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Training Future Speech–Language Pathologists for Work in End-of-Life and Palliative Care

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Speech–language pathologists often lack preparation for palliative care practice and this lack of training can lead to poor outcomes for patients. Lack of training can additionally lead to burnout and compassion fatigue in clinicians. Careful implementation of training is necessary to increase the knowledge base for palliative practice and careful attention must also be paid to the emotional component of end-of-life care. The history and current practice of palliative care education across health care disciplines are examined. Finally, a pilot study evaluating a course module on palliative and end-of-life care for speech–language pathologist graduate students is presented. Results from the pilot indicate that students improved both their knowledge and comfort related to issues of end-of-life care topics. In addition, students responded positively to the opportunity to learn about the topic and the instructional strategies used within the course module. **Key words:** *aging*, *curriculum*, *death*, *end of life*, *hospice*, *palliative*, *pedagogy*, *teaching*

THE MEDICALIZATION of death and dying has shifted the experience of hospice and palliative care, bringing therapeutic professionals in close contact with clients who need support communicating their end-of-life wishes (Pollens, 2012). Because of this increased intersection, there is a need to instruct speech–language pathologists (SLPs) on end-of-life processes as they relate to communication, cognition, and swallowing. In 2012, Toner and Shadden acknowledged that SLPs often feel unprepared to deal with the changes that accompany terminal or life-threatening illnesses. This means that it may be particularly important to begin exposure before encountering patients at the end of life in clinical practice. However, this lack of exposure is apparent within classroom spaces, where educators are often sensitive to the delicate or taboo nature of the topic of death. Educators may feel cautious in approaching the emotional issues related to end-of-life care (EoLC) because this exposure to EoLC requires people to confront their own mortality and examine their personal beliefs about death and dying (Peters et al., 2013; Venkatasalu et al., 2014).

Lack of adequate preparation can contribute to inadequate care for patients (Gillan et al., 2014). Unpreparedness can lead to the avoidance of negative feelings or result in a withdrawal from involvement with dying patients (Mutto et al., 2012). Furthermore, these negative experiences can lead to an increased risk for compassion fatigue and burnout in clinicians (Todaro-Franceschi & Lobelo, 2014). Compassion fatigue has

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been described as "distress that results from work-related stressors" and has been defined as "a state of exhaustion and dysfunction—biologically, physically, and socially—as a result of prolonged exposure to compassion stress and all that it evokes" (Cross, 2019, p. 22).

A systematic review seeking to clarify the usage of terms by Hui et al. (2014) found that the term "end of life" most commonly referred to a period of time preceding one's death. This term also implied that one's condition was eventually fatal and that medical intervention would be unable to arrest this process (Hui et al., 2014). A separate systematic review found that the term "palliative care" serves patients with life-limiting illness through interdisciplinary care. These terms represent fundamentally different aspects of patient care (Hui et al., 2013). This article will largely focus on the broader teaching and training of EoLC with palliative care being a topic within that more expansive context.

Although there is great need to address concerns about training in EoLC for mid-career and late-career professionals, the purpose of this article is to describe the current state of EoLC care training across disciplines at the student level and to examine what is currently known about such student training within the discipline of SLP. In addition, evidence-based pedagogical strategies will be proposed to improve the delivery of content on EoLC and palliative care. Finally, the outcomes from a pilot study of one SLP program's training module related to EoLC will be presented to illustrate an approach.

FOCUSED PALLIATIVE CARE TRAINING IN THE UNITED STATES

To examine palliative care training in the United States, one can look to medical school education as a model. Palliative care in medical education has undergone dramatic changes over the past few decades, with an increasing necessity for community hospice and hospital palliative care programs. This increase has prompted the need for changes to resident training programs and increased access to specialty fellowships in palliative care (Case et al., 2013). Prior to the initiation of palliative training for physicians, there was a clear gap in physician management of dying patients. Often, this would manifest as miscommunication between patients and providers regarding their concerns and preferences. This miscommunication would result in family frustration over mismatched expectations and care received at the end of life (Arnold, 2003). Before palliative care education reform, the focus of medicine on curative treatment rather than palliation often led physicians to overtreat or withdraw from terminally ill and dying patients (Arnold, 2003). The evolution of palliative medicine is necessary and important; what was once an aspect of medicine only practiced by part-time physicians has now evolved into a central aspect of health care in the United States (Meier, 2011). Previously, palliative medicine was a specialty that was ignored and deemed not worthy of attention from the medical education community. Physician training in pain and symptom management for dying patients was suboptimal, with concomitant deficits arising in communication, specifically with discussing sensitive topics around death and dying (Case et al., 2013).

