

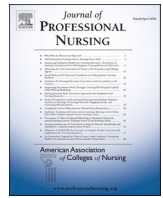


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Managing the unexpected: Stressors and solutions for challenges experienced by RN-BSN students during an unprecedented global pandemic[☆]

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ABSTRACT

Background: The year 2020 brought the world the Coronavirus and the resulting pandemic. A large contingent of registered nurses (RNs), working as essential workers, were also attending classes in online accelerated programs (OAPs) to earn their BSN degree. Attending school as a working RN, can be stressful. During an active pandemic, it can be overwhelming.

Purpose: This quality improvement project was aimed to identify students' stressors in an online accelerated RN-BSN program, and to use the results to make adjustments in coursework to decrease academic stress while improving student success.

Method: A Qualtrics survey was distributed to 1992 active RN-BSN students to identify the student's "biggest challenges or stressors", and 302 students responded listing 1105 stress responses and elaborations. The survey included some academic suggestions by faculty to alleviate course stress. Students commented on the usefulness of suggestions and proposed additional ideas. Compassionate interventions were employed in each core nursing course.

Results: After 2 terms a post-intervention survey was conducted to evaluate the effectiveness of the course interventions employed. A total of 276 students participated in the post-intervention survey, with 778 responses to the employed interventions.

Conclusions: Findings show the importance of faculty vigilance in assessing cause for declines in academic performance. Using an inquiring approach and flexibility to adapt coursework while maintaining student learning outcomes is possible and can play a significant role in student success.

In the beginning of the calendar year 2020, little did we know that the coronavirus would soon wreak havoc on the world, and on the practice of nursing. The coronavirus, identified as COVID-19, proved to be a formidable opponent (Russell, 2021). It has been confirmed particularly deadly to the elderly population, and those with pre-existing conditions (Wang, 2020). Health systems struggled to identify effective and efficient ways to treat, control, and prevent its spread.

Throughout 2020 and 2021, hospital-based RNs were on the frontlines caring for the rising number of COVID-19 patients. Patients were often critically ill, and ventilator dependent (Deitrick et al., 2020). Nursing stress and workload burdens rose due to prolonged shifts wearing cumbersome personal protective equipment, performing frequent intensive surveillance, and accommodating the decrease in

workforce as co-workers became ill (Shigemura et al., 2020). Add to this the emotional impact of caring for patients who suffered without family support and sought consolation from their nurses. These challenges took their toll.

Nationally, the massive shelter-in-place orders initially had significant effects on businesses and schools, changing delivery methods for work and academic instruction. But what about online educational programs? As the COVID-19 pandemic continued, and the demands on nursing became more pronounced, online students began to noticeably struggle with their coursework. This report details the accommodations made for one university's RN to BSN online accelerated program (OAP).

In late 2020 and into 2021 RN-BSN faculty noticed a decline in course grades, accompanied by a decrease in student engagement, more

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failing grades, and course withdrawals. Events such as these were occurring at a time when the COVID-19 pandemic was peaking in the southeast and RN students frequently reported working extra shifts, missing course deadlines, and were uncharacteristically either “inattentive” to their assignments or simply stopped responding to course activities and faculty inquiries. Many RN students notified faculty of the required mandatory overtime and demands of caring for family members who were ill. Others reported the added task of supervising school age children. Several of the students became infected with the virus and others lived with the fear of exposing their families to the COVID-19 virus (Shigemura et al., 2020). Additionally, RN students voiced concern that they would not meet the BSN completion deadline set by their employers. Yet the RN students persevered, and faculty sought to identify means to support them in the online academic setting.

Faculty in this large online RN-BSN program scheduled a Zoom session to specifically address the issues they were seeing in the student population. The faculty identified potential strategies that could be implemented but sought student feedback prior to adopting any changes. A brief survey was created to poll the student population ($n = 1992$ RN-BSN active students) regarding recognizing student stressors, a pre-survey, and identifying ways faculty could help. Interventions were put into effect in each nursing course, and after the completion of two 7-week courses, a post-survey was sent to determine the effect of stress reduction strategies faculty had implemented. The aim of this quality improvement project was to gather information that could be used by faculty to lessen students' academic stress.

Review of literature

Internationally, educational settings across the world were faced with changes in enrollments and instructional formats as mandates for sheltering in place and social distancing were established due to the coronavirus. Stressors were on the rise as faculty and students strived to adapt to the ever-changing issues. Faculty and their students were working and studying away from their usual educational setting, relying solely on internet connectivity, adapting to new learning technology platforms, while also sharing space with other family members, including school-age children needing their attention (Gaffney et al., 2021; Aristovnik et al., 2020; Aslan & Pekince, 2020).

Others have described the stressors and challenges of changing educational strategies during this pandemic. Oducado and Estoque (2021) addressed the stress experienced by the face-to-face nursing student when switching to the pandemic required online format. These students reported elevated levels of stress and low satisfaction in educational delivery or quality. Similar findings of obstacles such as anxiety, technical issues and lower satisfaction in online learning were reported from the education literature (Fawaz & Samaha, 2021; Diab & Elgahsh, 2020; Koirala et al., 2020; Oducado & Soriano, 2021).

Reports have begun to surface about the stressors and challenges of the nursing workforce. A survey from the American Nurses Foundation reported that “half of nurses feel overwhelmed and nearly 30% say they are experiencing depression” (2021, para 2). Moral distress and powerlessness in the face of increased workload, critically ill patients, working in heavy personal protective equipment (PPE) or fear of not having the PPE needed and the lack of family support at the bedside plague the nursing workforce, impacting their stress and psychological well-being (DeKock et al., 2021; Owens, 2020).

