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# Journal Pre-proof

Practical Implications of Online Learning with Nurses during COVID-19

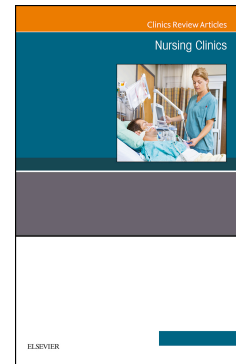
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### **Appendix A: Interview Protocol**

1. How many years have you been a registered nurse? How many years have you been teaching in higher education? In online education? Tell me about your journey.
2. Describe the interaction between students and you as the instructor in an online education setting.
3. Tell me about the teaching methodology you find most beneficial in the online education environment.
4. COVID-19 changed the landscape of higher education for the in-person classroom. How has COVID-19 changed the landscape of higher education in the online education sector?
5. How do you support your nursing students in the online environment?
6. How do you support yourself as you teach in the online learning environment?
7. If there was anything since March 2020 that you could change about teaching in the online environment, what would it be?
8. How would you describe your experience teaching in the online environment since March 2020 metaphorically?
9. Is there anything else you would like to share regarding teaching nursing students in the online environment in relation to the impact of COVID-19?

### **Appendix B: Self-care Suggestions**

Our study illuminated the significance of self-care for nurse educators and what educators perceive as important for students as well. Based on our findings, we argue that a purposeful effort to engage in self-care is necessary for nurse educators and students to maintain work-life balance. Multiple faculty members shared that often nurses tend to neglect self-care practices and the COVID-19 pandemic brought this issue to the forefront. The faculty members provided following suggestions of self-care practices which they tried to incorporate into their classes and in their everyday lives. See Table 2.

## Practical Implications of Online Learning with Nurses during COVID-19

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### Disclosures

The authors have nothing to disclose

### Clinics Care Points

- Nurses need to reflect on the COVID-19 pandemic and share their stories to process their experience.
- Working nurses who engage in online education to advance their degree should look for self-care methods to aid in work-life balance and academic success.
- Support from others can positively impact nursing faculty job satisfaction and student success in online nursing programs.

**Keywords:** online, nursing education, COVID-19, RN-to-BSN, self-care

### Key points:

1. Although stressful and life-changing, nursing faculty considered the COVID-19 pandemic a learning opportunity, not only for faculty, but also for students.
2. Recognizing and understanding emotional stress in online nursing students is an important factor in student success.

3. Self-care should be prioritized to aid in work-life balance for faculty and students in online nursing programs.
4. Professional development and institutional support can positively impact nursing faculty job satisfaction and student success in online nursing programs.

**Synopsis:**

This study explored how teaching practices were impacted by COVID-19 in a fully online nursing program. Using qualitative research methodology, we conducted in-depth interviews of faculty in an online nursing program. The findings of our study suggest that the COVID-19 pandemic was challenging for the faculty members, but still they considered it an opportunity for personal and professional growth. They used this disruption to humanize their teaching practices by focusing on self-care to support their students in the challenging times of a global pandemic. They also mentioned institutional support was crucial for their perseverance, growth, and job satisfaction.

The COVID-19 pandemic severely tested health systems, hospital staff, and resources across America. As the largest healthcare profession, nurses have been challenged by surges in number of patients and shortages of patient care resources in addition to ethical and moral quandaries.<sup>1</sup> According to the American Nurses Foundation<sup>2</sup>

COVID-19 Impact Assessment Survey (2022) 60% of acute care nurses reported feeling burned out, 75% reported feeling stressed, and 52% had considered or intended to leave the nursing profession. While stress in the occupation of nursing has been well documented in past decades,<sup>3-</sup><sup>4</sup> the COVID-19 pandemic brought concerns of physical and mental health to the forefront as nurses reported experiencing “burnout, exhaustion, and moral injury.”<sup>1</sup> The emotional strain and stress of the COVID-19 pandemic was not only felt by nurses, but also by their families. They had to navigate issues such as lack of childcare and school closures due to quarantine restrictions leading to conflicts in family responsibilities, professional obligations, and potential financial strain.<sup>1</sup>

Furthermore, the impact of the COVID-19 pandemic extended into nursing education programs due to mandatory lockdowns implemented in March of 2020. Much of the current literature about nursing education and the COVID-19 pandemic discusses the disruption of in-person classroom instruction and the impact for faculty and students moving abruptly to the online environment.<sup>5-7</sup> There is little to no empirical research available about how existing online nursing education programs were impacted by the pandemic. This study explores how faculty’s perspectives, behaviors, and teaching practices changed in fully online nursing programs during the global COVID-19 pandemic.

