sup>&</sup>lt;sup>3</sup>Summary Report on May 2019 Graduates and Fall 2017 Freshmen.

<sup>&</sup>lt;sup>4</sup>Summary Report on January 2020 Graduates and Spring 2018 Freshmen.

languishing concept were not studied in the current research these areas remain topics for future exploration.

The dotted brown wave that traverses the inner circle attempts to show that study participants' well-being was not static during the nursing student journey. In fact, some participants told stories of roller-coaster-like changes in how they felt at various times during the education journey. The drawn wave symbolizes, rather than precisely represents, participants' perceptions of their well-being.

### <u>Thriving</u>

The evidence found in this study pointed to participants' varied and diverse experiences with thriving. Gulam Abid et al. identified thriving as a "dynamic process of adaptation, influenced by numerous individual and social factors. It emerges and changes…" <sup>5</sup> These authors went on to state that thriving is a complex concept, encompassing diverse dimensions. According to Brown et al., thriving can appear differently for different people and in different circumstances. They also noted that some view thriving as a state while others see it as a process, indicating a lack of agreement on its manifestation. The findings in the current study validated these statements; therefore, the model's dotted brown wave line only briefly touches the green portion of the circle.

Although the interviews with study participants demonstrated dimensions of thriving during certain times or in specific areas, most participants did not claim to have a consistent thriving experience; rather, there were *glimpses* of thriving. Changes in well-being coincided with diverse stressors that participants experienced, originating both inside and outside of the

<sup>&</sup>lt;sup>5</sup> Ghulam Abid, Alia Ahmed, and Tahira Hassan Butt, "The Tri-dimensional Thriving Scale: Measurement and Construct Validity," International Journal of Business Excellence 28, no. 2 (October 24, 2022): 139.

nursing school environment. In this study, the quantitative results validated relationships between high levels of perceived stress and reduced thriving, and the qualitative interview data illustrated situations in which participants' stress levels and well-being fluctuated hand-in-hand. As they worried about exams, overwhelming academic demands, pressures in the clinical setting, and concerns about their families, their anxiety levels rose, and their well-being decreased. Conversely, participants expressed joy in learning and growing despite their stressors, contributing to their perceptions of thriving. They experienced joy in their personal growth, their new relationships, and their progress toward their goals.

### Surviving

The participants' interview responses helped to provide an explication of how they experienced the Ryff Scales of Psychological Well-Being (PWB) dimensions of autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance. Their comments regarding environmental mastery indicated that they often did not feel "in control" of their environment while in nursing school. Those comments validated the negative quantitative relationship found in this study between participants' current stress and the PWB environmental mastery dimension. Participants were struggling to adapt and succeed, indicating that they were *surviving* rather than *thriving*. Although Lazarus and Folkman did not use the term "environmental mastery," these authors' stress appraisal theory explained that some individuals assessed their environmental stressors as challenges, which "call for the mobilization of coping efforts."<sup>6</sup> Lazarus and Folkman further stated that when individuals frame their stressors as challenges rather than threats, there is an ability to grow and learn from these

<sup>&</sup>lt;sup>6</sup> Lazarus and Folkman, 15.

situations.<sup>8</sup> In this study, participants verbalized many creative ways in which they rose to meet their challenges. Although stressors (especially those associated with threat) detracted from participants' well-being,<sup>9</sup> Interviewees showed a strong passion for learning, purpose in life, and eagerness to grow. However, it was clear that these interviewees *needed* to find creative strategies to *survive* nursing school, even if the strategies did not bring them to the level of consistent *thriving*.

### Languishing

The lower red section, comprising approximately one-third of the circle, signifies languishing. Keyes argued that *languishing* lies at the opposite end of the spectrum from thriving and flourishing.<sup>10</sup> This red section of the model was used to represent the students that exited the program prior to this study. One serious limitation of this study is that the cohort of exiting students was not studied during the current research, thus this study cannot present information about the well-being of this population. However, as stated above, nationally, approximately 30% of nursing students do not complete their programs. Previous studies in community college nursing program settings have shown that it is not uncommon for 40% of students entering a nursing program to exit before graduating.<sup>11</sup> Indeed, in the college where the study was

<sup>8</sup> Ibid.

9 Ibid.

<sup>11</sup> Fraher et al., 214.

<sup>&</sup>lt;sup>10</sup> Corey L. M. Keyes, "The Mental Health Continuum: From Languishing to Flourishing in Life," *Journal of Health and Social Research*, 43 (June 2002): 208, accessed June 18, 2020, <u>https://www.researchgate.net/profile/Corey-Keyes-</u>

<sup>2/</sup>publication/11278728\_The\_Mental\_Health\_Continuum\_From\_Languishing\_to\_Flourishing\_in\_Life/links/004635 2b1a6f89da77000000/The-Mental-Health-Continuum-From-Languishing-to-Flourishing-in-Life.pdf.

completed, the nursing program aimed to achieve a completion rate of at least 60%, indicating that many students were not able to complete the program.<sup>12</sup>

Students who have exited nursing programs have been studied in several contexts (reasons for attrition, suggestions for increased retention) but no studies were found describing the well-being of students who exited the program. In previous studies, it was found that there were several factors that led to students dropping out of nursing programs. The participants of the current study expressed similar concerns, such as the challenge of balancing work, family, and school obligations, financial struggles, academic pressure, and challenging exams, but were able to persist despite them.<sup>13</sup> Earlier studies maintained that exiting students did *not* find adequate resources and support, or had difficulty organizing and prioritizing for success, in contrast to participants in the current study, who were able to master these skills.<sup>14</sup> Future research should continue to investigate students who have exited nursing programs to develop ideas for increasing nursing student success. Research exploring the well-being of students who have exited the program would also be useful in counseling current at-risk students.

### COMMONALITIES AND INDIVIDUALISM IN CREATIVE PROBLEM-SOLVING

The present study was able to elucidate areas in which participants used creative problem-solving to cope with challenges they faced while in nursing school. There were commonalities in themes of both challenges and coping strategies across interview participants. However, each participant showed their own individual interpretation of challenges, and the

<sup>&</sup>lt;sup>12</sup> County College of Morris Systematic Plan For Evaluation Academic Year 2017-2019.