There is a lack of literature in the RN-BSN nursing student population focusing on the stressors of the working nursing student enrolled in an online format of study. This group has the combined stressors related to school, family responsibilities and a challenging work environment. As a profession touting compassion, it would be important for nursing faculty to be cognizant of student distress and develop teaching strategies that embody empathy, including ways to relieve student stress while upholding academic integrity. White and Ruth-Sahd (2020) suggest that simple changes can accomplish this, such as adjusting due dates,

improving student/faculty communication, and providing flexibility in withdrawal dates. Current technology and learning management systems provide flexible, and personalized learning approaches.

Learning occurs in three dimensions: content, incentive, and interaction. Effective nursing education must contain the content or appropriate rigor required for the degree achieved. The RN-BSN student or their employer provides the incentive to return to school seeking the level of the baccalaureate nurse role. The third dimension, interaction, is affected by the environment and societal situations (Illeris, 2007). The nursing profession, based on human need and caring, is complex and occurs in the prevailing healthcare setting (Smith, 2011). Based on these theories, the faculty sought to develop strategies to support the learning environment, reducing stress for the students.

Methods

Participants

The participants in this quality improvement project were nursing students from the University of North Carolina Wilmington's (UNCW) RN-BSN OAP program. They were employed as nurses, with active and unencumbered RN licenses during the COVID-19 pandemic. All participants were enrolled as either full or part-time students at the time that they voluntarily participated in the two surveys which provided the data for this project. Students in this RN-BSN program, and therefore this quality improvement project, varied in age between 21 and 60 years.

Setting

The OAP RN-BSN program is a fully online division of the School of Nursing (SON) at UNCW, a mid-size southeastern university. The SON programs include the traditional prelicensure program, a robust RN-BSN program of approximately 2000 students (in the Spring 2020 term), several Masters of Nursing tracks including a Nurse Educator track and Nurse Practitioner program, and a growing Doctor of Nursing Practice program. The OAP courses run in seven-week terms with six terms over 12 months. Each nursing course is offered every term and is asynchronous, allowing students' flexibility in order of sequence taken, except for the first and last courses of the program. There are nine required nursing courses and six elective nursing courses, in addition to the pre-requisites.

During the Fall term 2020, 19% of active students were full-time, defined as taking two classes each term. Eighty-one percent were attending classes part-time, clarified as taking one class each seven weeks. RN-BSN students are encouraged to maintain employment while attending online classes for their degree (RN-BSN Program Student Handbook, 2020–2021, UNCW).

Pre-Implementation survey

A total of 1992 active RN-BSN students in 47 sections of 9 core online nursing courses from the University of North Carolina Wilmington were invited to participate in this QI project. Individual course faculty provided links to the survey via the learning management system (LMS), CANVAS. The initial Qualtrics, collected February 2021, is labeled the “RN-BSN Stress Survey” for students, and is referred to as the Pre-Implementation survey for clarity in this manuscript.

Questions for the Pre-Implementation and Post-Implementation surveys were developed after an extensive review of the current literature and experiential feedback from faculty working in practice. In addition, a collaborative discourse of RN-BSN faculty occurred regarding the academic trends observed in their courses since the beginning of the COVID-19 pandemic. The input from workplace and educational settings led to the development of initial evidenced-based and open-ended inquiry questions for use in the surveys.

Questions in the Pre-Implementation survey can be reviewed in Table 1.

Faculty teaching in the RN-BSN program reviewed the survey results,

Table 1
Pre-Implementation survey questions.

Pre-Implementation survey questions
<p>1. Which of the following has been the biggest challenge or struggle for you during this pandemic? Select all that apply.</p> <p><input type="checkbox"/> Stress due to anxiety and loneliness or other mental stress</p> <p><input type="checkbox"/> Keeping up academically</p> <p><input type="checkbox"/> Having the space to support good study habits</p> <p><input type="checkbox"/> Participating in coursework</p> <p><input type="checkbox"/> Paying for tuition, books, and other costs</p> <p><input type="checkbox"/> Having access to reliable internet and computer</p> <p><input type="checkbox"/> Concern over meeting the deadline to complete the program</p> <p><input type="checkbox"/> Taking care of people who depend on me while I am in school (i.e. Children, parents, homeschooling)</p> <p><input type="checkbox"/> Illness in family members</p> <p><input type="checkbox"/> Work responsibilities</p> <p>PLEASE list others or explain.</p> <p>(Note: in actual survey, expandable box provided for participant elaboration/additions to list)</p> <p>2. What would help reduce your academic stress? Select all that apply.</p> <p><input type="checkbox"/> A “one-time Stuff Happens Pass” to have a 1–2 day extension on an assignment</p> <p><input type="checkbox"/> Using a video submission for a discussion board instead of writing</p> <p><input type="checkbox"/> Not having both a discussion board and a major assignment assigned one week out of the term</p> <p>PLEASE list other suggestions.</p> <p>(Note: in actual survey, expandable box provided for participate list/suggestions)</p>

and using those, developed compassionate teaching strategies. While course assignments or due dates were revised or changed, course objectives and student learning outcomes were not changed to maintain the integrity of the curriculum. Individual faculty selected one or more of these compassionate strategies to employ in their courses.

Post-Implementation survey results

New compassionate interventions and stress relieving strategies were developed and put into nursing courses in the second 7-week Spring 2021 term and continued through the summer. Sixteen weeks (or 2-terms, plus 2 weeks) after the initial Pre-Implementation survey, a Post-Implementation survey was released to the same population. It was labeled the “RN-BSN Stress Follow-up Survey” for consistency with the students, but will be titled the Post-Implementation Survey in this manuscript. This survey assessed student perception of any change in student stressors, the impact if any of the compassionate teaching strategies, and the frequency of strategy use, all self-reported by students.

Questions from the Post-Implementation Survey may be reviewed in [Table 2](#):

Data analysis

Data from Pre- and Post-Implementation surveys were used to drive the faculty decisions in course revisions. With seven-week terms and a rolling admission six times a year the population of students is always changing. Both surveys included the opportunity for the students to provide additional responses which gave the faculty data that could be organized into useful categories. Frequency of response occurrence was used to organize and interpret data.

