Original paper

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Competence in palliative and end of life care — general surgery and family medicine residencies

Abstract

Background: Palliative care and end of life care is being emphasized ever more in everyday practice of medicine. Many of the specialty boards either recommend or require education in these aspects of care of patients during residency. The specific strengths and weakness of a given residency might help tailor a curriculum that is relevant and addresses the perceived strengths and weakness of the residents in that specialty.

Objective: The aim of this study was to compare general surgery residents' self-perceived attitudes, confidence, and concerns, as it relates to effectively practicing palliative and end of life care, to family medicine residents.

Material and methods: The Attitudes Toward Death and Palliative Medicine Comfort and Confidence Surveys were used to assess self-perceived competence with palliative medicine. Surgery and family medicine residents in a major University medical center were surveyed. Data was analyzed with t-tests for independent measures. Statistical significance was set at $p < .05$.

Results: University of Florida surgery residents assessed their attitudes about dealing with dying patients as significantly more positive ($t = 2.25$, $df = 38$, $p = 0.03$) and their level of confidence in providing palliative care as significantly higher ($t = 2.60$, $df = 30$, $p = 0.01$) than family medicine residents. Surgery residents expressed similar concerns about end-of-life issues ($t = 0.14$, $df = 38$, $p = 0.89$) as family medicine residents.

Conclusions: Both similarities and differences existed in the self-perceptions of surgery and family medicine residents about palliation and end of life issues. Recognizing the importance of palliation as a competency, curriculum can be tailored to meet the specific needs of a residency program as well as the establishment of specific benchmarks that all training programs must achieve.

Key words: palliative care, general surgery, family medicine residents

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Introduction

The concept of comfort for the patients we treat is inherent in everything we do for the patient. Even the most aggressive treatment can be done in the least painful way possible. Showing compassion for the sick and dying and making sure that they are comfortable is a principle that can be traced back to antiquity. Due in part to the modern palliative and hospice movement awareness of the importance of providing patients relief from pain and personal distress has reemerged. It has also led to the better understanding that palliation can lead to good outcomes for even advanced disease states

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and that at some point end of life issues have to be addressed in all patients. Of late, all specialties including surgeons have shown an increased interest in the advancement of palliative care initiatives [1]. This renaissance was further emphasized in 2001 when the American Board of Surgery required the inclusion of palliative care education into surgical residency training. Concerns have emerged that the heroic optimism instilled in surgery residents may leave them inadequately prepared for the psychological stress inherent in palliative medicine and end of life care [2].

There is a definite role for surgeons when treatment priorities change from cure to comfort. One obstacle to the inclusion of palliative care education in a surgery residency program beyond the obvious competing demands for time is deciding what to cover among such diverse topics as pain and symptom management, communication skills, and understanding ethical or legal issues [3]. Residents need to feel instruction in end-of-life care is a worthwhile addition to their surgical training. Regular evaluation of the residents' proficiency must also be a component of the educational process as there seems to be a disparity between level of resident confidence and actual knowledge in palliative care [4]. Self-examination is also an important aspect of working with dying patients. This can be a time that surgeons find themselves most conflicted [5]. Personal, ethical, and spiritual beliefs to prolong life need to be balanced against the equally important responsibility to relieve the suffering of dying patients [6].

General practitioners (GP), however, have often viewed palliative care as belonging to their profession [7]. Typically, a GP cares for patients with chronic, progressive illness over longer periods of time which can lead to greater emotional investment. This would lead to the assumption that they are better equipped to deal with the end of life issues. However, general practitioners have also expressed similar concerns as surgeons regarding pain control, communication, and ethical issues when working through palliation and end of life issues [8]. The present study compared University of Florida surgery and family medicine residents' self-perceived attitudes and competence to establish surgery residency palliative care training benchmarks.

Material and methods

The study was conducted at the University of Florida Health Science Center located at Shands, Jacksonville has roughly 300 residents and fellows in 20 specialties that included surgery and family medicine among other specialties. At the time of the study there were 28 general surgery residents and 26 family medicine residents in the respective training programs.

