In the Midst of a Pandemic: Exploring Nursing Students' Attitudes and Beliefs Toward Their Training and Education

Harper C. Lewis

Georgia Southern University

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In the Midst of a Pandemic: Exploring Nursing Students' Attitudes and Beliefs

Toward Their Training and Education

Harper C. Lewis

Georgia Southern University School of Nursing

Under the mentorship of Mary Estelle Bester MSN, Ph.D.

November 2021
Abstract

During Spring of 2020, didactic and clinical courses for nursing students at Georgia Southern University transformed to virtual platforms due to COVID-19. Student nurses learn their profession with experiences in both classroom and clinical settings. Clinical setting helps students strengthen psychomotor skills learned during simulated laboratory work. While all health profession students expressed stress as a major factor for well-being, student nurses seemed to experience more stress. Stress threatens nursing students’ sense of control over present and future performance. Competently performing skills required of newly graduated nurses greatly determines new graduates’ ability to secure employment as a registered nurse in choice location. A study was conducted on nursing students’ perception of anxiety in moving towards online learning related to success in their academic studies and future success as healthcare professionals. Using a mixed-methodology approach, 47 participants voluntarily completed a self-paced, self-administered questionnaire measuring how the abrupt transition affected the student nurses enrolled on Armstrong and Statesboro campuses. Though limited by small sample size, the researcher believes valuable insights were gained, including input from free response the nursing program can use to prepare for potential future changes in learning formats. The lessons learned during COVID-19 pandemic are crucial as society moves forward, and unfortunately, pandemic, weather-related crises, or other events may force universities to move to online platforms again in the future. It is suggested instructors focus on perceptions, experiences, and suggestions of nursing students to improve implementing effective online learning whenever needed.

Keywords: online learning, nursing students, perceptions of online learning, nursing student’s anxiety, COVID-19
Acknowledgement

I would like to express my sincere gratitude to the School of Nursing and Honors College at Georgia Southern University. Without their resources and constant guidance, I would not be the student I am today. Each faculty member has helped me along the way to always strive to achieve my greatest potential.

I would also like to thank my mentor, Dr. Mary Estelle Bester, for her wisdom and dedication to helping further develop my research skills. She not only mentored me for my thesis, but she was also a constant source of encouragement and inspiration when it came to always striving to do my best.

I would like to thank my family and friends for the support along the way. Each of them played a vital role in helping me become who I am today. Specifically, my parents have inspired me to use my abilities to help other people. Lastly, I would like to thank my Lord, Jesus Christ. He deserves all the praise and glory for every good thing in me. Colossians 3:23 says, “Work diligently in all that you do as though you are working for the Lord rather than people.” This has been my goal throughout my four years at Georgia Southern University. He alone is my strength and hope.
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In the Midst of a Pandemic: Exploring Nursing Students' Attitudes and Beliefs

Toward Their Training and Education

Nursing students have to master knowledge and acquire competence in psychomotor skills while caring for the patient. To be successful, most students will emphasize the need to attend a lecture, see a demonstration, practice under supervision in the laboratory and then be exposed in real life to practice these skills. Many students also find during their clinical placement, their ‘niche’ area for their future career. They get the opportunity to meet staff, and many students often get their first job offer while being placed for clinical practicum.

COVID-19 changed the scenario. There was minimal, if any, information on how to best navigate through the challenging times. Professors, nurse educators, and future nurses themselves found themselves in a situation of ‘trial and error’. Suddenly practice had to take place at home, assisted with videos of how it should be done. The opportunity to be corrected while practicing the skill in the laboratory did not exist. Students felt insecure when they did get the opportunity during subsequent semesters to go into the clinical environment and practice the skills, not knowing if they were doing it correctly and safely, not harming the patient. The established process of “see, do, teach” changed to “see, talk about it, do.” Informal discussions with classmates confirmed all were experiencing feelings of inadequacy, stress and lack of motivation. This led to the research question of the attitudes and beliefs of nursing students towards the change in teaching and learning necessitated by the COVID-19 pandemic.
Literature Review

It is important to assess the literature when it comes to determining how a nursing students’ education was impacted by COVID-19. Reviewing previous research studies, identifying gaps in knowledge and limitations of previous studies can provide direction to the researchers and clinicians. With this being a fairly recent topic, the factorial data is ever-changing. Using keywords including “anxiety, COVID-19, stress, nursing students, motivation, and online learning,” a search was done using electronic databases available through the Georgia Southern University. Most of the articles cited in this research were located via CINAHL and Pubmed databases. Most articles were qualitative in nature. The topic was too new to allow for systematic reviews, meta-analysis, and meta-synthesis being available. The literature search was expanded to include studies on stressors (not related to the pandemic) and online learning for both nursing and non-nursing undergraduate students.

