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# A Framework for Integrating Oncology Palliative Care in Doctor of Nursing Practice (DNP) Education

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## Highlights

Palliative care is an essential component of quality cancer care.  
APRNs are important providers of palliative for people with cancer.  
Faculty education supported integration of palliative care content in DNP programs.  
Barriers: lack of time in curriculum, prepared faculty, and clinical sites

## Abstract

Doctor of Nursing Practice (DNP) faculty play a critical [role](#) in preparing students to meet the complex needs of the nation as the number of [cancer](#) rates and survivors [rise](#) (National Cancer Institute, 2018) and as an unprecedented number of older Americans enter into the [healthcare system](#) with complicated [comorbidities](#) (Whitehead, 2016). [Palliative care](#) has dramatically expanded over the past decade and has been increasingly accepted as a [standard of care](#) for people with cancer and other serious, chronic, or life-limiting illnesses. Advanced practice registered nurses (APRNs) are recognized as important providers of palliative care (Walling et al., 2017). A 2-day course was held with support from the [National Cancer Institute](#) to enhance integration of palliative oncology care into DNP curriculum. The course participants (N = 183), consisting of DNP faculty or deans, practicing DNP [clinicians](#), and students, received detailed annotated slides, [case studies](#), and suggested activities to increase student engagement with the learning process. Course content was developed and [delivered](#) by palliative care experts and DNP faculty skilled in curriculum design. Participants were required to develop goals on how to enhance their school's DNP curriculum with the course content. They provided updates regarding their progress at integrating the content into their school's curriculum at 6, 12, and 18 months post course. Results demonstrated an increase in incorporating oncology palliative care in DNP scholarly projects and clinical opportunities. Challenges to inclusion of this content in DNP curricula included lack of: perceived time in curriculum; faculty educated in palliative care; and available clinical sites.

## Keywords

Palliative care, Oncology, DNP curriculum development

## Introduction

[Palliative care](#) has dramatically expanded over the past decade and has been increasingly accepted as a [standard](#) of care for people with serious, chronic, or life-limiting illnesses ([Kaufmann & Kamal, 2017](#); [National Cancer Institute, 2018](#)). This expansion has provided tremendous opportunities for faculty in DNP programs to prepare students to meet the complex [healthcare needs](#) of the nation. Palliative care specialty services exist in more than 90% of U.S. [hospitals](#) with greater than three hundred [beds](#) ([Dumanovsky et al., 2016](#); [Kaufmann & Kamal, 2017](#)) and palliative care is offered in a variety of settings, including [pediatric hospitals](#) and clinics ([Battista & Santucci, 2016](#)), [emergency departments](#) ([Starkweather, 2016](#)), [nursing homes](#) ([Letizia, 2016](#)), and in the community ([Deitrick et al., 2011](#); [Jackson, Mecklenburg, & Feshzion, 2017](#)). The recent establishment of palliative medicine as a medical specialty has helped propel this rapid expansion as an unprecedented number of older Americans enter into the [healthcare system](#) with complicated comorbidities ([Whitehead, 2016](#)).

It may be increasingly difficult to meet the palliative care needs of patients with [cancer](#), however, given the predicted shortages of [oncologists](#) ([Yang et al., 2014](#)). Advanced practice [registered nurses](#) (APRNs) are recognized as important palliative care providers across the illness continuum, focused on meeting the physical, psychosocial, emotional, and spiritual needs of patients, families, and caregivers ([National Consensus Project for Quality Palliative Care, 4th edition, 2018, in press](#); [Walling et al., 2017](#)).

The American Society of Clinical Oncologists (ASCO) notes that there is a universal need to improve efficiency and coordination of cancer care across disciplines including palliative specialists, [nurse practitioners](#), and other providers ([ASCO, 2017](#)). APRNs will assume increasingly active [roles](#) in both specialty and primary palliative care.