Ethical considerations

This QI project was approved by the Institutional Review Board (IRB) at UNCW. Student participation was voluntary, anonymous and confidential. Survey links were distributed to active students through course emails by faculty, along with an explanation of the survey, its purpose, and desired outcome. Consent was implied when students participated in the study. There was no way to link surveys to students or student emails, no identifying information. Survey results were shared with RN-BSN students and actions incorporating changes into classes were clear and transparent, within a week of the survey closing date. SQUIRE

Table 2
Post-Implementation survey questions.

Post-implementation survey questions
<p>1. Compared to two (2) months ago, which of the following is still the biggest challenge or struggle for you at this stage of the pandemic? Select all that apply.</p> <p><input type="checkbox"/> Stress due to anxiety and loneliness or other mental stress</p> <p><input type="checkbox"/> Keeping up academically</p> <p><input type="checkbox"/> Having the space to support good study habits</p> <p><input type="checkbox"/> Participating in coursework</p> <p><input type="checkbox"/> Paying for tuition, books, and other costs</p> <p><input type="checkbox"/> Having access to reliable internet and computer</p> <p><input type="checkbox"/> Concern over meeting the deadline to complete the program</p> <p><input type="checkbox"/> Taking care of people who depend on me while I am in school (i.e. Children, parents, homeschooling)</p> <p><input type="checkbox"/> Illness in family members</p> <p><input type="checkbox"/> Work responsibilities</p> <p>PLEASE list others or explain.</p> <p>(Note: in actual survey, expandable box provided for participant elaboration/additions to list)</p> <p>2. What would help reduce your academic stress? Select all that apply.</p> <p><input type="checkbox"/> A one-time “Stuff Happens Pass” that I received to have a 1–2 day extension no explanation needed</p> <p><input type="checkbox"/> Using a video submission for a discussion board instead of writing</p> <p><input type="checkbox"/> Not having both a discussion board and a major assignment assigned (one week out of the term)</p> <p><input type="checkbox"/> Having time zone reminders/information</p> <p><input type="checkbox"/> Only one peer response to discussion board</p> <p><input type="checkbox"/> Choosing to work on an assignment with another student</p> <p><input type="checkbox"/> None of these</p> <p>PLEASE list other interventions used.</p> <p>(Note: in actual survey expandable box provided for participate list/elaboration)</p> <p>3. Which of the following stress relief interventions did you utilize in your course work? Select all that apply.</p> <p><input type="checkbox"/> A one-time “Stuff happens pass” that I received a 1–2 day extension no explanation needed</p> <p><input type="checkbox"/> Using video submission for a discussion board assignment instead of writing</p> <p><input type="checkbox"/> Not having both discussion board and major assignment assigned (one week out of term)</p> <p><input type="checkbox"/> Having Time Zone reminders/information</p> <p><input type="checkbox"/> Only one peer response to discussion board</p> <p><input type="checkbox"/> Choice of poster/PowerPoint instead of paper</p> <p><input type="checkbox"/> Choosing to work on an assignment with another student(s)</p> <p><input type="checkbox"/> None of these</p> <p>PLEASE list other interventions used.</p> <p>(Note: in actual survey an expandable box was provided for participant list/elaboration)</p> <p>4. Of the interventions used, which did you find most stress relieving? Select all that apply.</p> <p><input type="checkbox"/> A one-time “stuff happens pass” that I received a 1–2 day extension no explanation needed</p> <p><input type="checkbox"/> Using a video submission for a discussion board assignment instead of writing</p> <p><input type="checkbox"/> Not having both a discussion board assignment and major assignment (one week of the term)</p> <p><input type="checkbox"/> Having Time Zone reminders/information</p> <p><input type="checkbox"/> Only one peer response in discussion board</p> <p><input type="checkbox"/> Choice of poster/PowerPoint instead of paper</p> <p><input type="checkbox"/> Choosing to work on an assignment with another student(s)</p> <p><input type="checkbox"/> I did not use any interventions but knowing I could was stress-relieving</p> <p><input type="checkbox"/> None of these</p> <p><input type="checkbox"/> Other PLEASE explain.</p> <p>(Note: In actual survey an expandable box was provided for participant explanation/elaboration)</p>

guidelines were utilized for recording of said events ([Goodman et al., 2016](#)).

Results

RN-BSN Stress Survey: Pre-Implementation survey

In the Pre-Implementation survey, when queried to identify the “**biggest challenge or struggle**” during the pandemic 302 students responded. Students were encouraged to select all the stressors that

apply to them, as well as list any additional challenges. Students listed **1105** stress responses often with elaboration (Fig. 1).

Stress survey results

RN-BSN participants identified **work responsibilities** as their most significant stressor, with **208** out of **1105** total stressors. Student comments included “working more than 60 hours a week”, “mandatory overtime”, and “working overtime to cover coworker’s illnesses”. Others described “working in a high stress environment ICU (Intensive Care Unit),” and “having to go in early, work through lunch and staying late.” Another RN-BSN student stated, “we have so many staff out for COVID reasons that I am working overtime every week, sometimes five to six fourteen-hour shifts a week.” Simply put “I just can’t keep up.”

Taking care of people who depend on me while I am in school (i.e. children, parents, homeschooling) was identified as the second biggest stressor for those who participated in the pre-survey. This stressor was chosen a total of **183** out of **1105** times. Participants described “caring for aging parents,” “dealing with the loss of family members due to COVID...inability to grieve...additional financial responsibilities, stress, grief,” and “three kids at home doing online school, also feeding them breakfast and lunch when I am already tired and pressed for time due to work.” One student described it like this, “complete burnout between work dynamics, patients, school, and taking care of family.” Another voiced an “inability to grieve appropriately. I lost a grandmother in July, an uncle in December, and a grandmother in February. They all got Covid. Can’t be with family, no wake, go to funerals. There is no closure.”