Psychological impact

Browning et al., (2021) did a cross-sectional study to determine the psychological impact of COVID-19 among university students between March to May in 2020 at a time when sheltering in place was common among the university student populations. The study aimed at exploring the students’ feelings and behaviors toward change in their education. Seven (7) universities across the United States were used during this research. Out of the 2,534 completed surveys, 21.5% said they felt a lack of motivation, 17.4% mentioned anxiety, and 14.6% felt overwhelmed and stressed (Browning et al., 2021). The researchers mentioned factors such as financial difficulties and knowing someone
who fell ill due to COVID-19 as contributors to negative feelings and behaviors (Browning et al., 2021).

Similar findings were also discovered in the study executed by Aslan and Pekince (2020). A cross-sectional design study was completed at the Inonu University in Turkey with 662 nursing students in order to determine their stress levels related to the COVID-19 pandemic, using the Perceived Stress Scale (PSS). Moderate stress levels were indicated by the average score being 31.69 +/- 6.91 SD. It was also determined that the younger participants, ages 18-20 years, and female participants significantly (p < .001) experienced greater stress levels compared to the rest of the sample group (Aslan & Pekince, 2020, p. 3). The researchers concluded it would be helpful if nurse educators would provide incoming nurses within these vulnerable groups with supplemental training and counseling on how to navigate studies during these uncertain times.

An 11-item survey determined the stress level of first semester nursing students at an accredited baccalaureate institution in Southern California (Fitzgerald & Konrad, 2021). Fitzgerald and Konrad, (2021) used convenience sampling to determine the outcomes of their population. Of the 79 students surveyed, 56 responded to the questionnaire. The most commonly reported symptoms were feeling anxious and overwhelmed (84%) and restless (50%). 88% of respondents attributed these feelings to the change to an online learning platform for didactic classes and the lack of consistency and ever-changing events (70%). Students also voiced their concerns over taking exams and handling the academic workload during the pandemic. Instructor support was identified as the single factor which could help the student in dealing with stressful situations (Fitzgerald & Konrad, 2021). Students reported greater reliance on the faculty
during stressful times and indicated that a supportive instructor could alleviate some of the student’s anxiety during the transition to online-learning (Fitzgerald & Konrad, 2021).

**Learning difficulties**

Lovric et al., (2020) found respondents expressed concerns to concentrate and memorize information, which negatively impacted on their studies and grades. One student explained “because of this crisis I cannot concentrate, and when I study I cannot remember anything,” (Lovric et al., 2020, p. 13). In this same study, another student reported challenges with learning because “the world around them was sick and dying” (Lovric et al., 2020, p. 13). Fitzgerald and Konrad, (2021) determined the majority (90%) of the nursing student participants in their study were having issues staying focused. This made it more difficult for students to retain information crucial to becoming a well equipped healthcare professional.

**Clinical training**

Lovric et al., (2020) study of 33 students at a Croatian University main concerns were how the changes would impact on their clinical training. A student stated, “I am very much afraid of future clinical training in the hospital, even after the end of the epidemic,” (Lovrić et al., 2020, p. 16). Students surveyed mostly agreed they were nervous about the future of the clinical setting because of their own physical health and risk at contracting the disease.

**Impact on academic performance**

Research completed at West Visayas State University in the Philippines outlined 44% of nursing students considered online learning mandated during the COVID-19 pandemic to be stressful (44.4%) (Oducado et al., 2021). The shift to online learning also
significantly (p=.012) affected the nursing student’s academic success, with 50% having a moderate success and 37% having poor grades. Meanwhile, some of the other students had poor academic results (37%). The study results confirmed stress relating to online learning stress negatively affects the academic performance of nursing students (Oducado et al., 2021).

