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A pilot study of interprofessional palliative care education of medical students in the United Kingdom and United States:

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TITLE: A pilot study of interprofessional palliative care education of medical students in the United Kingdom and United States

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Running head: Interprofessional palliative care education

Abstract

Background: Educating medical students to care for patients at the end-of-life is increasingly recognized as an essential component of training. Traditionally, medical student programs are run by doctors, but patient care is delivered by an interprofessional team. Our programs in the United Kingdom and United States independently developed a teaching experience led by an interprofessional team of palliative care health professionals. Objectives: This study explores the palliative care health professionals' perceptions, regarding their unique role in medical student palliative care education. Methods: This is the first study to ascertain views of an interprofessional team delivering palliative care education to medical students. Focus groups enable interaction between members of the group as well as the generation of consensus of comments among group members. Results: Two major themes were identified: perceived benefits and value of the experience, and the challenges and lessons learned from the experiences. Conclusions: Despite different structures and settings, this experiential learning in palliative care provided a rewarding interprofessional experience that has historically been difficult to achieve.

Key words: Interprofessional, palliative care, hospice care, medical students, nurses, education

Introduction

Increased emphasis has been placed on teaching medical students how to provide care for terminally ill people.[1-5] This is advocated in the UK, US and Australia curricula.[6-8] Additionally, there is a drive towards interprofessional learning and developing interprofessional competencies.[9-11]

Background

Palliative care is a pertinent area to explore interprofessional learning as it has a strong ethos of interprofessional teamwork.[12 13] A variety of non-medical palliative care health professionals (NMPCHPs) including nurses, social workers and physiotherapists, are involved in medical student education in many institutions. A survey of US medical school curricula conducted in the late 1990s demonstrated that training in palliative care was inadequate.[14] Over the past two decades, curricular changes related to EOLC have been implemented in many medical schools in response to accreditation requirements. The majority of these curricular changes have affected training in the preclinical years.[14, 15] In the UK palliative care education is well developed and includes interprofessional learning.[2, 6]

Palliative care is an approach that improves the quality of life for patients with a life-threatening illness through a holistic approach to symptom and problem management, and encompasses the last year(s) of life irrespective of diagnosis. In the US, patients qualify to receive hospice care based on specific criterion which include life expectancy of six months or less and a willingness

to accept palliative care for their illness.[16] In the US most hospice care occurs in the home although it may occur in hospice facilities. In the UK, hospice care refers to a building where specialist palliative care can be delivered, rather than a distinct benefit.[16, 17] From an educational perspective the practical aspects of palliative and hospice care are comparable as medical students have similar learning objectives and experiences in the care of patients with life-threatening illness. We use the term, palliative care, as defined by the World Health Organisation: "an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness"[13] and include hospice care as defined in both the UK and US healthcare systems.

Context

Educating medical students to care for patients at the end-of-life is increasing recognized as an essential component of training. Although many methods of achieving this educational objective exist, traditionally these medical student programs are run by doctors, although patient care is delivered in intraprofessional teams. In this study we explore the NMPCHPs' perceptions, regarding the interprofessional training of medical students in the palliative care setting, as it occurs in two schools in two different countries. To our knowledge, this area has not been explored in the literature.

UKMS Interprofessional Hospice Education: There are approx. 140 UKMS students per year who receive training about interprofessional and palliative care in the third year cancer module. This eight-week module includes palliative care (including palliative care of non-malignant conditions). This is the primary opportunity for students to visit a hospice, learn about palliative care, and meet with patients receiving palliative care. Although there are key requirements

across all the UKMS sites, including writing a reflective essay, there are different experiences at each of the three hospice sites (Table 1).

USMS Interprofessional Hospice Education: USMS students (approx.120 per year) experience a half-day visit within the third-year Primary Care Clerkship (Table 1). Interpersonal and communication skills are taught in small group sessions, students receive an introduction to an inpatient hospice and hospice care, and visit hospice patients in their homes with a hospice nurse. Students participate in the hands-on care of the hospice patient and engage in interviews with patients and their family. Students submit a reflective essay.

The learning objectives for the students across all UKMS and USMS sites shared key similarities, including: (1) gaining insight into the importance of teamwork in palliative care, (2) understanding the scope of services that palliative care provides to the dying patient and his/her caregivers, (3) interacting with dying patients and their caregivers, and (4) reflecting on the experience.

Methods

Research design

This qualitative study used data collected from focus groups conducted with NMPCHPs who teach medical students.