### **Literature Review**

Teaching nursing online is not a new development as nursing programs have leveraged current and emerging technologies to plan, deliver, and evaluate nursing education. Online distance education grew in the 1990s and proliferated in the early 2000s with advancement of the internet. Registered Nurse to Baccalaureate (RN-to-BSN or Bachelor of Science in Nursing) programs provide a bridge for diploma and Associate Degree prepared nurses who wish to

develop stronger clinical reasoning and analytical skills to advance their careers.<sup>8</sup> In 2019 the Association of American Colleges of Nursing (AACN)<sup>8</sup> reported more than 78% of the RN-to-BSN programs across the United States were offered at least partially online. The offerings of RN-to-BSN completion programs are in response to disciplinary calls for a more highly educated workforce driven by the complex and changing healthcare environment.<sup>9</sup> Offering RN-to-BSN programs online enhances access for nurses to enroll in these programs.<sup>8</sup>

### **COVID-19 & Online Teaching**

When the COVID-19 pandemic started, teaching online became a necessity around the world and many programs quickly transitioned to online learning to help control the spread of the virus.<sup>5,7,10,11</sup> Nursing programs which were already engaged with online learning also faced new challenges due to the pandemic.<sup>10</sup>

According to Lou et al<sup>12</sup> in online nursing education, especially the RN-to-BSN program, additional challenges exist. A noted challenge is supporting working students' needs as they balance their professional, educational, and personal circumstances.<sup>7</sup> Students in online RN-to-BSN programs are often working in the industry as registered nurses. Due to the COVID-19 pandemic, workloads for already busy nurses increased.<sup>12</sup> Shigemura et al<sup>13</sup> predicted that health care workers would be required to work under harsher conditions such as longer working hours and unscheduled shifts because staff shortages would occur as co-workers became sick during the pandemic. This prediction became reality as the pandemic raged. Nurses found themselves working, often mandated, more days and longer shifts.<sup>5</sup>

Additionally, working students also had to manage their coursework and family responsibilities. Online learning in a busy household can present challenges. In Bdair's<sup>11</sup> study, one participant noted being distracted by kids and other house obligations while studying at home. Some students reported increased stress caused by a combination of their coursework and family responsibilities.<sup>14</sup> Working students experienced increased worry about their family's health.<sup>12</sup> They expressed anxiety and fear related to the pandemic and the uncertainty of future events.<sup>15</sup> This situation further increased faculty workloads since they had to not only teach but also comfort students and provide them emotional support during the pandemic.<sup>6</sup>

### **Flexibility and Online Teaching**

Online education brings many advantages such as convenience, flexibility, and speed for program completion.<sup>10,16-18</sup> However, online education also brings a wide range of challenges, including a considerable time commitment, difficulty engaging with students, difficulty with technology, lack of institutional support, and managing student expectations.<sup>6,10-11,16-17,19</sup>

Flexibility is seen as both an advantage and disadvantage of online education. Bdair<sup>11</sup> found that students and faculty enjoyed the flexibility of online education and liked being able to participate in online learning at convenient times. In Wingo et al's<sup>18</sup> study, flexibility is noted as a distinct advantage to online nursing education, stating that busy faculty enjoyed online teaching because it let them participate in life activities and decide where and when to teach. Additionally, flexibility comes from faculty being able to engage in their work at any time of the day or night. Some nursing faculty also reported that teaching online allowed them to continue working in the industry, and it also allowed them to travel to conferences while continuing their teaching.<sup>17</sup> For



students, the flexibility afforded by online courses allows them to log in at their own convenience and work at their own pace.<sup>10</sup>

This flexibility also poses some problems for both faculty and students. Faculty sometimes feel they need to be always available because students may be working on course activities at all hours and on all days.<sup>17</sup> Students may become frustrated when faculty are not available to answer questions immediately.<sup>20</sup> Likewise, unreasonable expectations could be placed on the instructors by students and themselves.<sup>18</sup> There is also evidence that the flexibility offered by learning at home can actually decrease students' success and satisfaction. This can occur due to lack of self-motivation and distractions at home, including the internet, email, and other daily tasks.<sup>21</sup> According to Bdair<sup>11</sup> students attending virtual classes from home sometimes lack motivation and are distracted by being in the home environment instead of a classroom.