<sup>&</sup>lt;sup>13</sup> Leanne Rogstad, "Attrition in an Associate Degree Program: The Lived Experience of the Nursing Student," (PhD diss, Capella University, July 2014), 99, ProQuest LLC, accessed May 15, 2023, https://www.proquest.com/openview/a6ab7ab2ce84d007438d526baa389af8/1?pq-origsite=gscholar&cbl=18750.

individualized coping skills they developed in response. This finding is substantiated in nursing education literature. While studying nursing students' challenges and resilience, Stephens validated that both "interpretation of adversity" [stressors and challenges] and "protective factors" [including coping skills] are "individualized and are dependent upon context and situation."<sup>15</sup>

In the current study, commonalities were found both among the events that participants considered challenging, and the coping skills utilized. Almost all interview participants expressed organizing, prioritizing, and balancing challenges. Other common challenges involved relationships, resources, and self-care. Participants' concerns in those areas were diverse. Many stressed the importance they placed on studying for their exams. Several interviewees spoke of concerns about the care of their children, and others were concerned about their employment. Still others were anxious about how best to structure their time at their clinical practice sites.

Although commonalities existed, participants individualized their strategies to creatively overcome challenges. In the current study, five categories of creative coping strategies emerged, including organizing, prioritizing, and balancing, finding resources and support, associating previously learned knowledge with current needs, working on internal environment, and caring for self. See Table 4.22. Within these five categories, participants developed their own unique coping practices. For example, to prioritize exam study time, Jessica (P12) and Melanie (P5) both studied while exercising, whereas Tessa (P3) re-listened to recorded lectures while doing housework. In each case, participants devised solutions best suited for their own needs.

<sup>&</sup>lt;sup>15</sup> Stephens, 128.

Sometimes participants collaborated, but all made their own decisions as to how best to prioritize their time.

Previous studies have tested specific creative interventions [such as meditative techniques] which were applied globally in small groups of students with mixed results.<sup>16</sup> Students in these studies varied in their responses to specific interventions.<sup>17</sup> Not all students fit into one mold. The evidence in the current study points to the idea that although creative problem-solving was nearly universal among study participants, participants did not always approach their challenges in the same way. For example, three interview participants mentioned meditation, but most others did not. Others preferred some form of exercise – working out, walking, or playing soccer – to meditative practices. This indicated that participants seemed to benefit from exploring their own stressors and individualizing their own coping strategies.

#### **RECOMMENDATIONS FOR PRACTICE**

Returning to the synthesis question posed in this study [*How can insights derived from the empirical and theoretical study be used to foster thriving by creative thinking in nursing school?*], the proposed model explained that participants in this study were more likely *surviving* than thriving. However, the interview data showed that participants were utilizing creative thinking and problem-solving to adapt to and master the nursing school environment. For these participants, it was beneficial to develop creative problem-solving abilities for self-care during their education. This assisted them in transforming their nursing school stressors into achievable

<sup>&</sup>lt;sup>16</sup> Turner and McCarthy, 27.

<sup>&</sup>lt;sup>17</sup> Ibid.
challenges. Implementing such techniques with future students may also foster survival in nursing school.

#### Teaching Creative Thinking

Research on creative thinking and creative problem-solving in nursing students has focused mainly on the use of creative techniques to learn nursing skills and promote critical thinking.<sup>18</sup> The goal of these techniques is expressed as improving decision-making with patients in the clinical setting.<sup>19</sup> In contrast, no research evidence was found regarding teaching students to use creative problem-solving to manage stressors and challenges they encounter in the educational process.<sup>20</sup> The nursing program in which the current study took place encouraged creative thinking and problem-solving in the classroom during specific exercises to promote critical thinking in clinical practice. Overall, these exercises were not well-received by students. Several of the interview participants described these activities as extra work, distracting from exam study time [Tessa (P3), Jessica (P12), and Margaret (P16)].

It is not known whether participants made an association between the creative processes they used in these educational exercises and the development of the creative problem-solving skills used in their adjustment to nursing school life. Ana (P4) stated clearly, "There is no room here [nursing school] to be creative. I have to do things the way it is expected of me." Patti (P14) expressed that her use of creativity decreased as the program progressed and workload increased, "I do feel I was more creative in the beginning...now...I am more focused on completing tasks that take time away from ...studying for exams." This comment echoed the findings in

<sup>18</sup> Chan, 5.

19 Ibid.

<sup>20</sup> Ibid.

Eisenman's 1970 study, in which nursing students' creativity scores decreased from the beginning of nursing school to their senior year.<sup>21</sup>

#### Obstacles To Using Creativity in Nursing School

Several comments indicated that some participants felt that creativity was discouraged during nursing school, as the curriculum was so demanding. Ana (P4)'s comment, "There is no time for creativity in nursing school," illustrated one of the obstacles faced by nursing students attempting to use creative problem-solving. The time-intensive structure of the nursing program in the study setting is similar to the structures found in other associate degree nursing programs in this country. The condensed configuration of these programs still leads to the need to *conform* to strict guidelines and meet rigid expectations, much as it did 50 years ago.<sup>22</sup> A study examining variables promoting creativity in college students suggested that "creativity training was encouraged through [flexible] *climate* rather than achieved through rigorous training," while nursing programs are known for their rigor.<sup>23</sup> This same study suggested "removing blocks and alleviating fear while providing safety and freedom" and promoted "openness to experience and inquisitiveness/curiosity," while students in the current study often perceived blocks and fear.

Mark Lazenby attributed some of the rigidity now experienced in nursing education to the attempt to turn nursing from an *art* to a *science*.<sup>24</sup> He stated that "nursing educational

<sup>&</sup>lt;sup>21</sup> Eisenman, 324.

<sup>&</sup>lt;sup>22</sup> Eisenman, 324.

<sup>&</sup>lt;sup>23</sup> Kay S. Bull, Diane Montgomery, and Lynda Baloche, "Teaching Creativity at the College Level: A Synthesis of Curricular Components Perceived as Important by Instructors," *Creativity Research Journal*, 8, no. 1 (1995): 88.

<sup>&</sup>lt;sup>24</sup>Mark Lazenby, "On the Humanities of Nursing," *Nursing Outlook*, 61, no. 1 (January-February 2013): e9-e14, https://www.sciencedirect.com/science/article/abs/pii/S0029655412001546, accessed March 6, 2015.

programs are now measured by an atomistic checklist of curricular core competencies and clinical-hour requirements that, if met, rise to the level of evidence of quality set by accrediting agencies."<sup>25</sup> The movement toward making nursing [and nursing education] a science has resulted in an evidence-based practice emphasis in nursing research. Obviously, it is essential to maintain high standards of safe patient care, but Lazenby believed that the pendulum had swung too far, producing nurses who are often "useful machines, automatons who implement evidencebased guidelines and protocols."<sup>26</sup> Lazenby insisted that the influence of humanities in nursing education is steadily diminishing. The humanistic aspects of nursing, the "imaginative, creative, and deep-thinking aspects" have been de-emphasized in both the workforce and in educational programs.<sup>27</sup> Students are rewarded for choosing actions from pre-established protocols rather than coming up with unique ideas; therefore, creative problem-solving seems out of place to them in the nursing school environment. Especially in the condensed associate degree nursing environment, students see assigned "creative thinking" exercises as extra work that detracts from studying for objective exams. Encouraging creative thinking and problem-solving in nursing school, then, may require finding some room to add flexibility into the current rigid structure of associate degree nursing programs.

