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Medicine as It Should Be: Teaching Team and Teamwork during a Palliative Care Clerkship

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Abstract

Background: Interprofessional Education (IPE) is an important component of medical education. Rotations with palliative care interdisciplinary teams (IDTs) provide an optimal environment for IPE and teaching teamwork skills.
Objective: Our objective was to assess the learning of senior medical students during a palliative care rotation.
Design: A constant comparison method based on grounded theory was used in this qualitative study.
Setting/Subjects: Senior medical students completed a semi-structured reflective writing exercise after a required one-week palliative care clerkship. Sixty randomly selected reflective writings were analyzed.
Measurements: The reflective writings were analyzed to evaluate the student's experiences.
Results: Dominant themes identified were related to teams and teamwork. Eight specific themes were identified: value of IDT for team members; value of IDT for patient/family; importance of each team member; reliance on other team members; roles of team members; how teams work; team communication; and interdisciplinary assessment and care planning. Students described exposure to novel experiences and planned to incorporate newly learned behaviors in their future practice.
Conclusion: By participating in palliative care IDTs, medical students consistently learned about teamwork within healthcare. Additionally, they learned the importance of such teamwork to patients and the team itself. Rotations with palliative care IDTs have a significant role to play in IPE and preparing medical students to practice on teams.

Keywords: interprofessional education; medical education; palliative care; teamwork

Introduction

Interprofessional education (IPE) has been a growing trend in medical education prompted by multiple reports and recommendations from the Institute of Medicine,[1–4] the Macy Foundation,[5–7] and the Interprofessional Education Collaborative.[8,9] IPE is a means to prepare the workforce for team-based, patient-centered care. The World Health Organization's (WHO) Framework for Action on Interprofessional Education and Collaborative Practice calls for health professions programs to embrace IPE early in training to improve both patients' treatment and the health professionals' skills and experiences.[10] The WHO broadly defined IPE as ''two or more professions learning about, from, and with each other to enable effective collaboration and improve health outcomes.'' IPE, however, is not achieved via passive didactics or simply common experience without interaction or reflection.[11]

Inherent in IPE is working on teams and utilizing teamwork skills. However, teamwork is not an automatic consequence of placing people in common situations.[12] Indeed, most clinical teamwork training is centered on ''crisis'' situations such as codes, labor and delivery, and trauma situations.[13] Exposure to interdisciplinary teams (IDTs) and teamwork skills and opportunities to work on a team are essential if students are to be prepared for practice. In recognition of the importance of such preparation, accrediting bodies, such as the Liaison Committee on Medical Education (LCME), now mandate interprofessioanl education opportunities.[14]

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Many students enter their health professional programs with pre-formed stereotypes.[15] It has been suggested that IPE be introduced early in pre-licensure education to prevent stereotype formation.[16] Therefore, medical students provide an ideal cohort for IPE, as learners early in their educational programs are receptive to IPE and can have stereotypes changed.[17]

Crucial components of IPE for medical students include an opportunity for interaction and collaboration with other disciplines as an active member of the team (rather than passive or observation only), and having identified role models who exhibit interprofessionalism.[18] Working within interprofessional teams led by instructors and faculty experienced in IPE dealing with problems immediately related to the students' interests can engage students and encourage retention of their experiences.[18]

As discussed by Knowles' theory of adult learning,[19] having explicit and directly relevant learning experiences improves adult learner's reactions. Having experiences based on clinical encounters with the IDT allows learners to work through actual encounters and witness real-time discussions with the IDT.

Realizing the necessity for IPE in medical education and the need to teach palliative care and teamwork principles, the University of Louisville School of Medicine curriculum includes a one week Palliative Medicine Clerkship for all fourth year medical students. During this rotation, students are assigned to a palliative care team and also complete the Interdisciplinary Curriculum for Oncology Palliative Education (iCOPE).[20] As part of the iCOPE curriculum, students complete a semi-structured critical reflection based on a palliative patient they encountered and participate in an interdisciplinary learning experience with students from nursing, social work, and chaplaincy.[20,21]

The purpose of this article is to evaluate what students learned from this rotation based upon a qualitative analysis of their reflections.