### **Time Commitment in Online Teaching**

There is a significant time commitment to developing and delivering online courses. In a study by Nabolsi, et al<sup>6</sup> participants expressed that the time faculty spent teaching online was much higher than the time they spent teaching face-to-face. While teaching online, faculty often have to respond multiple times to students email back and forth which is generally more time consuming than face-to-face teaching.<sup>17</sup> Similarly, Puksa and Jansen<sup>16</sup> also argued in their study that a larger time commitment is needed for faculty teaching online courses, as participants in their study indicated that they felt like they never stopped and were constantly checking online posts. Furthermore, faculty mentioned that administration does not consider the workload expected of them and the additional time it takes to develop and deliver online courses.<sup>10,16-18</sup>

Overall, there are advantages and disadvantages of online teaching for faculty and students which can impact teaching and learning processes positively and negatively. As mentioned above, with the COVID-19 pandemic these challenges were exacerbated. In our study we tried to understand how nursing faculty navigated these challenges in an online nursing program and how they were able to support their students during the COVID-19 global pandemic.

### **Research Questions**

1. How did nursing faculty navigate the impact of COVID-19 while teaching in the fully online environment?
2. How did nursing faculty support themselves and students (especially working in industry) as they adapted to the challenges brought by COVID-19?

### **Research Design**

For this study, a qualitative research design was used to help understand how nursing faculty teaching practices were impacted by COVID-19 in a fully online nursing program. Among the variety of the qualitative approaches, we chose Grounded Theory to guide data collection and data analysis processes. We used grounded theory because it is considered suitable for better understanding of a phenomenon.<sup>22-23</sup> Chun et al<sup>24</sup> argued that Grounded Theory methodology is appropriate to better understand a phenomenon and to construct an explanatory theory or concept to explain the process in a certain area of inquiry.

### **Context**

We studied the experiences of faculty from a fully online RN-to-BSN nursing program at a 4-year institution in the upper-Midwest United States. The Upper Midwestern Institution (pseudonym) was established in 1889 and offers programs to prepare students for careers in

business, health and physical fitness, psychology, science, mathematics, and nursing. The institution offers undergraduate and graduate degrees in above mentioned fields. In fall 2021, a total of 1,200 students were enrolled with approximately 40% students participating in person and 60% in online education.

### **Participants**

After IRB approval of the study, we interviewed seven nursing faculty members using purposeful sampling. All faculty members were female and taught in a fully online nursing program for registered nurses who have completed an associate degree and desire to continue their education to complete a bachelor's degree (RN-to-BSN program). According to Chun et al<sup>24</sup> purposeful sampling provides the initial data which researchers can use for analysis based on the Grounded Theory approach. The eligibility criteria included nursing faculty members who taught strictly in the online environment before, during, and after the COVID-19 pandemic in a fully online nursing program. See Table 1 for participant demographic data.

**Table 1.** Participant Demographics (see submitted PDF)

### **Data Collection**

We used semi-structured informal interviews for data collection.<sup>25</sup> The interview protocol was developed to explore the online nursing faculty's teaching experiences in a fully online nursing program during the COVID-19 pandemic. A pilot interview was conducted by two researchers to further refine the interview questions. The interview questions consisted of nine open-ended questions with multiple follow-up questions (see Appendix A for the research interview protocol). All interviews were conducted online using the Zoom platform in April 2022 and each interview lasted between 25-40 minutes.

## **Data Analysis**

After the interviews were completed via Zoom, all files were saved in a password secured shared Google Drive. The video interviews were transcribed. The transcripts were cleaned to remove extraneous filler words and identifiable data. All participants were assigned an alias to maintain confidentiality. The Grounded Theory approach was used for data analysis. Per Hutchinson<sup>26</sup> open coding consists of looking at each sentence and creating as many codes as possible to “ensure full theoretical coverage.” Each researcher read and reread the transcripts and began their individual coding process. During this process, the researchers followed Hutchinson’s<sup>26</sup> description of the constant comparative method, where analysts distinguish similarities and differences within the data. The researchers compared emerging codes, categories, and themes across all transcripts and established concepts in the literature. Finally, the researchers convened and examined the themes collectively.

