


An academic–practice partnership during COVID-19 pandemic: Transitioning from a clinical to virtual fellowship

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Abstract

Aims: Discuss the needed modifications that occurred to the academic–practice oncology partnership during the COVID-19 pandemic.

Background: To meet the workforce needs of nurses who care for adults with cancer, an academic–practice partnership was created in 2016. The University of North Carolina at Chapel Hill School of Nursing, North Carolina Cancer Hospital and UNC Lineberger Comprehensive Cancer Center collaborated to provide structured clinical and didactic practice experiences for undergraduate nursing students interested in oncology nursing. With COVID-19, nursing students were not permitted to be in the clinical setting.

Design: Discursive paper.

Method: An innovative and collaborative partnership created reflective and interactive activities. The majority of the learning activities were created at the revised Bloom's taxonomy level of application or higher, with some encompassing multiple levels. Students engaged in a variety of meaningful experiences requiring multiple learning processes that promoted professional development in the interpersonal and critical thinking domains.

Conclusions: Despite the challenges of COVID-19, the delivery of oncology nurse fellowship was successful because of innovative virtual strategies.

Relevance to Clinical Practice: Our academic–practice partnership allowed the nursing students to develop their interpersonal and critical thinking skills without entering the clinical site. This is an approach encouraged by the authors for other schools of nursing.

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KEYWORDS

academic–practice partnership, coronavirus, COVID-19, innovative teaching strategies, nursing students, oncology

1 BACKGROUND

Nurse educators need to ensure that nursing students with an interest in oncology nursing are approached early in their undergraduate nursing education to foster professional development in this specialty area (Fleming et al., 2020). Based on this need, oncology nursing fellowships have been in existence for over a decade and have demonstrated instrumental and valuable support to nursing students as they transition into practice caring for patients with cancer and their families (Coakley & Ghiloni, 2009; Mollica & Hyman, 2016). Nursing fellowship programmes have been established since the 1980s with benefits of mentored clinical exposure and didactic experiences for the student (Lott et al., 2011; Walker, 1987). Typically, newly graduated nurses enter their first nursing job with little oncology experiences from their undergraduate nursing curriculum. Most enter nursing with adult focussed medical-surgical experience but lack caring for adults with cancer during and after their treatment. In general and specialty fellowships, nursing students are paired with 1–2 nurses, known as preceptors, who provide a supportive environment conducive to learning for nursing students for several days to weeks. Two benefits of these nursing fellowships are as follows: (a) empowering nursing students to bridge the knowledge and clinical gap in either a general or specialty unit and (b) building workforce capacity in medical-surgical nursing or a specialty area where these students may decide to work upon nursing graduation.

Our fellowship programme was modelled after the Carol A. Ghiloni Oncology Nursing Fellowship at Massachusetts General Hospital and the Susan D. Flynn Oncology Nursing Fellowship; both of these fellowships expose nursing students to a variety of clinical and educational opportunities to foster professional development in oncology nursing (Fleming et al., 2020). Our oncology nursing fellowship programme was initiated in 2016 with the support of Fred Flynn, Jr., who lost his wife in 2013 to ovarian cancer. In her memory, Fred named the Susan D. Flynn Oncology Nursing Fellowship, which has enabled several nursing students to partner with schools of nursing (Flynn, 2015). Mr. Flynn's work led to a combined effort with the University of North Carolina at Chapel Hill (UNC) to support future oncology nursing students at the UNC Lineberger Comprehensive Cancer Center (LCCC), North Carolina Cancer Hospital (NCCH) and UNC School of Nursing (SON), with aims to increase the number and build capacity of oncology nursing students interested in the care of patients with cancer and their families beginning in 2016. The programme was designed to stimulate and foster professional development in oncology nursing among students in their third clinical semester (Leak Bryant & Mason, 2019). The aim of this manuscript is to discuss the changes that occurred to the academic–practice oncology partnership during the COVID-19 pandemic.

We had eight applicants, and four students were competitively selected for the 2020 Oncology Nursing Fellowship. Each virtual session was 1.5 hours weekly attended by the four students, SON oncology faculty, clinical staff depending on the session and the

What does this paper contribute to the wider global clinical community?