To address these deficiencies in physician education, medical schools began to expand their training in palliative medicine in the 1990s, largely supported by generous philanthropic funding (Case et al., 2013). In 1995, medical student experiences in EoLC and hospice care were primarily focused on in lecture-based undergraduate education, with some institutions providing hospice facility observations (Lloyd-Williams & McCleod, 2004). By 1997, medical schools had begun implementing training during the clinical years but with little mentorship and experiential training due to a lack of physician role models and little attention was paid to student attitudes and reflections (Billings & Block, 1997). Following early efforts of palliative and hospice education reform in medical schools, more organized palliative care

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education started to develop at select institutions, including the Cleveland Clinic, Medical College of Wisconsin, University of California—Davis, University of Maryland, Northwestern University, and Harvard University. These pioneers in palliative and hospice medicine incorporated curricula that increased medical students' exposure to palliative care in didactic and experiential settings (Weissman & Griffie, 1998).

Beyond curricula development, the approach to expand palliative training in medicine also included increased opportunities to demonstrate knowledge, revision of textbooks and board examination content, medical student and resident training policy development, and establishment of methods to assess learning of palliative care content (Case et al., 2013). In 2000, the Liaison Committee on Medical Education (www.lcme.org) mandated that EoLC be part of every medical school's curricula (Liaison Committee on Medical Education: Accreditation Standards, 2011). Concurrently, and with encouragement from practicing clinicians, the United States Medical Licensing Examination authors began to include palliative medicine content in examination questions (Bowles, 1999). By 2002, a survey found that palliative medicine curriculum was present in 87% of medical students' educational experiences, with a number of students even reporting that they had direct exposure to hospice patients. This same survey found that several medical schools offered end-of-life curricula with an experiential learning component (Dickinson, 2002).

Although palliative care education for physicians went through substantial growth from 1990 to the early 2000s, a systematic review of teaching and learning in palliative care in 2004 found a lack of consistency in the development of medical school palliative medicine curricula and also uncovered difficulty recruiting appropriately trained educators (Lloyd-Williams & McCleod, 2004). A more recent study by Head et al. (2016) found much the same a decade later with medical students and early career doctors still reporting that they feel vastly unprepared for work with palliative patients. Despite medical education licensing requirements, there remained continued gaps in palliative medicine during the clinical training years. The Medical School Palliative Care Education Project was founded under the End of Life/Palliative Education Resource Center in 2007 with funding from the Robert Wood Johnson Foundation and The Y.C. Ho/Helen & Michael Chiang Foundation. The focus of this project was to support medical schools in their development of experiential clinical rotations and develop faculty competency. From 2007 to 2010, 15 medical schools had completed the project (Radwany et al., 2011).

Palliative medicine curricula in U.S. medical schools continue to evolve (Fitzpatrick et al., 2017; Head et al., 2016; von Gunten et al., 2012). Schools now have required clinical rotations under the mentorship of board-certified palliative medicine physicians. Several medical schools are now working toward the integration of interdisciplinary palliative teams consisting of medical, nursing, and social work students (Radwany et al., 2011). The purpose of the interdisciplinary venture is to bring together a team in a way that no single discipline can meet all the demands of the seriously ill patient and family in palliative care (Radwany et al., 2011).

A literature review by Gillan et al. (2014) found that within nursing programs, nursing students were feeling unprepared to deal with EoLC issues and that nursing programs were culpable for this lack of preparation (Gillan et al., 2014). Case et al. (2013) assert that although hospice and palliative medicine is now an established specialty within medical training, it is still considered a "soft specialty," and often not worthy of meaningful curriculum time. The authors also noted that much of the meaningful palliative clinical training is elective, rather than part of required coursework. A national study on palliative care content in undergraduate medical fields, noting that health care courses only briefly addressed EoLC, suggested crammed curricula and a lack of teaching experts as

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possible reasons for the lack of EoLC coverage (Pieters et al., 2019).