## **Validity and Reliability**

Several actions were taken to minimize the risk of researcher bias. For example, the research protocol was reviewed by all three researchers. IRB review and approval of the research protocol was obtained before the study. The researchers conducted a practice interview among the researchers to test the protocol and to allow for revisions of the protocol. Measures to increase the validity of the interview process included the researcher asking clarifying questions of the interviewees and reiterating statements for researcher understanding.

To ensure reliability, researcher triangulation was used for the data analysis process. Researchers cleaned the transcripts and listened to the interviews to ensure transcription accuracy. For the first round of data analysis, the transcripts were read by all researchers separately then reviewed for initial emerging themes. Researchers developed their separate codes

and completed their data analysis process separately. During the second round of data analysis all researchers reviewed all the codes, categories, and themes to ensure consistency and to check biases in coding and the overall data analysis process.

### **Findings**

In this section we will present our key findings from our study. Our main research questions were: (1) how did nursing faculty teaching in the fully online environment navigate the impact of COVID-19 on their teaching practices and (2) how did they support themselves and their students during the pandemic? The following themes emerged from the data analysis process: perseverance and growth, humanizing teaching and learning practices, and resources for faculty success and development.

#### **Perseverance and Growth**

Many faculty members considered the COVID-19 pandemic a catalyst for change. The global pandemic pushed faculty to not only persevere in difficult circumstances, but also transform their teaching practices. They considered it an opportunity for personal and professional growth. Barb shared:

I think that [COVID-19 caused] a lot of growth ..., you know, talk about doing impossible things. I see the good stuff that came out of that for a lot of people that I work with and maybe myself too, that there's things that probably [we] needed to work on anyway, and it just pushed it forward...I thought of World War II people, like my grandpa was World War II...and I thought of how long that lasted. There's been...disasters, and they've come out of it, and look at the great people...I mean they're known for that as a trait. That's an opportunity we have too (oral communication, April 2022).

The faculty members considered the COVID-19 pandemic a learning and growth opportunity not only for faculty, but also for students. They believed that the pandemic pushed faculty to further improved their teaching practices. Deb shared:

I think the online courses were not disrupted as much as the in-person courses. We still got through our content. We maybe had to change it, but I think that content that was included or changed actually helped our students more than the content we were going to provide in the first place. They (students) were actually able to see boots on the ground, in real time, make those connections regarding the concepts. Obviously, nobody would want COVID-19 to happen, but I think in the aftermath we've learned a lot, and we have strength in the online programs (oral communication, April 2022).

The faculty members in our study considered the COVID-19 pandemic challenging, but also an opportunity for growth for themselves and for their students. They also felt through perseverance they were able to improve their teaching practices and were able to support their students to achieve their academic goals in the challenging times of global pandemic.

### **Humanizing Teaching Practices**

The faculty members in the online nursing program focused on humanizing the online learning experiences. They mentioned they were able to recognize and understand the emotional stress their students were going through due to the pandemic. They provided a variety of accommodations such as extension of deadlines, offering incompletes, and adjusting course content based on student needs. For instance, Connie explained:

...with COVID-19 it was definitely a challenge with people getting assignments in, meeting timelines, meeting everything that was going...my goodness, because many of our students are rural students who were called into duty to work more hours because of

COVID-19, take care of family because of COVID-19, ended up with COVID-19...we extended deadlines as much as we could. We changed activities...updated discussion questions to encourage them to talk about what they had been doing...so they could network in sharing with [nurses] in other areas (oral communication, April 2022).

Deb also shared similar experience:

I think it was a very emotional time...everyone was on high alert. Students reaching out...they were employed full time and saying 'I can't do all this. My kids are home now. I am working. I don't know the next time I'm going to be home...I'm trying to do my coursework.' I remember taking that feedback to our division of nursing, and we talked about it, and we said we need to give grace right now...we acknowledged that emotional piece because we were also suffering from [additional stress] and knowing that our students are trying to be everything to everyone at that moment (oral communication, April 2022).

The faculty members not only recognized and empathized with their students' challenges during the COVID-19 pandemic. Although it was an existing online program, the faculty members changed their approaches regarding course requirements and expectations to address the challenges of the pandemic to support their students.