The purpose of this article is to describe the implementation and [evaluation](#) of a program directed toward teaching faculty in Doctor of Nursing Practice (DNP) programs throughout the United States how to incorporate oncology palliative care into the curriculum.

## Palliative care and cancer

Approximately 1.7 million new cases of cancer will be diagnosed in 2018. While people with cancer are living longer due to earlier detection and newer treatment options, about 609,640 Americans or roughly 1670 people per day will die from cancer in 2018 ([American Cancer Society, 2018](#)). Palliative care has long been a part of cancer care, especially in the late stages of illness, as patients transition to [hospice](#) or [end-of-life care](#). An increasing amount of evidence, however, demonstrates the benefits of earlier integration of palliative care for patients with cancer ([Ferrell et al., 2017](#); [Temel et al., 2010](#)), beginning as early as at [diagnosis](#). As a result, the American Society of Clinical Oncology recently updated its [practice guidelines](#) to recommend palliative care be provided concurrently with treatment for all patients with cancer as standard care ([Ferrell et al., 2017](#)).

As the population of cancer patients continues to grow, attention has been increasingly focused on the adequacy of the oncology workforce. The American Cancer Society (ACS) estimates that more than 15.5 million Americans were identified as cancer survivors as of January 1, 2016 ([ACS, 2018](#)). By 2020, experts predict an 81% increase over a ten-year period in people living with cancer, but only a 14% increase in the number of [health care providers](#) specializing in oncology care. This demand for cancer services and oncology health care providers is not just related to the growing population of cancer patients but also the increasing complexity of cancer care, which includes palliative care ([Institute of Medicine \(IOM\), 2009](#); [IOM, 2013](#); [ASCO, 2017](#)).

## Workforce shortage

The oncology community is in critical need of additional providers ([Yang et al., 2014](#)). There are not enough health care providers to meet oncology palliative care workforce demands ([Kamal et al., 2017](#)), especially in rural settings where access to palliative care may be significantly limited. The demand for oncology services is expected to increase by 40% or more by 2025 ([ASCO, 2017](#)). Approximately 75% of oncologists use [advanced practice providers](#) to assist their oncology practice ([Castellucci, 2017](#)). However, most nurse practitioners are generally trained in [primary care](#) specialties such as pediatric, women's health, or internal medicine to assist with the primary care shortage with preventive care.

## Palliative care and DNP education

There is a growing recognition that a basic level of palliative care expertise must be part of every [clinician's](#) practice. Primary palliative care or the inclusion of palliative care concepts into generalist practice of all kinds has been the focus of much attention in recent health literature ([Quill & Abernethy, 2013](#); [Worldwide Palliative Care Alliance & World Health Organization, 2014](#)). In 2014, the IOM's report, "Dying in America", pointed out that insufficient attention is paid to palliative care in both medical and nursing education curricula and recommended that educational institutions, professional societies, accrediting organizations, certifying bodies, [health care delivery](#) organizations, and medical centers work to expand the palliative care knowledge base of all clinicians ([IOM, 2014](#)). In 2015, the Hospice and Palliative [Nursing Association](#) published a position statement on the value of the APRN. It called for the integration of core palliative care competencies into programs for all APRN students, regardless of role or degree ([HPNA, 2015](#)).

The National Cancer Policy Board, IOM, Joint Commission, and other authorities have recommended a reconceptualization of [health professional](#) education to meet the needs of the health care delivery system, especially related to cancer care ([IOM, 2013](#); [Redman, Pressler, Furspan, & Potempa, 2015](#)). The Doctor of Nursing Practice (DNP) is a doctoral degree focused on leadership in [clinical practice](#). DNP-prepared [nurses](#) are highly educated, expert clinicians who assume clinical leadership roles in shaping policy, developing [clinical education](#) and quality initiatives, and translating evidence into practice at the point of patient contact ([Wholihan & Tilley, 2016](#)). DNP graduates are expected to "engage in advanced nursing practice and to provide leadership for evidence-based practice" ([AACN, 2006, p. 11](#)). One of the primary goals of DNP education is to implement clinical innovation for practice change. As part of the DNP curriculum, students are required to complete a final

scholarly project which focuses on synthesis and mastery of an advanced [nursing specialty](#) ([Nelson, Cook, & Raterink, 2013](#)). Given the growing numbers of patients with cancer and the expanding nature of palliative care practice, there are ample opportunities for DNP clinical and leadership-focused projects.