**Perceptions of online learning**

A cross-sectional descriptive study was conducted at the Lumbini Medical College and Teaching Hospital (LMCTH) in Palpa, Nepal. It described the nursing student’s perception toward online learning during the COVID-19 pandemic (Rana et al., 2021). A validated questionnaire, (Cronbach’s alpha = 0.828) was administered. The tool consisted of three parts- demographic variables, availability and skill of internet use, and a five-dimensional perceived effectiveness (Rana et al., 2021). Almost 71% of the respondents acknowledged that the online content was effective for learning new information (Rana et al., 2021). Only a small percentage of the participants (7.1%) had previous experience with online learning, and all the participants had a mobile device before transitioning to the virtual platform. The medical instructors were well-prepared based on 75.4% of the students expressing satisfaction with online learning (Rana et al., 2021). Out of 382 respondents, 76% of the students used a mobile device for e-learning. A key finding was students perceiving e-learning have less of an impact (n=327) on their knowledge and performance when compared to online learning (Rana et al., 2021). This is a significant finding because the students expressed satisfaction with online learning while also perceiving e-learning to have a lower impact on their education. This finding is in contrast with the study done by a previously discussed author, Abbasi et al, (2020)
who found 77% of students were viewing e-learning in a negative light when compared to in-person learning.

**Innovative strategies to improve online learning experiences**

The COVID-19 pandemic provided an opportunity to explore modern technological ways to enhance specifically nursing education. In a study by Geng et al.,(2021), nursing students were studied over an 18 week period to determine the effectiveness of the Crowdsourcing Collaborative Learning Strategy (CCLS) intervention. This new environment for learning was constructed to improve student nurses' self-efficacy and problem solving skills which was often lacking from the teacher-centered lecture approach. A pre-and post Objective Structured Clinical Examination (OSCE) was used to determine the validity of the CCLS intervention. Student nurses in the experimental group learned how to perform a fundamental nursing skill from a video and then recorded themselves doing it. After this was complete, the students were asked to critically evaluate their performance in order to determine areas of improvement. The instructors were invited to participate in providing feedback to the student’s recorded performance. The researcher identified the “CCLS online platform was effective in helping them confirm the acquired knowledge, improving clinical skills, and being more confident in successfully performing the clinical skills in their future workplace” (Geng et al., 2021, p. 12). A 4.45/5 score indicates the CCLS can effectively measure performance (Geng et al., 2021). With being a small study of 24 students in a single nursing school, the use of CCLS as substituting real-life assessment cannot be generalized.
Methods

Setting

This research was conducted within the School of Nursing, Georgia Southern University. The researcher is a student within the undergraduate program at one of the two (2) campuses offering the Nursing Program. In the middle of the Spring 2020 semester, the School of Nursing, along with the entire university system, transitioned all traditional face-to-face (F2F) classes to an online platform. Faculty, staff, and students were required to quickly adapt to this new environment within two weeks. The clinical experience within the nursing program was completely virtual. During this Spring semester, students were no longer able to access vital learning opportunities within the hospital and other care settings. In Fall 2020 and Spring 2021, a hybrid format was used (face-to-face and online classes), and students would attend alternatively face-to-face versus online classes. In addition, some clinical environments were not accessible for students during Fall 2020 or Spring 2021.

Research design

A mixed-method, collecting quantitative and qualitative data was chosen for this research study. This parallel design allows for a multidimensional approach and integration within the study itself (Gray et al., 2016, p. 496). It is often used to elicit perceptions and experiences as the qualitative data provides more information and can verify quantitative answers. Themes are created and determined among the qualitative data in order to better create concise empirical data to compare to the quantitative outcomes (Gray et al., 2016, p. 503). Initially, the researcher considered focus-group interviews to allow for more free discussion. However, due to COVID-19 restrictions, it
was not deemed a feasible approach. Because of this, research findings were focused on data collection from the voluntary questionnaire.

**Population and sampling**

The study was aimed at undergraduate nursing students’ experiences during COVID-19 pandemic at the time all studies transitioned to an online platform. The participants could have participated if they were 18 years or older. The researcher was also interested in getting their opinions during subsequent semesters when capacity restrictions and limited access to clinical settings still required some form of online teaching. At the time, there were about 600 students on both Statesboro and Savannah campuses who qualified to participate in the research.

