

Integration of Palliative Care in the Role of the Oncology Advanced Practice Nurse

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Abstract

Numerous organizations have cited the increasing demand for palliative care in oncology and the challenge of a limited workforce to deliver specialty palliative care. Advanced practitioners in oncology can provide generalist or primary palliative care to complement the care provided by specialists and enhance the overall provision of care. This article reports on a National Cancer Institute–funded training program to prepare advanced practice nurses to incorporate palliative care within their practice. One-year follow-up of the first three national cohorts (N = 276) included evaluation of goal achievement as these nurses integrated palliative care within their oncology practice. Goal analysis reported here demonstrates the success of the training program in impacting practice as well as the barriers to implementation efforts. The advanced practice registered nurses' implemented goals included extensive training of clinicians across disciplines and numerous systems changes to improve delivery of palliative care. Advanced practice nurses will continue to be a valuable source of extending palliative care into oncology care to support patients and families across the disease trajectory.

The benefits of palliative care have been documented through extensive clinical practice and research, yet workforce shortages have prevented full delivery of this care to all seriously ill cancer patients who need it (Aldridge et al., 2016). Researchers and health policy experts have concluded that one solution to the workforce shortage

would be to train oncology clinicians, including oncology advanced practice registered nurses (APRNs), to deliver palliative care as generalists and to supplement the efforts of palliative care specialists (Pang et al., 2015). An educational project was initiated in 2018, the End-of-Life Nursing Education Consortium Oncology APRN Training (<https://www.aacnnursing.org/ELNEC>),

to prepare oncology APRNs to perform an expanded role in the oncology workforce for integration of palliative care. Nurses spend the most time of all professionals with patients and families as they face serious illness (Schroeder & Lorenz, 2018).

This article describes this National Cancer Institute (NCI)–funded training program to prepare oncology APRNs as generalist palliative care providers. The training occurs through national training courses in annual workshops from 2018 to 2022. The ELNEC Oncology APRN program was designed to expand the professional role of advanced practice oncology nurses so that they can practice to the full extent of their training in areas such as pain and symptom management, communication, and psychosocial support. Oncology care benefits by supporting APRNs to expand their palliative care efforts (Dahlin, Coyne, & Ferrell, 2016). Additionally, research has demonstrated that palliative care benefits health-care systems by reducing hospitalizations and intensive care stays, increasing advance directive completions, and reducing futile care at the end of life (Ahluwalia et al., 2018; Bakitas et al., 2015; Berglund et al., 2015). The literature has suggested that APRNs and RNs with palliative care education and experience could assist in filling the palliative care workforce shortage (Collins & Small, 2019).

Palliative care has been recognized as a key component of quality cancer care with benefits to the patients and families across the domains of physical, psychological, social, and spiritual well-being from the time of cancer diagnosis through end of life. Palliative care also applies to long-term cancer survivors, as they often experience ongoing symptoms and quality of life concerns following treatment.

In addition to training oncology APRNs to become primary palliative care clinicians, the ELNEC Oncology APRN curriculum is designed in a train-the-trainer format so that the participant oncology APRNs become clinical role models and are prepared to train other clinicians. The investigators have previously reported on the course evaluations from the initial three courses ($n = 276$; Ferrell et al., 2020). This data documented high ratings for the course content and training. The intent of this article is to report on the imple-

mentation efforts by these oncology APRNs after completing the course. Goals specified by course participants before the course and the degree to which these goals were achieved are analyzed with discussion of lessons learned about the opportunities for oncology APRNs to apply the training to advance palliative care.

METHODS

The ELNEC Oncology APRN curriculum was designed for APRNs working in an oncology setting. In 2018, the ELNEC Oncology APRN curriculum was added to the list of ELNEC clinical courses (core, critical care, pediatrics, geriatrics) being offered. ELNEC had begun in 2000 as a way to increase the skill level of nurses who had not received palliative and end-of-life care education in the course of their nursing education (ELNEC, 2019). The courses have been presented in national and international workshops worldwide and later provided online with the assistance of Relias learning management system, an online provider of continuing education, to extend the reach of this valuable education. ELNEC curricula also exist for undergraduate and graduate nursing programs, and an ELNEC communication curriculum was added in January 2021.