Students also need help to recognize that creative thinking is not just applicable to their academic assignments. Professors and administrators can show students that they can benefit from creative thinking to improve their coping skills in the stressful nursing school environment. Learning more effective coping skills can, in turn, increase students' environmental mastery and

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>&</sup>lt;sup>25</sup> Ibid., e13.

their overall nursing school success. Even if they survive rather than thrive, these skills may help them in their quest to meet challenges. In the current study, all interviewees were able to list creative strategies that contributed to their nursing school success.

#### Encouraging Creative Problem-Solving in Nursing School

Although it may be a significant hurdle for associate degree nursing programs to make their curricula more flexible, helping students creatively cope with their challenges, and therefore survive and be successful in nursing school, is a realistic goal.

Community colleges often have mechanisms in place to improve students' success. The nursing program in which the current study took place provided introductions to free resources, including the College's Counseling and Wellness Center, at the beginning of the first nursing course. This center can offer students guidance in creative problem-solving and developing coping skills. Although free of cost and readily available, the counseling services were underutilized during the period of this study, despite frequent referrals made by faculty. Student support groups were also not well attended. The specific reasons for not using these resources remained unclear. Some students did state they could not find room in their schedules for these "extra" self-help activities. Some may have not felt that using these resources would be efficacious, or perhaps they perceived a stigma surrounding "needing help."

The data obtained in the current study suggests that students may benefit from being guided to use creative problem-solving to cope with their nursing school challenges early in their educational journey. Runco described the steps in the creative problem-solving process logically:

- 1. Identify problems and opportunities
- 2. Define alternative goals
- 3. Explore possible strategies
- 4. Anticipate and act

#### 5. Look and $learn^{28}$

Ironically, the steps for the creative problem-solving process look very similar to the steps learned and practiced by each nursing student, known as the nursing process.<sup>29</sup> In this method of planning patient care, the nurse first gathers data to be used for *assessment* of the problem. This data is organized into meaningful patterns and a *diagnosis*, or *problem statement*, is defined. Using this diagnosis, *planning* is done to set realistic *goals* to confront the problem. Appropriate *interventions* are brainstormed, carefully considered, and then carried out. The nurse then *evaluates* the effectiveness of the interventions, and the process can be refined as necessary.<sup>30</sup>

Students might benefit from guidance to make the association between the creative problem-solving process/nursing process and its potential application to the significant challenges they encounter during their nursing education. A future research study might consider an intervention in which students are guided to apply and adapt what they learn about the nursing process to their own care using a creative problem-solving approach. In other words, students can learn to *assess* how they feel and what issues are contributing to their stress, then cluster these findings, coming up with a concise, accurate *problem statement* describing their situation. Next, they can set realistic *goals*, both short- and long-term, for what they want the resolution of this stressor to look like. Then they can engage in creative brainstorming to list *interventions* that could contribute to a successful solution to their challenge. Next, they could choose one or more

<sup>&</sup>lt;sup>28</sup> Runco, Creativity: Theories and Themes, 348.

<sup>&</sup>lt;sup>29</sup> T.J. Tony-Butler and J.M. Thayer, "Nursing Process," StatPearls [Internet], Treasure Island, FL: StatPearls Publishing, last modified April 10, 2023, accessed July 10, 2023, https://www.ncbi.nlm.nih.gov/books/NBK499937/.

<sup>&</sup>lt;sup>30</sup> Ibid.

interventions to implement. Lastly, they would *evaluate* their plan's effectiveness and make changes as appropriate.

The researcher also felt that findings from the current study could be of benefit to future nursing students at the study college. A short letter to future students was written with advice provided by study participants. See Appendix 5. This letter will be distributed to students at the study college.

#### Limitations of Study

This study was limited by sample size and lack of diversity. Although several ethnic groups were represented in the quantitative surveys, interviewees were all Caucasian and mostly female. All but one student spoke English as their first language. Collecting data from various local community college programs for an extended period could have provided more comprehensive results. Similarly, working with a random sample could have also yielded more comprehensive findings.

This study had a significant limitation as it only included participants from the last course of the nursing program. It is worth noting that these students had successfully completed three previous nursing courses and were considered *survivors*. Unfortunately, the perceptions of students in earlier courses were not collected. Additionally, the researcher did not gather the perspectives of students who left the program before graduating, which could have provided valuable insights. To address this, future research should consider inviting these students to participate.

#### Income sufficiency

Another area that could have been investigated more fully was income insufficiency. It is troubling that 19 out of the 80, or 23.7% of, participants in this study rated their income as

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insufficient to meet their needs. This was especially noteworthy in the 21–30-year-old age group, where one fourth of the participants rated their income as insufficient, and an additional six participants (11.5%) were unsure whether their income was sufficient to meet their needs. Although none of the current study participants mentioned homelessness or food insecurity, some of the interview participants spoke of their reliance on family members for homes and financial support. They also brought up sacrificing work hours (and income) to make more time for studying, thereby making their financial situation less stable.

Research has shown that a large percentage of students in community colleges nationwide report basic needs insecurity, possibly related to the role that a community college plays in being accessible to underserved populations.<sup>31</sup> The current trend is also that community colleges are not receiving adequate resources to provide for students who have these needs.<sup>32</sup> As government financial support to community colleges declines, tuitions rise to bridge the gap in costs. Available scholarships have not kept pace, so students are faced with ever-increasing tuition burdens. As a result, students are often not able to generate enough income from their employment to cover the costs of tuition *and* their families' needs.<sup>33</sup> Meanwhile, research has also shown that basic needs insecurities "impede students' *well-being* and academic success" and

<sup>33</sup> Ibid.

<sup>&</sup>lt;sup>31</sup> Katharine M. Broton, Milad Mohebali, and Mitchell D. Lingo, "Basic Needs Insecurity and Mental Health: Community College Students' Dual Challenges and Use of Social Support," *Community College Review* 2022, Vol. 50(4) 456–482, accessed June 5, 2023, DOI: 10.1177/00915521221111460, journals.sagepub.com/home/crw.

<sup>&</sup>lt;sup>32</sup> Ibid.

have been associated with increased mental health struggles.<sup>34</sup> These are certainly not conditions that would contribute to *thriving* in the nursing student population.