Another challenge that is of great concern for students was **keeping up academically**. This challenge received the 3rd highest number of responses, **143** out of **1105**. As students elaborated on their answers, extreme fatigue (both physical and mental) and lack of time were prominent reasons for academic concerns. One student stated, “I have

three kids at home, I used to do schoolwork while they were at school & I can’t now, I can’t sleep before I go to work, it’s a huge distraction, I’m exhausted, I have no time.” Another added, “I am very stressed with the mandatory overtime at work and trying to get schoolwork in on time. I am so fatigued when I get home, I fall asleep trying to complete it, or to do the reading required.” “Sometimes I honestly feel like I am getting the work done just to get it done, not gaining much from it due to the stress.” Students repeatedly stated that it feels like there is “just no time during the week” and that the “stresses of the pandemic, working overtime, family...make school harder.”

Stress due to anxiety and loneliness or other mental stress was also a noteworthy challenge for participating students. Of **1105** overall stress responses, this one received **123**. In explanation for this challenge many nurses reiterated previous claims of overwhelming life events, unresolved grief, managing home issues and work demands. One student explained, “with Covid, finding childcare is harder, so time for school is less. For example, my aunt and uncle that normally watch my child when I need a couple of hours both have Covid so now I have to try to watch my 22-month-old while writing multiple papers.” Others added, “It’s a struggle at times to stay focused.” “I’m not motivated to do anything.” Participants also reported resulting “relationship strain” “a messy divorce” and “postpartum depression.” One explained that she was “worried about my job and making ends meet and finding time to complete everything.” To sum it up, “Balancing all of the above is so hard...”

In Q2 of the pre-survey participants were asked which interventions by faculty would “**help reduce the academic stress**” in their classes. They were provided with three suggestions from faculty and instructed to select all that apply, as well as given the opportunity to list other suggestions of their own. Once again **302** participants responded, while **505** responses were recorded to this question. Student suggestions were recorded and reviewed by faculty when decisions about course adaptations and interventions were being made (see Fig. 2).

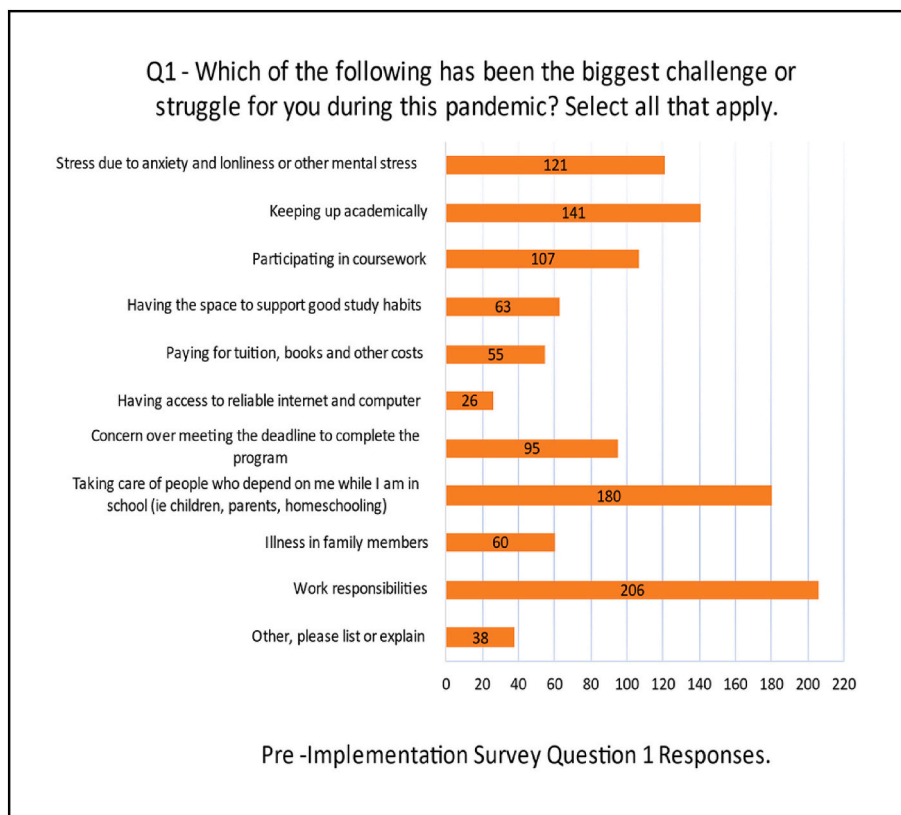


Fig. 1. Pre-Implementation survey question 1 responses.