Sample and Setting

Oncology APRNs interested in enrolling in the ELNEC Oncology APRN course completed an application and met eligibility requirements in order to be selected to participate. This included having been an oncology nurse for at least 5 years in adult or pediatric settings and holding a master's or Doctor of Nursing Practice degree. They also were required to spend 40 hours in the 12 months following the course with the palliative care team in their setting to receive clinical mentorship to complement the classroom instruction provided in the course. Participants also agreed to attend a 1-hour webinar meeting monthly for 12 months post course to provide continuing education/support, and they agreed to complete follow-up evaluations at 6 and 12 months following the course. Participants were encouraged to attend the course with a colleague from their institution so that they could support each other in implementing the training in their practice setting.

To be selected as a participant for the ELNEC APRN course, a candidate was required to specify in the application learning goals they intended to pursue after course completion. Achievement of these goals was evaluated at 6 and 12 months post course. Also as part of the registration process, the applicants selected to attend the course completed a survey about their current practice and submitted a letter of support from their cancer program and the palliative care program at their home institution. This requirement was intended to demonstrate support for the participant as they implemented their learning into practice.

Training Course

The APRN oncology nurses selected to attend one of the five annual workshops to be held from 2018 to 2022 received a travel stipend and free course registration. Enrollment was limited to 100 participants per course or 500 participants over the 5 years of courses. Three national courses have been completed thus far. Table 1 includes the demographic data from the first three courses. Participants were predominantly female, white, serving primarily adult populations, and nurse practitioners (87%).

Course Agenda

The 3-day ELNEC-APRN course agenda consisted of lectures, breakout sessions allowing time for role play, small group discussions, case study practices, and sessions focused on goals and development of strategies for future goal implementation. The curriculum was organized according to the National Consensus Project for Quality Palliative Care (2018) eight domains of palliative care (National Consensus Project for Quality Palliative Care, 2018): (1) Structure and processes of care; (2) Physical aspects of care; (3) Psychological and psychiatric aspects of care; (4) Social aspects of care; (5) Spiritual, religious, and existential aspects of care; (6) Cultural aspects of care; (7) Care of the patient nearing the end of life; and (8) Ethical and legal aspects of care.

In each domain, the content was tailored to focus on the palliative care needs of patients with cancer. For example, the physical aspects of care domain presents symptoms common in oncology such as pain, constipation, nausea, and dyspnea.

Table 1. Sample Characteristics (N = 284)

Characteristic	n	%
Gender		
Female	276	97
Male	7	2
Declined to answer	1	1
Ethnicity		
Non-Hispanic	266	94
Hispanic	12	4
Declined to answer	6	2
Race		
White	226	80
Black or African American	26	9
Asian	20	7
Native Hawaiian or Pacific Islander	2	1
More than 1 race	4	1
Declined to answer	6	2
Patient population		
Adult only	253	89
Pediatric only	22	8
Adult and pediatric	9	3
Title or position		
Nurse practitioner	247	87
Clinical nurse specialist	21	7
Other	16	6

The course focused specifically on the opportunities for APRNs to provide palliative care through their advanced practice role such as through effective communication with patients (Bennett & O'Conner-Von, 2020; Gentry, 2016; Thaxton & Neubauer, 2016), better symptom management, and involvement in family meetings. The curriculum highlights issues of greatest importance in current practice such as providing culturally respectful care (Mazanec & Panke, 2016) and the role of the APRN in the care of patients nearing the end of life (McHugh & Buschman, 2016).

This training project responds to recommendations made by a 2019 National Academy of Sciences (NAS) meeting on the topic of the workforce of the future to provide quality palliative care (NAS, 2020) that full participation by APRNs can meet the significant workforce needs to deliver

serious illness care for both adults and children. Other key reports, including the 2013 Institute of Medicine (IOM) report “Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis,” research presented at ASCO’s 2019 Quality Care Symposium, and the 2020 National Academy of Sciences report on “Building the Workforce to Care for People with Serious Illness,” have emphasized the importance of clinician training to improve quality palliative care. Kamal and colleagues (2019) also emphasized the need for health policy change to expand the specialty workforce given their “untenable current and projected workloads.”

