Redesigning and implementing a Canadian oncology nursing curriculum for an international partnership

by Karelin Martina, Lucia Ghadimi, Anet Julius, Diana Incekol, and Pamela Savage

ABSTRACT
Cancer is one of the leading causes of death and disability globally. As a result, there is a need to provide specialized nursing care to the increasing number of complex oncology patients. Numerous healthcare centres do not have specialized oncology nursing education programs, creating an environment where oncology patients may be cared for by generalist nurses. To address this gap, advanced practice nurses in Princess Margaret Cancer Centre have redesigned a local program to provide specialized oncology education to nurses caring for oncology patients. The purpose of this article is to share the experience of redesigning and delivering a Canadian Specialized Oncology Nursing Education (SONE) program in the Middle East. The article describes learnings from an international collaborative project undertaken in Qatar.

INTRODUCTION
Cancer is one of the leading causes of death and disability globally (World Health Organization [WHO], 2015). Gulf Cooperation Council (GCC) countries have also experienced a rise in the number of cancer cases with a continued projected increase (WHO, 2015). Individuals with cancer require complex care due to disease progression and treatment-related complications (Buckley et al., 2014). Nurses caring for oncology patients should have specialized oncology training with in-depth knowledge of the disease process and symptom management (Meenaghan, Dowling, & Kelly, 2012) if they are to be able to manage the changing complexities.

Several GCC countries have engaged international partners to provide education and mentorship to their staff nurses. Princess Margaret Cancer Centre (PM), a part of University Health Network (UHN), Canada, entered into such partnerships to support the improvement of care provided by oncology nurses. The purpose of this article is to share our experience regarding how we redesigned and delivered a Canadian Specialized Oncology Nursing Education (SONE) program in the Middle East. The article describes our learnings from the international project undertaken in Qatar. The request from our partners was to provide education for staff nurses currently working in the national cancer centre. The staff nurses would be relieved from their ward duties in order to attend the education days.

THE PARTNERSHIP
The program emerged as several cancer centres in the GCC were looking for partnerships to co-create knowledge, expertise and efficiency within the local context. The partnership focused on several departments including pharmacy, medical oncology, hematology and nursing. The goal for the nursing partnership, as aforementioned, was to increase nursing knowledge through a structured education program delivered by advanced practice nurses as subject matter experts. The aim was to train as many nurses as possible in order for the local cancer centre to provide similar onboarding education in the future.

THE CURRICULUM
The original SONE program was designed in Canada to support oncology nurses on their journey from novice to expert through continuous professional development courses and clinical practice. The original program consists of several courses with preceptorship and mentoring support, spanning over a two-year period (Savage, Fitzgerald, & Lee, 2015).
The curriculum consists of presentations on a variety of oncology topics supplemented with interactive activities. The importance of patient-centred care and patient and family engagement is central to all topics. Activities are intertwined throughout the workshops in order to offset the didactic lectures and emphasize key points. A detailed description of the original program can be found in the article entitled, ‘Piloting an Integrated Education Pathway as a Strategy to Prepare for and Encourage Specialty Certification’ by Savage, Fitzgerald, and Lee (2015).

The original SONE program was redesigned in order to support oncology nurses’ on-going professional development and was the basis for our international education work. The redesigned program has two components: Foundation in Oncology and Advanced Oncology (see Figure 1). The Foundations in Oncology section is six weeks in length and the Advanced Oncology component is 11 weeks in length. Both programs consist of three days of classroom session per week. The Advanced Oncology component delved deep into disease site specific (e.g., Lymphoma, breast cancer, etc.) pathophysiology, complications, and nursing considerations. It also explored psychosocial support and palliative care within the oncology setting. The advanced program allowed participants to apply newly acquired knowledge and oncology nursing concepts to challenging case scenarios.