#### SUMMARY - SURVIVING AND THRIVING IN NURSING SCHOOL

The current research study has shown that, as in years past, nursing students are still facing high degrees of stress. Previous studies investigating stress in nursing programs have not found consistent tools for moderating this stress. Especially in condensed, intense associate degree nursing programs, students still tend to experience significant stressors in the school environment. These stressors, in turn, impact other aspects of students' lives including families, finances, work, and social ties. As Lazarus and Folkman suggested, interviewees in this study were often able to reframe their stressors as challenges, and therefore found ways to creatively cope with those challenges to be successful in the nursing school environment.<sup>35</sup> However, although interviewees successfully coped with their challenges, most of them did not feel they were consistently thriving. The quantitative data did not support a relationship between creative thinking and thriving. Instead, participants felt they were surviving, and occasionally experienced thriving on a variable, episodic basis. Still, participants did feel that their creative thinking was instrumental in this survival. Thus, there is some evidence that these associate degree nursing students benefited from using creative problem-solving to approach their nursing school challenges more effectively. The current study showed that, although participants'

<sup>&</sup>lt;sup>34</sup> Sara Goldrick-Rab, "Addressing Community College Completion Rates by Securing Students' Basic Needs," *New Directions for Community Colleges*, no. 184, Winter 2018, 2018 Wiley Periodicals, Inc. Published online in Wiley Online Library (wileyonlinelibrary.com) • DOI: 10.1002/cc.20323

<sup>&</sup>lt;sup>35</sup> Lazarus and Folkman, 22-30.

creative coping skills could be categorized into broad headings, participants each developed individual creative practices to suit their own needs.

Based on the limited findings of the study, it seems that faculty and administrators in associate degree nursing programs can help their students reframe stressful situations as challenges that can be addressed through creative problem-solving. Students can be encouraged to use the resources available at their colleges to manage stress and receive assistance in finding personalized solutions. Starting this process early may help increase students' success as they traverse the difficult nursing school journey.

#### Study Relevance to Health Humanities

To achieve a deep understanding of the human condition of a patient, health professionals need to create therapeutic environments not only for patients, but for healers as well.<sup>36</sup> Despite much research and many interventions, nursing students still regularly experience stressors that demand tremendous emotional and physical energy. The nursing school environment is far from therapeutic, often depleting students' ability to pay full attention to their patients' needs.<sup>37</sup>

Maya Angelou, in her creative manner, stated, "I do not trust people who don't love themselves and yet tell me, *I love you*. There is an African saying which is: Be careful when a naked person offers you a shirt."<sup>38</sup> Cunningham et al., when writing about burnout in nursing students and new nurses, explained:

When it comes to caring for others, nurses [and nursing students] are too often the naked person offering someone else their shirt. We can't—and shouldn't—give something to

<sup>&</sup>lt;sup>36</sup> Health Humanities Consortium: Transforming Health and Health Care Through the Arts and Humanities, "About."

<sup>&</sup>lt;sup>37</sup> Michalec, Diefenbeck, and Mahoney, 315.

<sup>&</sup>lt;sup>38</sup> Dorrie Fontaine, Tim Cunningham, and Natalie May, "Fundamentals of Stress, Burnout, and Self Care", In *Self-Care for New and Student Nurses*, 5-6, e-book, EBSCO Publishing, 2021, accessed August 13, 2023.

our patients...that we don't have ourselves. We now know beyond any doubt that stress, and particularly stress in the workplace, has a powerful impact on our mental and physical health.<sup>39</sup>

If students intend to be part of the patient's *lived human experience*, they need to nurture their own well-being first. By working through creative problem-solving as self-care, we are encouraging nursing students, as healers, to get in touch with their own *humanness*. Understanding and nurturing their own *lived human experience* is a prerequisite for caring for others in a compassionate, humanistic way.

#### CONCLUSION

Anxiety-producing stress has been a perennial part of nursing education almost since its inception. The current study has shown that stress continues to affect the well-being of nursing students, affecting their learning, relationships, health, and the care they feel they can provide to their patients. Over the years, much research has studied both the sources of this stress and possible ameliorating factors. Although nursing education has changed significantly since its early days, its stressful nature remains, despite many efforts to change it. Students are still just *surviving* nursing school, not thriving, although they are learning and growing. This study has proposed that perhaps by looking inside themselves and using their own creativity, students could learn to first reinterpret their stressors as challenges, and then actively develop coping skills that they tailor to their own needs. The students in the current study accomplished this but still considered themselves *survivors*. Consistent thriving remained elusive. Not all students have been survivors. It behooves nursing faculty, administrators, and counselors to recognize their role in guiding students not only in learning academic skills, but learning the needed self-care

skills as well, so that students are armed to face the stressors and challenges that occur in the educational environment. To that end, creative thinking and creative problem-solving can be encouraged as integral parts of students' self-care tool kits throughout their nursing school journey.

Because of its small size, this study is not generalizable but does raise many areas for thought. Additional studies could further examine beginning nursing students' creative coping strategies, resources, and expectations for nursing school. Interventional studies could yield clarification about how students may learn to reframe and address their challenges creatively and individually. It would be exciting to work side-by-side with beginning nursing students to encourage self-exploration of their stressors and the development of creative problem-solving. It would also be valuable to delve further into the lived experiences of students exiting nursing school prior to completion of the program.

It does not seem likely that nursing education will become less stressful anytime soon. The complex levels of care required by patients necessitates that students learn rigorous and complex skills. We, as researchers, must find ways of equipping future generations of nursing students with the knowledge and ability to care for patients. To do this effectively, we must first teach students how to care for themselves, survive, and even thrive in the healthcare environment.

#### CHAPTER 6

#### EPILOGUE

I looked up at my door, and hardly recognized the relaxed, smiling woman who walked into my office. Appearing rested, rosy faced, make-up tastefully applied, and every hair attractively in place, she hardly resembled the person that I had interviewed for my research only seven months ago.

At our previous interview, Sharon's slumped posture spoke of weariness as her feet dragged her into the room. Even her voice was dull, and her worn jeans and old tee shirt spoke of being donned thoughtlessly. Her pale color accented the dark circles under her eyes, more noticeable with her hair drawn back, random strands escaping, as she dropped herself into the chair I indicated for her. Before that first interview, I made sure to ask if she still wanted to go through with it. I knew it would be difficult for her to come straight from another grueling exam to sit and chat with me about my research. But Sharon is nothing if not professional and responsible, and she wanted to do this. I let her know how grateful I was.

The first question I asked Sharon was, "How has the decision to pursue a nursing degree affected you in your daily life?" I was not surprised at her answer. I had seen examples in the literature, and I knew Sharon, as she had been my student the previous semester.