Materials and Methods

Data source

The critical reflection assignment consisted of three sections:

(1) A brief summary of the clinical scenario
(2) Critical analysis of the patient/family care provided, focusing on the IDT approach and practice
(3) Description/prediction of the personal and professional impact of the experience

Students submitted their reflections electronically. Identifying information, including the students' and patients' names, was removed before analysis. Approval to use the writings for research purposes was granted by the University's Human Subject Protection Program before any study activities.

A total of 220 reflections were submitted by medical students from fall semester 2013 through spring semester 2016. Sixty of these reflections were randomly selected (by an associate who was not part of the research team) for analysis.

Analysis

The five members of the research team included three medical school Palliative Medicine faculty (two physicians and one with degrees in both nursing and social work) and two palliative care fellows. Analysis proceeded using a constant comparison approach based upon grounded theory. Phases in the analysis were as follows:

Phase 1: Identified preliminary codes

(1) A ''naïve'' first reading of 15 randomly selected essays by all five members of the research team. Researchers were instructed to read all essays while ''bracketing'' or putting aside any preexisting ideas or thoughts about what should or might be revealed in such essays. Researchers were encouraged to note categories or themes that they observed.
(2) A second reading by the research team of these 15 essays in which data were read line-by-line and categories or themes were recorded using notations in the margins or by using the comment function in Microsoft Word.
(3) The five-member research team met, collated, and agreed on a list of codes. At this point, the team decided to focus on codes that emerged related to team and teamwork. This decision was made based on the observation that student learning about teams was a significant, dominant theme of the reflections and an important aspect of their palliative care experience. The initial codebook consisted of nine themes based on consensus of the team. The codes were later collapsed into eight themes.
(4) The research team members then read an additional five essays each to verify that the list of codes was comprehensive. No new codes were added.

Phase 2: Applied the identified codes

(1) Twenty-five more reflections were randomly selected. Each was analyzed by two team members using the codes identified during the first analysis. The team met and through peer debriefing consensus it was established that these same codes were dominant and that there were no deviant cases (reflections that did not fit into the code analysis).
(2) Throughout the process, researchers were encouraged to ''memo'' their thoughts about relationships or schemes that encompassed the findings. Additional codes were considered at each team meeting based on the individual analyses.
(3) Data (direct quotes) from all essays were copied and pasted into groupings by codes using Microsoft Word.

Phase 3: Summarized the findings

(1) Team members reviewed the data within each code, summarized the findings, and selected exemplary quotes within the coded data.
(2) The full team developed consensus related to final categories and subcategories of the data as well as representative quotes.
(3) The full team developed consensus about the overall scheme of the data and interpretation of the findings.

Ensuring trustworthiness/fidelity

Each member of the team read 30 of the reflections and everyone reviewed the analysis of other team members.

Consensus regarding the coding was reached via dialog and peer debriefing attesting to the reliability of the overall findings. Random selection of the essays to be analyzed contributed to the data being representative of the whole.

The process of conceptualizing themes, agreeing on major data categories and subcategories, and developing an overall scheme was documented at each meeting. Therefore, a clear audit trail was insured. The analysis continued, with review of additional randomly selected writings, until it was felt that the themes identified were exhaustive and data saturation was reached.

Findings

Eight dominant themes were identified as follows: value of the IDT for team members; value of the IDT for the patient and family; importance of each team member; reliance on other team members; roles of team members; how teams work; team communication; interdisciplinary assessment and care planning. A summary of the dominant thoughts related to each theme follows. Exemplary quotations related to identified themes are displayed in Table 1.

Value of IDT for patient/family

A frequently recurring theme was how valuable the IDT was to patients and families. Students reported the IDT lead to a better patient experience and higher satisfaction by setting expectations, coordinating high quality care, guiding and comforting patients and families, and improving quality of life.