Speech–pathology programs can learn valuable lessons from the training of this content to other medical and allied health professionals. Many pedagogical approaches and teaching strategies have already been investigated. Speech pathology programs can adopt some of the existing evidenced-based strategies that have already been vetted to begin offering content to their students.

EoLC TRAINING IN SPEECH–LANGUAGE PATHOLOGY

Although EoLC and palliative education have experienced a renaissance in nursing and medicine, Toner and Shadden (2012) suggested that it was uncommon for SLP programs to offer specialized content related to death and dying. Instead, they posited that this content was most often occurring alongside content pertaining to end-of-life conversations around feeding within a dysphagia course. Although it is necessary to train students about the intersection of end of life alongside specific diagnoses, this approach to teaching death and dying may omit the social, cultural, and communicative components related to end-of-life choices, grief, and cultural humility. The diagnosis-focused approach also likely leaves students and early career professionals feeling unprepared for the deeply personal experience of working with the dying. This is not to say that this diagnosis-specific content should not continue, but that in addition to this content, students should receive instruction on the broader context of EoLC and patient and family care. Pascoe et al. (2015) called for more research on EoLC and palliative care education for SLPs. They stressed that EoLC education equates to students feeling more prepared professionally and emotionally for issues that may arise when working with terminal patients (Pascoe et al., 2015).

Rivers et al. (2009) investigated whether preprofessional speech and hearing students recognize a need for formal training on death and dying. They suggest that a lack of education may lead to a higher risk of burnout (possibly also compassion fatigue) due to continuous feelings of inadequate practice. The authors administered a questionnaire to the university's undergraduate and graduate speech and hearing students on their knowledge and perceptions of death and dying processes. Students rated their competency on a 7-point scale, and the results showed that students felt "somewhat knowledgeable" about death and dying. They also felt that knowledge of these topics was crucial to provide high-quality care to patients and their families. In addition, students indicated their preferred methods for learning, with personal and professional experiences as most preferred, followed by written resources, and then classroom instruction (Rivers et al., 2009).

Curriculum survey

A curricular review was conducted by the first author to understand national trends in EoLC training in 2018. Using the Council on Academic Accreditation list of accredited programs, 279 SLP master's programs were identified for review, with 255 being American Speech–Language–Hearing Association (ASHA)-accredited and 24 under candidacy. Only publicly available course listings, course descriptions, and syllabi were examined using the following key words: end of life, EoLC, death, dying, hospice, and palliative. Specific attention was paid to courses related to geriatrics, ethics, dementia, dysphagia, augmentative and alternative communication, and aging. As a result, no independent courses could be identified across the 279 master's programs as fully dedicated to EoLC. Despite this finding, these results do not mean that students may not have had access to interdisciplinary courses at their university. As expected, terms such as end of life, death and dying, and palliative care did surface in a limited number of programs, most frequently in dysphagia or ethics courses. It is not surprising that independent courses were not identified because of the large demand

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for credit bearing content in SLP programs. This may not be problematic, as one of the primary suggestions by Boland et al. (2019) was to integrate content across the curriculum of a program. What is not known is the specific content or approaches being used in these integrated models.

PEDAGOGY FOR TEACHING END-OF-LIFE ISSUES

Because of the nature and complexity of the topic, attention must be given to the pedagogical strategies employed when teaching EoLC care. Special consideration must be paid to teaching the emotional components of the topic. Bailey and Hewison (2014) suggested that insufficient focus on the emotional aspects of EoLC may result in a feeling of unpreparedness in working with these types of patients or issues. The use of knowledge-focused outcomes is not the most effective pedagogical strategy in teaching end-of-life and palliative care to students (Bailey & Hewison 2014). Chan and Tin (2012) suggest that teaching coping skills so that students can face the existential challenges of the work should take precedence. A focus on self-awareness and personal beliefs in relation to death and dying appears to have a positive effect on attitudes toward EoLC (Bailey & Hewison, 2014). In addition, experiential learning and self-reflection have been found to increase self-competence in EoLC (Chan & Tin, 2012; Mahendra et al., 2013).