She gave me a vacant look, thought a moment, and answered, "I would say it has 100 percent affected my daily life, because I am 100 percent consumed by nursing school. Everything I do is geared toward the calendar, the test, the quiz, everything. Everything else has to cease." She explained that studying obsessed her, hanging continuously like a weight on her shoulders. I could almost see the dark cloud. I felt the guilt she experienced if she took some

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time off: "I wouldn't be able to enjoy going out with friends, going here, participating in whatever. So my social life is zero, and I was a very, very social person."

Sharon described that she felt the need to far exceed the "70" passing grade, just so she would have a cushion to fall back on for the next exam. She said it this way, "So if the bottom falls out of my life, I have some space." She would be able to get through. She gave an example: "I remember in Nursing 1, I got a phone call in the library. My son had smashed his head into a wall in school and I was told to take him to the Emergency Room, and I remember thinking...obviously I had no qualms, I had to take care of him, but I remember thinking, *I have to make up for these hours (of study time). I lost eight hours! I have to make up for that, I gotta make up for that!*" Sharon's family had been profoundly affected by her studying too, their patience wearing thin. She'd needed to keep telling them, "Only 31 days left, only 29 days left to go!"

Sharon kept going – she realized she was working toward something that she always wanted to do, and that helped. When she passed the exams, her confidence edged up a notch and her self-talks affirmed her: "Ok, yes, I can do it!" But then, the realization quickly came: "Until I started studying for the next one, and I put myself into a tailspin. Is this really what I should be doing? Was I cut out for this?"

Sharon loved the learning, she said, "but I wish it were not as fire-hose-ish!" It was too rapid, too great a quantity. She felt like it was like looking out from behind "opaque glass," unable to see clearly. and explained that the learning in nursing school was so hard to apply: "You don't know what is important, and how it all fits together." The knowledge was not usually clear. There was a hazy picture of what she should be learning, but it did not come into focus for her. And this opaqueness caused her a lot of anxiety, "because you're trying to figure out how to make sense of it all." She was struggling to clarify the opacity, to see better, to get a more accurate perspective.

We discussed her incredibly high expectations of herself. She would avoid telling people she knew from around her town that she was in nursing school. She explained, "If I don't, I don't make it out alive, I don't want anyone to know that I failed! So it's my personal stuff." Sharon marveled at some of the younger students. "I honestly walk out of the tests sometimes saying, *Oh, I got an 83! Damn, damn, damn!* But the other kids, the younger guys, they're like *Woo-hoo! I got a 72!* And I'm thinking...*Oh my God! I would lose my bananas if I got a 72!*"

Sharon did get through the program. She was radiant during the Pinning Ceremony. I was thrilled to get an email from her several months later. She was asking if I would return the favor of an interview. Now done with her NCLEX exam and taking her first BSN course, the change in her was amazing. We talked as colleagues. She admitted to once more feeling that panic when she sat for the NCLEX exam, keeping its date a secret from those around her, and pouring her effort into studying one more time. Her inner critic again feared failure. When the exam shut down at 75 questions, she didn't know whether to laugh or cry. What did this mean? They were easy questions, she thought. Did she pass? She believed she did, but there was nagging doubt...until she received confirmation that she passed. She was officially a registered nurse.

And now, here Sharon was, sitting in front of me, confident, positive, and still pursuing her dream. She was enjoying this new BSN class. She had always loved learning, and now she had time to do it the way she wanted to. She eagerly shared about her assignments, and how she really enjoyed the stimulation of her new readings. Her whole face smiled, and her body language spoke of energy and enthusiasm this time. I marveled at the change that had come over her, although I'd seen it so many times with other students. As professors, we take their tight postures, their anxieties, and even their tears, as routine, expected. It's a grueling journey, hard to describe to those who have never witnessed it. Is it worth it? I'll ask Sharon again in a year. Right now, we celebrate her success.

#### **APPENDICES**

#### Appendix 1. Institutional Review Board (IRB) Approvals

- a. Proposal approval
- b. Approval from institution where research took place
- c. Responsibility document from institution where research took place
- d. Approval from degree-granting institution



4/25/2018

Dear Sir or Madam,

I am the Director of the Medical Humanities programs at Drew University. Jutta Braun is a doctoral student in the Medical Humanities program at Drew. Her prospectus for her doctoral research: "Thriving in Nursing School: Does Creative Thinking Help? A Study of Associate Degree Nursing Students in a Northern New Jersey Community College", has been approved. She is now applying for IRB approval from your institution, after which she will apply to the Drew University IRB for approval. I appreciate your time in reviewing her application for IRB approval at your institution. Please feel free to contact me if you have any questions.

Kind Regards,

Dr. Paul Kadetz

Paul I. Kadetz, DPhil (Oxon.), MPH, MSN, MSc (Oxon.), FRSA Robert Fisher Oxnam Chair of Science and Society, Drew University Director of the Masters and Doctoral Program in Medical Humanities, Drew University email: <u>pkadetz@drewedu</u>



September 10, 2018

VICT PRESIDENT OF ACADEMIC AFAIRS Phone: 973-328-5090 Fax: 973-328-5083

Ms. Jutta Braun Professor of Nursing County College of Morris 214 Center Grove Road Randolph, NJ 07869

Dear Jutta,

The County College of Morris Institutional Review Board (IRB) concluded that your study Thriving in Nursing School: Does Creative Thinking Help? Study of Associate Degree Nursing Students in a Northern New Jersey Community College for your doctoral program at Drew University meets the criteria for the protection of human subjects.

The IRB wishes you well in your research. If you have questions, please contact me,

Sincerely,

Bette M. Simmons, Ed.D. Vice President of Student Development & Enrollment Management And Interim Vice President of Academic Affairs

Cc: Professor Kelly Fitzpatrick Dr. Jason Hudzik Dr. Kristin Nelson Dean Phebe Soliman

> 214 Center Grove Road • Randolph, New Jersey 07859-2086 • 973-328-5000 www.com.edu

IRB Registration #: Federalwide :	Assurance IFWAL#, it any:
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The Officials signing below agree that <u>Orew</u> its human subjects research described below: [	University may rely on the designated IBR for review and continuing oversight of check one (
) This ogreement applies to all human subje	ects research covered by Institution B's FWA.
(_x) This agreement is limited to the following	g :pecific pratocolls};
Name of Research Project:Thriving in N Students in a Northern New Jersey Community	Nursing School: Does Creative Thinking Help? Study of Associate Degree Nursing College
Name of Principa: Investigator: Jutta B	Эгари
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() Other (describe) :	
The review performed by the designated IRB will FWA. The IAB at Institution/Organization A will officials at Institution 3. Relevant minutes of IRB responsible for ensuring compliance with the IR must be kept on file by both parties are provide	Il mout the human subject protection reguliements of institution B's CHRP-approve follow written procedures for reporting its findings and actions to appropriate 8 meetings will be made available to institution B upon request. Institution B remain D's determinations and with the Terms of its OHRP-approved FWA. This document of to OHRP upon request.
Signature of Signatory Official (Institution/Organ	nicotion A): But Cannor Date: 10/13/2018
Print Full Name: Delle M. SMERCHE	notutional Title. Interim Vice Projects of Academic X/fun
Signature of Signatory Official (Institution 8):	
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# DREW

Institutional Review Board Drew University 36 Madison Avenue Madison, New Jersey 07940 **G. Scott Morgan** Chair, IRB Associate Professor smorgan@drew.edu

November 9, 2018

Dear Jutta:

The Institutional Review Board has conducted a review of your research for the project entitled "Thriving in Nursing School: Does Creative Thinking Help? Your project has been approved.