Upon Institutional Review Board (IRB) approval, a flyer was developed inviting students to participate in the research. This flyer was posted on a designated site within the Learning Management System (Folio, Desire-to-Learn) used at the university. Participation was voluntary, and there were no incentives provided to the participants. A total of 48 students responded. The small sample size (9.6%) is considered as a limitation. It is not possible to state whether those who responded were more positive or more negative towards the changes in learning necessitated by the COVID-19 changes. However, the researcher feels the responses provide valuable insight into the thoughts and perceptions at the time of the research. Due to the sample size, no generalizations are made, claiming the findings are representative of all nursing students enrolled at the University at the time.
**Data collection method and process**

The data collection tool was created using the online platform, Qualtrics. Through discussions with peer researchers, a questionnaire was developed. Core concepts within literature such as stress, anxiety, and self-confidence as it relates to the nursing field determined the questioning approach within the study. The draft survey was then sent to five research experts who critiqued the questions and provided helpful feedback. These suggestions were implemented to create a more reputable survey.

The first step in the data collection process was to invite undergraduate nursing students who qualified for the study to participate in the 10-minute questionnaire made available through Qualtrics. Students were able to access this survey through Folio within their personal Georgia Southern homepage. The first prompt within the survey was a consent form. If they chose to consent, Qualtrics would allow them to continue the survey. However if they did not consent, the survey was immediately terminated. Following consent, the students were made aware of their rights as a participant. The survey was the online method of data collection performed within this study, there were no forms of experimental manipulation. Data collection began at the time of IRB approval, and it was completed three weeks following this time.
Results

In order to determine Georgia Southern nursing students’ barriers to online learning, students were asked in the questionnaire what their biggest concerns were. Students were offered a multi select question with 10 response choices as seen in Appendix A. Out of those choices, students who were a part of the School of Nursing in the Fall of 2020 claimed their greatest concern arose from clinicals (27.5%). This data correlated to the Croatian University study. Findings completed by Lovrić (2020) determined half of the student population surveyed carried concerns relating to their clinical training and future success in the healthcare field. The Georgia Southern nursing students also identified fears relating to lecture time (20%) as well as general uncertainty (17.5%). The psychological effects of the general uncertainty weigh on the anxiety level of the students as seen in the study executed by a school in southern California. Their study found the highest percentage of students were stressed due to change to virtual learning (80%) and uncertainty (70%) (Fitzgerald & Konrad, 2021). The study’s findings directly correlate to the research question and findings within the nursing program at Georgia Southern.

In the questionnaire, students were asked to compartmentalize their motivation and perception of online learning in comparison to face-to-face learning. Motivation can only be construed from within therefore it was an important factor in relation to nursing students during online learning. Students were asked this for Spring 2020, Fall, 2020, and Spring 2021 as shown in Appendix B. The choices were better, worse, similar, or not applicable for students who were not active School of Nursing students at that time. During the Spring of 2020, 37.5% of nursing students in this study claimed their
motivation to learn was worse as compared with previous semesters. Following this trend, in both Fall 2020 and Spring 2021, 31.25% of the sample population claimed their motivation was worse during this time. The motivation to learn increased by 25% from Fall 2020 to Spring of 2021. This data aligns with reasonable expectations of nursing students to adjust to the learning environment on the virtual platform. By Spring of 2021, classes were hybrid format allowing some face-to-face interactional learning, and based on the data students noted an increased motivation. Browing et al., (2021) analyzed psychological impacts of online learning in seven universities across the United States. Similar to the findings based on this Georgia Southern School of Nursing study, the researcher noted 21.5% of students reported a decrease in motivation to continue on with school. These findings based on the student’s motivations are significantly impacted by many different variables such as reasons for continuing education in the first place and adequate support system. Further research could be conducted to gather data based on these factors of motivation and their impact on nursing students during the e-learning semesters.

The results from the question concerning “which learning strategy in online learning was most helpful” was not conclusive. The submission’s responses varied from student to student for the ordering of the different styles. Participants were also asked their ideal learning style for the Fall of 2021. The majority (58.33%) elected face-to-face learning would best suit their learning needs. Only 8.33% claimed only online learning would be beneficial to a successful completion of their nursing education. This data is noted in Appendix C.
These results aligned with our predetermined hypothesis that students were more likely to think face-to-face learning would help them the most in their career as students. Students' perceptions relating to online learning were determined to be lower in comparison to at least some face-to-face learning. Specifically student participants noted on the questionnaire what factors caused more anxiety among them. Three senior participants commented regarding some of their struggles with going virtual. One student in particular suggested professors send either one email or one news post. She highlighted how stressful it was to be the student on the other side receiving a multitude of emails and messages from professors. Having to sort through these messages resulted in greater stress because the participant felt as if she was not able to keep up with all the semester requirements. Another student explained that she wished the professors would have communicated more effectively with the students. She emphasized how she and her classmates felt confused and nervous regarding the future of the continuation of their education. This directly correlates with the previous student’s recommendation of professors improving communication techniques. The main fears from students resulted from a sudden shift in communication outlets. Both senior and junior students recognized this was not solely due to professors' lack of communication, but rather the fear of change from a way of communication they knew and were comfortable with to various emails and folio postings. Communication was an underlying feature in the majority of students’ negative experiences among online learning. This knowledge of nursing students’ perceptions further points to the importance of training students on how to manage anxiety resulting from external stressors. Aslan & Pekince (2020) also noted this
phenomenon of the need for training students on how to better manage stress moving forward.