Practitioners' unsettled personal and relational experiences with death also can impact the way they approach death and dying (Wilson & Kirshbaum, 2011). The inevitable confrontation with EoLC can elicit strong emotions, even if that contact is indirect. These encounters can trigger students and early practitioners to feel not only sadness but also helplessness, vulnerability, and sympathy (Mutto et al., 2012). Students who are given the opportunity to experience, reflect on, and process their emotional responses in a safe and supportive environment can begin to learn how to manage their emotional responses related to death and dying and to expand their views to consider death and dying as parts of the human experience.

van der Wath and du Toit (2015) investigated a collaborative and reflective approach to teaching EoLC to nursing undergraduates. Throughout the semester-long course, students were asked to reflect on each learning opportunity using the LEARN acronym: Look back on the situation, Examine the detail, Analyze, Revise, and New perspective. Qualitative data from students' written reflections after each of four activities were analyzed and showed recurring themes with most students writing about their important, emotional experiences during the course and how the course would contribute to how they provided care. Some students also reflected on their new understanding of grief and how to respect others' beliefs regarding death. The authors suggested that including competencies associated with emotional intelligence in curricula can aid in helping students gain an awareness of how their values and beliefs affect the provision of care (van der Wath & du Toit, 2015). Recently, Boland et al. (2019) suggested 12 tips to support EoLC and palliative care curriculum design at university training programs in the health sciences broadly summarized here in Table 1.

Their first point stressed that EoLC should be mandatory in medical school coursework and integrated throughout the program, as attitudes toward EoLC can fluctuate over time. Tips 2, 5, 9, and 10 highlight the importance of providing interactive opportunities for students in a variety of settings, including hospice or inpatient palliative care, and across multiple learning platforms. In Tip 4, the authors focus on the curriculum developers' need to connect with influential university staff to support making EoLC curriculum mandatory. In Point 6, the authors acknowledge that it is unrealistic to cover everything regarding EoLC, and in many cases, curriculum developers will need to focus on teaching the essential, comprehensive objectives. The authors suggest that having EoLC experts, those working in the field, teach this content

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Table 1. Twelve tips to support palliative care education in health sciences based on the study by Boland et al. (2019)

1. Compulsory (and integrated across the program).
2. Ensure that all students see patients with palliative care needs and those who are dying.
3. Back up teaching with compulsory summative and formative assessments.
4. Secure support from within the university.
5. Ensure that all students visit a hospice and/or palliative care facility.
6. Develop key learning objectives and competencies.
7. Involve palliative care specialists.
8. Join up with interested colleagues in other specialties.
9. Develop various innovative teaching methods.
10. Utilize the hidden curriculum to promote learning.
11. Enable some students to spend more time in palliative care.
12. Encourage interprofessional learning.

courses in Tip 7. Tips 8 and 12 emphasize the importance of EoLC knowledge across medical specialties and suggest that an interprofessional team should teach portions of the coursework. In Tip 11, the authors suggest providing elective coursework, in addition to the mandatory EoLC curriculum, for students interested in learning more (Boland et al., 2019).

Teaching end-of-life curriculum also has been explored in the online format. An investigation studying an online course in EoLC for undergraduate students revealed that the online (eLearning) modality was a well-accepted teaching format (Schulz-Quach et al., 2018). Students found the eLearning course helpful in approaching complicated topics, and they felt more prepared and expressed an increased interest in EoLC issues. The data, however, did not show any significant results regarding students' self-efficacy concerning EoLC. The authors argue that a blended-learning approach might provide a better learning format because students also seek real patient interactions (Schulz-Quach et al., 2018).

Regardless of modality, creating buy-in before initiating the topic is necessary when wading into delicate issues. This begins by stating clearly the upcoming topic in the syllabus. In addition, it is essential that the instructor discusses when the topic is being covered and its relevance to their future work (Stead, 2019). Numerous reminders, both written and verbal, should be provided prior to topic initiation, and an invitation should be made to students to come and speak with the instructor if they are feeling anxious about the topic. All of the preemptive work sets the stage for the successful launch of the topic and creates a stronger community for support and acknowledgment that will serve future discussions (Stead, 2019).