This approval for your research protocol and the human participants' component of your work is valid through November 9, 2019. If you plan to continue this research past this date, you will need to reapply for IRB approval. If you make any modifications to your research, you will need to obtain IRB approval for those changes as well.

Sincerely,

Horlangen

G. Scott Morgan IRB Chair

# Appendix 2. Measurement Tool Permissions

- a. Runco Ideational Behavior Scale Short Form (RIBS-S)
- b. Ryff Scales of Psychological Well-Being (PWB)

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	See attached. Mark			
	Mark A. Runco, PhD @markrunco			
	From: Jutta Braun <jbraun@ccm.edu> Sont: Sunday, April 1, 2018 6:54:32 PM To: Mark A Runco Subject: Runco Ideational Behavior Scale Short Form</jbraun@ccm.edu>			
	Dear Dr. Runco:			
	l am a doctoral student interested in using your RIBS (Short I between creative thinking and thriving in associate degree n in Medical Humanities.	form) to measure the relationship ursing students for my dissertation		
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	Theresa Berrie		
	Administrative Assistant		
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#### Appendix 3.

**Consent, Information, and Measurement Tools:** 

- a. Participant Consent Form
- b. Participant Information Form
- c. Demographic Data Form
- d. Runco Ideational Behavior Scale Short Form (RIBS-S)
- e. Ryff Scales of Psychological Well-Being (PWB)

#### **Informed Consent**

**Study Title:** Thriving in Nursing School: Does Creative Thinking Help? Study of Associate Degree Nursing Students in a Northern New Jersey Community College

#### Investigator: Jutta Braun, MS, RN, CNE

As a nursing student, you are exposed to many stressful experiences during your education, which you may handle in unique and creative ways. Professor Braun's study is examining the relationship between creative thinking and thriving. Thriving has to do with growing, developing, and feeling well despite the stressors. Although the study will not benefit you directly, it will identify ways to facilitate future students' transition through nursing school with fewer stress-related adverse effects.

This study and its procedures have been approved by the institutional review boards at County College of Morris and Drew University. The first part of the study procedure involves completing a demographic data sheet and answering questions on two questionnaires. Participating in this part of the study should require about 30 minutes. If you choose to participate in the second part of the study, a 15-minute audiotaped interview with the investigator will be conducted in which you will be asked questions about how you have creatively coped with stress in nursing school.

Your participation in this study is voluntary; you are under no obligation. You have the right to withdraw at any time without any consequences. Participating in this study has no effect on your grade. You will not be compensated for participating. You are free to ask any questions about the study or about being a participant by calling Professor Braun at 973-580-9438.

The study data will be numerically coded and will not be linked to your name. You identity will not be revealed either during the study or when the study is reported or published. All data will be collected by Professor Braun, stored in a locked, secure place, and not shared with any other person without your permission.

I have read this consent form and voluntarily consent to participate in this study.

Participant's Printed Name	Participant's Signature	Date
i articipant s'i finted Name	i anteipant s Signature	Date

I have explained this study to the above participant and sought to ascertain his/her understanding for informed consent.

Investigator's Signature Date

# Thriving in Nursing School: Does Creative Thinking Help? A Study of Associate Degree Nursing Students in a Northern New Jersey Community College

Thank you for agreeing to participate in this study!

Please read each of the questions/items on the following pages and check off the box that best indicates your situation or how you feel right now. There are no right or wrong answers! You are welcome to ask the researcher questions if there are items you do not understand. Please hand the completed packet back to the researcher when you are finished.

This cover sheet will be removed from the attached research packet once you hand it in so that your name and personal information will remain private. Your email address will be used if you would like a summary of the study when it is finished or if confirmation of information is needed. Be assured that no personal information (including your email address) will be shared with anyone.

Please print the information below.

Name: \_\_\_\_\_

Date completed:\_\_\_\_\_

Email address

I would like to receive a summary of the study via email: Yes\_\_\_\_ No \_\_\_\_

I would be willing to answer a few questions about my nursing school experiences in a short, separate interview: Yes \_\_\_\_\_ No\_\_\_\_\_

Investigator use only: \_\_\_\_\_

Participant Number:\_\_\_\_\_

# Demographic Data:

Please mark one answer for each question.

1. Ho	w old are you?	$ \begin{array}{c} 1\\ 2\\ 3\\ 4\\ 5\\ 6\\ 6\\ \end{array} $	18-20 21-30 31-40 41-50 51-60 61 or older
2. Wh	nat is your gender?	1 2	Male Female
3. Wh	nat are your living arrangements?	$ \begin{array}{c}     1 \\     2 \\     3 \\     4 \\     5 \end{array} $	Live alone Live with spouse or partner Live with parent(s) Live with my dependent child(ren) Other
4. Ho you	w would you describe ur race or ethnicity?	□1 □2 □3 □4 □5 □6 □7	American Indian or Alaska Native Asian or Asian-American Black or African-American Hispanic or Latino Native Hawaiian or Pacific Islander White or Caucasian Other
5. How this	<pre>/ many credits are you taking semester?</pre>		
6. If yo man do y	ou are employed, how ny hours (average) rou work per week?	$ \begin{array}{c}     1 \\     2 \\     3 \\     4 \\     5 \\   \end{array} $	0-5 6-10 11-20 21-30 31 or more
7. Are care	you employed in the health field?	□1 □2	Yes No

8. Is your household income sufficient to meet your family, educational, and healthcare needs?	□1 Yes □2 No □3 Unsure
8. How are you doing in the nursing program?	<ul> <li>I have done really well throughout the program.</li> <li>I have done reasonably well in the program.</li> <li>The program has been difficult for me, but I am confident that I will finish.</li> <li>I am struggling in the nursing program.</li> <li>I am worried that I may not pass the program.</li> <li>Other</li></ul>
9. How healthy do you consider yourself?	<ul> <li>Very healthy</li> <li>Generally healthy</li> <li>Somewhat healthy</li> <li>Not healthy</li> <li>Other</li></ul>
10. How stressed do you feel now?	<ul> <li>1 Not very stressed</li> <li>2 Moderately stressed</li> <li>3 Very stressed</li> <li>4 Overwhelmed</li> </ul>
11. How does your current stress compare to the stress you felt before beginning nursing school?	<ul> <li>My stress is less now</li> <li>My stress is about the same</li> <li>My stress is slightly greater now</li> <li>My stress is moderately greater now</li> <li>My stress is much greater now</li> <li>My stress is overwhelming now</li> </ul>
<ol> <li>Do you have a previous college degree? (Select all that apply)</li> </ol>	<ul> <li>Associate's Degree</li> <li>Bachelor's Degree</li> <li>Master's Degree</li> <li>Doctorate Degree</li> <li>5 Other</li></ul>

Thank you for your participation!