Palliative care, with its multi-dimensional, family-oriented focus on [quality of life](#), correlates perfectly with nursing, which is intrinsically multi-dimensional, and patient-centered. Furthermore, the essential DNP competencies relate directly to the role of the palliative care APRN, who often assumes systems-based responsibilities, such as patient and professional education, [quality improvement](#), and team leadership. Integrating oncology palliative care content into DNP curriculum provides the opportunity to explore the full breadth of the DNP role while also demonstrating how this new advanced nursing degree can significantly impact the care of patients with cancer.

### Framework for developing integration of oncology palliative care in DNP education

There is significant evidence of a lack of educational preparation of nurses in palliative care ([IOM, 2014](#)). The End-of-Life Nursing Education Consortium (ELNEC) has devoted intense, ongoing effort to increasing palliative care knowledge at all levels of nursing education and practice. ELNEC is a collaboration between the American Association of Colleges of Nursing and City of Hope and provides train-the-trainer courses to undergraduate and graduate nursing faculty; CE providers; staff development educators; APRNs in [pediatrics, oncology, critical care](#), and geriatrics; and other nurses with training in palliative care. Since its inception in 2000, ELNEC has trained over 23,300 nurses and other health care professionals, representing all 50 U.S. states, plus 97 countries through national and international courses. ELNEC trainers have returned to their institutions and communities and have educated over 690,000 nurses and other health care providers ([AACN, 2018](#)).

ELNEC curricula are designed to meet the education needs of nurses providing primary and specialty primary care. Primary palliative care involves the basic management of [pain](#) and [symptoms](#) including [depression](#) and anxiety as well as basic discussions about [prognosis](#), goals of treatment, suffering, and code status. Specialty palliative care includes the management of refractory pain and other symptoms including complex emotional response and assistance with resolutions of disagreements regarding goals of care or methods of treatment within families, between staff and families, or among treatment teams ([Quill & Abernethy, 2013](#); [Wholihan & Tilley, 2016](#)).

ELNEC has developed specialized curriculums to allow both undergraduate and graduate faculty to incorporate primary and specialty palliative care into their respective programs ([Ferrell, Malloy, Mazanec, & Virani, 2016](#)). Specialty ELNEC programs incorporate content for general and [advanced practice nurses](#) caring for diverse populations including pediatric, geriatric, critical care patients, and veterans ([AACN, 2018](#)).

## Methods

In 2013, City of Hope, in partnership with the AACN, received a 5-year grant from the [National Cancer Institute](#), to fund a new innovative project, “Integrating Palliative Oncology Care into Doctor of Nursing Practice (DNP) Education and [Clinical Practice](#).” The primary aims of this education project were to:

1. Prepare DNP program faculty to integrate evidence-based [palliative care](#) content into DNP program curricula; and
2. Prepare DNP graduates and [advanced practice nurses](#) in providing evidence-based palliative care in oncology.

This training program provided tools for faculty to educate DNP students in oncology palliative care especially in the areas of leadership, advocacy, communication, [health policy](#), collaboration, and [consultation](#). The program also provided content to support DNP graduates in integrating quality palliative care into clinical practice.