Data Collection

Focus groups enabled interaction between members of the group as well as the generation of consensus of comments among group members.[18] A topic guide of key prompts (Appendix 1)

derived from the current literature to guide the discussions was used. Participants were recruited from all NMPCHPs involved in medical student training in a palliative care setting (hospice, community and hospital) at three clinical sites of a UK Medical School (UKMS) and a US Medical School (USMS) site.

Table 1 Description of the Programs and Sites

	UK Site 1	**UK Site 2**	**UK Site 3**	**US Site**
Setting	8 bed hospice in-patient unit. community specialist palliative care team	20 bed hospice in-patient unit.	10 bed hospice in-patient unit. community specialist palliative care team	Home visits either to patient's residence or assisted living facility.
Hospice Experience/ Exposure	2 half days in hospice	A least 4 half days in hospice including MDTs, Ward rounds, Day Hospice	2 half days in hospice Half day in hospice day care	1 hour introductory session on palliative care and tour of inpatient hospice facility
Home Visit	2 half days with specialist nurse	No home visit.	Half day with specialist nurse	Half day with hospice nurse
Didactics	Teaching sessions on PC and symptom management	Tutorials and bed side teaching.	Teaching sessions on PC and symptom management	Bad news session Introduction to Hospice Care session
Interprofessional facilitators of	Specialist palliative care:	Specialist palliative care:	Specialist palliative care:	Doctor

student learning	doctor, Nurses, chaplain, Benefits advisor and Social Worker	doctor, Nurses Bereavement Councilor	doctor, Nurse Physiotherapist Complimentary therapist	Nurse Practitioner Hospice Nurse

Data Analysis

Focus groups were audio recorded and transcribed verbatim. The transcripts were analyzed using constant comparative analysis by two authors (WHL and AG) to identify themes and subthemes.[19,20] Codes were labeled for facilitation of analysis using NVivo 8® (QSR International Pty Ltd, Australia). To enhance internal validity, all authors used the coding schema, agreed upon themes and subthemes to verify the accuracy of the coding. A final analysis was conducted and re-confirmed by all authors. We compared each of the final codes across each of the four sites.

Ethical Considerations

Institutional review board approval was obtained from Stony Brook Human Subjects Committee Reference number 543131-2 and Hull York Medical School Ethics Committee Ref 1304. All NMPCHPs involved with teaching students were informed about the study by their Lead Clinician/Team Leader. If they were interested they were then given a participant information sheet and could ask questions before being consented, which included permission for anonymous verbatim quotes.

Findings

A total of four 90-minute focus groups were conducted; one focus group at each site (UKMS=3; USMS=1) (Table 2) and the majority of the participants were from a nursing background.

Table 2 Focus Group Participants

UK Site 1	**UK Site 2**	**UK Site 3**	**US Site**
1 palliative care nurse manager 4 specialist palliative care nurses 1 palliative care social worker	1 lecturer nurse practitioner 2 specialist palliative care nurses 1 lymphedema nurse	2 specialist palliative care nurses 1 palliative care physiotherapist	1 hospice nurse practitioner 5 hospice registered nurses

Two major themes regarding the palliative care programs and experiences were identified: (1) perceived benefits and value of the experience and the NMPCHPs contributions to the experience; and (2) the challenges and limitations of the experiences with suggestions for overcoming these challenges. Several subthemes emerged from the two major themes. Comparison across sites (UK and US) were strikingly similar.

Benefits and value of the experience

***Provides a different perspective of palliative care*.** Medical students experience a unique perspective of palliative care when they visit a patient's home. Students realize the focus of care is different from that learned in the hospital setting. As depicted by one nurse:

The venue of care delivery was impactful as another participant explained:

> *"Some students are very surprised that death and dying occurs in the home..."* (US Site)

Nurses recognize their important role in orienting students and setting expectations prior to bringing the student to meet the patient.

Provides a greater understanding of the significance of interprofessional teams. These experiences offer medical students the opportunity to appreciate each profession's unique contributions to patient care.

Nurses reported that it was beneficial to have students accompany them and participate as a member of the team "*You are always learning when you have a student there. As you are teaching you are learning. Many of the students have good advice, i.e. about medications."* (US Site)

Gives patients a feeling of importance and opportunity to contribute. While the patients are often more than happy to help the next generation of physicians, they also enjoy the 'extra attention' they receive from medical students who are visiting.