# Thriving in Nursing School: Does Creative Thinking Moderate Stress?

Use the 1-5 scale (given below) to indicate how often each of the phrases describes your thinking. Note the focus on your thinking, which might be different from your actual behavior. Also, you may need to approximate. Please indicate how you really think, not how you believe you should act. For each item, circle the response option that is THE CLOSEST to being accurate. Remember—no names are used. Your responses are confidential.

	1	2	3	4	5
1. I have many wild ideas	Never	Rarely	sometimes	Often	Very often
2. I think about ideas more often than most people.	Never	Rarely	sometimes	Often	Very often
3. I often get excited by my own new ideas	Never	Rarely	sometimes	Often	Very often
4. I come up with a lot of ideas or solutions to problems.	Never	Rarely	sometimes	Often	Very often
5. I come up with an idea or solution other people have never thought of.	Never	Rarely	sometimes	Often	Very often
6. I like to play around with ideas for the fun of it.	Never	Rarely	sometimes	Often	Very often
7. It is important to be able to think of bizarre and wild possibilities.	Never	Rarely	sometimes	Often	Very often
8. I would rate myself highly in being able to come up with ideas.	Never	Rarely	sometimes	Often	Very often
9. I have always been an active thinker—I have lots of ideas.	Never	Rarely	sometimes	Often	Very often
10. I enjoy having leeway in the things I do and room to make up my own mind.	Never	Rarely	sometimes	Often	Very often
11. My ideas are often considered "impractical" or even "wild."	Never	Rarely	sometimes	Often	Very often
12. I would take a college course which was based on original ideas.	Never	Rarely	sometimes	Often	Very often
13. I am able to think about things intensely for any hours.	Never	Rarely	sometimes	Often	Very often
14. Sometimes I get so interested in a new idea that I forget about other things that I should be doing.	Never	Rarely	sometimes	Often	Very often

15. I often have trouble sleeping at night, because so many ideas keep popping into my head.	Never	Rarely	sometimes	Often	Very often
16. When writing papers or talking to people, I often have trouble staying with one topic because I think of so many things to write or say.	Never	Rarely	sometimes	Often	Very often
17. I often find that one of my ideas has led me to other ideas that have led me to other ideas, and I end up with an idea and do not know where it came from.	Never	Rarely	sometimes	Often	Very often
18. Some people might think me scatterbrained or absentminded because I think about a variety of things at once.	Never	Rarely	sometimes	Often	Very often
19. I try to exercise my mind by thinking things through.	Never	Rarely	sometimes	Often	Very often
20. I am able to think up answers to problems that haven't already been figured out.	Never	Rarely	sometimes	Often	Very often
21. I am good at combining ideas in ways that others have not tried.	Never	Rarely	sometimes	Often	Very often
22. Friends ask me to help them think of ideas and solutions	Never	Rarely	sometimes	Often	Very often
23. I have ideas about new inventions or about how to improve things	Never	Rarely	sometimes	Often	Very often

<b>Ryff Scales</b>	of Psycho	logical	Well-Being	(PWB)
J		-0	0	ί

	Circle the number that best describes your present agreement or disagreemen t with each statement.	Strongly disagre e	Disagro somew t	ee vha	Disa ( sligh	gre e htly	Ag sli	ree ghtl y	Ag soi	ree mewha t	Strong y agree	ţI
Γ	1 Low pot of		•	2		2		Λ		F	C	
	<ol> <li>I am not arra voice my opi even when t are in oppos to the opinic others.</li> </ol>	inions, ihey ition ons of	L	2		3		4		5	6	
	<ol> <li>My decisions an usually influence what everyone doing.</li> </ol>	re not for a ced by else is	1	2		3		4		5	6	
	3. I tend to worry what other peo think of me.	about 1 ople	1	2		3		4		5	6	
	4. I tend to be influenced by p with strong opi	eople inions.	1	2		3		4		5	6	
	5. I have confiden my opinions, ev they are contra the general consensus.	ice in f ven if iry to	1	2		3		4		5	6	
	6. It's difficult for voice my own opinions on controversial matters.	me to 1	1	2		3		4		5	6	
	7. I judge myself k what I think is important, not	by the	1	2		3		4		5	6	

values of what others think is important.						
8. In general, I feel I am in charge of the situation in which I live.	1	2	3	4	5	6
9. The demands of everyday life often get me down.	1	2	3	4	5	6
10. I do not fit very well with the people and the community around me.	1	2	3	4	5	6
11. I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
12. I often feel overwhelmed by my responsibilities.	1	2	3	4	5	6
13. I have difficulty arranging my life in a way that is satisfying to me.	1	2	3	4	5	6
14. I have been able to build a home and a lifestyle for myself that is much to my liking.	1	2	3	4	5	6
15. I am not interested in activities that will expand my horizons.	1	2	3	4	5	6
16. I think it is important to have new experiences that challenge how you think about yourself and the world.	1	2	3	4	5	6
17. When I think about it, I haven't really improved much as a	1	2	3	4	5	6

person over the years.						
18. I have the sense that I have developed a lot as a person over time.	1	2	3	4	5	6
19. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.	1	2	3	4	5	6
20. For me, life has been a continuous process of learning, changing, and growth.	1	2	3	4	5	6
21. I gave up trying to make big improvements or changes in my life a long time ago.	1	2	3	4	5	6
22. Most people see me as loving and affectionate.	1	2	3	4	5	6
23. Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6
24. I often feel lonely because I have few close friends with whom to share my concerns.	1	2	3	4	5	6
25. I enjoy personal and mutual conversations with family members or friends.	1	2	3	4	5	6
26. People would describe me as a giving person, willing to share my time with others.	1	2	3	4	5	6
27. I have not experienced many	1	2	3	4	5	6

