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Needs assessment of palliative care education in gynecologic oncology fellowship: We're not teaching what we think is most important☆

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HIGHLIGHTS

- Gynecologic oncology fellowship directors prioritize communication topics as the most important palliative care (PC) topics for fellows to learn.
- There is no correlation between PC topics most consistently taught in fellowship curricula and those considered most important.
- There is a strong correlation between PC topics considered most important and topics of interest for new curricular materials.

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ABSTRACT

Objectives. We sought to characterize gynecologic oncology fellowship directors' perspectives on (1) inclusion of palliative care (PC) topics in current fellowship curricula, (2) relative importance of PC topics and (3) interest in new PC curricular materials.

Methods. An electronic survey was distributed to fellowship directors, assessing current teaching of 16 PC topics meeting ABOG/ASCO objectives, relative importance of PC topics and interest in new PC curricular materials. Descriptive and correlative statistics were used.

Results. Response rate was 63% (29/46). 100% of programs had coverage of some PC topic in didactics in the past year and 48% (14/29) have either a required or elective PC rotation. Only 14% (4/29) have a written PC curriculum. Rates of explicit teaching of PC topics ranged from 36% (fatigue) to 93% (nausea). Four of the top five most important PC topics for fellowship education were communication topics. There was no correlation between topics most frequently taught and those considered most important ($r_s = 0.11$, $p = 0.69$). All fellowship directors would consider using new PC curricular materials. Educational modalities of greatest interest include example teaching cases and PowerPoint slides.

Conclusions. Gynecologic oncology fellowship directors prioritize communication topics as the most important PC topics for fellows to learn. There is no correlation between which PC topics are currently being taught and which are considered most important. Interest in new PC curricular materials is high, representing an opportunity for curricular development and dissemination. Future efforts should address identification of optimal methods for teaching communication to gynecologic oncology fellows.

Introduction

Palliative care is vital to the optimization of quality and value in gynecologic cancer care [1]. Consistently demonstrated benefits of palliative care involve both improved clinical outcomes (including better quality of life, symptom control, patient satisfaction and possible improved survival) and improved value [1–7]. Palliative care assesses and addresses the physical, psychological, social and spiritual needs of both patients with life-limiting conditions and their families and provides assistance with decision making for patients, families and medical teams. Far from being limited to end-of-life care, palliative care represents a core component of standard oncology care, according to guidelines from the National Comprehensive Cancer Center (NCCN), the American Society of Clinical Oncology (ASCO), the Institute of Medicine (IOM) and the World Health Organization (WHO)[8–11]. The Society of Gynecologic

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Oncology, in its *Choosing Wisely* Campaign recommendations, recognizes that "Palliative care can and should be delivered in parallel with cancer directed therapies" and cautions against delaying basic level palliative care for women with advanced or relapsed gynecologic cancer [12].

Effective integration of palliative care throughout the disease course will require gynecologic oncologists to function as "primary palliative care" providers [13,14,15], addressing basic symptom management and discussion of treatment preferences and prognosis, with referral to specialty palliative care as needed. Training gynecologic oncologists to function effectively and comfortably as primary palliative care providers requires education on symptom management and communication skills during fellowship training. The curricular recommendations of both the American Board of Obstetrics and Gynecology's (ABOG) Guide to Learning in Gynecologic Oncology and ASCO's Core Curriculum for fellows include learning objectives related to palliative care [16,17]. Lesnock et al. previously conducted a survey of gynecologic oncology fellows' experience with palliative care, focusing on end-of-life care. They found that although fellows believe that palliative care is integral to their training, they rate the quality of their palliative care training lower than other elements of their training and report a lack of formal palliative care education [18].

One option to increase incorporation of palliative care education in gynecologic oncology fellowships is to develop curricular materials that could be disseminated nationally. Fellowship directors are in a position to modify curricular content and improve palliative care education in gynecologic oncology and palliative care objectives for fellows exist from both ABOG and ASCO. However, there has not been an evaluation of palliative care curricular content beyond end-of-life care in gynecologic oncology programs and fellowship directors' perspectives on this topic have not been published.

Our objective was to perform a needs assessment of palliative care teaching in gynecologic oncology fellowships to guide development of palliative care education modules for gynecologic oncology fellows that could be disseminated nationally. Specifically, we sought to characterize fellowship directors' perspectives on (1) inclusion of palliative care topics related to ABOG and ASCO objectives in current fellowship curricula, (2) which palliative care topics are most important for gynecologic oncology fellows to learn and (3) level of interest in utilizing palliative care curricular materials if they were available.