### **Personal Strategies**

Along with institutional support, the faculty members also mentioned personal strategies and resources which helped them navigate challenges of the COVID-19 pandemic in the online nursing program. These strategies included establishing professional boundaries and engaging in self-care.

***Establishing Professional Boundaries.*** Being strictly in an online environment can make it difficult to maintain professional boundaries since students can reach out to faculty after regular business hours. All faculty members mentioned facing several challenges in maintaining professional boundaries especially at the start of the COVID-19 pandemic. Gabby shared her experience:

When you teach face to face, students ask the questions, but when you teach online, they ask the question whenever they're online for that class, and so I try to get back to them as soon as I can, which means that I'm checking my emails very often, much more often than I did before- getting back to them in the evenings, on the weekends, early hours, like whenever I see it, I try to respond to it (oral communication, April 2022).

All the faculty members in our study mentioned struggling with establishing boundaries, especially during the early phase of the pandemic. As Flora shared:

Initially, on my syllabus I had put my cell phone number down and then texting started to get abused...just a couple students, but it was enough to make me pull that back and really encourage them to use my email (oral communication, April 2022).

The faculty members learned to establish professional boundaries with time and experience. They considered learning to establish personal and professional boundaries a part of their learning process which helped them take care of themselves and serve their students without feeling excessively overwhelmed during the pandemic.

***Self-Care.*** Self-care emerged as an important theme since almost all faculty members mentioned self-care as a key component of working through the impact of the COVID-19 pandemic. Similar to setting boundaries, it was a gradual learning process, since initially they found it difficult to



practice self-care. Many of the faculty members made specific efforts to improve self-care practices. However, they believed they still needed to improve their self-care habits.

Deb shared her experience:

I feel like when [COVID-19] first started I was on my computer at all hours because I felt like I needed to be there for the students because they were struggling...knowing that they were the ones on the front lines, not me. I have incorporated a few self-care things into my courses. I do almost like a meditation reflection. It's guided imagery in my health promotions course that I do, and I walk through it (oral communication, April 2022).

Flora also shared similar experience:

There were very high stress levels....so self-care, honestly, during the COVID-19 pandemic for me was an afterthought. I've explored things like yoga, meditation, and different apps. The ANA did a pretty good job of putting self-care stuff out there (oral communication, April 2022).

Overall, faculty considered self-care and setting professional boundaries important in taking care of themselves and for supporting their students in the online learning environment during the global pandemic.

### **Institutional Resources**

The faculty members mentioned different institutional resources which helped them in their online teaching practices. These resources included professional development opportunities, faculty collaboration, and mentorship.

**Professional Development.** The topic of professional development was mentioned in six of the seven online nursing faculty interviews as an appreciated resource provided by the institution. During the interviews, the faculty members frequently mentioned participating and benefiting

from professional development activities provided by their institution during the COVID-19 pandemic. In particular, they mentioned a micro-credentialing training by the Association of College and University Educators (ACUE). This was a 25-week long online micro-credentialing course to teach faculty about best practices in the online education environment.

Evie (oral communication, April 2022) commented, “We got ACUE...I personally think I learned a lot and grew a lot and I think the online teaching environment improved because of that.” Deb also shared that the ACUE training allowed her to “humanize” her online course since she learned to include a welcome video in her course. She mentioned, “From the [welcome] PowerPoint...I put my face out there every week so students can see [me].” Gabby (oral communication, April 2022) shared similar appreciation for this professional development opportunity, “going through the ACUE training to see evidence-based research about what students need in an online learning environment was very helpful.” Overall, the faculty members in our study considered ACUE very useful in navigating their teaching and learning during the COVID-19 pandemic since it provided them an opportunity to learn from experts in their field, communicate with their colleagues, and learn new strategies to use in their online courses.

In addition to the ACUE course, faculty also referred to other professional development opportunities such as offerings from the American Nurses Association (ANA), American Association of Colleges of Nursing (AACN), and NurseTim® which helped them improve their skills as educators in the online environment. Even though all faculty members interviewed had some experience teaching in the online environment, they felt the professional development resources and activities aided in their ability to enhance student engagement during the stressful time of the COVID-19 pandemic.