Teams were observed as taking time to listen, including patients and families in the care team, ensuring comprehension, working at the client's pace and valuing patient/family input. Teams worked to unite everyone and to navigate the confusion created when several specialties are involved. Students acknowledged that this thorough communication provided better understanding that empowered patients and families to make informed medical decisions and develop individualized goals.

Students reflected that the team provided a more accurate assessment due to combined expertise and consensus. Students commented that this led to improved symptom control and helped identify the root causes of suffering by addressing medical, spiritual, and psychosocial needs. Learners also described the team as seeing the patient as a person beyond their illness and advocating for the patient's goals and dignity.

Value of the IDT for team members

Learners noted that working with an IDT was essential when dealing with complex patient needs and issues and providing holistic care. Team members were viewed as valuing rich and meaningful interactions with other team members that provided a holistic understanding of the patient and facilitated the development of a comprehensive care plan. Students also noted the value to the clinicians themselves—frequently noting efficiency, coordination, improved communication, and unity across the team.

Importance of each team member

The students realized the importance of each team member and unique perspectives in improving the care of palliative care patients and their families. They noted that a care plan could not have been created without the input of every team member. They realized it took many ''bright minds'' working together to know the resources, treatments, and techniques for healing of the patient and family. By the end of their palliative care rotation, students learned that the family and patient were both integral parts of the IDT. The students embraced the fact that a team approach is the future of healthcare and no one person or discipline can care for a complex palliative care patient and their family.

Reliance on each team member

Students observed the benefits of relying on other team members. The students realized nurses and other team members spend more time with the patient and should be relied upon for input. The students observed that team members relied on each other during difficult cases. After the Palliative Medicine Clerkship, the students stated they felt more comfortable consulting chaplains, social workers, nurses, pharmacists, and psychologists knowing they can rely on these professionals for their expertise.

Roles of team members

Students often commented on the composition of the palliative care team and the individual team members involved, noting what each member contributed. Physicians were acknowledged as providing quality medical care, but the most frequent comments about the physician role pertained to their communication style. Physicians were seen as taking time with their patients, showing empathy, being supportive and impartial, and providing needed information in an understandable manner. Nurses were viewed as key to addressing the daily needs of the patient, explaining and treating symptoms as well as being involved in the social aspects of care. Several students were impressed by the important role of the pharmacist on the team and were surprised by the multiple contributions of pharmacists related to patient medication management.

Social workers were observed assisting patients with needed resources including placement alternatives, caregiver respite, arrangements for in-home care, burial benefits, and disability benefits. Addressing guardianship and custody issues and advance care planning were other noted social work functions. Social workers were often seen as the team member most responsible for assessing and intervening with families. Students were impressed with the psychosocial support and guidance offered by team social workers and a team psychologist.

Students often reflected on the role of the chaplain. While many noted the chaplain's provision of religious rituals (prayer, communion, meditation), chaplains were also seen as supportive counselors able to develop trusting bonds with patients and families.

How teams work

Learners cited the importance of both frequent and informal communication, in combination with regularly scheduled formal team meetings, to ensure well-functioning teams. They observed strong, effective communication that allowed team members to overcome barriers and gain consensus, especially during difficult cases.