Materials and methods

Survey development

We developed a survey that included a total of 17 questions addressing the following five domains: (1) institutional palliative care resources, (2) palliative care teaching in existing fellowship curricula, (3) importance of palliative care topics, (4) interest in new palliative care curricular materials and (5) preferred educational modalities for teaching palliative care. Domains regarding current palliative care teaching, importance and interest in new curricular materials covered 16 palliative care topics. Choice of those topics was driven by the learning objectives included in the ABOG Guide to Learning in Gynecologic Oncology and the ASCO Core Curriculum for medical oncology fellows [16,17]. The full list of palliative care topics included is outlined in Table 1. Additional detail regarding the wording of the questions about explicit teaching, importance and interest in curricular materials and modalities is included in Table 2.

Table 1
Palliative care topics Included in survey domains regarding PC teaching, importance and interest in curricular materials.

Symptom management	Communication	End-of-life care
Opioid rotation	Delivering bad news	Hospice
Neuropathic pain	Discussing prognosis	Managing symptoms in the last 24 h of life
Radiation for pain management	Discussing goals of care or code status	
Nausea	Discussing stopping chemotherapy	
Constipation		
Depression		
Anxiety		
Fatigue		
Delirium		
Anorexia/cachexia		

Table 2
Survey domains and questions.

Domain	Questions
Institutional palliative care (PC) resources	• Presence of inpatient and outpatient palliative care clinical services
Current PC Teaching	• Any PC topic taught in lecture, journal club, M&M, other setting in past year (Y/N) • PC rotation for fellows: required or elective (Y/N) • Presence of written PC curriculum for fellows (Y/N) • Explicit teaching (Y/N) of each topic in Table 1
Most important PC topics for fellows to learn	• Choose top 5 PC topics most important for fellows to learn[a]
Interest in PC curricular materials	• Anticipate increase in PC in curriculum in next 5 years (Y/N) • Would you consider using new PC curricular materials (Y/N) • Choose top 5 PC topics for which you would be most likely to use new curricular materials[a]
Preferred educational modalities	• Choose up to 3 curricular modalities that would be most helpful for teaching PC[b]

[a] Topics chosen from list of topics in Table 1.
[b] Options: videotaped lectures, powerpoint slides, interactive online case-based modules, reference reading list, suggestions for journal club articles, example teaching cases with discussion questions & learning points.

In assessing coverage of individual palliative care topics, we chose to inquire about "explicit teaching" rather than perceived fellow preparedness or competency for several reasons. The "explicit teaching" phrasing for evaluation of palliative care education has been previously validated [19,21] and allowed us to directly compare fellowship directors' reported rates of explicit coverage to those reported by fellows in a prior survey [18]. Additionally, recent evidence suggests that self-assessment of end-of-life communication skills does not predict assessments of patients, families or clinician–educators. Additionally, we believed that reports of explicit teaching would be more objective [22].

The structure of the survey section on explicit teaching was adapted from a survey developed by Lesnock et al. to assess gynecologic oncology fellows' perceptions of their end-of-life care training [18]. That survey was based on work derived from focus groups with medical students, residents and faculty regarding end-of-life care training, and adapted from a survey originally developed to assess palliative care training in medical oncology [19,21]. Whereas prior surveys of palliative care in fellowship curricula have focused primarily on end-of-life care, we were interested in palliative care more broadly defined [8,23]. As such, our choice of palliative care topics was not limited to end-of-life care. The following statement was included at the beginning of each survey section: "Palliative Care is not limited to end-of-life care. Palliative Care includes any of the following: symptom management, communication with patients and families and end-of-life care." The survey was constructed using the electronic survey software, Survey Monkey [24].

Sample and distribution

Fellowship directors of all ABOG-approved gynecologic oncology fellowship during the 2013–2014 academic year were eligible for study participation. We contacted fellowship directors via a list of fellowship director email addresses available on the ABOG website [25]. We identified a total of 46 fellowship directors from 46 approved programs. We sent an email to each eligible fellowship director describing

the study and including a link to the online survey. We sent up to two reminder emails to each individual fellowship director who had not completed the survey after the initial email.