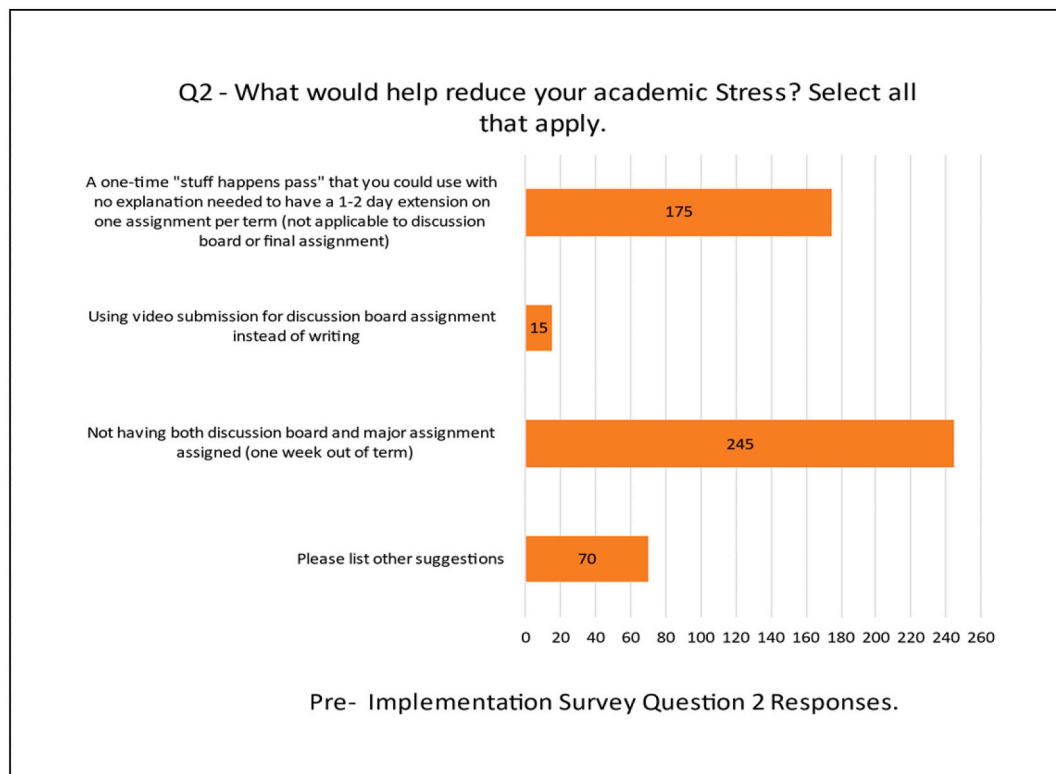


Fig. 2. Pre-Implementation survey question 2 responses.

The proposed change that sparked the largest response from the RN-BSN students, **245** out of **505**, was **not having both discussion board and major assignment assigned (one week out of the 7-week term)**. The online courses are uniformly structured so that student's post their first Discussion Board (DB) on Wednesday, followed by a response to two peer DB posts by Friday. Each Sunday a paper, power point, group assignment, presentation, or other major assignment is due. Most students agreed that "having major assignments and discussion boards in one week is too much at times." One student stated that she was "currently in a class with three to four assignments each week plus more reading requirements than I can't keep up with! It is stressing me out to the point of tears just trying to figure out how to get it all done!" The consensus appears to be "1 discussion board peer response instead of two" and "two is a lot to handle when you have multiple classes each with a discussion board, quiz, and additional assignment." Another student points out that "discussion boards feel like they are 'time fillers.' Maybe consider less DBs or DBs that serve as assignments or vice versa." Suggestions were made to "decrease responses to DBs," or to "stop requiring APA format and citations for DBs, both of which make them more stressful." Several students agreed that "reducing the number of response posts to DBs to one (or none) on weeks that are more assignment heavy" would be most helpful in reducing student stress and workload.

Another extremely popular option presented to participants, was a **one-time "Stuff Happens Pass" that you could use with no explanation needed to have a one to two-day extension on one assignment per term except Discussion Boards or the final assignment of a class**. This option drew **175** votes out of **505**. Students frequently commented on having to "skip sleep" so they could "work on a project or complete an assignment." "A 'Stuff Happens Pass' would be great for the times when it is difficult to manage work, school and home life." One student seemed to sum up the thoughts of many, "the Stuff Happens Pass is an acknowledgement that instructors are mindful that students are working, taking care of families, trying to pay bills, worried with uncertainty of the pandemic, and have random emergencies that happen. We need

some grace every now and then. This is a grace period on assignments!"

Using video submission for a discussion board assignment instead of writing was the least favorite suggestion in Q2 of the Qualtrics survey. Participants chose this option a mere **15** out of **505** times and their responses illuminated the reason why. Students responded that they were "uncomfortable with the format and platform itself." One said, "I spend 48 hours a week at work having to put on my happy face and making my voice encouraging and enthusiastic. Writing assignments allow me to just write and express myself without having the excess stress of being presentable and using mediums that I'm uncomfortable with." More than one student expressed the sentiment that "video submissions would be MORE work!"

Participants generously offered other stress relieving interventions. One suggestion was to "maybe honor deadlines in the students time zone." Additionally, many students called for the total elimination of group projects, stating that it was extremely difficulty to coordinate working within a group particularly while trying to handle all the stresses of the pandemic. In contrast, a surprising number expressed the desire to work with other students on assignments previously completed alone. A suggestion to make group projects "optional" was made several times, explaining that "more options for group work will help distribute projects and assignments that are lengthy and take hours to complete." Others asked for "alternative formats, such as PowerPoints or videos instead of papers." One frequent suggestion was to eliminate due dates for assignments, allowing students "to turn in work when able with no deadlines for submissions, as long as they are turned in by the end of the course." Others phrased it this way, "suggested deadlines, not hard stop times." Many students would like to have "flexible assignment submissions throughout semester, work at your own pace."

Compassionate interventions

After thorough analysis of participant responses to the pre-survey, RN-BSN faculty determined which strategies and interventions could be employed in each of the nursing core courses to aide in the reduction

of student stress.

Qualtrics RN-BSN Stress Follow-up Survey: the Post-Implementation survey

When students were presented with the “Qualtrics RN-BSN Stress Follow-up Survey”, the Post-Implementation survey, 16 weeks after they had participated in the Pre-Implementation survey, 276 students voluntarily participated. Again, they were instructed to select all of the choices that applied, and were encouraged to provide elaboration and input. A total of 778 responses were logged in to question # 1 asking students which of the originally identified challenges remained a stressor for them at this stage of the pandemic. In the post-survey three of their biggest concerns in the first survey remained at the top of the list.