Curriculum Redesign

The areas to be adapted within the original SONE curriculum were identified by key stakeholders from partnering institutions when an initial needs assessment was conducted. The original SONE curriculum was enhanced to include a greater emphasis on problem-based learning, application of knowledge, and local and cultural relevance. Canadian colloquialisms were removed and the problem-based learning activities were modified to build scenarios that were realistic to the local nursing practice. We also focused our content on malignancies and complications that were most prevalent in the partnering country. The content was enhanced with visual triggers and more interactive activities to promote reflection and critical thinking. Pre and post-tests were administered each day to measure knowledge uptake, as well as evaluate content effectiveness. In addition, learner feedback was solicited using an evaluation survey after each workshop. A final evaluation survey was administered six months after the nursing cohort had completed the Foundational component to measure self-efficacy.

Theoretical Principles underpinning the Curriculum

Brandon and All (2010) stress the importance of nursing curriculum that develops nurses as life-long learners who are capable of thinking critically, linking concepts, and applying knowledge to practical problems. Therefore, we chose to employ a constructivist theoretical approach to guide the curriculum redesign. A constructivist approach calls for numerous interactive activities to support students as active co-creators of their own knowledge (Brandon & All, 2010; Birkan-Baydan * Karadağ, 2014; Kay & Kibble, 2016). The activities include reflective exercises, case studies, group assignments, and discussions of complex issues that arise in the current practice setting of the learner (Brandon & All, 2010). Participating in activities, individually or in groups, allowed learners to think critically about a case or an issue and apply their knowledge to solve a problem (Hrynchak & Batty, 2012). Facilitators guided the learners through their thinking process, as opposed to providing them with answers in the beginning, to enhance the learning experience (Brandon & All, 2010; Kay & Kibble 2016). Co-creating knowledge ensured that we not only honoured the knowledge of the adult learner but also their lived experience of their work environment.

FACILITATING THE WORKSHOP

Three critically important factors in delivering the SONE program internationally included senior leadership support from partner organizations, cultural humility, and dynamic workshop facilitation (Yeager & Bauer-Wu, 2013). Ongoing communication and collaboration with all stakeholders allowed the curriculum to be relevant in its new setting.

Leadership Support

Strong senior nursing leadership support, both in Canada and in our partnered GCC country, ensured that appropriate resources were in place for successful delivery of the curriculum. One of the crucial resources was a locally situated Advanced Practice Nurse Educator (APNE). The constant

Figure 1: The Specialized Oncology Nursing Education Program Diagram
presence of the APNE allowed for the establishment of strong professional relationships with participants and a better understanding of the local cultural and social context. A local presence and visibility also allowed for ongoing communication between partnering organizations. As a result, any concerns regarding the educational content and delivery were modified in a timely manner. In addition, a second APNE dedicated for international work, remained at Princess Margaret Hospital in Canada and acted as a critical liaison between the hospital and the international site. Furthermore, the local senior leadership ensured that adequate staffing was in place to replace the nurses enrolled in the education program.

Cultural Humility
Cultural humility is defined as “a process of openness, self-awareness, being egoless, and incorporating self-reflection and critique” (Foronda, Baptiste, Reinholdt, & Ousman, 2016, p. 213). We believe that incorporating this concept to the curriculum allowed for increased contextual uptake of the SONE program. Genuine interest in other cultures, sensitivity to cultural differences, and a willingness to be flexible and adapt are instrumental in being effective facilitators in another culture (Greenholtz, 2000). Instead of making assumptions, facilitators continuously sought input from participants about their practice and experience. For example, discussions occurred that looked at the role of family members in healthcare decision making and participants were able to share their experiences. This approach allowed the facilitators to establish relationships founded on mutual respect, trust and genuine interest in the professional development of the learners. As a result, the learners were motivated to engage deeper and actively participate in the program. In addition, building trusting relationships encouraged participants to express their professional opinions and discuss their experiences openly. It was also important that facilitators created a balanced relationship where learners were valued and their knowledge respected. Common questions that were asked to build this trust were, “Can someone help explain this concept to the class?” or “What have you seen in your practice?” These questions allowed learners to not only voice their opinions, but also share their own clinical knowledge and experience with the rest of the class.