One of the most substantial pedagogical barriers cited to the inclusion of EoLC and palliative content was the difficulty of designing the curriculum, including fitting new courses into students' schedules, faculty workload, and high financial and temporal costs (Schulz-Quach et al., 2018). These are the same complaints named in including many types of content specifically related to geriatrics (Bardach & Rowles, 2012).

Purpose

Based on the previous literature, it is clear that students need an early introduction to EoLC topics, and within this issue related to palliative care, so that they can develop both increased knowledge and comfort for future practice. In addition, the literature clearly outlines an array of educational practices that support this implementation. In an attempt to fill this educational need and to explore

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the pedagogy and implementation of a course module on EoLC for SLP graduate students, a pilot study was conducted. Both quantitative and qualitative data were obtained on an EoLC module, housed within a course on communication and aging. The driving questions for the pilot study were as follows:

1. Do students within the course increase their knowledge related to EoLC practices?
2. Do students show an increase in their perception of self-efficacy and comfort related to the topic of EoLC?
3. What is the student perspective about the usefulness of this portion of the course on the final course evaluations?

Table 2. Student demographics

	***n* = 35**	**Percentage**
Gender		
Female	31	88.6
Male	4	11.3
Age (years)		
20–25	27	77.14
26–30	6	17.14
31–35	0	0
36–40	2	5.71
Race and ethnicity		
Hispanic	12	34.29
Asian	4	11.43
Black or African American	1	2.86
White	14	40.00
Multiple	3	8.57
Did not report	1	2.86

METHODS

Following approval from the Pacific University Institutional Review Board, student assessment and outcomes were analyzed both quantitatively and qualitatively to examine course outcomes. Approval was granted to use both student responses and student comments on course evaluations.

Participants

All students were first semester students in a masters of speech pathology program. As part of their typical learning assessment within the course, all students participated in all of the course activities and assessments within the course and presented later. Table 2 identifies the demographics of the students in the Fall 2019 communication and aging course.

Setting

As part of a graduate course on communication and aging, 10-hr worth (four 135-min classes) of in class content focused on EoLC was taught in the first semester of the graduate speech pathology program. Students within the course learned about issues related to aging processes that are both biological and cultural/social. This course was offered in a face-to-face format once a week for 16 weeks.

Materials

Best practice pedagogy includes the integration of a variety of types of media and information dissemination modalities (Lage et al., 2000; Masters, 2005). These selected formats and activities are designed to provide both content information and the opportunity to consider the emotional component of EoLC issues. The following is a selected list of the teaching tools used within the aforementioned course to increase students' knowledge and understanding of the speech–language pathologist's role and the experience of EoLC:

Book series

As part of the course, all students were randomly assigned one of three books related to EoLC. Each of these nonfiction books was written from the first person perspective of a medical practitioner working with patients facing critical injuries or illness. The books included: *Being Mortal* by Atul Gawande (2014), *Extreme Measures* by Jessica Zitter (2017), and *On Living* by Kerry Egan (2017).

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Documentaries and reflections

As part of the course, all students were also asked to watch a series of documentaries and write reflections on them. *End Game* (2018) is a Netflix documentary about the Zen Hospice Project (https://zencaregiving.org/) in California. In this short documentary, terminally ill patients facing the inevitable outcome of death meet extraordinary medical practitioners seeking to change society's approach to life and death. *Extremis* (2016) is another short documentary that takes place inside an intensive care unit and follows doctors, families, and patients as they make end-of-life decisions. *How to Die in Oregon* is a documentary that focuses on families taking advantage of the death with dignity law in the state of Oregon. The documentary follows the journey of several families while they grapple with difficult questions related to EoLC.

Podcasts

The Bitter End is a Radiolab podcast episode that discusses the seminal John Hopkins "precursor study" and the preferences doctors have for their EoLC as compared with the regular public (The Bitter End, 2013). Students also listen to the Freakonomics episode *Are you Ready for the Glorious Sunset* (Dubner & Rosalsky, 2015), a podcast episode that explores the complex intersection of cost and health care as it considers the financial implications of EoLC with the prospect of health insurance companies offering benefits to families who forego costly care at the end of their lives.