Goal Implementation by APRNs

The 6- and 12-month post-course goal evaluation was conducted by e-mail with follow-up in order to achieve a better response rate. The participants provided updates on their original goals to reflect what they had achieved. The goals were then reviewed by two project team members and coded in order to identify common themes.

Table 2 provides a summary of activities by the APRNs following the courses organized by palliative care domain (National Consensus Project for Quality Palliative Care, 2018). Goals were coded as to whether they pertained to training others or represented other forms of implementing the content of the course. This was done as the project in-

vestigators wanted to see if the APRN participants used their training and course materials to train others, but they were also interested in efforts that went beyond training to implement change in practice. A total of 421 activities related to goals were reported by the participants, and of these, 133 (31%) were related to training colleagues across disciplines. The remaining 288 (69%) were other activities such as making systems changes in practice settings or improving their own practice.

The areas of palliative care most frequently addressed in training others were in domain 1, structures and processes of care, which is content related to palliative care in general, such as defining palliative care and supporting patients in defining goals of care. This domain was also the most common area of implementation. In addition to the eight domains of palliative care, participants reported many activities and training focused on their own continued development, such as taking additional palliative care coursework, becoming certified in oncology or palliative care, improving self-care practices, or pursuing other career development activities.

Table 3 provides information regarding implementation efforts by domain. It was encouraging to see that implementation efforts covered diverse areas of patient care and often reflected systems changes that would impact many patients and could potentially be integrated into continued practice.

Table 4 summarizes some of the key factors identified in the goal follow-up as being either facilitators to achieving goals or as barriers that made course implementation efforts difficult. In terms of facilitators, participants primarily described how their own improved knowledge and skills gained from the course allowed them to be more effective in the clinical setting. Participants also identified the many resources provided, particularly those available online, as being of strong support as they attempted to make changes with limited time available. Most barriers were factors beyond the control of the APRNs, such as the impact of COVID-19, needs of rural patients that were difficult to meet, or structural changes in their practice.

Participants reported that all domains presented in the curriculum were valuable and applicable to their practice. Areas emphasized as most helpful included pain and symptom management,

Table 2. Implementation Efforts by Domain

Domain	Training	Other
Domain 1: Structure and processes of care	65	100
Domain 2: Physical aspects of care	3	12
Domain 3: Psychological and psychiatric aspects of care	1	4
Domain 4: Social aspects of care	0	0
Domain 5: Spiritual, religious, and existential aspects of care	0	8
Domain 6: Cultural aspects of care	1	5
Domain 7: Care of the patient nearing the end of life	2	3
Domain 8: Ethical and legal aspects of care	0	1
Other (personal growth, etc.)	61	155
Total	133	288

Table 3. Examples of Dissemination Efforts

Domain 1: Structure and processes of care	<ul style="list-style-type: none"> • Coordinated and taught an ELNEC course for staff • Provided in-service education to staff on palliative care • Created a program to provide proactive monitoring for high-risk patients • Rewrote and implemented an ICU delirium protocol • Developed an educational needs assessment to send to 100 oncology advanced practice providers (NPs and PAs) and will develop an educational plan • Presented 3 programs with the introduction of the pain module • Created a new palliative care template for MDs, RN, and ancillary staff • Working to change the negative perception of palliative care among some providers and patients by having more family meetings and incorporating discussion of palliative care
Domain 2: Physical aspects of care	<ul style="list-style-type: none"> • Worked with the palliative care team and new PC MDs • Spent 4 hours/week in PC clinic to build on symptom management and communication skills • Improved percentage of advance directive completion and increased palliative care referrals • Physician team is trialing daily walking rounds and are including a representative from case management, nutrition, social work, chaplaincy, physical therapy, and nursing staff, sharing their roles to better serve patients. • Improved symptom management skills • Improving with pain management • Expanded prescription of adjunct pain therapies • Met with the assistant director of staff development to discuss best method for disseminating ELNEC • Working on a quality improvement project to enhance discharge and admission conversations to improve the patient’s experience
Domain 3: Psychological and psychiatric aspects of care	<ul style="list-style-type: none"> • Began screening for mental health and substance abuse disorders at initial evaluation
Domain 5: Spiritual, religious, and existential aspects of care	<ul style="list-style-type: none"> • Improved efforts when disease recurs to discuss with patient goals of care and help identify spiritual/cultural concerns that will impact their care • Improved communication skills and have had opportunity to have spiritual/disease-related conversations during clinic and day-to-day patient responsibilities
Domain 6: Cultural aspects of care	<ul style="list-style-type: none"> • Improved my own and staff knowledge of cultural and spiritual care skills • Discussed cultural concerns with more patients
Domain 7: Care of the patient nearing end of life	<ul style="list-style-type: none"> • More comfortable discussing EOL and goals of care with patients and families • Began planning ELNEC education program for oncology APRNs to focus on end-of-life care • Conducted seminars for nurse resident program to address pain, PC, and EOL care with 75 nurse residents • Established the “moment of pause” to honor patients following death
Domain 8: Ethical and legal aspects of care	<ul style="list-style-type: none"> • Served as ONS advocate on Capitol Hill, meeting with legislators to garner support for PCHETA bill
Other	<ul style="list-style-type: none"> • Referring metastatic breast cancer patients to palliative care much earlier in the process • Improved communication skills have led to honest conversations with oncologists when they are being more optimistic than realistic • Joined a network of palliative care professionals to collaborate with on complex cases • Talking less and listening more