***Faculty Collaboration and Mentorship.*** Faculty valued professional relationships and made an intentional effort to be collaborative and democratic with other nursing colleagues. Faculty discussed the importance of collaboration with other online nursing faculty and appreciated being assigned a specific mentor in their first 1-2 years of teaching online. Flora (oral communication, April 2022) elaborated the benefits of having a faculty mentor by saying “...having [a faculty mentor] assigned to me was incredibly helpful and not being thrown into doing something on my own right away...everybody was very helpful.” All faculty members emphasized that working collaboratively as a team not only enhanced their job satisfaction but also benefited their nursing students. Ann (oral communication, April 2022) shared, “Faculty met as a group to determine the best way to accommodate students and help alleviate some stress they were experiencing.” Overall, the faculty members considered mentorship and faculty collaborations important for their success while teaching in the online environment during the pandemic.

To sum up, findings from our study suggest that the COVID-19 pandemic was challenging for the faculty members, but they still considered it an opportunity for personal and professional growth. They used this disruption to reorient their teaching and humanize their teaching practices to support their students in the difficult times of a global pandemic. They also focused on incorporating self-care practices in their classes and in their lives. Additionally, the faculty members embraced resources provided to them through professional development and mentorship and believed that institutional support was crucial for their personal and professional growth and persistence during the global pandemic.

## **Discussion**

While our study focused on faculty who were teaching in the online environment before, during, and after the COVID-19 pandemic, our findings aligned with previous studies regarding increased challenges of teaching during the pandemic and supporting their online students. Similar to other studies, the faculty members in our study also acknowledged the increased workloads for already busy nursing students during the COVID-19 pandemic with longer working hours and unscheduled shifts.<sup>5,12-13</sup> Hrelac and Anderson<sup>5</sup> mentioned that faculty were considerate of the additional stress levels of their online students. In our study the faculty members shared the empathy they felt for their online students which lead them to collaborate with other nursing faculty to make necessary accommodations in the courses. They also shared experiences of supporting working students in balancing their professional, educational, and personal circumstances similarly noted by Oducado and Estoque.<sup>7</sup> Smith et al<sup>10</sup> described establishing an online presence and providing encouragement for student engagement in the online learning environment.

In terms of change in teaching and learning practices, the nursing faculty interviewed focused on “humanizing” their teaching and learning practices. They mentioned some of their teaching strategies such as having a purposeful online presence, accommodating student needs, and personalizing discussion forums to encourage students to share their experiences. These strategies positively impacted student success and faculty satisfaction in the online environment. During the academic years 2020 and 2021, the overall program completion rate in the RN-to-BSN program was above 87%, which shows the success of the teaching strategies newly adopted by the faculty members. Also, these interventions by faculty are supported in the literature by Oducado and Estoque<sup>7</sup> as they argued that creating interventions to reduce stress among nursing students can help them cope with the academic challenges and work-related demands they face

during the pandemic. Our findings support these claims and we argue that humanizing online teaching and learning practices can positively contribute to student success.

Online nursing faculty interviewed in our study reiterated themes seen in the literature related to the flexibility and convenience of online education being both an advantage and disadvantage. Similarly to previous studies, our findings suggest that teaching online allowed faculty to continue working in the industry.<sup>2,11,18</sup> The faculty members also reported how this flexibility may also pose problems for both faculty and students as faculty feel they need to be always available since students are working on coursework at various times, and they do not want students to become frustrated at a slow response.<sup>17,20</sup> This tension lead faculty to rethink work-life balance and focus on self-care. The COVID-19 pandemic changed faculty's attitudes towards self-care. Self-care emerged as an important theme from the faculty perspective and what they desired for their students as they taught in the online environment. The faculty members emphasized the importance of self-care and readily admitted they were "not good at self-care." Faculty interviewed in this study provided similar comments to Gazza's<sup>17</sup> study where participants mentioned "time is a blessing and a curse" and described the need to maintain work-life balance even when they wanted to be readily available to their online students. They also were considerate of their students' life commitments and challenges during the COVID-19 pandemic, so they tried to incorporate self-care components in their teaching practices. We argue that self-care and work life balance are important to ensure faculty and student success in the online environment. We have provided the self-care activities the faculty members in our study mentioned (See Appendix B).