Focused readings

In addition to multimodal learning opportunities, students read both professional and scholarly resources to support the topics and conversations within the course. A selection of these readings is listed later:

- Competency and the Capacity to Make Treatment Decisions (Leo, 1999).
- The Conversation Project (www.conversationproject.org)
- End-of-Life Care: An Opportunity (Stead & McDonnell, 2015)
- Integrating Speech–Language Pathology Services in Palliative End-of-Life Care (Pollens, 2012)
- End-of-Life Themes From Long-Term Care (Munn et al., 2008)
- End-of-Life Issues in Speech Pathology—ASHA (https://www.asha.org/slp/clinical/endoflife/)

Procedures

On the first day of the communication and aging course, the syllabus was reviewed and each topic was highlighted specifically to alert students to the full content of the course. Within the full course, EoLC is the third of four course modules. In the weeks leading up to the EoLC module, students were reminded that the module was approaching and why the topic was being discussed. Throughout the course, several personal and professional anecdotes were provided to help students create greater buy-in for the topic. These anecdotes provided tangible examples of the topic's relevance both before and while students were asked to wade through difficult or taboo concepts.

Before the EoLC module was initiated, students completed a knowledge preassessment located within their online course management system (i.e. Moodle). After the 4-week module was complete, students took the module summary quiz to assess their knowledge and perspectives on EoLC and completed a replica of their initial knowledge assessment in the form of a postquiz.

As suggested by Gillan et al. (2014), opportunities were provided within the module for students to consider their own personal and/or professional experiences with death and dying and/or palliative care. For example, following the viewing of the documentary Extremis (Krauss, 2016), students were given the opportunity to immediately reflect on their personal feelings about the decisions being made within the film onto an index card. These decisions include whether to remain on ventilation support and what types

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of interventions, if any, patients and families would like to pursue in the face of terminal conditions. Students were then instructed to set the reflection physically aside to visually represent separating their personal feelings from their professional role. This discussion, heavily guided by the instructor, provided an opportunity to practice the management of emotional reactions and to meet the needs of all students within the unit (Gillan et al., 2014).

This course content was not designed to teach disorder-specific content, nor approaches but instead was designed as an overview of EoLC practices and terminology. In addition, this course section was designed to introduce students to the roles and responsibilities of the various health care professionals and patient and family considerations encountered in EoLC. The learning objectives of each week of the 4-week module are discussed in Table 3.

Data analysis

A Mann–Whitney *U* test was conducted on the pre- and postmodule survey and knowledge scores to evaluate the hypothesis that students would increase their knowledge about EoLC issues following the 4-week module. The course evaluation for the 2019 communication and aging course was examined for overall scores and comments related to the topic of death and dying for content related to perceptions.

RESULTS AND DISCUSSION

To examine whether students increased their perceived knowledge and comfort related to EoLC, the pre- and postassessment quizzes were analyzed. Within this quiz, students answered a series of 4 Likert questions related to perceived knowledge and comfort

Table 3. EoLC course module weekly objectives

Weekly Topic	Week Objectives
Week 1: How and where we die	• Describe major physiologic changes at the end of life. • Discuss the similarities and differences between hospice and palliative care. • Describe issues related to providing quality EoLC. • Examine goals of care for a dying patient and their family. • Describe how and where people die in the United States.
Week 2: Ethics and documentation	• Explain key aspects of ethical principles of service delivery as they relate to dying patients and their families. • Identify key components and factors in care planning and skilled documentation.
Week 3: Roles and responsibilities of SLP	• Describe the role of the SLP in EoLC. • Describe the role of other key professionals in EoLC.
Week 4: Grief, spirituality, and the “Good Death” (Field & Cassel, 1997)	• Explain key aspects of the concept of a “Good Death.” • Identify institutional changes that could support patient care at the end of life. • Describe the spiritual, psychological, social, and physical aspects of the process of dying.

Note. EoLC = end-of-life care; SLP = speech–language pathologist.

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around EoLC. Pre- and post-Likert results were compared (see Table 4).

Results of Questions 1–3 indicate that students increased their relative self-efficacy on both their familiarity of EoLC topics and comfort in discussing the topic. Question 4 asked students to indicate whether they believed that their own lived experience with death and dying would impact their understanding of the topic. Students did not indicate a change in how they perceived their personal experiences affecting their understanding of the topic, which is not unexpected due to the nature of those experiences. However, it is unknown whether this personal impact is positively or negatively influential. This topic specifically warrants further investigation as to their perception of their experience before and after the module.