Note. ELNEC = End-of-Life Nursing Education Consortium; ICU = intensive care unit; PC = palliative care; EOL = end of life; ONS = Oncology Nursing Society; PCHETA = Palliative Care and Hospice Education and Training Act.

communication skills, and expanding their role as APRNs in advance care planning, as well as participation in family meetings.

DISCUSSION

This project to prepare oncology APRNs as generalist providers of palliative care is a response to re-

ports by the National Academy of Sciences (NAS, 2020) calling for the training of clinicians to be generalist providers of palliative care. The need for palliative care in oncology will continue to grow as patients and families increasingly expect this care and health systems benefit from integration of palliative care in disease-focused care (Ferrell &

Table 4. Facilitating Factors and Barriers/Obstacles to Implementing Training**Facilitating factors**

- More confidence due to new skills
- New communication strategies to facilitate practice
- New knowledge allowing APRN to help more patients and families
- New skills allowing APRN to be more proactive in starting PC conversations with patients
- Valuable online resources
- Inclusion in family meetings for observation purposes improves care
- Ability to observe PC team during morning huddle, in-patient visits, and family meetings has enhanced APRN practice
- Role-playing helped APRNs learn how to communicate more effectively
- Videos, Vital Talk, and Fast Facts have helped APRNs strengthen communication skills

Barriers

- COVID has hampered available time and effort to implement goals
- Lack of opportunities to practice some course knowledge such as pain management skills
- Difficulty referring patients to PC when they live in rural areas and no PC is available
- Cancer program shifted focus
- Move to internal medicine practice; physicians less aware of PC and advance care planning
- Efforts to present PC presentation to community hampered by attendance
- Lack of a dedicated pediatric supportive care team; team is primarily involved in pain management and not end-of-life care
- Time
- Large amount to learn
- Getting staff to take the time to reflect and engage

Note. PC = palliative care.

Paice, 2019). This training program is a key contribution to preparing the workforce by supporting oncology APRNs who are primary providers of oncology care. These APRNs and those to follow will serve as role models for future oncology APRNs to become primary providers of oncology care as the workforce need continues to grow.

Results from the follow-up of the first three cohorts have demonstrated the ability of these APRNs to implement their goals into practice addressing each of the domains of care. The program recognizes the need for administrative support in requiring the oncology APRNs to be nominated by their organizations and that support was evident in the goal follow-up as these nurses relied on administrative support in making changes to practice. The project was also designed to connect the oncology APRNs with the specialty palliative care service, and this strategy has proved to be very effective, as many of the nurses reported on the value of spending time with the palliative care service to continue to expand their knowledge and skills and to form a relationship for ongoing support and collaboration in the care of patients.

Participants have reported spending time with the palliative care team in a variety of ways, such as observing palliative care consultations with patients, attending family conferences, or team meetings. While it was often difficult for APRNs to have time available for this, the reported feeling was that this was a valuable learning experience.

The APRNs benefitted from observing the clinical skills and communication expertise of the palliative care specialists.