**Demographic variables**

There were a total of 48 nursing students who completed the questionnaire. This is proportional with the gender distribution of nursing students at Georgia Southern University School of Nursing. There tends to be only a select few male students per cohort on both the Armstrong and Statesboro campus. Therefore, gender could not be identified as a significant variable in this discussion.

It can be argued that the senior students of the class of Spring 2020 would be more anxious about the potential effect online learning could have on clinical experience and graduation. This finding was not significantly noted within the questionnaire due to the time the questionnaire was presented to the cohorts of the School of Nursing. Graduating seniors of the Spring 2020 semester were not a part of the interest group within this project. The cohort directly following them were impacted greatly by the results of online learning as indicated in the results discussion. On the contrary, junior students seemed to be more dependent on face-to-face classes, and they would find online learning more challenging for this population. These assumptions are reflected in comments noted in the discussion.
Conclusion

Important conclusions were drawn from studying the perceptions of nursing students regarding online learning in the midst of a pandemic. Specifically, recommendations were drawn from the conclusions resulting from the questionnaire. Although the study cannot be generalized due to the amount of limitations, recent literature and results from the study create more ideas to better the learning of students in the next pandemic or in the case of sudden changes within the nursing program.

Communication is a common theme as seen among the students in the nursing program at Georgia Southern University. It is important to cultivate an environment of effective communication in order to achieve effective learning strategies. The other overarching goal moving forward needs to form a creative approach to virtual clinical and create more opportunities for students to engage in the lectures through interactive techniques. These innovations will not only benefit the program, but they will also decrease the nursing students' stress levels regarding training to become healthcare professionals. Nursing students' stress levels dramatically increased from the pandemic, but moving forward there is hope of a more stress reducing environment using a research based approach (Abbasi et al, 2020, Aslan & Pekince, 2020, Browning et al., 2021, Fitzgerald & Konrad, 2021, Geng et al., 2021, Gray et al., 2016, Lovric et al., 2020, Oducado et al., 2021, Rana et al., 2021).
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https://doi.org/10.12669/pjms.36.covid19-s4.2766


https://doi.org/10.1371/journal.pone.0245327

https://doi.org/10.1111/nuf.12547

https://doi.org/10.3390/su13063413


Appendix B

![Bar charts showing student perceptions of virtual learning in Spring 2020, Fall 2020, and Spring 2021.](image)

- **Spring 2020**
  - Red: Similar
  - Purple: Better
  - Blue: Worse
  - Green: Not applicable (did not attend online class)

- **Fall 2020**
  - Red: Similar
  - Purple: Better
  - Blue: Worse
  - Green: Not applicable (did not attend online class)

- **Spring 2021**
  - Red: Similar
  - Purple: Better
  - Blue: Worse
  - Green: Not applicable (did not attend online class)
To: Lewis, Harper, Besier, Mary

From: Eleanor Haynes, Director, Research Integrity

Approval Date: 4/7/2021

Expiration Date: 3/31/2022

Subject: Status of Application for Approval to Utilize Human Subjects in Research – Expedited Review

After a review of your proposed research project numbered H21322, and titled “In the Midst of a Pandemic: Exploring Nursing Students' Attitudes and Beliefs Towards Their Training and Education Post-COVID,” it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable. You are authorized to enroll up to a maximum of 600 subjects.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research.

Description: The purpose of this study is to identify learning and communication concerns, as well as, to identify the perceptions of transitioning to online learning of GSU nursing students.