In addition to personal strategies, our study highlights the significance of institutional support for faculty and student success. Wingo et al<sup>18</sup> discussed how professional training programs can be challenging for faculty due to schedules, different training needs, and enthusiasm for training programs. Six of the seven faculty members interviewed in our study spoke of the motivation to engage in professional development training sessions and appreciated the opportunities for professional development provided by their institution. Smith et al<sup>10</sup> highlighted faculty have specific needs when teaching online. Among those needs include resources and administrative support.<sup>10</sup> While the timing of the ACUE micro-credentialing training may have added workload, professional development was highly valued by the faculty members interviewed in our study. Ignatavicius and Chung<sup>27</sup> argued that nursing faculty who participate in professional development transfer their newly acquired skills into educational practice. The faculty members in our study also shared how the ACUE micro-credentialing training improved their ability to “humanize” their online learning environment. The faculty members also deeply valued the support they received from their mentors and from other nursing faculty. We argue that institutional support is crucial for faculty and student success and institutions should provide regular professional development and mentorship opportunities to their faculty members.

To conclude, we suggest the following model in Figure 1 based on our findings. The model illustrates the conditions and interventions that contribute to working nursing students’ success and nursing faculty satisfaction in online educational programs. In our study findings, faculty related to the student experience and utilized strategies to ensure a purposeful online presence. Faculty also collaborated with colleagues to accommodate student needs and allow for student sharing of experiences in the online environment. One final piece faculty described in

our study was the concept of self-care. Self-care was described as a necessary component of faculty job satisfaction and student success.

**Figure 1.** Faculty Relating to the Student Experience (see submitted PDF)

### **Recommendations**

This study illuminated several recommendations that faculty should consider as they teach nursing in the online environment. One set of recommendations revolves around teaching methods and caring for students. Faculty should consider being flexible when teaching working nurses. They should also provide feedback, communicate openly, provide additional instructions to students, and embrace the technology that is available to them. In addition, it is important for faculty to model good self-care practices and encourage self-care in students. Faculty can also send positive messages to students, acknowledge student emotions, and give more grace to their working students.

Another set of recommendations is related to faculty support. When given the opportunity, faculty should participate in professional development being offered. Additionally, they can collaborate with other faculty to ensure processes align between faculty. Furthermore, institutional investment into faculty should be encouraged and mentoring of new or junior faculty should be embraced.

A final set of recommendations concerns self-care practices. Throughout this study, faculty have illustrated the importance of participating in self-care activities, especially during stressful times such as the COVID-19 pandemic. Many faculty indicated they did not engage in as much self-care as they should. Suggestions for self-care include things like disconnecting from being online, interacting with others, embracing mindfulness, meditating, exercising, and having a personal mantra. These recommendations offer faculty a chance to enhance their

teaching in online environments while also caring for themselves and students. See Appendix B for self-care suggestions as shared by participants in our study.

### **Limitations and Delimitations**

Our study has a small sample size and all the participants were from the same institution and the same division which limits generalizability to other fully online nursing programs. Another limitation of our study is that one of the researchers was a supervisor and part of the faculty group that was interviewed. This power differential may have impacted findings of our study. However, several measures were taken to minimize these risks of bias including piloting and revising the interview protocol, using researcher triangulation and theoretical sensitivity analysis as noted in the methods section.

(Total words: 5006)

### **Appendix A: Interview Protocol**

1. How many years have you been a registered nurse? How many years have you been teaching in higher education? In online education? Tell me about your journey.
2. Describe the interaction between students and you as the instructor in an online education setting.
3. Tell me about the teaching methodology you find most beneficial in the online education environment.
4. COVID-19 changed the landscape of higher education for the in-person classroom. How has COVID-19 changed the landscape of higher education in the online education sector?
5. How do you support your nursing students in the online environment?
6. How do you support yourself as you teach in the online learning environment?
7. If there was anything since March 2020 that you could change about teaching in the online environment, what would it be?



8. How would you describe your experience teaching in the online environment since March 2020 metaphorically?

9. Is there anything else you would like to share regarding teaching nursing students in the online environment in relation to the impact of COVID-19?

### Appendix B: Self-care Suggestions

Our study illuminated the significance of self-care for nurse educators and what educators perceive as important for students as well. Based on our findings, we argue that a purposeful effort to engage in self-care is necessary for nurse educators and students to maintain work-life balance. Multiple faculty members shared that often nurses tend to neglect self-care practices and the COVID-19 pandemic brought this issue to the forefront. The faculty members provided following suggestions of self-care practices which they tried to incorporate into their classes and in their everyday lives. See Table 2.