Dynamic workshop delivery
Flexibility in all aspects of delivering the SONE program was fundamental to effective implementation. Presenters constantly monitored participant engagement and understanding, adapting facilitation techniques, as appropriate. Ongoing assessment of participant knowledge base also allowed facilitators to gauge whether to delve deeper into a topic or briefly touch on the talking points. Various methods were used in this assessment; a popular and effective strategy was posing open-ended questions such as, “How would you assess whether your patient was taking their oral chemotherapy medication?” Even though facilitators were flexible in the content delivery, (e.g., using case studies or group discussion, being able to adjust to suit the situation of the moment) the integrity of the curriculum was not compromised. Efforts were taken to ensure objectives were met by the end of each session.

Diverse facilitation methods were employed in order to maximize learner’s engagement. Utilization of various techniques was critical to enhance learning and make the carefully prepared content come alive. Refer to Table 1 for select examples of these techniques.

EVALUATION
Facilitators delivered three Foundations SONE courses and one Advanced SONE course to a total of 52 participants. Some of the themes, (e.g., patient-centred communication, the role of nursing in psychosocial support, and considering rationales, beyond the physiological for certain nursing interventions) were new to participants. However, through the various activities and discussions, knowledge uptake and changes to critical thinking were evident. As each section was nearing the end, learners consistently discussed the connection of theoretical concepts acquired in class to their current clinical experience and how their learning had enhanced their practice.

Test Results
Participants demonstrated a marked improvement in their oncology knowledge as evidenced by their pre and post-test results. The test questions focused on the material that was covered during that day. Two examples of test questions for the foundations content include: “Which assessment

![Table 1: Engagement Technique Samples and Descriptors](image-url)

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<tr>
<th>Technique</th>
<th>Descriptors</th>
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<td>Think-Pair-Share</td>
<td>Learners were asked to think of a particular concept such as &quot;personalized medicine&quot; then share ideas as to how this affects oncology care and their experiences with it with their colleague or classmate. One or two people would then share their discussions with the rest of the class.</td>
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<td>Stop and think.</td>
<td>Learners were given 1 – 2 mins to reflect and write a few thoughts down about a question or concept that was posed. For example: “what does being an oncology nurse mean to you?” Sharing was optional.</td>
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<td>Learner-led facilitation</td>
<td>Learners were asked to briefly present on a topic in their clinical area of expertise. For example: management of dry desquamation in patients receiving radiation therapy.</td>
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<td>Interactive activities</td>
<td>Competitive activities such as Connect Four™ or Jeopardy™ were adapted and used to evaluate knowledge and make the learning more enjoyable.</td>
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<td>Group Case studies</td>
<td>To stimulate critical thinking and knowledge application, case studies were assigned to the class. Each group was asked to answer one of the problems or knowledge-based questions and present their response and rationale to the class.</td>
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finding requires an immediate intervention when assessing for peripheral neuropathy?" or “Which of the following is a complication that may occur in patients with brain tumours?” Refer to Figure 2 for a graphical summarization of pre and post-test mark averages by each cohort.

Workshop Evaluations
The session evaluations survey consisted of nine questions; two key questions are summarized in this report. In all four SONE cohorts, 100% of attendees either strongly agreed or agreed that the content would change their clinical practice, with the majority (>80%) indicating ‘strongly agree’. Participants were vocal about their changes to practice and work within the SONE workshops. Please see Table 2 for participant feedback comments.

Post-SONE Course Evaluation
Six months after completing the Foundations in Oncology component of the program, participants were given an evaluation survey, created by the Princess Margaret Hospital APNE team, measuring self-efficacy and perceived course benefits. A total of 36 out of 52 participants completed the survey representing a 69% response rate. Two key questions were: 1) ‘what have you changed in your practice since completing this course?’ and 2) ‘describe in just a phrase or sentence how this course has changed you’. Four main themes emerged from participants’ responses:

- Patient advocacy: nurses felt empowered to ask questions and make suggestion as a member of multidisciplinary team after attending SONE
- Patient experience: nurses described increased ability to explore patients’ needs, including psychosocial needs, and intervene appropriately in a holistic manner
- Continued competence: in addition to gaining comprehensive oncology nursing knowledge nurses described improvements in their critical thinking; some described how SONE stimulated their pursuit of further education
- Nursing leadership: nurses reported increased level of confidence in many areas of their practice as a result of taking SONE; in many cases this led to increased positive interactions with patients and other healthcare team members. In some cases this led to career advancement

Anecdotally, several of the senior local nursing leadership members and physicians at the partnering institution noted a “trickle-down effect” of cancer knowledge and confidence spreading across nursing staff. This was a result of SONE graduates sharing their knowledge with those who had not yet undertaken the SONE.