Statistical analysis

Data were analyzed with Stata statistical software release 11.2 (Stata Corp., College Station, TX) and IBM SPSS Statistics 21 software (SPSS Inc.). We utilized descriptive statistics to summarize rates of explicit teaching and priorities for topic importance and interest in curricular materials. We used Spearman's correlation to relate ranks of topics according to rates of explicit teaching, importance and interest in new curricular materials.

Results

Response rate & institutional palliative care resources

Our overall response rate was 63% (29/46). Inpatient palliative care was available at 96.6% (28/29) of respondents' institutions and outpatient palliative care at 82.4% (24/29). Based on an internet search, some form of specialty palliative care clinical services is also available at all seventeen institutions that did not complete the survey; it was not possible to characterize inpatient and outpatient palliative care at those institutions based on internet search.

Palliative care teaching

All responding programs reported inclusion of some palliative care topic in a formal didactic setting in the past year. Rates of inclusion of any palliative care topic in each didactic setting are as follows: Lecture 97%, Journal Club 52%, Morbidity & Mortality Conference (M&M) 38% and "Other" 55%. Respondents were invited to elaborate if they indicated coverage of palliative care in an "other" setting; responses included tumor board, interactive teaching sessions and grand rounds. A total of 48% (14/29) of programs have either a required (28%) or elective (20%) palliative care rotation for their fellows. Only 13.8% (4/29) of programs have a written curriculum for palliative care. Rates of reported explicit teaching of palliative care topics are illustrated in Fig. 1. Rates of explicit teaching by topic ranged from a low of 36% (managing fatigue) to a high of 93% (managing nausea). Thirteen out of sixteen palliative care topics were explicitly taught in over 50% of programs, but only nausea was explicitly taught in over 75% of programs.

Importance of palliative care topics

Fig. 2 illustrates the proportion of fellowship directors rating each palliative care topic among the top five most important for fellows to learn. Delivering bad news was the palliative care topic considered most important for fellows to learn with 59% (17/29) of fellowship directors including it among their top five. Management of delirium was considered least important, with 3% (1/29) including it in their top five.

Interest in palliative care curricular materials and preferred educational modalities

Eighty-three percent of fellowship directors anticipate an increase in formal didactic/teaching time dedicated to palliative care in the next five years. All fellowship directors indicated that if palliative care education materials were made available that met ABOG/ASCO objectives, they would consider using them. Fig. 2 also outlines the proportion of fellowship directors rating each palliative care topic among the top five for which they would be most likely to use curricular materials if curricular materials were available. Fellowship directors showed highest interest in curricular materials for opioid rotation, with 52% (14/29) of fellowship directors including it in their top five. Interest in curricular materials for management of delirium was lowest, with only 3% (1/29) of fellowship directors including it in their top five.

Fellowship directors were also asked to indicate which curricular modalities would be most helpful to them in teaching palliative care. Choice of up to three was permitted from the following six options: videotaped lectures, electronic presentation slides (e.g. Power Point), interactive online case-based modules, reference reading list, suggestions for journal club articles or example teaching cases with discussion questions and learning points. The greatest interest was in electronic presentation slides and example teaching cases, with 58.6% (17/29) of fellowship directors choosing each. Reference reading list was least appealing, chosen by 27.6% (8/29).