Primarily, students continued to be struggling with **work responsibilities**. This stressor received 177 out of 778 responses. Although the world may have appeared to become more “comfortable” existing with COVID-19, Nurses are still challenged to meet the responsibilities presented to them in the workplace. RN-BSN students report “continued requirements to work overtime,” “staffing levels on units continues to be in demand, staffing is short,” “more coworkers are becoming ill,” they are “working more hours,” and “patients who are hospitalized are very sick.” Others voiced that: “work regulations are constantly changing, and RNs are on the front line of the changes.” “Staffing shortages are making a stressful work atmosphere, working additional hours, family responsibility continues.” “I take mandatory on-call hours 12-72 hours a week.” “It is stressful to stay focused at work and then manage my classes.” “I work in the Emergency Department and in home infusion, both areas are short staffed, and we are all overwhelmed...”

Another challenge that continues for RN-BSN students is **taking care of people who depend on me while I am in school** (i.e., Children,

parents, homeschooling), coming in second with 142 of 778 in the list of stressors.

One student stated “I had a new baby in 2020 and have been her primary caretaker in a very tight bubble of COVID-19 protection. I worry that all my hard work has gone to waste, and I am no longer a good candidate for jobs.” Another voiced “I have 2 kids who were both virtual learning.” While one student described “Three kids at home, homeschooling, no babysitter.” Others shared, “single mom,” “Mother is 88, very stubborn, but dependent on me,” “Parents now live with us, family responsibility continues.”

The third significant stressor identified by participants was **keeping up academically**, which elicited 115 responses out of 778. Coming in fourth, also related, is **participating in coursework** which received 74 out of 778 responses. Comments to both challenges were similar and thus they are discussed together. Students frequently elaborated about group projects and having to spearhead academic efforts with other students, and how difficult it was to coordinate and collaborate schedules. They also voiced that “the timed open & close date for DBs often conflicts with work schedules.” A frequent theme was the amount of work assigned to students weekly, “Sometimes there are so many assignments due in one week that I can barely get them done...Most of those weeks, I am unable to finish the long list of required readings and resources and have to skip over needed information.”

In Q3 of the follow-up survey RN-BSN students were also asked which of the offered stress relief interventions they utilized in their course work. Participants were encouraged to select all that applied. Of the 276 participants, 625 responses were received to this survey question, as evidenced in Fig. 3.

Student responses to these interventions varied from extremely appreciative to unaware of their existence. The naivety of participants can only be explained by the elevated levels of stress they are under due to the COVID-19 pandemic, work, family life and academics. These

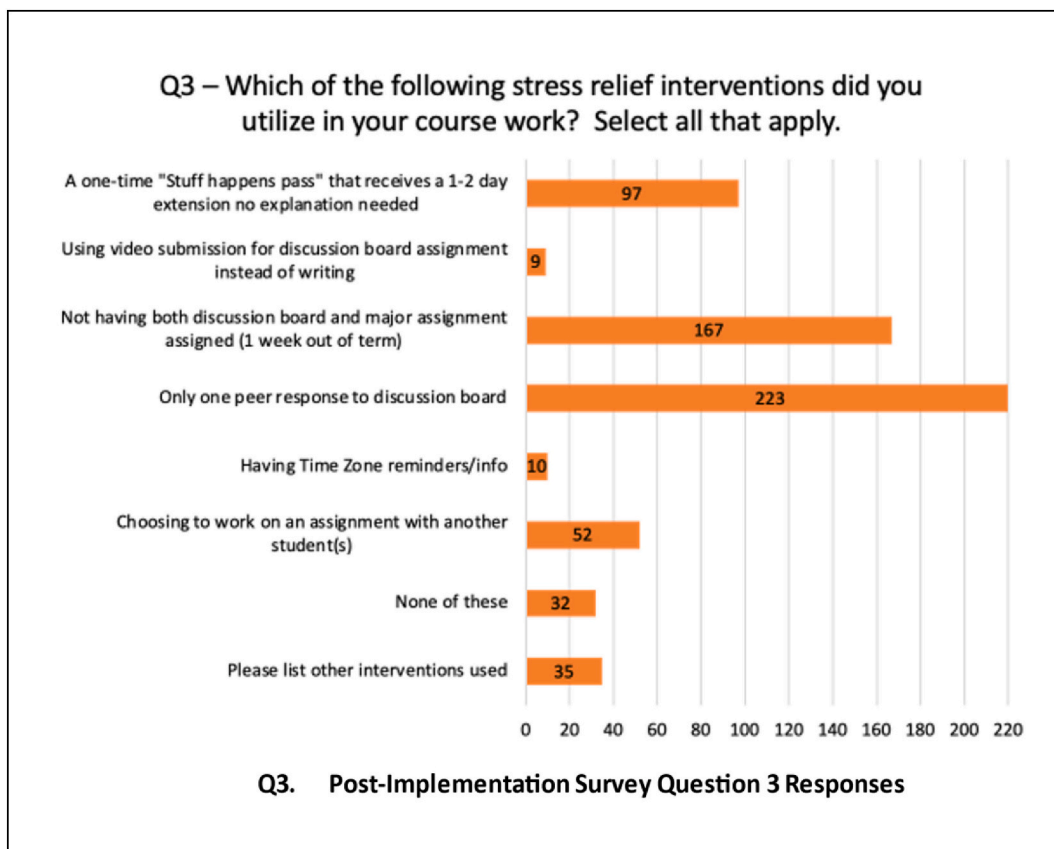


Fig. 3. Q3. Post-Implementation survey question 3 responses.

interventions and course changes implemented to assist in stress reduction were announced and offered in classes and printed in each course syllabus.