> *"The majority of patients love when the medical students come, they love to tell their stories and to have somebody sit there listening to them. It is therapeutic for the patients; they comb their hair and primp themselves up a little because the medical student is coming."* (US Site)

Challenges and limitations of the experience

Readiness and interest of medical students. Although our programs strive to create positive learning experiences for medical students, there have been instances where students were not emotionally prepared to see a dying patient. The students were unsure what to do and seemed nervous or frightened. In situations like these, the nurses often provide counseling to the student afterwards and learn to ask students in advance if they have seen dying patients before so that they can better prepare the students for the visits.

There are also other instances, while not often, where students demonstrate a lack of enthusiasm by '*yawning all the time'* and '*showing no interest by slouching in every patient's house'*. However, the nurses had mechanisms for dealing with this, for example using a little humor "… *yawning is okay but if you start snoring I am not going to be very happy*". (UK Site 3)

Concerns about patients feeling overwhelmed and expressing reservation. A limitation of the experience is that it can be overwhelming for the patient when too many people are present during the visit. Patients "might feel uncomfortable talking about very personal things. Hence another vital role that nurses play is selecting suitable patients and ensuring that they are aware and approve of having a medical student present at the visit.

> "*I think to say to a patient 'do you mind if I bring a medical student' is not very empowering to say no so I say 'I can come on this particular day with a medical students or I can come on another day and I'll be on my own' and then they choose and a lot will say 'Oh no I'm quite happy for you to bring a medical student with you"*" (UK Site 1)

Lack of structure and the need for closing the feedback loop. A difficulty that the NMPCHPs encounter is not knowing the medical students' prior knowledge and experiences with dying

patients. This can be especially challenging when there are time constraints, and potential changes in the health status of the patient. Moreover, the NMPCHPs are typically not provided with the learning objectives for the experience and do not receive formal feedback from the medical schools or students regarding whether or not the objectives were achieved. To make the experience better structured preparatory sessions were suggested, along with:

> "*I think if we could get clearer outcomes…but its knowing what they're expecting to get from this and feedback afterwards because…I don't know whether we're doing right or wrong*." (UK Site 1)

In addition, NMPCHPs sometimes find themselves in situations where they need to provide emotional support for students who are not prepared for such visits. Thus, having more information about the medical school program and the kinds of services and support it has to offer would be very helpful in this process.

"*I think there's issues around support, you don't know what they (medical students) are bringing with them because you get very little detail about them. So if the students got a member of their family that's really ill, you often don't know, so you have to do that sort of emotional warning shot at the beginning of the session and I think sometimes that can be a big problem*" (UK Site 2)

Discussion

Main findings

This study explored NMPCHPs' perceptions of their contributions to the interprofessional training of medical students in palliative care.

Two common themes emerged across the two programs: the perceived benefits and value of the experience and the challenges and limitations of these experiences. Specifically, the NMPCHPs viewed the benefits and value of the experience as providing a different perspective of palliative care delivery, offering a greater understanding of the significance of interprofessional teams, and giving patients a feeling of importance and the opportunity to contribute. These viewpoints are similar to previous studies that report on medical students and patients' perspectives.[21-25] Qualitative studies on student perceptions of palliative care teaching showed that they found their palliative care placement well supported, enjoyable, and a valuable learning opportunity. A major cause of these positive perceptions was the supportive environment provided by the staff.[22] Students' preconceived notions of hospice and hospice patients prior to the experience were dispelled after visiting hospice patients in their homes.[21] The home environment brought comfort, joy, and a sense of security and support for the patient that were not consistent with the students' ideas that it would be a 'gloomy' place where someone was dying.[21] This aligns with the NMPCHPs' views in the current study that the experience is markedly different from classroom learning.

Students witness the impact of personal relationships that hospice personnel have on addressing the emotional and spiritual needs of patients and their caregivers by alleviating caregiver stress and patient anxiety.[21] In this study, the NMPCHPs describe the benefit of these experiences as an opportunity for medical students to appreciate the unique contribution that each profession makes to the holistic care of the dying patient. Patients find many positives with being involved

in teaching and do not find it too burdensome. They appreciate the opportunity to contribute to students' education and gain a feeling of importance from the experience.[26]

In terms of challenges and lessons learned from the experiences three subthemes emerged from our findings. First, while our programs provided positive learning experiences, not all students were fully equipped to interact or learn about dying patients. Available evidence suggests medical students learn most from clinical encounters in palliative care and feel underprepared and lacking in exposure to dying patients.[5, 12, 27-32] Therefore, it is important for NMPCHPs to understand that students coming to them may lack knowledge or interest about end-of-life care and will need to develop mechanisms to overcome this challenge. Providing emotional support for struggling students and the use of humor towards seemingly disinterested students were ways that our NMPCHPs effectively addressed these challenges.