- Educators in academia and in the clinical setting can work to build partnerships between schools of nursing and acute care hospital settings, and partnerships can be expanded to the community and clinics.
- Innovative teaching strategies using virtual platforms can be implemented during the COVID-19 pandemic, even when on-site clinical rotations are limited.
- Critical thinking and interpersonal nursing skills can be facilitated in a virtual environment, using activities such as case studies, podium presentations and patient interviews, all of which can be completed online.

oncology Clinical Nurse Education Specialists (CNES's) joined when they were available. The programme was delivered over a 12-week period. Overall, the students were pleased in a virtual fellowship, and we were able to transition it to a meaningful experience. One benefit of the virtual fellowship was seeing each student weekly and learning more about each other personally and professionally which fostered a supportive and collaborative environment. A couple of suggestions for improvement for the virtual fellowship include collaborating interprofessionally with others who care for adults with cancer. For example, we plan to include a pharmacist and nurse practitioner in the future in the unfolding case study as 'near misses' are described.

2 DESCRIPTION OF ONCOLOGY NURSING FELLOWSHIP BEFORE COVID-19

2.1 Selection process

Pre-licensure baccalaureate nursing students are competitively selected for this fellowship. They submit their grade point average (minimum 3.0/4.0 or higher), resume, an essay and two letters of recommendation (one from a faculty member). On average, 10 students apply annually for two to four paid fellowship positions. The selection committee consists of seven oncology staff: two SON faculty, the Nursing Director of Oncology and Medicine, Patient Service Managers for Inpatient Medical Oncology and Blood Marrow and Transplantation, and two certified Oncology CNES's. Those who are not selected for the programme are sent a letter encouraging them to join the Oncology Nursing Society (ONS) as a student (a free membership), attend local chapter ONS meetings and meet with the oncology nursing faculty. We encourage all applicants—both those who were selected and those not selected—to consider a nursing assistant position within the cancer hospital.

2.2 Fellowship Components

UNC SON faculty, LCCC and NCCH worked collaboratively to provide unique and comprehensive experiences for nurse fellows Hospital. The fellowship consists of a 6 week, 36 hours a week paid internship where the fellows observe a variety of inpatient and outpatient roles and associated responsibilities, and participate in various internal oncology-related conferences. Those areas may include (a) inpatient oncology, where the fellows observe and learn the care of patients that may be newly diagnosed or admitted for symptom management, facilitating student exposure to a multitude of technical nursing skills; (b) infusion services, where fellows observe and learn 'best practices' for providing care for patients/families undergoing chemotherapy, biotherapy or immunotherapy treatments and related symptom management; (c) radiation therapy, where fellows observe the care of patients receiving radiation therapy, including the assessment, evaluation and interventions for symptoms experienced by patients/families; (d) surgical oncology, where fellows observe the care of patients receiving surgery, including the assessment, evaluation and interventions for post-operative care for patients/families; (e) clinical research, where fellows begin to understand the role that nurses perform in research and clinical trials to improve outcomes for patients/families; (f) palliative care and hospice services, where fellows learn about the services and critical role that nurses and the interdisciplinary team provide for patients/families; and (g) patient support programmes, where fellows learn what is available for patients/families in need of psycho/social support and participate in the Comprehensive Cancer Support Program offerings. The programme is focussed on adult oncology nursing care, and students participate in a combination of 12-hour nursing shifts with a preceptor (i.e. on the inpatient units) and shorter special experiences, with clinic-based preceptors for outpatient areas. During this fellowship, fellows also identify and work on a clinical topic of interest that is supported by current research literature. The steps of the process for the clinical topic of interest include the following of the students: (a) enter the fellowship programme in May of each year, (b) select a topic of clinical, educational or research interested related to care of patients and/or their families, (c) have a question and answer with nursing honours coordinator, (d) mentored by oncology nursing and oncology CNES's on their selected topic through literature reviews, cancer resources and sites, (e) topic refined during fellowship and presented weekly at virtual meetings with feedback from students, SON faculty and oncology CNES's and (f) presented at the end of the summer fellowship graduation with donors, leadership and their families present. Once the student graduates from the summer fellowship, the SON oncology fellowship faculty continues to mentor the students and becomes the honours advisors for their senior project. This allows for continual mentorship and expansion of their honours project.

Survivor interviews were another important component of the fellowship, and they were continued in the online format. The interviews were part of the fellowship learning activities that were initiated by the SON oncology faculty. Students reflected on their

experiences interviewing survivor and caregivers during the presentation. They shared the importance of active listening and found the COMFORT communication curriculum useful when engaging with survivors and caregivers (Wittenberg et al., 2018).