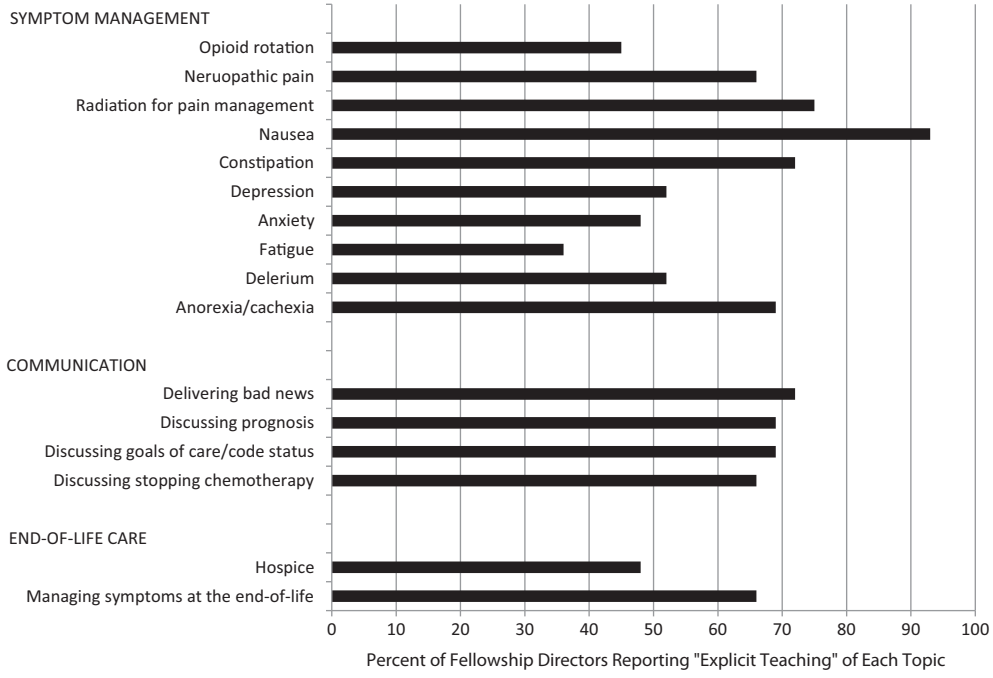

Fig. 1. Rates of explicit teaching of 16 palliative care topics ($n = 29$ fellowship programs).

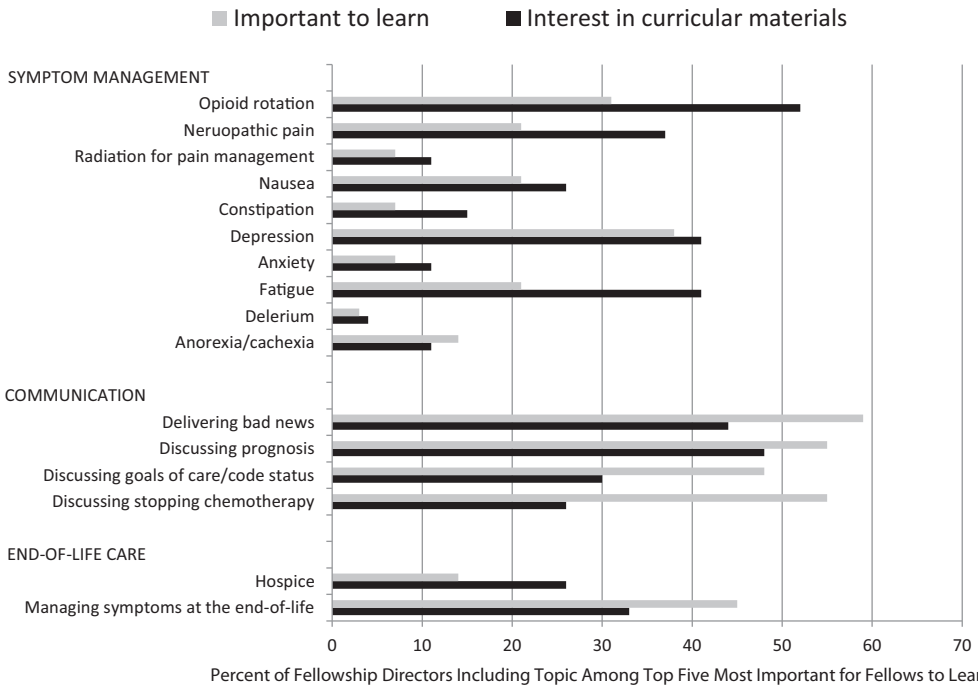

Fig. 2. Percent of fellowship directors ($n = 29$) including each PC topic among the top 5 for most important and top 5 of greatest interest for new curricular materials.

Correlations between topics taught, topics considered important and interest in curricular materials

Topics were ranked from 1 to 16 in each of the following variables: proportion of programs explicitly teaching it, proportion of fellowship directors including it among the top five most important palliative care topics for fellows to learn and proportion of fellowship directors including it among the top five topics for which they would be most likely to utilize new palliative care curricular materials. Spearman correlations between those variables are shown in Table 3. There was no statistically significant correlation between what is currently being taught and what is considered important or between what is currently being taught and interest in utilizing new curricular materials. There was a strong and statistically significant positive correlation between topics considered most important and topics for which fellowship directors had greatest interest in incorporating new curricular materials.