If at the end of this approval period there have been no changes to the research protocol; you may request an extension of the approval period. In the interim, please provide the IRB with any information concerning any significant adverse event, whether or not it is believed to be related to the study, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator prior to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a Research Study Termination form to notify the IRB Coordinator, so your file may be closed.
Appendix E

Dear fellow students,

My name is Harper Lewis (Senior I student, Statesboro campus) and I am conducting a research study on how switching to virtual learning in the Spring of 2020 has since affected Georgia Southern nursing students. I am interested to see the various responses from the students across different campuses and among four semesters.

This research is a part of the School of Nursing within the Waters College of Health Professions.

I am using a questionnaire developed by my research expert and I based on literature and a validation group of 5 participants. You will be asked to complete the questionnaire based on your experience in the School of Nursing program.

Participation in this study will be conducted by completing an online survey about the effects of the shift in virtual learning based on your psychological perspective and experience. You are not required to complete the entire survey, you will be able to stop it at any time.

The survey takes approximately 10 minutes to complete.

If you decide to participate in the study, your answers will remain confidential. You will be asked the semester you are enrolled in however none of the answers from the survey will be traced back to the database used for the survey. Qualtrics (the database) will not collect your IP addresses and the researcher will code the data so there are no other identities associated with the survey. You will not be identified by name in any of the data reports using information obtained from this study. All confidentiality as a participant in this study will remain secure.

Right to Ask Questions: You have the right to ask questions and have those questions answered. If you have questions about this study, please contact Harper Lewis at hl02070@georgiasouthern.edu or by phone (912) 678-0457. For all other questions concerning your rights as a research participant, contact Georgia Southern University Office of Research Services and Sponsored Programs at (912) 478-5465.

Discomforts and Risks: The risks associated with this study will be no greater than what would be encountered in
day-to-day life. Further you are encouraged to discontinue the survey if at any point you feel uncomfortable. You are also encouraged to reach out to the researcher with any comments/questions/concerns.

Benefits: There are no direct benefits to you for your involvement in the study. Your responses may help us to improve transitioning to virtual learning in the future and show us areas of improvement within the School of Nursing on how to effectively help students with stress over unexpected and unforeseen circumstances.

Statement of Confidentiality: All information will be treated confidentially. The database used in the project will not collect IP addresses at any time. Data will be maintained in a password-protected database and held for three years under the guardianship of Harper Lewis. After three years, the data will be destroyed in a confidential manner.

Compensation: There will be no compensation for completion of this survey. Minimum Age: You must be 18 years of age or older to consent to participate in this research study.

Inclusion/Exclusion criteria: To participate in this survey you must be 18 years of age, a Traditional undergraduate student in the School of Nursing at Georgia Southern University. You must have started the program in the Fall 2019, Spring 2020, Fall 2020, and Spring 2021. You may not participate if you are under the age of 18 and/or started the nursing program outside of the semesters listed above.

Please print this page if you would like a record of the consent document.

Title of Project:
"In the Midst of a Pandemic: Exploring Nursing Students' Attitudes and Beliefs Towards Their Training and Education Post-COVID"

Contact Information:
Harper Lewis’ email: hl02070@georgiasouthern.edu
Mary Bester’s email: mbester@georgiasouthern.edu

Instructions to complete: For each of the questions, choose the response most applicable to you.

Do you consent to participate in this survey?
☐ Yes, I consent to participate.
☐ No, I do not consent to participate.

What is your age? Select one.
☐ 18 years old
☐ 19-20 years old
☐ 21-23 years old
☐ 23-25 years old
☐ 25 or older

What is your gender? Select one.
☐ Male
☐ Female
☐ Other
☐ Prefer not to say
Virtual Learning for Nursing Students

What semester are you currently in at the time of this questionnaire? Select one.
- [ ] Junior 1
- [ ] Junior 2
- [ ] Senior 1
- [ ] Senior 2

What were your BIGGEST concerns when you were informed SON (School of Nursing) was changing to virtual learning in Spring 2020? Select all that apply.
- [ ] Exams
- [ ] Assignments
- [ ] Lecture Time
- [ ] Home setting/ personal situation
- [ ] Internet accessibility
- [ ] Clinical work
- [ ] Skills lab
- [ ] General uncertainty
- [ ] Not applicable (was not a SON student at the time)
- [ ] Other

What were your BIGGEST concerns when learning SON (School of Nursing) may have some e-learning in Fall 2020? Select all that apply.
- [ ] Exams
- [ ] Assignments
- [ ] Lecture Time
- [ ] Home setting/ personal situation
- [ ] Internet accessibility
- [ ] Clinical work
- [ ] Skills lab
- [ ] General uncertainty
- [ ] Not applicable (was not a SON student at the time)
- [ ] Other
In relation to format for learning in the Spring 2020, rate the following strategies during the shift to online learning from MOST helpful to LEAST helpful. Click on answer choice and move option up or down.