After Institutional Review Board approval, surgery and family medicine residents from the University of Florida Health Sciences Center-Jacksonville were surveyed. The Attitudes Toward Death Survey (ATDS) and Palliative Medicine Comfort and Confidence Survey (PMCCS) were used to measure the self-assessed attitudes and competence of residents on palliative care and end-of-life issues. Areas to improve palliative care and topics of interest for future instruction were also requested.

Instruments

The ATDS is a 10-item questionnaire by which the respondent indicates extent of agreement to statements about death and dying on a 5 point Likert-type scale (1 — strongly agree, 5 — strongly disagree).

The PMCCS is a 16-item questionnaire to assess competence with communication skills (7 items), and medical issues (9 items) [9]. The PMCCS also asks about end-of-life treatment and treatment withdrawal concerns (20 items). The competencies are rated on a 4 point Likert-type scale (1 — need for further instruction, 4 — competent to perform independently). Level of concern is assessed on a 4 point Likert-type scale (1 — not concerned, 4 — very concerned). The survey also requests topics of interest for future education.

Procedure

Both surveys were administered during a basic science lecture. The data was analyzed in aggregate only. The UF surgery resident responses to the ATDS and PMCCS were compared with their colleagues from family medicine. Missing values were handled by mean substitution. T-tests for independent measures were performed to detect differences in attitude, confidence ratings, and end-of life concerns. Statistical significance was set at $p < 0.05$.

Result

Twenty (71%) UF surgery residents and 20 (77%) UF family medicine residents participated in the study. Though a number of similarities were noted in both resident groups some significant differences were also apparent. For the ATDS, surgery resi-

dents' attitudes about death were more positive than the family medicine residents. The result was statistically significant ($t = 2.25$, $df = 38$, $p = 0.03$). The modal responses to each question are shown in Table 1.

Large differences in attitude between the two groups was also noted in questions that addressed 2 areas of patient care. One related to using strong pain medication and the concern that it can stop patient's breathing and second, the use of feeding tubes as a means to prevent starvation. Topics that were identified as particularly being problematic by the surgery and family medicine residents when caring for end of life issues in patients who reside at nursing homes were control of pain, depression, and communication with family. Both groups also thought education and training in pain control, hospice or exposure to a designated palliative care unit and use of a palliative care team would help improve delivery of end-of-life care at their facility.

For the PMCCS, the surgery residents assessed themselves as more competent in communication skills and in addressing medical issues than the family medicine residents. The result was statistically significant ($t = 2.60$, $df = 30$, $p = 0.01$). The surgery residents level of concern about end-of-life issues was not statistically different from the family medicine residents ($t = 0.14$, $df = 38$, $p = 0.89$).

Table 2 lists the end-of-life competencies rated from least to most confident. Surgery residents felt the least confident with assessment and management of terminal delirium, nausea/vomiting, and

Table 1. Attitudes toward death modal responses

	Surgery	Family Medicine
1. The end of life is a time of great suffering	Disagree	Unsure/Mixed
2. Little can be done to help someone achieve a sense of peace at the end of life	Disagree	Disagree
3. The use of strong pain medication can cause the patient to stop breathing	Agree	Disagree
4. I am not comfortable caring for the dying patient	Disagree	Disagree
5. I am not comfortable talking to families about death	Disagree strongly	Disagree
6. When a patient dies I feel that something went wrong	Disagree	Disagree
7. Feeding tubes should be used to prevent starvation at the end of life	Disagree	Agree
8. The nursing home is not a good place to die	Disagree	Disagree
9. Patients have the right to refuse a medical treatment, even if that treatment prolongs life	Agree Strongly	Agree Strongly
10. Dying residents should be referred to Hospice	Agree	Agree

Table 2. Palliative medicine competence survey (on a scale of 1–4 with 4 being most competent)