Participants reported that “completing responses to only 1 discussion post really helped relieve some stress.” Others added, “the asynchronous nature of the discussions allows working nurses to get ahead when they are able.” Students agree that “large assignments and discussion boards in the same week are extremely challenging, especially when taking 2 classes at a time.” The “Stuff Happens Pass” appeared to be a much-coveted intervention. Students “tried not to use it, just in case there was an emergency...and it was needed at another time.” Several participants expressed “I loved knowing the ‘Stuff Happens Pass’ was there just in case I needed it.” Those who used it, stated that “it was definitely a stress reliever knowing that it was there, but when I had an oops moment, I was delighted that this was forgiven, and no questions asked!” Most participants also voiced an “appreciation for all of these options and for the kindness and understanding of the faculty.”

Q4 of the Post-Intervention survey asked student participants, of the interventions used, which did you find most stress relieving? From the 276 participants, 603 responses were received to this survey question. Four responses were most predominant. Survey participants found that answering *one peer response to a DB* was the most stress relieving intervention, with a response rate of 152 out of 603 overall responses. Closely behind with 149 responses is *not having both discussion board and major assignment assigned (1 week out of the term)*. Just below a hundred, with 98 student responses is the *one-time “Stuff Happens Pass” that receives a 1–2-day extension no explanation needed* for an assignment. The last noteworthy stress reduction intervention for students was the alternative format *choice of poster/PowerPoint instead of paper* alternative (Fig. 4).

Discussion

In this QI project nursing faculty identified stressors experienced by the RN-BSN student related to the COVID-19 pandemic and sought ways to ameliorate its impact on their academic work. Student responses to the initial survey gave faculty opportunities to provide compassionate alternatives in their course requirements. This QI project proved to be useful, in that it provided some academic stress relief for RN-BSN working students in the midst of the COVID-19 pandemic. In addition, the measures taken in each class were minimally invasive to the structure of the classes themselves, allowing course content to remain pristine, and student learning outcomes to continue untouched. The interventions employed for this QI project were not only deemed successful, but also sustainable, and therefore have continued to be utilized in the RN-BSN nursing courses at UNCW.

When stress is seemingly endless, compassion fatigue sets in. Zhang et al. (2018) found that compassion fatigue is strongly correlated to burnout. More recent articles have been written about nurse burnout during the pandemic. In a meta-analysis of current literature emotional stress was reported by 34.1% of nurses in the multiple studies reviewed (Galani et al., 2021). The RN-BSN students cited similar stressors to this project: emotional exhaustion, concern in caring for COVID-19 patients, self-protection, work safety and lack of family at bedside. The increased workload and shifts were additional burnout factors. When burnout occurs, individuals look for ways to resolve the stress factors. Faculty need to be vigilant to the trends and causes of academic decline in their students, and act swiftly and definitively, when possible, to make positive change. The strength and vigilance of caring faculty is what made a difference at UNCW.

Illeris (2007) postulates that learning occurs in the three dimensions

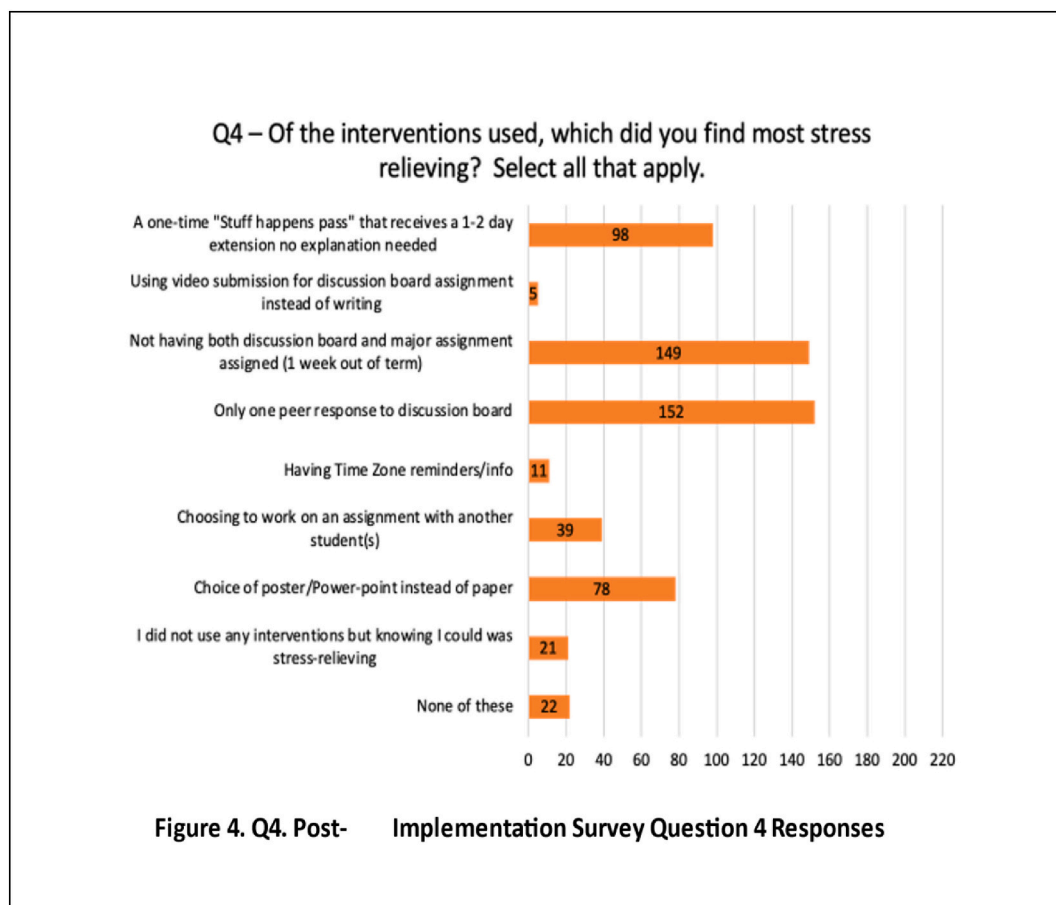


Fig. 4. Q4. Post-Implementation survey question 4 responses.

of content, incentive, and interaction. The interaction with the learning material has been affected by the environment and societal structures that changed around the pandemic. When the environment is less conducive to learning, quality of acquired knowledge is altered. The participants of these surveys repeatedly said that their environment at work and home was changed during this pandemic, affecting their stress levels and ability to focus on academic work. Many learning theories focus on the incentive dimension of learning. Motivation and emotions play key roles in student attention, interest, and ability to complete quality academic work (Shunk, 2020). Having minor changes or flexibility to the academic work without reducing the key concepts learned was the goal of the RN-BSN faculty, and a strength of this project.