Discussion

Our data show that gynecologic oncology fellows are exposed to palliative care at high rates through a combination of palliative care consultative services available at their institutions, dedicated palliative care rotations and formal didactics. Institutions that train gynecologic oncology fellows have high rates of availability of both inpatient and outpatient palliative care, at 97% and 83% respectively. These rates compare favorably with the overall rates of availability of palliative care at National Cancer Institute (NCI) cancer centers reported by Hui et al. in 2010 at 92% for inpatient palliative care and 59% for outpatient [26]. In addition to the informal education opportunities afforded by the presence of palliative care clinical services, opportunities for dedicated palliative care rotations for fellows are also increasing. In the 2009–2010 academic year, only 4% of fellows (4/103) reported having done a palliative care rotation during fellowship [18]. Four years later, we found that 28% of responding programs (8/29) have a required palliative care rotation, and an additional 21% (6/29) have a palliative care elective, for a total of 48% of programs offering a palliative care rotation for their fellows. Additionally, 100% of programs reported coverage of at least one palliative care topic in a formal didactic setting over the past year.

Overall, fellowship directors reported higher rates of explicit teaching of all palliative care topics than were reported by fellows in a prior survey [18]. Rates of explicit teaching reported by fellows in that survey compared with rates reported by fellowship directors for the same topic in our study are as follows: discuss stopping chemotherapy 53% vs. 66%, how to determine when to refer patients to hospice 49% vs 66%, assess/treat neuropathic pain 32% vs. 66%, and opioid rotation 17% vs. 45% [18]. There are several possible explanations for this difference. One possible explanation is that coverage of palliative care topics has increased over time, reflecting trends in clinical practice. Alternatively, there could be a disconnect between the perceptions of fellows and fellowship directors about what is being "explicitly taught" versus what is learned by clinical exposure or by example. Finally, differential response bias may have contributed if fellows were more likely to respond to a survey about palliative care if they felt that they were not receiving quality palliative care education, whereas fellowship directors may have been more likely to respond if they were proud of the palliative care coverage in their programs, resulting in a bias toward low rates of coverage in the fellow respondents and high rates in the fellowship director respondents.

Fellowship directors rated all four communication topics among the top five palliative care topics most important for fellows to learn. This focus on the importance of teaching communication is well aligned with the curricular recommendations of organizations including the

Table 3
Among 16 palliative care topics,[a] correlation between rates of explicit teaching (what is taught)[b], topic importance (what is important)[c] and interest in curricular materials[d].

	Spearman correlation	*p*-value
What is taught vs what is important	0.11	0.69
What is taught vs interest in curricular materials	−0.20	0.45
What is important vs Interest in curricular materials	0.76	<0.001

[a] Topics listed in Table 1.
[b] Rank of topics by proportion of programs explicitly teaching it.
[c] Rank of topics by proportion of programs including it among the top 5 most important for fellows to learn.
[d] Rank of topics by proportion of programs including it among the top 5 for which they would be most likely to utilize curricular materials if they were to be provided.

American Council for Graduate Medical Education (ACGME), ABOG and ASCO, all of which incorporate communication skills into learning objectives for their trainees. Good communication practices have multiple demonstrated benefits and ineffective communication practices can have a negative impact on both patients and clinicians [5,27–36,38,42–44]. Several studies have documented suboptimal communication practices by oncologists, including focusing on technical aspects of treatment to the exclusion of eliciting patients' goals, failing to detect patient distress during clinical encounters and not giving patients opportunities to initiate discussion or express emotion [39–41]. In the gynecologic oncology population specifically, timely outpatient conversations about goals of care have been associated with shorter length of stay in subsequent hospitalizations, higher rates of palliative care consultation and less aggressive end-of-life care [45,46].

Our data highlight a disconnect between which palliative care topics are being taught and which are considered most important for fellows to learn. The correlation between ranks of topics by importance and rank by rates of teaching being small in magnitude ($P = 0.11$) and statistically insignificant ($p = 0.69$) suggests essentially no relationship between which palliative care topics are being taught in currently fellowship curricula and which topics are considered most important for fellows to learn. One possible explanation for this disconnect could be the belief that communication skills are less teachable than other clinical skills. However, communication skills training has been shown to improve communication behaviors in trainees in a range of specialties as well as in practicing oncologists [29,30,47–50]. Medical oncology fellows who participated in the Oncotalk communication workshop had measurable improvement in their communication skills [37,49].