Table 2: Participant Feedback

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<td>“This course has given me the confidence to work in oncology settings. And I learned more rationales for the work that I am doing”</td>
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<td>“It changed how I view patients in pain and hopefully deal with them more accurately”</td>
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<td>“The videos and the presentation of the topics as case studies was beneficial”</td>
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<td>“The class lectures are explained in good and simplified form. The case studies allow us to think outside of the box, and interact with our group mates and colleagues”</td>
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<td>“The lecture was really excellent... changed my perception of the term ‘palliative care’”</td>
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<td>“This course changed me a lot... It helps for critical thinking”</td>
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<tr>
<td>“More knowledge, high confidence, excellence in practice.”</td>
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<tr>
<td>“It made me a more passionate oncology nurse.”</td>
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<tr>
<td>“Tell me more’ is going to be my masterpiece.”</td>
</tr>
<tr>
<td>“Thank you for the inspiring and informative lecture. Thank you for the spark you left in my heart.”</td>
</tr>
<tr>
<td>“Thank you for sending over very passionate, talented brilliant lecturers”</td>
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LESSONS LEARNED

Over the course of SONE program evolvement and implementation internationally, our team has learned a great deal. We have learned that having a safe learning environment is crucial for the successful delivery the program. However, a safe learning environment may mean different things to different people. For some, it may be having the time to explain concepts to one another in their own language; for others, not being required to share their opinion is important. To build trust amongst the learners we relied heavily on the cultural humility approach. We also learned that using interactive activities and a variety of teaching and learning strategies is very important to adult learners. Therefore, we incorporated a variety of case studies, role plays, competitive games, and multimedia to further explain concepts. This was particularly useful when working with learners whose English was a second language.

Finally, we have learned to remain neutral when participants shared misconceptions or beliefs about certain topics. It was important to respond respectfully, but also offer guidance that is aligned with internationally recognized best practices. Creating a safe environment, utilizing interactive teaching and learning strategies, and respectful interaction with learners fostered the trusting relationships that have been cultivated over time. As such, the flexibility of the visiting facilitators was essential in maintaining high quality of the program and continuously meeting the needs of the learners.

It goes without saying that a successful education program of this nature is first and foremost dependent on the vision and support of the senior leadership requesting the educational partnership. However, it is important to note that providing international education in this context has relied heavily on the work, guidance and support of the two APNEs that were employed locally and at Princess Margaret Hospital in Canada. These roles were essential in guiding the visiting facilitators in the educational needs of the participants with the cultural variations of the international perspective.

LIMITATIONS

There are three limitations to note in the delivery of this international program. The evaluation tool we used to assess self-efficacy was not a validated tool and, thus, the validity of the results cannot be ascertained. Also, learners took their post-test at the end of each day of the workshop, which limited our measurement of long-term knowledge uptake. A future approach would be to provide a final post-test at the end of the Foundation Workshop. Finally, although we tried to prepare the Canadian APNs as much as possible in the cultural humility and the constructivist approach, a lot of learning, guiding and teaching was done ‘in the moment’ by the locally assigned Canadian APN. In the future, a workshop on cultural humility and constructivist methods would be beneficial for the facilitating APNs prior to leaving for their overseas assignment.

CONCLUSION

Specialized and advanced nursing education and practice is still a relatively new concept in many parts of the world. However, nursing and healthcare leaders are recognizing the need for investing in the advancement of knowledge and skill because of the complexities of care that can impact patient outcomes (ISNCC, 2015). Sharing knowledge across culturally requires a thorough preparation, and focus on individuality and wholeness of the environment. This supports learner understanding within their own context.

ACKNOWLEDGEMENTS

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REFERENCES