Interestingly, while some patients felt that having medical students visit them provided an opportunity to contribute to their education and share their stories; for other patients it presented a limitation. Some patients, as reported by the NMPCHP, expressed reservations and reluctance in sharing personal accounts of their illness when there were too many people present. This can be mitigated by NMPCHPs who are cognizant of this potential limitation and carefully select appropriate patients.

Another barrier found in our study was that the NMPCHPs were not involved in developing the curriculum, had no prior knowledge of student training in palliative care, and received minimal feedback about student experiences. Similarly, a previously stated study showed that even though staff wanted to contribute to undergraduate medical education they felt disengaged from curriculum organization and had concerns about the students' ability to cope.[22] One way to

overcome these barriers would be to close the feedback loop through active and regular communication between the NMPCHPs and program directors throughout the process of curriculum development, implementation and revision. This would include orientation sessions, post program follow-up and providing a list of available student support services. To ensure the effective transformation of NMPCHPs from clinical experts to effective educators, ongoing mentoring in addition to active participation in the learning cycle and feedback loop is needed.[33]

A striking finding was the similarity of themes identified in this study. Despite the differences in definitions and practice of palliative care discussed in the introduction, NMPCHPs had parallel philosophies and their aims and experiences for the students were markedly similar. Therefore it is not surprising that common themes were identified in our two programs.

Strengths and limitations

To our knowledge this is the first study to explore medical students palliative care education entirely from the NMPCHP perspective. It was conducted in two countries with different healthcare systems and methods of medical education and therefore provides valuable insights into the generalizability of the findings. Nevertheless, this study does have some limitations. The students' experiences at the different sites were relatively short and different, for example, with regard to exposure to patients, team facilitation and didactics. Although the perceptions of the NMPCHPs in their facilitation of medical student learning may have been site-specific, the authors ensured that the identified themes were consistently seen across the sites and programs. The focus group facilitator at the US site was involved with running the program which may have inhibited the participants from commenting negatively about the palliative care program. The focus group facilitator for the UK sites was not involved with the programs. We sought to

obtain the perceptions of a range of non-medical professionals; however, the majority of professionals were nurses, which is a limitation.

Implications for future practice and research

NMPCHPs are commonly involved in the delivery of palliative care to patients. This study shows it is feasible and beneficial to include NMPCHPs in the education of medical students. The benefits extend beyond learning palliative care knowledge and skills as students participate in the interprofessional workplace in a practical and experiential way.[34] We would suggest that the NMPCHPs views regarding topics they identify as important for the medical students to learn be integrated into improving, planning and delivering undergraduate curricula in palliative care and interprofessional learning. We recommend that NMPCHPs should have knowledge of the students' background in palliative care and how the students can access support services when needed. NMPCHPs teaching in this setting would benefit from hearing about what the students learn from their time spent with them, which could be accomplished effectively through ongoing feedback. Utilizing NMPCHPs as educators is a practical and rewarding way to achieve undergraduate medical education in both palliative and interprofessional care. It is essential to provide support and mentorship of clinicians as they assume the role of clinical educators in the interprofessional setting.[33]

Future research should determine if palliative care experiences result in lasting impact among the students in terms of their ability to care for dying patients as medical practitioners. A questionnaire completed during the first few years after graduating medical school might be informative. Assessing the long term impact of such experiences may be difficult to achieve, unless a more standardized approach to palliative care education is uniformly applied across undergraduate medical education. It would also be useful to determine the impact that closing

the feedback loop and engaging NMPCHPs in curriculum development and revision would have in terms of their ability to teach future students.

Conclusions

Across the settings, interprofessional education of medical students was rewarding for staff and provided an experiential learning opportunity in both palliative and interprofessional care.

Contributorship

AG, JW, LSP, SL designed the study and collected the data. WHL and AG were responsible for the main analysis. AG is guarantor of the study and wrote the first draft of the paper but all authors contributed to the manuscript and approved the final manuscript.

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Competing Interests

The authors declare there are no competing interests

Ethics approval

Institutional review board approval was obtained from Stony Brook Human Subjects Committee Reference number 543131-2 and Hull York Medical School Ethics Committee Ref 1304.

Data sharing

Via corresponding author and will need board re-approval for secondary data analysis

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