warm and trusting relationships with others.						
28. I know that I can trust my friends, and they know they can trust me.	1	2	3	4	5	6
29. I live life one day at a time and don't really think about the future.	1	2	3	4	5	6
30. I have a sense of direction and purpose in life.	1	2	3	4	5	6
31. My daily activities often seem trivial and unimportant to me.	1	2	3	4	5	6
32. I don't have a good sense of what it is I'm trying to accomplish in life.	1	2	3	4	5	6
33. I enjoy making plans for the future and working to make them a reality.	1	2	3	4	5	6
34. Some people wander aimlessly through life, but I am not one of them.	1	2	3	4	5	6
35. I sometimes feel as if I've done all there is to do in life.	1	2	3	4	5	6
36. When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
37. In general, I feel confident and positive about myself.	1	2	3	4	5	6
38. I feel like many of the people I know have	1	2	3	4	5	6

gotten more out of life than I have.						
39. I like most aspects of my personality.	1	2	3	4	5	6
40. In many ways, I feel disappointed about my achievements in life.	1	2	3	4	5	6
41. My attitude about myself is probably not as positive as most people would feel about themselves.	1	2	3	4	5	6
42. When I compare myself to friends and acquaintances, it makes me feel good about who I am.	1	2	3	4	5	6

## Appendix 4. Semi-Structured Interview Questions

a. Cohort 1b. Cohort 2

#### **Cohort 1 Questions**

Thriving in Nursing School: Does Creative Thinking Help? A Study of Associate Degree Nursing Students in a Northern New Jersey Community College

Student Number: \_\_\_\_\_

Semi-Structured Interview Questions:

- 1. Tell me about one time when you faced a difficult challenge while in nursing school. It could involve school, home, work, or any other aspect of your life.
- 2. What ways did you use to creatively cope with this challenge? In other words, in what ways did you come up with new/unique/unusual approaches to deal with this situation?
- 3. What has been the MOST challenging part of dealing with nursing school?
- 4. In general, what factors have helped you the MOST in dealing with your stressors? (they could be internal OR external factors)
- 5. In general, what factors have helped you the LEAST in dealing with your stressors at school? (again, they could be internal OR external factors).

#### **Cohort 2 Questions**

Thriving in Nursing School: Does Creative Thinking Help? A Study of Associate Degree Nursing Students in a Northern New Jersey Community College

Student Number: \_\_\_\_\_

Semi-Structured Interview Questions:

These questions have to do with the stress you have experienced in nursing school, how you've dealt with that stress, and how you are doing right now in the midst of your stress.

- 1. How has being in nursing school impacted your life? This can be in any area of your life, good or bad, small or large, in school or outside of school (family, finances, work, etc.).
- 2. Researchers say that using creative thinking can be useful in solving everyday stress-causing problems. Creativity is the production of a new, useful, and appropriate thought, idea, action, or object. Although some people may be more creative than others, all of us are capable of creative thinking. Some research has also suggested that creative thinking decreases as a student progresses through nursing school. What are your thoughts about the above statements? How creative do you feel you are?
- 3. Tell me about one time when you faced a difficult challenge while in nursing school. It could involve school, home, work, or any other aspect of your life.
- 4. What ways did you use to creatively cope with this challenge? In other words, in what ways did you come up with new/unique/unusual approaches to deal with this situation?
- 5. What has been the MOST challenging part of dealing with nursing school?
- 6. Thriving is described as a state of well-being, self-acceptance, having positive relationships with others, feeling like you have some autonomy over your life, and experiencing personal growth, sometimes in the midst of challenging situations. People who are thriving are happy with their life's direction. Many other people are simply surviving, struggling to get through each day, feeling empty, not fulfilled. Can you describe how **you** feel about life right now?

- 7. In general, what factors have helped you the MOST in dealing with your stressors? (they could be internal OR external factors)
- 8. In general, what factors have helped you the LEAST in dealing with your stressors at school? (again, they could be internal OR external factors).
- 9. Is there anything that I have not asked about that you want to share with me? What advice would you give future nursing students?

### Appendix 5. Letter to Nursing Students

#### A Letter to County College of Morris Nursing Students

Dear Nursing Student,

Nursing school is challenging. Over my years as a nursing professor, I watched many nursing students struggle. In my doctoral research, I interviewed some of these students to find out what advice they would give to you who are currently facing the same challenges. Here are some of the strategies they used to survive, and even thrive, while in the nursing program.

#### 1. Time Management

Like you, former students were stressed by having too many responsibilities and **not enough time.** They had strong recommendations that you:

- **a. Prioritize** what you need to do:
  - What needs to be done **right now**?
  - What can take a back seat?
  - What does not need to be done at all?
  - What can you delegate?

Former students advised just focusing on the **very next step** you must take.

#### b. Organize your day, your week, your semester:

Find an organizational scheme that works for **you.** Having a realistic **plan** for studying and assignments is essential. Sticking to it is even more essential.

Former students strongly advised against procrastinating.

#### c. Balance your time:

School will take up most of your time, but former students advised **taking care of yourself.** 

- Take short **breaks** from studying, especially after exams.
- Try to sleep, eat well, and exercise.
- Find a **healthy activity** to help you relax, such as meditation, yoga, or mindfulness.
- Even small amounts of time spent taking care of yourself can help avoid burnout.

Balancing may also mean finding small amounts of time to spend with **friends** or **family**.

#### 2. Resources

Former students advised using material resources **and** seeking help from resourceful people.
#### a. Your classmates:

These are the people who understand your challenges because they are in the same place! Cultivate relationships with your classmates. **Study groups** can be invaluable to help you get through nursing school exams. More importantly, they can be a place where you can give and receive emotional support.

#### b. Outside academic resources

You will have a textbook and websites assigned by your professors. Don't be afraid to ask **previous students** what additional resources they found helpful. They have been where you are. Additional textbooks, online practice questions, and instructional videos and modules may help you understand a concept more clearly. However, always evaluate your resources – make sure they are **reputable** and **accurate**.

### c. College resources

The College has a **Counseling and Wellness Center**. Its services are free and confidential. The counselors can provide support with study techniques, emotional concerns, resources, and family challenges. Help **is** available. **It is important** that you take advantage of it!

### 3. One more thought

Former students encountered many things in nursing school they could not change. When this happened, they used **positive self-talks, gratitude, and reframing**. In reframing, students took a negative thought (I can't take 2 more exams!) and changed it into something more positive and manageable (Three exams done, only 2 more!).

Summary: Many students have been where you are. **You are not alone.** I wish you all the best for your nursing education and your career

Sincerely, Jutta Braun, MS, RN, CNE Retired Associate Professor of Nursing

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