Table 1. Exemplar Quotations by Theme

Themes	*Quotes*
Value of IDT for patient/ family	• *I think the palliative care team approaches medicine the way it should be done–by addressing the whole patient and all of their needs.* • *I was very impressed with how well the palliative team managed the patient's symptoms and valued her input. The teamwork between the palliative care physicians and the nurses, social workers, the other members of the team really made the difference in the patient's experience.* • *They are a wonderful support system that can help a patient's family in this trying time. They also provide comfort to the patient and ease them into their transition into whatever they believe lies ahead of them.* • *While every other healthcare worker was trying to get him to do something he didn't want to, the palliative team was really there to work with him and have the patient develop his own goals and his own rate of getting things done.* • *I had no idea the depth to which these individuals immerse themselves into totally meeting the needs of the patients and their families. Nor did I completely understand how comforting it can be to families to have some of the burden of end of life care taken from their shoulders and placed in the capable hands of the palliative care team. If I work in a hospital where a legitimate, interdisciplinary palliative care team does not exist, I would work with the hospital administration to assemble such a team. They play a vital role in treating patients with compassion and respect and should be viewed as an indispensable asset by every hospital.* • *I also feel that the palliative care team helped to guide them in the process of accepting the diagnosis and to vent their concerns/frustrations in a safe environment…*
Value of IDT for team members	• *I think that too often in medicine we feel that us as practitioners have to do all of the work. However, when that is done, the patient actually receives suboptimal treatment. The patient is best cared for when people of different backgrounds and skills can come together with their talents and combine them in such a way that makes a difference in the lives of those around them.* • *Professionally, I knew that a team based collaborative approach was the future of medicine, especially in my chosen field of family medicine.*
Importance of each team member	• *One professional is simply unable to accomplish everything that must be done to care for a patient alone.* • *I became acutely aware of the need to have multiple disciplines present for both quality care and a goals of care meeting. We had medicine, social work, case management, and nursing on her case. Each brought a unique perspective and aspect of care*
Reliance on each team member	• *In an environment when we as physicians cannot be at the bedside 24 hours for each patient, we need to rely on our team members for their input and support. It is only fair that we give them equal say in the planned assessment and care.* • *Many of the team members wanted to give up on her…I, like the team, was very frustrated…It was a lesson learned thanks to the example given by the few members of the team who remained calm and collected and looked at this situation only as a problem that had to have a better solution. It was these team members that suggested and ultimately created her official plan of care.* • *I will feel more comfortable consulting chaplains and social workers in the future when I feel that a patient may benefit from their help. I will also rely more on the nurse to help address that patients medical needs and to be a resource for the patient's day-to-day progress…. as healthcare moves to an interdisciplinary model, I will understand my role as a physician and how that fits into the greater scheme of the team.*
Roles of team members	
Social worker	• *The social worker investigated whether all family members were on the same page* • *The social worker was particularly great at soliciting the family dynamic, one that actually had an impact on me maybe more so than the medical care.*
Nurse	• *The nurses were obviously helping with his daily needs but were also involved in the social aspects.*
Chaplain	• *I loved meeting with the chaplain and hearing her stories and finding out about some of the resources they have for patients, such as dignity therapy through the personal life-story books. I am not a very religious person (as far as organized religion goes) and it was comforting to know that often that was not a major conflict for people, and that even traditionally religious patients would have spiritual questions at the end of life.*
Psychologist	• *It was really the psychologist on the team that drove the point home, not the physician.* • *The psychologist on the team was also able to help with empowering his mother to help him relax by retelling family stories to DB.*

(*continued*)

Table 1. (Continued)