Identified strengths			
Surgery	**Mean**	**Family Medicine**	**Mean**
Adjuvant analgesics	3.42	Basic pain assessment	3.15
Oral opioid analgesics	3.47	Home hospice referral	3.25
Management of constipation	3.58	Management of constipation	3.25
Patient decision — making capacity	3.74	Discussing DNR orders	3.35
Giving bad news	3.79	Patient decision — making capacity	3.35
Identified weaknesses			
Surgery	**Mean**	**Family Medicine**	**Mean**
Terminal dyspnea	2.42	Terminal dyspnea	2.1
Nausea/vomiting	2.79	Nausea/vomiting	2.4
Terminal delirium	2.79	Adjuvant analgesics	2.7
Home hospice referral	3.11	Parenteral opioid analgesics	2.75
Basic pain assessment	3.11	Oral opioid analgesics	2.8

DNR — Do Not Resuscitate

terminal dyspnea. Family medicine residents also reported the least confidence with the assessment and management of terminal delirium and nausea/vomiting as well as the use of adjuvant analgesics. The end-of-life care worries are shown from most to least concerning in Table 3. The greatest concern expressed by surgery residents was that discontinuing parenteral antibiotics violates both medical practice standards and accepted ethical norms, even at the end of life. Family medicine residents expressed the greatest concern in discontinuing IV hydration. They felt that it violates both medical practice standards and the state law. The most requested end-of-life education topic by the surgery residents was management of terminal delirium and for the family medicine residents was pain assessment and management. Table 4 lists the education topics rated from most to least interest.

Discussion

The American Board of Surgery and other specialty boards have required palliative care and end-of-life care instruction become integrated into residency training. The purpose of the present study was to compare general surgery and family medicine residents' self-perceived attitudes, confidence, and concerns to establish palliative care training

Table 3. Key end-of-life care concerns (most to least concern, scale from 1 to 4)

Surgery	Mean	Family Medicine	Mean
Withdrawing parenteral antibiotics violates medical practice standards	2.63	Withdrawing IV hydration violates medical practice standards	2.76
Withdrawing parenteral antibiotics violates accepted ethical norms	2.63	Withdrawing IV hydration violates state law	2.71
Withdrawing IV hydration violates accepted ethical norms	2.47	Withdrawing IV hydration violates accepted ethical norms	2.59
Withdrawing parenteral antibiotics violates state law	2.47	Withdrawing parenteral antibiotics violates accepted ethical norms	2.59
Withdrawing IV hydration violates medical practice standards	2.32	Withdrawing parenteral antibiotics violates state law	2.41
Withdrawing parenteral antibiotics violates my personal beliefs	2.32	Withdrawing IV hydration violates my personal beliefs	2.29
Withdrawing IV hydration violates state law	2.26	Withdrawing parenteral antibiotics violates medical practice standards	2.29
Withdrawing IV hydration violates my personal beliefs	2.21	Withdrawing parenteral antibiotics my personal beliefs	2.29
Withdrawing ventilator support violates medical practice standards	2.16	Withdrawing ventilator support violates accepted ethical norms	2.20
Withdrawing ventilator support violates accepted ethical norms	2.11	Withdrawing ventilator support violates state law	2.07
Withdrawing ventilator support violates state law	2.00	Withdrawing ventilator support violates medical practice standards	2.07

Table 4. Future education topics (most to least interest in percent)

Surgery	Percentage	Family Medicine	Percentage
Management of terminal delirium	94.7%	Pain assessment and management	100%
Hospice care	84.2%	Non-oral feedings in end-of-life care	95.0%
Management of terminal dyspnea	73.7%	Management of terminal delirium	90.0%
End-of-life communication skills	73.7%	End-of-life communication skills	90.0%
End-of-life ethics	68.4%	End-of-life ethics	90.0%
Non-oral feedings in end-of-life care	57.9%	Management of terminal dyspnea	85.0%
Spirituality in end-of-life care	57.9%	Hospice care	85.0%
Pain assessment and management	52.6%	Spirituality in end-of-life care	75.0%
Management of nausea and vomiting	15.8%	Management of nausea and vomiting	65.0%
Management of constipation	15.8%	Management of constipation	55.0%

program benchmarks. The results showed that the two groups have a number of similarities and also differences in self-assessed attitudes toward death and confidence caring for terminal patients. There were differences in the types of concerns reported.