Following the Likert questions, the students defined and answered seven additional knowledge-based questions related to EoLC. Questions addressed knowledge on terminology regarding the topics of palliative care, hospice care, capacity, competency, and roles and responsibilities. The results of the test were in the expected direction and significant, $p < .000$. Preknowledge assessment had an average mean rank of 18.43, whereas the postknowledge assessment had an average mean rank of 52.06. This indicates that students showed a significant increase in their knowledge of EoLC concepts following the module.

Summative module quiz question

At the end of the module, students were asked to complete online summative assessment essay questions related to the topic just covered. The purpose of these summative module questions was to allow students the opportunity to apply their knowledge to a clinical context and integrate learning from across the module. Table 5 shows the prompt used in this classroom and one example of student work completed. Responses were graded by the instructor using a rubric and were scored on the basis of content, use of

Table 4. Mann–Whitney *U* test results evaluating student pre- and postmodule self-efficacy

Assessment Question	Mean Rank	*U*	*p*
1. On a scale of 1–6 indicate your level of familiarity on end-of-life issues (1 = Not at all familiar; 6 = Extremely familiar; mean pre: 3.2; mean post: 4.09)	Pre: 21.14 Post: 49.26	110.00	.000[a]
2. On a scale of 1–6 indicate your level of familiarity with the SLP scope of practice related to EoLC (1 = Not at all familiar; 6 = Extremely familiar; mean pre: 2.49; mean post: 3.80)	Pre: 18.77 Post: 51.71	27.00	.000[a]
3. What is your current rate of comfort in discussing EoLC issues with patients and families? (1 = Not at all comfortable; 6 = Very comfortable; mean pre: 4.0; mean post: 4.4)	Pre: 26.46 Post: 43.79	296.00	.000[a]
4. What is your current perception of how much your personal experiences related to EoLC will impact your understanding of this topic? (1 = Not at all impacted; 6 = Greatly impacted; mean pre: 3.7; mean post: 3.6)	Pre: 37.21 Post: 32.72	517.50	.341

Note. EoLC = end-of-life care; SLP = speech–language pathologist.
[a]Statistical significance.

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Table 5. Summative end-of-life module assessment prompt and student response example

Prompt	Prompt: "End-of-Life care is one issue which was touched on during this course. For this question please imagine speaking with an elderly client and finding out they had no end-of-life care plan, and they did not believe they needed one. Make a compelling argument to them on why they should consider making a plan and please include in your 'case' the terms *health care proxy, living will, DNR,* and *advanced directive.* You can speak in the first person since this is a 'conversation'."
Response Example	Mrs. Smith, I can see why you would feel having an end-of-life care plan may not be necessary. From my past experiences working with families, I saw how beneficial having a plan can be. It is a way for your family and healthcare team to know how you would like to be cared for, especially in the event where you can no longer communicate your wants on your own. Having an end-of-life care plan is the best way to ensure your autonomy. I also found it to relieve a lot of stress on family members as it assured them the wishes were honored. In my experience, I have also seen how complicated a lack of documentation can be. Having documentation can give your family clarity during a difficult time. Making an end-of-life care plan may seem overwhelming, but I am more than happy to walk you through the process and assist you in any way I can. An advanced directive or some call it, a living will, is a way for you to document your wishes in the event that you can no longer communicate your wants/decisions. An advanced directive/living will can cover in detail the level of medical treatment you would or would not like to receive in the areas of: resuscitation, ventilation, non-oral feeding, artificial hydration, narcotic pain control, dialysis, and modified diets. Since it is hard to predict the future, you may include specific circumstances within your advanced directive/living will so it truly reflects what you would want. Specific circumstances can be in forms of dementia, trauma, or coma. In the case that your wants for a specific circumstance is not documented, your appointed health-care proxy may make medical decisions on your behalf. Your health-care proxy should be someone you trust and respects your wishes and autonomy. Another consideration you may add to your advanced directive/living will is something called a DNR which stands for Do Not Resuscitate order. A DNR instructs your medical team to not perform CPR in the case that your heart stops. Something that most people aren't aware of is that there are different types of DNRs that account for the different level of care you would like to receive. There is a DNR Comfort Care option or a DNR Comfort Care-Arrest option. I know this is a lot of information to process. The main thing is, you can make it whatever YOU want it to be. Your family and myself, as someone on your healthcare team want to do whatever we can to honor your wishes.

core vocabulary, and demonstration of topic knowledge.