Themes	*Quotes*
Pharmacist	• *… the presence of both a pharmacy attending and resident provided much more than I am accustomed to…they had their own opinions on which medications were no longer necessary; they had their own preferences in terms of blood glucose checks, given how painful they can be… and their knowledge of pain and nausea treatments went beyond simple scientific facts, but from actually rounding and talking to their patients, they seemed to be able to predict reactions to the meds and tailor the regimens to specific patients. This was probably the biggest surprise to me on the rotation–the role of the pharmacists on the team.*
Physician	• *… the biggest positive impact on me was seeing the attending physician spend 30 minutes in the room answering patient questions and then another 30 minutes outside the room talking to family about their concerns. Physicians on other services never spend this much time with individual patients and families… the manner in which the physician talked to the patient and his family was very kind, considerate, and empathetic. These are skills that I thought I possessed, but I could have never composed myself so well in the face of so many complex and complicated patient questions.*
How teams work	• *Overall, the setting was calm and peaceful with appropriate pauses for emotional response and no feeling of being rushed in the discussion. Input was received equally from all members of the team and it seemed that all members, including the family, agreed upon the final plan. I feel that the care plan, its delivery and the setting it was delivered in were totally appropriate and up to a standard I would desire for my own loved ones.* • *The entire conversation went seamlessly, with several bright minds working together, and allowed the patient's care to truly be holistic and comprehensive.* • *Seeing first-hand how this can break down barriers in communication and facilitate problem-solving is encouraging, and I hope that in the future my own team will be able work together as effectively* • *The support provided by our interdisciplinary team was invaluable and something that you just don't understand until you experience it for yourself.* • *It was great to see them discuss his situation in the team meetings as well as multiple times a day outside of the official team meetings. Even though at times different members of the team were frustrated with his case, everyone worked very hard to come to a consensus and give him the best possible outcome. They also did a really good job of keeping him in the loop with what was going on instead of just telling his wife everything in light of his possible neurological issues.*
Team communication	
Good	• *…it is essential to learn what factors shape [patient's] goals of care, such as religion, family wishes, or fears. The length of time spent in the room to ascertain this information…is vital…in order to properly treat the patient.* • *Palliative care has a luxury that is not common in other medical specialties–Time to communicate…* • *We listened to [a patient's] concerns…and at the end of the conversation, it was clear how much better she felt. This was before we started any kind of medications.*
Poor	• *Communication between teams was primarily through notes in the chart that were at times illegible and a day late to appear.* • *…the oncologist/intensivist/surgeon who was previously treating the patient for his now terminal illness did not properly communicate how serious his illness is.*
Interdisciplinary assessment and care planning	• *As far as the interdisciplinary assessment and care plan, I feel like each member of the team did a great job of addressing DD's concerns and wishes and creating a plan…. We then all came together to share what we had found her wishes were and create a plan together to meet each goal as best we could.* • *All of these different disciplines each weighed in on how the patient and family was doing and coordinated a care plan that would best serve the patient's needs. It was great to see how fluidly they worked together and came up with a cohesive plan together.* • *This patient was particularly distressed, but because we took the time to sit down and figure out alternatives, we were able to communicate with the prison and hopefully allow her to see her children before she dies. Palliative care is a difficult specialty of medicine, but it is also a refreshing reminder of how medicine should work - working together with the other specialties and fields of medicine to come up with the best patient care.*

IDTs, interdisciplinary teams.

Learners shared observations of teams working together using the strength of interdisciplinary collaboration to solve complex problems and overcome challenges. They appreciated that each member of the team had a specialized role and equal input allowing patients' needs to be addressed comprehensively.

Team communication

Observations related to communication captured both poor and effective communication scenarios. Students frequently noted that physician-to-patient communication was inadequate among teams outside of palliative care. They saw that effective communication includes all persons and medical providers important to the patient's care. They noted that good communication includes many people with varying opinions, values, and perspectives, which takes time to coordinate.

Students commented frequently that palliative care is unique in having the time to spend coordinating and updating all the people involved to ensure information is accurate and timely. Listening to patients and receiving information from them is as important as the information the team is giving the patient. Indeed, often the breakdown in communication is simply because the patient or family does not feel ''heard'' by the primary care team. Good communication was often described as a skill or a talent that took effort to cultivate, and was often lacking in other specialties. Students seemed surprised that sometimes palliative's most important role is simply translating or reiterating everything the multiple specialties already involved have said, or bringing information to the patient that has been in the chart for days.

Students noted that the sheer number of physicians involved in a patient's care often created confusion and bred misinformation with patients and families. Students expressed frustration that care was delivered poorly when each medical team had a slightly different opinion, or even the same opinion stated slightly differently, which was communicated with the patient, rather than among the teams first. This negated the opportunity for a cohesive message and united front from the medical teams and often damaged the therapeutic relationship with the patient. A few students noted that poor communication stemmed from what information was not given to the patient or was held back. Several reflections referenced patients not being fully aware of the severity of their illness and how short their prognosis had been for quite some time, causing the transition to the terminal phase to feel much more abrupt and unexpected.