The program was promoted by AACN to all DNP programs nationally and through the AACN website. Prospective applicants for the project were selected following submission of an application that included:

1. Participant demographics (including institution, city, state, ethnicity, and race); followed by information on their institution's DNP curriculum, particularly topics related to oncology palliative care.
2. Participant goals and expectations including at least three goals to be accomplished following the course.
3. A curriculum vitae that included information about the participant's professional/teaching experience.
4. Two letters of administrative support: one from the DNP dean, and another from the DNP curriculum committee [chair](#).

Applicants were selected based on the completeness of their applications and if their professional/teaching experience contained topics in oncology palliative care, [hospice](#), or end-of-life content.

The DNP Curriculum was presented in four cohorts (Glendale, CA – February 2014; Washington, D.C. - June 2014; St. Louis, MO – June 2015; and Atlanta, GA – June 2016). The program and curriculum were built around the National [Consensus Project's](#) (NCP) [Clinical Practice Guidelines](#) for Quality Palliative Care, ([National Consensus Project, 3rd ed., 2013](#)); the IOM report entitled, Delivering High-Quality [Cancer](#) Care: Charting a New Course for a System in Crisis ([IOM, 2013](#)); and the *Essentials of DNP Education* ([AACN, 2006](#)) ([Table 1](#)). A comparison or crosswalk between the course curriculum and the DNP Essentials is illustrated in [Table 2](#).

**Table 1.** Essentials of DNP education (AACN, 2006)

<b>I</b>	Scientific underpinning for practice
<b>II</b>	Organizational & systems leadership for quality improvement & systems thinking
<b>III</b>	Clinical scholarship & analytical methods for evidence-based practice
<b>IV</b>	Information systems/technology & patient care technology for the improvement & transformation of health care
<b>V</b>	Health care policy for advocacy in health care
<b>VI</b>	Interprofessional collaboration for improving patient & population health outcomes
<b>VII</b>	Clinical prevention and population health for improving the nation's health
<b>VIII</b>	Advanced nursing practice

**Table 2.** Content/modules of “Integrating Oncology [Palliative Care](#) into DNP Education and Clinical Practice” curriculum with reference to DNP Essentials.

<b>ELNEC content</b>	<b>DNP Essentials addressed</b>
The complexity of cancer care: an opportunity for DNP's to provide seamless palliative care	(I, II, V–VII)
DNP education: incorporating oncology palliative care into DNP core courses	(I–VI)
Incorporating oncology palliative care into DNP projects and clinical opportunities.	(I–VI)
Changing institutional culture to enhance palliative care across all oncology settings: opportunities for DNPs	(II–VI)
Enhancing communication among the health care team to benefit oncology patients and their families	(II, III, VI)
Interprofessional teams: promoting excellent cancer care	(II, III, VI)
Leading the interprofessional team in assessing and managing pain/non-pain symptoms related to cancer	(II–VIII)
Using principles of business, finance, and economics to improve oncology palliative care	(I–VI)
Using principles of regulation, outcomes measurement, guidelines, and quality improvement to improve oncology palliative care	(I–VI)

Course participants developed a plan to embed oncology palliative care content into their DNP curriculum or clinical practice by outlining [SMART](#) (Specific, Measurable, Attainable, Relevant, and Time-Bound) goals and



identifying key stakeholders that would need to be involved. Participants provided feedback and updates on their goal progress at 6, 12, and 18 months post-course.

## Results

[Program evaluation](#) results include participant demographic information and descriptions of the impact of the program on curriculum reported by course participants at 6, 12, and 18 months following the course.

### Course demographics

A total of 133 faculty and 50 DNP students and/or practicing DNP clinical partners (90.2% female; 6% male; 3.8% no response) attended the program from 38 states across the U.S. The majority (86.9%) of participants represented universities with both baccalaureate and/or graduate nursing programs (n = 119). Prior to the course, participants completed a demographic survey indicating the ethnicity and race distribution of the population they served by APRN's in their programs (Caucasian/White – 64.1%; African-American – 19.8%; Hispanic – 13.9%; Asian – 4.7%; American Indian – 1.6%; Pacific Islander – 0.6%).