2.3 Reflective Learning Activities during COVID-19

The COVID-19 pandemic presented unique challenges for the delivery of oncology nursing content and implementation of clinical experiences for oncology fellows. In March 2020, limitations due to conserving personal protective equipment (PPE) and decreasing exposure risk during in-person student experiences were enacted at UNC Hospitals and the LCCC, which limited hands-on clinical practice. The safety of both the students and the oncology patient population were of utmost importance. These limitations, combined with our desire to decrease the potential spread of COVID-19, led us to collectively decide to deliver the oncology clinical fellowship in an entirely online format, which included a blending of reflective learning activities, online meetings and self-paced learning. In 2020, in lieu of face-to-face experiences, the fellowship organisers instead used reflective learning activities that could be implemented virtually to maintain the safety of students and oncology patients alike. The benefits and critical need for use of reflective practices for student learning is central to this part discursive paper, making the approach of this educational programme unique.

In traditional nursing student clinical experiences, students typically have the opportunity to develop nursing competencies in the technical, critical thinking and interpersonal domains of learning (Wright, 2005). At the time of the fellowship, the oncology nursing fellows were in their third semester of nursing clinicals. At this point in their nursing student trajectory, students are usually practising technical skills such as intravenous catheter insertion, administering medications and assisting with activities of daily living. However, because the oncology clinical fellowship was delivered in an entirely online format, we used a range of virtual activities to focus distinctly on the critical thinking and interpersonal domains. Through these activities, the nursing student fellows were pushed to develop their critical thinking, reflective and communication skills, all of which are essential to oncology nursing (Table 1). Some general nursing technical skills simply could not be demonstrated in the virtual environment. However, fellows will have opportunities to practice and demonstrate these skills in their oncology immersion transition into practice capstone during their last semester of nursing school.

The reflective learning activities were also developed using Revised Bloom's Taxonomy (Anderson et al., 2001). The Revised Bloom's Taxonomy provides a framework for student learning and transfer of knowledge by outlining cognitive processes and knowledge types (Su & Osisek, 2011). Lower order cognitive processes include remembering and understanding, while more advanced cognitive processes include application, analysing and evaluating (Heer, n.d.). The majority of the learning activities were created at the level

TABLE 1 Description of Oncology Nursing Fellowship Reflective Learning Activities during COVID-19

Reflective activity title	Delivery mode	Competency domain(s)	Level(s) of revised Bloom's taxonomy	Activity description
ONS cancer basics course (provided by ONS at no cost for students)	Self-paced, online delivery of content	Technical, critical thinking	Understand basic concepts of cancer and apply knowledge by asking questions	Students used this foundational course to discuss clinical case studies and role-playing clinical scenarios Technical skills included recognition of treatment-related symptoms, description of cancer risk, screening, and prevention, and review of patient and family education
Survivor and caregiver interviews	Live, zoom interview	Critical thinking, interpersonal	Understand the physical and emotional burden of cancer on survivors and caregivers	Students conducted an initial with survivors and caregivers and used fellowship content to conduct a more in-depth follow-up interview. Students shared their experiences in a reflective post and in the weekly virtual meeting
Unfolding case studies	Live, zoom meeting	Critical thinking	Apply knowledge of medication administration and analyse factors contributing to errors in oncology nursing practice	Students met virtually with SON faculty and the NCCH Oncology Clinical Nurse Education Specialists (CNES's) to analyse an unfolding case study in order to identify contributing factors of a 'near miss' chemotherapy medication error
Reflective discussion on the shift by Theresa Brown (Brown, 2015)	Blended, self-paced time to read book complemented by live zoom discussion	Critical thinking, interpersonal	Apply concepts of prioritisation and analyse responses to the oncology nurse's workload during a typical shift	Students met virtually with SON faculty and NCCH CNES's to reflect and discuss the book <i>The Shift</i> . They used guided discussion questions to connect their nursing education to clinical realities depicted in the book
Discussion with fellowship alumni	Live, zoom interview	Critical Thinking, Interpersonal	Understand the lived experiences of adult oncology and bone marrow transplant (BMT) nurses	Former alumni shared personal and professional experiences as an oncology nurse and strategies to provide self-care
Q and A with fellowship donors	Live, zoom interview	Interpersonal	Understand the lived experiences as caregivers and purpose of funding the fellowship	Donors reflected on the nursing care provided to their spouses and essential skills of an oncology nurse

Note: Because the oncology clinical fellowship was delivered in an entirely online format, a range of virtual activities were developed to facilitate learning, aimed to develop the students' critical thinking, reflective and communication skills.

of application or higher, with some activities encompassing multiple levels. Through the reflective learning activities, students were encouraged to apply past knowledge to new situations and to draw connections between content learned in class and previous clinicals to the oncology-focussed material being presented during the fellowship. Table 1 outlines each reflective activity used during the summer oncology nursing fellowship.