In the 2019 course, 91.4% (32 of 35 students) received 90% or above on this summative question. This indicates that students were able to integrate knowledge from across the module and apply within a clinical case context.

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Data obtained from full course evaluation comments

The course evaluations for the CSD511 courses were examined for comments related to the topic of death and dying. This source is beyond the module-specific content on EoLC. The course evaluations have been consistently positive by university standards. The 2019 course evaluations indicate a 1.05 average in instructor facilitation and 1.09 for course media and readings usage (1= Excellent; 6 = Very Poor). Overall course rating was 1.05 (n = 22 of 35) in 2019. Statements were generally positive on the open-ended portion of student course evaluations; however, it is outside the scope of this article to evaluate those statements in depth. Table 6 provides some examples of comments from course evaluations:

CONCLUSIONS

In summary, SLP graduate students were able to demonstrate their learning in a variety of assessment forms and indicated a relative positive attitude about the content overall following an EoLC module. Students demonstrated an increase in knowledge and clinical application, as well as reported an increase in their self-efficacy related to the topic. This increase in both knowledge and comfort indicates the benefit of such a module. Furthermore, the teaching approaches used within this module elicited consistently high evaluation scores and remarks.

Students consistently remarked positively about the multimodal materials that support their learning within the module, particularly the documentaries and nonfiction books. Students also commented on the positive and safe classroom community that was built and maintained, allowing them to engage in this topic.

This pilot curriculum module presents one option for responding to the call for furthering EoLC education among SLP students. The pedagogical strategies implemented in this pilot study represent many current best practice methods for training students in this delicate area. As Toner and Shadden noted in 2012, there is a deep need for increased curriculum in this area.

Limitations of this study include its implementation across just one graduate program's curriculum in a single course, with one group of students. Also, due to the nature of the course, a secondary grader was not used for course assessments introducing the potential for bias. Further research should include the examination of this pedagogy in different modalities (i.e., online) and across different university programs. Future work will include the examination of specific aspects of the course for their impact on learning as well as the examination of an interdisciplinary course for allied health professionals on end-of-life issues. In addition, future review of course evaluations will include a more in-depth analysis of the focus of the positive comments—for example, connection to

Table 6. Sample comments from course evaluations related to end-of-life module

Example 1:	"My assigned book, 'On Living,' was helpful as a model of a thoughtful way to interact with older people and to accept them as they are. It was easy to read but deep to think about and really challenged the stereotypical views of death and dying."
Example 2	"The documentaries and books were very helpful and provided a wide lens of how society intersects with aging as a whole. I felt that Dr. Stead used useful personal anecdotes to facilitate learning and inspire students to succeed."
Example 3	"I'm so happy we had this content when we did. When I went home for Thanksgiving I was able to have a conversation with my parents about their end of life wishes and be a greater part of my grandmothers care planning. Thank you!"

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material versus instructor, versus personal context and sense of agency. Future directions could also include an extension of this training to mid- and late-career professionals as well as an examination of their perceptions and experiences.

Because professional quality of life is known to be related to the quality of care that practitioners provide as well as their productivity, recruitment and retention of SLPs may be at risk if one does not consider providing comprehensive education and training in this area (Todaro-Franceschi & Spellmann, 2012). Ultimately, the full experience of working with patients and families during the end of their life may be difficult to fully conceptualize prior to experience. Early exposure to considerations, situations, topics, and vocabulary may help future practitioners more fully conceptualize their roles within this part of their scope. Within this accelerated knowledge base, early career clinicians may be able to better partner with patients receiving palliative care for increased patient outcomes and quality of life. When purposefully designed pedagogy is employed that trains emotional perspectives, knowledge, and skills related to providing necessary and compassionate EoLC, students and early career clinicians will be better positioned to care for patients near the end of life and palliative patients.

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