### Course evaluation feedback

A course evaluation was completed by participants. On a scale of 1–5 (with 1 being poor and 5 being excellent), the participants across all four courses indicated that the information presented was stimulating and thought-provoking regarding [palliative care](#) issues in nursing at a 4.87/5; they ranked their overall opinion of the course at 4.9/5.

### Impact on curriculum

Participants were asked as part of the ELNEC DNP application process to indicate whether specific content was present in their DNP curriculum prior to attending this course. Not surprisingly, participants reported the inclusion of the following topics as being consistently addressed in their DNP Programs [System change (81.4%); [Health Policy](#) (80.9%); [Leadership Development](#) (80.3%); Interdisciplinary Communication (80.3%); Principles of Business/Finance (73.8%); and Patient/Family Communication (71.6%)]. Palliative care topics reported with far less frequency in the DNP Programs were: [Pain Management](#) (52.5%); [Symptom Management](#) (49.2%); and [Nursing Care](#) at the End of Life (43.2%).

Course participants from each cohort were asked at 6, 12, and 18-month [follow-up](#) to indicate if they had included topics in their DNP school curriculum that were related to the content presented at these courses. A comparison between participants' responses at 6 and 18 months is reflected in [Table 3](#). Eighteen months following the program, responding participants reported the greatest increase in incorporating oncology palliative care into DNP scholarly projects and in providing clinical opportunities. Other topics reported as having been included in the DNP curriculum with greater frequency included creating institutional [culture change](#) regarding palliative care through leadership; managing [symptoms](#); using principles of regulation and outcomes [measurement](#), [guidelines](#) and [quality improvement](#); the complexity of [cancer](#) care; and interprofessional teams. Other topics (principles of business/finance/economics; enhancing patient/family communication/and palliative oncology) appeared to remain stable among the programs represented by participating DNP faculty. There appeared to be little to no change regarding the inclusion of oncology-specific palliative care content in DNP programs 18 months following the program.

**Table 3.** Inclusion of oncology [palliative care](#) topics in DNP curriculum.

DNP oncology palliative care topics/content	% included in DNP curriculum at 6 months	% included in DNP curriculum at 18 months	% change
Complexity of cancer care	37.7%	41.0%	3.3%
Palliative oncology	43.7%	43.2%	–0.5%
Incorporating oncology palliative care into capstone projects & clinical opportunities	46.4%	56.3%	9.9%
Changing institutional culture/leadership	44.8%	50.8%	6.0%
Enhancing patient/family communication	63.9%	65.0%	1.1%
Interprofessional teams	61.7%	63.9%	2.2%

<b>Managing symptoms</b>	33.9%	38.8%	4.9%
<b>Principles of business, finance, and economics</b>	33.9%	35.0%	1.1%
<b>Using principles of regulation, outcomes measurement, guidelines &amp; quality improvement</b>	43.7%	48.6%	4.9%

Qualitative data from course participants on the 6, 12, and 18-month surveys provided additional insight into how course information was included in their nursing schools' curricula. Several participants noted that palliative care was incorporated in curricula across all levels of nursing programs including BSN, MSN, and DNP [especially in Adult/Geriatric Family Nurse Practitioner (NP) and Family NP programs]. Content was incorporated into specific courses including management of [chronic illness](#), health policy, finance, and population health and [health disparities](#). Participants included [case studies](#) provided in the course supplemental [materials](#) in simulation activities for undergraduate and [graduate students](#). DNP faculty assisted DNP students in completing DNP projects on palliative care topics and facilitated clinical placements for DNP students with palliative care services.