Existing data suggest that communication skills are teachable [29,30,48–50]. Existing communication skills training curricula could be adapted for use with gynecologic oncology fellows to bridge the gap between the importance placed on communication skills and current rates of communication skills teaching. Oncotalk, described above, was delivered as 4-day residential workshop for medical oncology fellows [49]. While Oncotalk workshops are not currently offered in their original form, Oncotalk maintains multiple online teaching tools [51]. Doc.com, an online learning platform with an online practice component, has been shown to improve self-assessed knowledge, understanding and comfort in breaking bad news, when used with internal medicine residents [52]. A pilot study of monthly hour-long sessions on communication for medical oncology fellows also showed promising results, with self-reports of new skill acquisition and relevance to clinical practice [53]. Adaptations of these curricula could be used to teach communication skills to gynecologic oncology fellows. In the authors' opinion, the workshop model of communication teaching, with opportunities for learners to practice with standardized patients, has the best evidence behind it.

Looking at the relationship between current rates of explicit teaching by topic and the rates of interest in new curricular materials, we expected to see a negative correlation, suggesting that the topics currently being taught at the highest rates would be of least interest in terms of new curricular materials. Though the direction of that observed correlation was negative, it was of very small magnitude and statistically not significant. This may suggest an awareness of room for improvement and willingness to consider the use of new curricular materials for topics already being taught. We did find a strong and statistically significant correlation between topic importance and interest in curricular materials. This reflects both the high value placed on communication skills and high rates of willingness to utilize new curricular materials designed to teach those skills.

In terms of degree of interest in different curricular modalities, we were surprised to find higher interest in electronic presentation slides than more interactive modalities, such as interactive online case-based modules and example teaching cases with discussion questions and learning points. This may reflect fellowship directors' comfort level and experience with more traditional didactic teaching modalities. Lack of consistent interest in online modules may also reflect the fact that enough online modules may already be required by individual institutions and licensing bodies that fellowship directors may be hesitant to add additional online modules. Given that learners exposed to educational material presented through interactive software have been shown to have higher content retention rates than those presented information via electronic presentation slides [54], we would advocate for more interactive teaching modalities where possible, as a more efficient use of curricular time. We believe that the interactive modalities included in our survey, including online modules and example teaching cases, would be most appropriate for the symptom management topics. Communication skills, on the other hand, are best learned using methods in which learners can practice with real time feedback [49,53]. Given that we underestimated fellowship directors' interest in integrating communication teaching and that we were initially focusing on development of curriculum that could be disseminated electronically, we did not include as choices for preferred curricular modalities those traditionally used to teach communication such as role play or standardized patient scenarios.

Strengths of our study include the use of a previously validated survey. We also included palliative care topics that reflect ASCO and ABOG objectives for oncology fellows. Finally, we did not assess attitudes about palliative care topics, which are subject to social desirability bias, but rather asked about what is actually being taught, expecting that inclusion, or lack thereof, of palliative care in fellowship curricula is likely more reflective of true attitudes about palliative care than are self-reported attitudes.

Limitations of our study include the fact that our data reflect responses from only 63% (29/46) of fellowship program directors, though our response meets or exceeds the response rates of other published surveys of practicing gynecologic oncologists [55–57] and fellowship directors in other disciplines [20,58]. Response bias may favor fellowship directors who feel that they cover palliative care topics well in their fellowships, which if anything may cause our data to overestimate rates of palliative care teaching. Our data also reflect the subjective impressions of fellowship directors, though in the absence of access to written curricula and direct observation, options for obtaining more reliable objective measures are limited. Finally, in terms of assessing interest in specific curricular modalities to guide our curricular development efforts, we failed to include modalities most often used to teach communication skills, such as standardized patient-based sessions or dedicated workshops, both because we underestimated fellowship director interest in teaching communication skills and because we were focused on educational modalities that could be easily disseminated electronically.

The time is right for palliative care curriculum development in gynecologic oncology. Fellowship directors recognize the increasingly important role that palliative care will play in fellow education in the coming years. The priority placed on communication skills and interest in curricular materials on these topics represents an exciting opportunity for curricular development and national dissemination.

Conflict of interest statement

The authors have no conflicts of interest to report.

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