Limitations

This evaluation of participants' goals and implementation efforts following palliative care training was limited to self-report of activities. The evaluation is also limited to 12-month follow-up; thus, longer-term impact of the APRNs' efforts cannot be determined. Due to time constraints, the training is limited to one course, although the participants are supported through ongoing communication and monthly webinars that provide continued learning and networking with colleagues. These post-course webinars have provided a way to respond to participant feedback about the course. For example, course participants have wanted more content on treatment of pain in patients with substance abuse, use of cannabis, and care for LGBT patients. Participants also sought additional content on self-care, which has been provided through the webinars.

CONCLUSION

This experience to date is a model for specialist and generalist collaboration in the delivery of palliative care so that oncology APRNs can provide primary palliative care. While oncology APRNs devote the majority of their time to direct patient care, the goal evaluation also reinforces

the opportunity for APRNs to contribute to the education of their colleagues. Many participants provided palliative care education to staff and reported a number of systems changes such as improving family conferencing, developing standard symptom protocols, and improving methods of assessing and documenting palliative care needs. These results support the role of APRNs as clinical leaders and their role in expanding the workforce as primary providers of palliative care (Dahlin & Coyne, 2019; Gentry & Dahlin, 2020; Kapu & Jones, 2016).

Goal follow-up also identified many barriers to full implementation of the training, including very real limits in available time and other demands. These APRNs will be pioneers in this palliative care generalist role, so that advanced practitioners in oncology care are fully able to address palliative care needs and oncology patients benefit from this expanded role. Physicians assistants have also expressed interest in palliative care training to incorporate in their practice.

Two national training courses remain within the NCI funding for this project, and the investigators will continue to prepare these APRNs as key agents of change. This project has demonstrated the ability of oncology APRNs to change practice and incorporate palliative care into quality cancer care. ●

Disclosure

The authors have no conflicts of interest to disclose.