Overwhelmingly, course participants identified at 6, 12, and 18 months post- course that the most important asset for the successful integration of oncology palliative care into DNP education and [clinical practice](#) was having the materials (slides, class activities, reference lists, list of appropriate videos, case studies) ready to place into an existing curriculum or a stand-alone course (69%). The second identified asset was the support from faculty, academic leaders, and students having requested this content (27%). In addition, the participants reported that content from the course was shared with other DNP and non-DNP faculty, practice partners, curriculum chairpersons, and members of other [health care](#) disciplines.

The most common challenge noted to successful integration of oncology palliative care content reported at 6, 12, and 18 months was lack of time/space in the DNP curriculum (43%). Other challenges reported by the participants included a lack of funding support (21%), lack of palliative care-educated faculty (11%), lack of resources to teach (7%), and lack of specialty palliative care-clinical sites (6%). Participants described that faculty in some programs perceived that palliative care was already woven into the curriculum. Participants noted "Changing curriculum is like changing the course of an [oil](#) tanker" and "the existing DNP [clinical courses](#) are already packed with content, so it is very difficult to embed more than a superficial coverage of palliative care in them."

## Limitations

Limitations of this program evaluation included [complications](#) related to missing or incomplete survey data which may limit the overall interpretation of this data and its impact on changing DNP curriculum in the 119 schools that were represented in the four cohorts. This program evaluation illustrates some of the challenges of facilitating change over time with some participants describing changing priorities for this content within the program curriculum. The emphasis on oncology palliative care may have been perceived as too specific for faculty preparing a broad spectrum of [advanced practice nurses](#). Lastly, curriculum change is a challenging process in most institutions of higher learning as reflected by participant comments about the required time and commitment to making these changes. It is possible that curricula changes in some institutions may have taken longer than the measurement period included in this program evaluation.

## Conclusions and professional impact

This highly successful, educational program demonstrated the continued influence of the various ELNEC curricula and [materials](#) in nursing education and practice ([www.aacnnursing.org/ELNEC](http://www.aacnnursing.org/ELNEC)). The integration of [palliative care](#) content in the doctoral-level education of oncology APRNs will have an impact on the direct care of individuals with [cancer](#) as well as other serious, chronic, and life-limiting illness.



While this program reached a small number of the total DNP faculty, it provided a framework for integrating oncology palliative care in DNP education. The professional impact of this program may be reflected on multiple levels. On an individual level, this course addressed sensitive topics for many participants that gave [rise](#) to personal memories and accompanying emotions, especially if they themselves had a personal loss due to cancer. Participants described sharing content from the course predominately with other faculty and curriculum [chairs](#); however, several participants also shared the information with practice partners and members of other [health care](#) disciplines. Attendees were encouraged to think about how they might continue their palliative care education and engagement through their relationships with other [health care organization](#) or nursing/health care [professional organizations](#). Additional palliative care activities undertaken by course participants included: 1) subscribing to or reading palliative care publications (26%); 2) collaborating with other institutions to implement palliative care education (18%); 3) seeking personal clinical experiences to increase oncology palliative care (17%); 4) becoming involved in a palliative care committee or task force (16%); and 5) attending additional palliative oncology education programs (11%).

Faculty, students, and other health care professionals attending the program were very appreciative of the course materials, slides, [case studies](#), [role play](#) situations, and video [suggestions](#) that were provided to assist with content presentation. Faculty in DNP programs across the U.S. benefitted from this program as well. The 2017 program content/DNP curriculum and ELNEC Core curriculum were disseminated on a flash drive device to 322 DNP programs across the nation. All DNP programs are welcomed to use it and incorporate the content into their curriculum. In addition, this information was shared with 19 participants at the Fall 2017 AACN Conference and 73 attendees at the AACN Doctoral Conference in January 2018.

A recent NCI-funded grant will provide enhanced ELNEC educational content in palliative care to DNPs and oncology APRNs to prepare them as primary palliative care [clinicians](#). These training courses begin April 2018 and continue until 2021. Additional information about this course and other ELNEC sub-specialty courses can be found on the AACN website: <http://www.aacnnursing.org/ELNEC>.

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