Residents felt least competent with the assessment and management of terminal dyspnea. This condition at the end of life is by definition Irreversible [10]. It is also difficult to witness by both family and healthcare providers. The residents were also less confident in the management of nausea and vomiting, as part of the larger plan for effective symptom management. Instruction on how to recognize and treat signs of distress and discomfort are important and can end needless suffering of terminal patients. It has been shown that general residency training was not sufficient to provide the necessary skills or the confidence to treat patients with advanced disease or terminal illness [11]. Improvement in knowledge and attitudes comes from direct palliative care experience. Palliative medicine education includes learning how and when to recommend appropriate comfort measures when faced with prognostic uncertainty [12]. Hesitancy on the part of healthcare providers frequently results in inadequate palliation in the early phases of a terminal illness.

Both the surgery and family medicine residents indicated concern about the ethical and legal issues of withdrawal or withholding life-prolonging treatments. This ethical and legal uncertainty can often lead to the continuation of inappropriate therapies until death [13, 14]. The residents' concerns were further endorsed by requests for communication skills training and information on end-of-life ethics as a part of their palliative care education. Teaching specific clinical skills can also provide opportunities for ethical and legal discussions regarding end of life care [15].

How residents answered questions about caring for terminal patients in a nursing home is further endorsement of the lack of adequate education and the necessary skill set to care for these patients. The main concerns expressed were control of pain, depression, and communication problems with family. Beyond available treatment options, awareness of residents' emotional reactions while caring for terminal patients is rich ground for exploration in end-of-life care education. The ability to cope with the powerful emotions associated with end of life issues can help clear the obstacles to constructive patient communication and medical decision-making [16]. Effective communication with patients and families about end-of-life issues is essential for good decision-making and patient care. Physicians then need to become adept at discussing palliative care knowledgeably, with confidence, and with compassion. Yet typically, little time is devoted to teaching communication skills during a residency program [17].

The integration of palliative medicine training into residency programs is a vehicle that could affect change in attitudes as well. Rather than being viewed as giving up or as a personal failure, palliative care can be part of the overall treatment plan and end-of-life care may be considered the next logical step in the terminal phase of diseases. Residents' personal beliefs, ethics and values about death, whether consciously or unconsciously, will guide treatment recommendations. Self-reflection about end-of-life issues does not seem to hold a high priority during residency [18]. Still, an awareness of one's own feelings regarding the dying process should allow for a heightened sensitivity toward those actually facing death.

Limitations

The major limitation of this study is that it is based on the self-perceptions of residents and may not reflect their actual ability to provide palliative care or adequately cope with the strong emotions when treating dying patients. While these results reflect our local experience, they may not generalize to other institutions that might have more or less emphasis on palliative care. Subjective reports cannot substitute for objective evaluations of knowledge or direct observation of behavior from teachers and supervisors. End-of-life issues initially addressed in the classroom can best mature through clinical experience. To that effect this study does provide some insight into areas that might need more emphasis when developing curriculum for residency programs. More studies in larger programs and across institutions might also help get more information on residents attitudes.

Conclusion

There is now a national interest in end-of-life care and how it is being taught to those who are still in training [19]. When general surgery and family medicine residents are compared on their attitudes toward and confidence in caring for patients with advanced or terminal illness there were both similarities and differences in their self-perceptions about end of life issues. Both groups thought edu-

cation in palliative care would be a helpful addition to their training. Assessment of the clinical and educational needs of residents is a critical first step when designing a palliative care curriculum [20]. In conclusion, a palliative care curriculum can be tailored to the specific requirements of a residency while appropriate benchmarks for basic competency become established among all accredited training programs for the complete education of tomorrow's practitioners.

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