- Instructors posting PowerPoints in Folio
- Zoom/ Google meet
- Attending online class only
- Attending face-to-face class when offered
- Attending online classes when offered
- Instructors posting recorded lectures
- Having recordings available from online classes

In relation to format for learning in the Fall 2020, rate the following strategies during the shift to online learning from MOST helpful to LEAST helpful. Click on answer choice and move option up or down.

- Instructors posting PowerPoints in Folio
- Zoom/ Google meet
- Attending online class only
- Attending face-to-face class when offered
- Attending online class when offered
- Instructors posting recorded lectures
- Having recordings available from online classes
Which choice would be your ideal learning style for Fall 2021? Select one.

- only face-to-face
- only online
- hybrid - some face-to-face and some online

In relation to communications for Spring 2020, rate the following strategies during the shift to online learning from MOST helpful to LEAST helpful. Click on answer choice and move option up or down.

- Instructors sending emails
- Virtual office hours
- Posting in News items

In relation to communications for Fall 2020, rate the following strategies during the shift to online learning from MOST helpful to LEAST helpful. Click on answer choice and move option up or down.

- Instructors sending emails
- Virtual office hours
- Posting in News items
When attending online classes versus in-person, my participation (asking questions, adding to discussions, working in groups effectively) was: Select 1 option from each column.

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<th>Spring 2020</th>
<th>Fall 2020</th>
<th>Spring 2021</th>
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<td>Not applicable (did not attend online class)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When attending online classes versus in-person in the Spring 2020, my concentration (ability to remain focused on topics in lecture) was: Select one.

- Similar
- Better
- Worse
- Not applicable (did not attend online class)

In comparison to strictly face-to-face learning, how would you rate your motivation to learn online? Select 1 option from each column.

<table>
<thead>
<tr>
<th></th>
<th>Spring 2020</th>
<th>Fall 2020</th>
<th>Spring 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Similar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not applicable (did not attend online class)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How many clinical days (hospital or clinical setting) did you have in the Spring 2020? This does not include virtual clinical learning. Write in your answer for each box.

<table>
<thead>
<tr>
<th></th>
<th>Write in the number of clinical days.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2020</td>
<td></td>
</tr>
<tr>
<td>Fall 2020</td>
<td></td>
</tr>
<tr>
<td>Spring 2021</td>
<td></td>
</tr>
</tbody>
</table>

I am confident in my clinical skills I learned during the semester listed. Select 1 option from each row.

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Somewhat disagree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Not applicable (was not a SON student)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring 2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What recommendations would you make for instructors in the future if a similar situation were to happen and we had to switch to fully online learning? Write in response.

Looking back on Spring 2020 and Fall 2020, what was MOST helpful for your learning? Write in response.

Looking back on Spring 2020 and Fall 2020, what was LEAST helpful for your learning? Write in response.
What are your BIGGEST concerns about your studies at the time you are completing this questionnaire? Write in response.

Were you at any time in quarantine due to a positive COVID-19 diagnosis? Select one.
- Yes
- No
- Prefer not to answer

Were you at any time in quarantine due to exposure to a person with a COVID-19 positive diagnosis? Select one.
- Yes
- No
- Prefer not to answer

Did any person in your immediate family or close friend's circle die or become seriously ill due to COVID-19? Select one.
- Yes
- No
- Prefer not to answer
When applying for a position once you graduate, do you think your prospective employer will view your training and your competency, upon learning part of it was “virtual” or “hybrid” learning the SAME as other registered nurses applying for the position? Select one.

- Yes
- No
- Uncertain

Which of the following did you experience the most:
Select all that apply.

<table>
<thead>
<tr>
<th></th>
<th>Spring 2020</th>
<th>Fall 2020</th>
<th>Spring 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hopelessness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frustration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxious</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depressed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incompetent to continue as a nursing student</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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What was/is your living status on the majority of days during the semester?
Select one option from each column.

<table>
<thead>
<tr>
<th></th>
<th>Spring 2020</th>
<th>Fall 2020</th>
<th>Spring 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live alone</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Live with partner</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Live with roommate</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Live with parents</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Live with spouse</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Live with other relatives</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>