The compassionate teaching strategies in Table 3 list the strategies used by the faculty to help their students continue to work while achieving the goal of a BSN. These strategies added some flexibility and a reduction in workload permitting a better work/school/family balance. The “Stuff Happens Pass” and the reduced discussion board responses were the most utilized. As noted, the “Stuff Happens Pass” was appreciated even if the student did not use it. Some student suggestions were not considered feasible such as to have no due dates with all work submitted before the end of the term. Doing so would prevent faculty from guiding the learning via constructive, useful feedback. For example, some courses are deemed ‘writing intensive’ and use a scaffolding framework to improve student comprehensive and scholarship.

Limitations

The limitations in this QI project included the lack of rigorous data analysis based on the survey design. An additional limitation was the number of responses in relation to the size of the student enrollment, which was less than expected. With a student population of 1992 only 302 students voluntarily participated in the pre-survey, and 276 students responded to the post-survey. This project was conducted in one geographical area of the country and world and these findings may not be generalized globally. Another limitation involves the regional variability in COVID cases, the impact on the healthcare systems, and consequently their nursing workforce. One must also consider geographic, environmental, and cultural influences of COVID preparedness and the response of the population at large. This awareness acknowledges that stressors may be different in different regions.

Implications for practice and nursing education

The American Nurses Association (2021), *Pulse on the Nation's Nurses Series: COVID-19 Impact Assessment Survey*, gathered data on mental health and other factors impacting the nurses in the pandemic. While most nurses stated that they did not plan to leave the profession (85%), more than half (60%) of the nurses indicated they plan to seek a different nursing job. Research continues to support that care with baccalaureate prepared nurses yields improved patient outcomes (Lee et al., 2017; O'Brien et al., 2018). The concern is that the RN-BSN students will suffer levels of stress that they forgo their BSN education due to pandemic stress effects. Additionally, will more nurses leave the acute care settings due to this stress causing increased nursing shortages and potentially poorer patient outcomes due to higher patient to staff ratios.

Results of these surveys and the innovations employed may be useful for other RN-BSN or graduate nursing programs who employ online learning formats. While the pandemic increased the stressors of everyone, the day-to-day work of nursing is high impact, demanding much of the mind and heart. Considering this, especially in times of crisis, faculty are encouraged to seek ways to inspire and promote continued education and lifetime learning by nursing professionals.

There are vital lessons to be learned by nurse educators from this QI project. It is not enough to look at national trends, and how the country is handling the COVID-19 pandemic but use the complexity of caring theory and change in learning environment to support the working

Table 3

Compassionate interventions employed in RN-BSN courses.

Core nursing course	Compassionate interventions employed
Professional Nursing Practice for the Baccalaureate Nurse	* 1 peer response to DB instead of 2, for all DBs * “Stuff Happens Pass”
Gerontological Nursing & End of Life Care	* “Stuff Happens Pass”
Health Assessment for Registered Nurses	* 1 peer response to DB instead of 2 * “Stuff Happens Pass”
Health Policy	* 1 week, ONLY DB is due * 1 week NO DB, only presentation is due * 1 week nothing is due * 1 week ONLY virtual presentation is due
Leadership & Management in Nursing for the Professional Nurse	* 1 peer response to DB instead of 2, for all DBs * Alternate format, PPT with voiceover is offered to written assignment * “Stuff Happens Pass”
Population & community Health Nursing	* “Stuff Happens Pass”
Research in Nursing	* 1 peer response to DB instead of 2, all DBs * “Stuff Happens Pass”
Pathophysiologic & Pharmacological Evidence Based Nursing care	* Option for group work, or alternate format assignment * 1 peer response to DB instead of 2, all DBs * Stuff Happens Pass
Professional Nursing Capstone	* 1 week DB with no responses * “Stuff Happens Pass”

Note: “Time Zone Table” was added to the syllabus in each course, making it easier to identify course and assignment dates/times in different time zones.

nursing student. The stress of COVID-19, working, family and school, puts a combination of many different factors into play and affects people differently. It is the responsibility of the nursing faculty to vigilantly observe and assess how your students and nurses are coping with additional stress. They are not always handling it as well as it seems on the surface, so faculty need to look at trends in grades, attendance, participation, and comportment.

The interventions employed in the RN-BSN nursing classes for this QI project could easily be appropriate for MSN, NP, DNP or PHD programs, each of these options could be used in any class or clinical as deemed appropriate. Making an effort to reduce your students' academic stress while maintaining the rigor of your program, at little or no additional effort from the faculty member, is a win-win situation. The implications for nursing education are strong and limitless.

Conclusion

It is important for educators to be vigilant in assessing a cause for declines in academic performance and enrollment. Using an inquiring approach and flexibility, faculty at this university adapted their courses in ways to reduce the stress of students in this RN-BSN program. Modification in the environment of instruction can play a significant role in academic success, especially during challenging events such as the COVID-19 pandemic. Supporting the advanced education of the nursing workforce will have impact for the quality of healthcare outcomes, not only regionally, but across the world.

Future study is indicated in the form of research with this or other educational populations. Retrospective and prospective studies involving course attrition, registration, grades, withdrawals, etc. related to the pandemic would prove to be beneficial.

Declaration of competing interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

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