Interdisciplinary assessment and care planning

Medical students reported uniformly positive experiences with interdisciplinary assessment. They saw the need for this approach beyond its value in palliative care and wished for this model across healthcare. The unique perspectives of each discipline were appreciated as value-added for the patient's assessment. Despite the mix of disciplines, students appreciated that all assessments were patient-focused and that clinicians were not anchored in specialty-centric views.

Students described active and intense focused planning by individuals and the team as a whole. They reflected a sense of calm urgency to get a plan in place due to the limited prognosis of patients. Work on care plans was described as diligent and resilient with obstacles and barriers overcome for the good of the patient and the family. Medical students noted how refreshing it was to work on functional teams in carrying out patient-centered plans.

Discussion

Learners consistently described immersion in the IDT model as a novel and positive experience in their medical education. While students are exposed to a variety of medical teams during rotations through different disciplines, they rarely have the opportunity to participate on interprofessional teams. The richness of the knowledge gained relating to IDTs through direct clinical experience demonstrated in these reflections is not feasible to obtain from a textbook or a lecture. One student explained, ''I had no idea the depth; seeing first hand; you just don't understand until you experience it yourself.'' Additionally, the responses reflected an open mind about other professions, rather than preconceived stereotypes—this is a benefit of the experience occurring early in their medical training. This is consistent with other studies that had success introducing physicians to IPE as medical students.

Overwhelmingly, students reported working with the IDT as a beneficial experience. Students learned how teams work and often distinguished features of effective and ineffective communication.

A common revelation was that optimal patient care is not the product of physicians working in isolation, rather care is more effective and comprehensive when shared with an IDT. Especially for complex patients and for end-of-life care, having a team was essential. Students learned the roles and appreciated the value of other disciplines. They noted the unique expertise of each discipline is invaluable in caring for patients as a whole person by meeting not only medical, but psychosocial and spiritual needs as well. One student summarized his learning experience by saying ''I think the palliative care team approaches medicine the way it should be done–by addressing the whole patient and all of their needs.''

This study has a number of strengths and weaknesses. By following qualitative theory and process, we held to a rigorous methodology that promotes study fidelity and reliability. A relatively large ''n'' for a qualitative study resulted in assured theme saturation in the analysis. The study is strengthened by a large pool of available material, and the random selection of learners' reflections for evaluation by an associate not involved in the analysis. Finally, a diverse team of five investigators independently analyzed the reflections before reaching consensus. The study does, however, reflect the experiences of students at only one medical school over a four-year period of time.

There were several threats to trustworthiness, one being respondent bias. Students wrote these reflections as a required component of the curriculum knowing they would be read by faculty members; therefore, students may have written the assignment in an effort to gain faculty approval. Because three members of the research team were involved in the creation and implementation of the iCOPE curriculum and were invested in its success, researcher bias is also a possible threat to trustworthiness. This was offset somewhat by having two members (the palliative care fellows) of the research team who had no relationship to or history with the

project. These two fellows had less experience in the field of palliative medicine making their reading and interpretation of the writings less biased. The analysis of the data may have been improved by obtaining reviewers without palliative care experience as such reviewers may have provided some unique, more objective insights.

Although students were encouraged by the directions to point out deficits, the vast majority of the student reflections spoke in positive terms about the teams observed. However, few teams are without dysfunction and internal challenges. The students' positive perception of teams was perhaps due to the students' lack of experience with teams in general or their inability to identify team dysfunction. Students may have been reluctant to identify problems knowing that faculty would review the reflections. Also, students were involved with the team for only a week during which the team may have been on their best behavior knowing they were being observed.

Conclusion

This qualitative study affirms the value of a rotation with a palliative care IDT for medical students. If today's learners are to be prepared for team-based practice, hands-on experiences with IDTs are necessary. The palliative care IDT models teamwork at its best in today's healthcare arena and offers learning about teams and teamwork that medical students might not experience elsewhere in their medical education.

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