LOMA LINDA UNIVERSITY
MEDICAL CENTER

Palliative Care Integration into Medical Education

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ABSTRACT

Objective:

To explore differences of self-perceived competencies, ethical concerns, knowledge, and attitudes regarding palliative care between medical students who took a palliative care rotation and those who did not.

Methods:

A mixed methods, non-experimental study utilizing fourth year medical students completing tests in knowledge, self-perceived competence, ethical concerns, and attitudinal questions regarding palliative care.

Results:

Forty three medical students participated. Those who completed the palliative rotation had significantly (t = 41=3.56, p < 0.001) higher scores in overall knowledge. Factor analysis of the 26 items yielded six factors with statistical differences being observed in four factors. For ethical concerns, a significant difference was noted in the area of withdrawing artificial hydration. Students who completed the rotation reported a much broader understanding and application of palliative care concepts. Students who did not take the rotation had a narrow view of the benefits and application of palliative care, seeing application only in end of life situations.

Conclusions:

Training in palliative care is integral to medical education. Mentoring by the Palliative Care team was seen as valuable; therefore didactic information should be coupled with a formal palliative care rotation to best meet the needs of the seriously ill individual and family.

RESEARCH QUESTIONS

Quantitative Question:

Will fourth year medical students (MS4s) who have completed a two week palliative medicine (PM) rotation demonstrate greater knowledge in EOL care, report greater competency and fewer concerns with ethical issues regarding end of life care as evidenced by overall scores on the knowledge, self-perceived competency and ethical concerns tools when compared with their peers who did not rotate through PM? .

Qualitative Question:

The qualitative component of this study, or secondary endpoint, sought to describe the medical students' attitudes towards PC by means of three open-ended questions. Descriptive analysis for the qualitative component was performed utilizing a phenomenological approach for a better understanding of the medical students' attitudes regarding palliative care, and its relevance to the student's intended specialty.

Qualitative Survey Questions:

1. What motivated you to choose to take or to not take the palliative care rotation?
2. Describe situations you envision for applying palliative care in your specialty practice.

3a. If you participated in the palliative care rotation, what was most valuable to you relating to improved knowledge, competence, and/or addressing ethical concerns/dilemmas in palliative care?

3b. If you did not participate in the palliative care rotation, what specific knowledge and skills will be most important to have in your practice relating to palliative care?

Self-Perceived Competency: Comparison of Factors by Group

Factor	Group A With Rotation Mean (SD)	Group B No Rotation Mean (SD)	Sig.
Comfort	2.766 (0.580)	2.707 (0.708)	0.959
Communication	2.966 (0.509)	2.41 (0.578)	0.002
Symptom management	2.244 (0.812)	1.595 (0.539)	0.009
Patient wishes at EOL	3.016 (0.521)	2.547 (0.072)	0.029
Skills	2.4 (0.660)	1.928 (0.766)	0.035
Predicting Prognosis	2.2 (0.560)	2.07 (0.604)	0.515

Note: There were statistically significant differences between Group A and Group B within four of the factors: 1) communication, 2) symptom management, 3) patient wishes regarding EOL care and 4) skills

Comparison of Ethical Concerns Vignettes Mean Score by Group

Vignette's Ethical theme	With rotation $\bar{X}$ (SD)	No rotation $\bar{X}$ (SD)	Sig.
Pain relief	1.450 (0.751)	1.651 (0.797)	0.409
Withdraw of tube feeding	1.283 (0.660)	1.508 (0.759)	0.368
Withdraw of intravenous hydration	1.366 (0.737)	2.053 (0.901)	0.004
Withdraw of parenteral antibiotics	1.583 (0.894)	2.008 (1.107)	0.214
Withdraw of ventilator support	1.483 (0.837)	1.794 (1.000)	0.338

Note: Group A had less concern with withholding hydration than Group B (Med=1) compared with no rotation (Med=2), U (41)=101.5, p <.01).

DISCUSSION:

The conclusions from this pilot study were: 1) students who took a PC rotation had more overall knowledge in PC issues, fewer ethical concerns and a greater sense of competency; 2) The formal palliative care course work in this medical school provided PC information but this was disconnected from clinical experience, which in the students taking the PC elective proved important to a sense of competence in being able to communicate bad news and conduct family conferences; necessary skills for clinicians, and 3) PC was seen by those who did not take the rotation to be synonymous with end of life care and useful primarily for cancer patients. When Group B responded to the question "where would PC be of benefit in your practice" they referenced "terminally ill", "cancer" and "oncology" patients. This perspective was narrower than that of students who took the rotation and these restrictive views of the populations who might benefit from palliative care perpetuates the misconception that it should be reserved for end of life patients and could serve to deny palliative care to the full range of patients who would benefit from these services. Conversely, those students who elected to take the PC rotation had an expanded understanding of the role that palliative care might serve in their intended practice and its broader implications for patients with chronic, progressive, non-cancer, illnesses. Those who took the PC rotation recognized the value of modeling by the PC staff as contributing to their knowledge and reported greater confidence in their ability to conduct family meetings and have difficult conversations.

The need to continue to educate staff, patients and families about the role of PC is ongoing and needs to begin in medical school. A PC rotation is a useful and perhaps even a necessary complement to didactic training in PC for medical students.

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