3 LESSONS LEARNED AND FUTURE IMPLICATIONS

Despite the challenges faced during the COVID-19 pandemic in the summer of 2020, the delivery of the oncology nurse fellowship was successful through the utilisation of innovative virtual teaching strategies. This approach is beneficial, and we encourage other schools of nursing to consider this innovative learning strategy when clinical placements site are limited. Through collaboration with clinical partners, such as the Oncology CNES's and practising oncology and bone marrow transplant nurses at LCCC, the student fellows developed their interpersonal and critical thinking skills without entering the clinical site. To conclude the experience, the fellows presented their topic of interest at the end of the fellowship via Zoom and it was well-received. Attendees were impressed with the depth of the cancer content presented, fellows' confidence in presenting, and abilities to share clinical, educational and research implications. The topics ranged from mindfulness-based stress reduction for breast cancer survivors, access to hospice care in rural areas, exercise-based interventions for cancer-related fatigue in patients with multiple myeloma and oral cryotherapy for prevention of chemotherapy-induced oral mucositis in adults with cancer. One advantage of virtual learning is being able to record sessions, presentations and being able to archive these for future use. Another advantage was that the students were able to learn interpersonal and critical thinking nursing skills in a relaxed and welcoming atmosphere, outside of a patient care area. Finally, as demonstrated by the reflective learning activities, students were able to enhance their development of interpersonal and critical thinking nursing skills. By engaging undergraduate nursing students in oncology-focussed content and connecting students with clinical partners, the programme coordinators are hopeful that upon nursing graduation, these students will enthusiastically seek employment in oncology nursing.

For future implications after COVID-19, we have considered adding a virtual component to the fellowship in addition to the hands-on experience. Although face-to-face observation and clinical experiences were temporarily halted during the COVID-19 pandemic due to hospital restrictions, it is the hope of the fellowship organisers that in-person experiences will resume in future years. Additionally, since these students were unable to engage in an in-person cancer clinical experiences, these 4 students will be immersed in the oncology transitions to practice capstone their fifth clinical semester (last nursing semester) which includes clinical experiences in inpatient and outpatient oncology areas (Fleming et al., 2020).

Critical thinking and interpersonal skills were the expected outcomes from this fellowship. Critical thinking is essential for nursing students to provide competent and safe care while improving patient outcomes (Sommers, 2018). Both critical thinking and interpersonal skills were evaluated through these specific examples (Table 1): students' communication abilities during the initial and follow-up interviews with the survivors and caregivers, book discussion to connect nursing education to clinical realities, and podium presentation of their topic of interest. We provided students both verbal and written feedback on ways to enhance critical thinking and interpersonal skills and students were receptive.

4 BEST PRACTICES ADOPTED FOR VIRTUAL AND ONLINE LEARNING

The programme coordinators will also incorporate the following practices in future virtual offerings to best facilitate a positive online experience. Students should be encouraged to confirm audio/video capabilities ahead of their first session. Programme coordinators should demonstrate the use of the mute function to minimise echo and show students how to use the chat box for communication, especially when multiple participants are online (such as during project presentations). Programme coordinators can allow fellows to practice screen sharing so that project presentations run smoothly. Finally, programme coordinators can encourage students to spell out the pronunciation of their name (s) and include their preferred pronouns at the beginning of virtual sessions, such as ASH-LEE, she/her/hers.

5 CONCLUSION

Despite the challenges faced during the COVID-19 pandemic, the academic-practice partnership between UNC School of Nursing and NCCH was strengthened in the summer of 2020. The programme coordinators successfully used online learning platforms to deliver the oncology fellowship with positive feedback from fellowship students and project stakeholders alike. Although it is the hope of the programme coordinators that face-to-face clinical experiences will be reinstated in future summers, aspects of the virtual fellowship can be used to supplement hands-on practice and facilitate students' critical thinking and interpersonal nursing skills.

6 RELEVANCE TO CLINICAL PRACTICE

The academic-practice partnership demonstrated by the oncology nursing fellowship is relevant to clinical practice as it aims to increase students' interest in working in oncology following graduation. The programme structure described in this paper confirms that students can be engaged in oncology-focussed content and develop their critical thinking and interpersonal nursing skills even when the

clinical site is not accessible. This programme structure can be mirrored by academic and clinical-based educators, with aims to foster academic and practice partnerships, and engage nursing students in specialty areas of nursing.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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