References

- Ahluwalia, S. C., Chen, C., Raaen, L., Motala, A., Walling, A. M., Chamberlin, M.,...Hempel, S. (2018). A systematic review in support of the National Consensus Project Clinical Practice Guidelines for Quality Palliative Care, Fourth Edition. *Journal of Pain and Symptom Management*, 56(6), 831–870. <https://doi.org/10.1016/j.jpainsymman.2018.09.008>
- Aldridge, M. D., Hasselaar, J., Garralda, E., van der Eerden, M., Stevenson, D., McKendrick, K.,...Meier, D.E. (2016). Education, implementation, and policy barriers to greater integration of palliative care: A literature review. *Palliative Medicine*, 30(3), 224–239. <https://doi.org/10.1177/0269216315606645>
- Bakitas, M. A., Tosteson, T. D., Li, Z., Lyons, K. D., Hull, J. G., Li, Z.,...Ahles, T. A. (2015). Early versus delayed initiation of concurrent palliative oncology care: Patient outcomes in the ENABLE III randomized controlled trial. *Journal of Clinical Oncology*, 33(13), 1438–1445. <https://doi.org/10.1200/JCO.2014.58.6362>
- Bennett, F., & O'Conner-Von, S. (2020). Communication interventions to improve goal-concordant care of seriously ill patients: An integrative review. *Journal of Hospice and Palliative Nursing*, 22(1), 40–48. <https://doi.org/10.1097/njh.0000000000000606>
- Berglund, C. B., Gustafsson, E., Johansson, H., & Bergemar, M. (2015). Nurse-led outpatient clinics in oncology care—Patient satisfaction, information and continuity of care. *European Journal of Oncology Nursing*, 19(6), 724–730. <https://doi.org/10.1016/j.ejon.2015.05.007>
- Collins, C. M., & Small, S. P. (2019). The nurse practitioner role is ideally suited for palliative care practice: A qualitative descriptive study. *Canadian Oncology Nursing Journal*, 29(1), 4–9. <https://doi.org/10.5737/2368807629149>
- Dahlin, C., & Coyne, P. (2019). The palliative APRN leader. *Annals of Palliative Medicine*, 8(supplement 1). Retrieved from <https://apm.amegroups.com/article/view/20600/22763>
- Dahlin, C., Coyne, P., & Ferrell, B. (Eds.). (2016). *Advanced Practice Palliative Nursing*. Oxford University Press. <https://doi.org/10.1093/med/9780190204747.001.0001>
- End-of-Life Nursing Education Consortium. (2019). About ELNEC. Retrieved from <https://www.aacnursing.org/ELNEC>
- Ferrell, B., Malloy, P., Virani, R., Economou, D., & Mazanec, P. (2020). Preparing oncology advanced practice RNs as generalists in palliative care. *Oncology Nursing Forum*, 47(2), 222–227. <https://doi.org/10.1188/20.onf.222-227>
- Ferrell, B. R., & Paice, J. A. (Eds.). (2019). *Oxford Textbook of Palliative Nursing* (5th ed.). Oxford University Press. <https://doi.org/10.1093/med/9780190862374.001.0001>
- Gentry, J. H. (2016). Family meetings. In C. Dahlin, P. Coyne, & B. Ferrell (Eds.), *Advanced Practice Palliative Nursing* (pp. 385–394). Oxford University Press. <https://doi.org/10.1093/med/9780190204747.001.0001>
- Gentry, J. H., & Dahlin, C. (2020). The evaluation of a palliative care advanced practice nursing externship. *Journal of Hospice and Palliative Nursing*, 22(3), 172–179. <https://doi.org/10.1097/njh.0000000000000637>
- Institute of Medicine. (2013). *Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/18359>
- Kamal, A., Wolf, S., Troy, J., Leff, V., Dahlin, C., Rotella, J. D.,... Myers, E. R. (2019). Policy changes key to promoting sustainability and growth of the specialty palliative care workforce. *Health Affairs*, 38(6), 910–918. <https://doi.org/10.1377/hlthaff.2019.00018>
- Kapu, A. N., & Jones, P. (2016). APRN transformational leadership. *Nursing Management*, 47(2), 19–22. <https://doi.org/10.1097/01.NUMA.0000479443.75643.2b>
- Mazanec, P., & Panke, J. T. (2016). Culturally respectful care. In C. Dahlin, P. Coyne, & B. Ferrell (Eds.), *Advanced Practice Palliative Nursing* (pp. 414–424). Oxford University Press. <https://doi.org/10.1093/med/9780190204747.001.0001>
- McHugh, M. E., & Buschman, P. R. (2016). Communication at the time of death. In C. Dahlin, P. Coyne, & B. Ferrell (Eds.), *Advanced Practice Palliative Nursing* (pp. 395–404). Oxford University Press. <https://doi.org/10.1093/med/9780190204747.001.0001>
- National Academy of Sciences, Engineering, Medicine. (2020). Building the workforce we need to care for

- people with serious illness: Proceedings of a workshop. <https://doi.org/10.17226/25789>
- National Consensus Project for Quality Palliative Care. (2018). Clinical practice guidelines for quality palliative care (4th ed.). Retrieved from <https://www.nationalcoalitionhpc.org/ncp/>
- Pang, G. S. Y., Qu, L. M., Wong, Y. Y., Poulouse, J., & Neo, P. S. H. (2015). A quantitative framework classifying the palliative care workforce into specialist and generalist components. *Journal of Palliative Medicine*, 18(12), 1063–1069. <https://doi.org/10.1089/jpm.2015.0017>
- Schroeder, K., & Lorenz, K. (2018). Nursing and the future of palliative care. *Asia-Pacific Journal of Oncology Nursing*, 5(1), 4–8. https://dx.doi.org/10.4103%2Fapjon.apjon_43_17
- Thaxton, C. A., & Neubauer, L. (2016) The role of the pediatric palliative advanced practice registered nurse. In C. Dahlin, P. Coyne, & B. Ferrell (Eds.), *Advanced Practice Palliative Nursing* (pp. 545–550). Oxford University Press. <https://doi.org/10.1093/med/9780190204747.001.0001>
- The ASCO Post. (2019). Top research from 2019 Quality Care Symposium focuses on cost of cancer care, patient participation in clinical trials. Retrieved from <https://ascopost.com/issues/october-25-2019/research-from-2019-quality-care-symposium-focuses-on-cost-of-cancer-care-patient-participation-in-clinical-trials/>