**Table 2.** Faculty Suggestions for Self-Care

General suggestions	Rationale
<ul style="list-style-type: none"> <li>● Accommodation for student needs</li> <li>● Sharing experiences</li> <li>● Exercise</li> <li>● Listening to music</li> <li>● Date night with spouse</li> <li>● Disconnection from technology</li> </ul>	<p>COVID-19 was impacting [students] on a personal level. On a professional level and we were really seeing a lot of stress in the classroom. Students were having anxiety about turning in assignments late or not meeting particular deadlines or the amount of workload overall, so [we tried] to reduce and alleviate some of that stress just because they had all these other mitigating factors weighing on them (Ann, oral communication, April 2022).</p>
<ul style="list-style-type: none"> <li>● Interdisciplinary care</li> <li>● Yoga</li> <li>● Medication</li> <li>● Disconnect from social media</li> <li>● Adopting a mantra</li> </ul>	<p>Self-care [was promoted]. Our psychology department at our work was wonderful to us, and even our coworkers like food and nutrition brought us some self-care kits during one of our surges...[to help us with] work-life balance. If you don't have yourself cared for, [what can you give?] (Barb, oral communication, April 2022)</p>
<ul style="list-style-type: none"> <li>● Taking a break from sitting at the</li> </ul>	<p>I think [self-care] is more on the forefront</p>

<p>desk/go for a walk</p> <ul style="list-style-type: none"> <li>• Stand up and stretch</li> <li>• Self-care classes (topic such as resiliency)</li> <li>• Self-reflection</li> <li>• Role model self-care to students/share in the classroom</li> </ul>	<p>now because of the pandemic. I think it was always there, but is being pushed more because of the number of [nurses] that are leaving the profession. (Connie, oral communication, April 2022)</p>
<ul style="list-style-type: none"> <li>• Incorporate self-care suggestions into courses to encourage students</li> <li>• Acknowledge the difficulty in prioritizing self-care</li> <li>• Guided imagery</li> <li>• Meditation</li> <li>• Disconnect from phone</li> </ul>	<p>[Students] would tell me what their facilities are doing to address the self-care, the moral resistance or the moral resilience. Those are becoming those buzzwords, and they're able to see exactly what that means (Deb, oral communication, April 2022)</p>
<ul style="list-style-type: none"> <li>• Provide positive messaging to students</li> <li>• Exercise</li> <li>• Debriefing</li> </ul>	<p>Self-care for myself- I'm pretty good about, I'm adamant about exercising and you know I am a big believer...also [debriefing about certain situations helps] (Evie, oral communication, April 2022)</p>
<ul style="list-style-type: none"> <li>• Prioritize self-care</li> <li>• Massage therapy</li> <li>• Seek support/mentorship in nursing role</li> </ul>	<p>There was very high stress levels with high census consistently and trying to staff patients where we normally would...so self-care honestly during COVID for me just was...an afterthought (Flora, oral communication, April 2022)</p>
<ul style="list-style-type: none"> <li>• Establish regular work hours</li> <li>• Disconnect from technology</li> </ul>	<p>[Self-care] is definitely a challenge trying to balance work life...I would say I do try to maintain some sort of business hours...I will try to limit it to just what I really need to get done (Deb, oral communication, April 2022)</p>

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**Practical Implications of Online Learning with Nurses during COVID-19**

Table. Participant Demographics

Alias	Years as RN	Years as Educator	Years as Online Educator	Full-time role	Part-time role
Ann	27	8	8	Associate Professor	Faith Community nurse
Barb	22	16	2	Nurse Manager	Adjunct instructor
Connie	37	11	4	Assistant Professor	Staff educator in industry
Deb	18	4	4	Assistant Professor	Staff nurse in industry
Evie	24	12	4	Assistant Professor	Staff nurse in industry
Flora	26	2	2	Nurse Manager	Adjunct instructor
Gabby	25	8	2	Assistant Professor	Clinic Nurse Practitioner

**Practical Implications of Online Learning with Nurses during COVID-19****Figure.** Faculty Relating to the Student Experience