

Critically ill patients and end-of-life decision-making: the senior medical resident experience

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Abstract In order to improve the understanding of educational needs among residents caring for the critically ill, narrative accounts of 19 senior physician trainees participating in level of care decision-making were analyzed. In this multicentre qualitative study involving 9 university centers in Canada, in-depth interviews were conducted in either English or French, and the transcripts then underwent a hermeneutic phenomenological analysis. The resident was the central figure in the narrated incident, along with the patients' relatives and other attending physicians. The vast majority of interviews recounted negative experiences that involved delivering bad news to patients' families and managing difficult communications with them and with physician colleagues. Emotional distress and suffering were often part of their decision-making process. Narrating their experiences was viewed as a positive event. Data analysis uncovered 6 general themes that were organized into 2 categories, the first one grouping together themes related to interactions with the patients' families and the second comprising themes related to interactions with physician coworkers. The findings suggest that physician trainees' narratives are a rich source of data regarding what constitutes meaningful training experiences and what they learn from them. Educational approaches that incorporate the telling of stories would allow students to express their feelings, doubts, and opinions about their work experiences and could thus foster personal and emotional learning in critical care.

Keywords Canada · Decision-making · End of life · Intensive care ·
Medical education · Pedagogy · Phenomenology · Physician trainee

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Introduction

In intensive care units (ICUs), considerable time and effort are devoted to delivering bad news, discussing the level of care (Tulsky et al. 1995) and guiding patients or their close relatives through the process of deciding to withhold or withdraw life support therapy (Cassell et al. 2003; Stevens et al. 2002; Cook et al. 2001). Physicians assume these responsibilities progressively during their medical training, in a manner that fosters both professional autonomy and patient-centred care (Mullan et al. 2002). It is often the senior medical residents (SMRs) who initially decide upon the level of care in ICUs, the medications, the treatment strategies for newly admitted patients and those who develop further complications during their hospitalization. They spend a great amount of time at patients' bedside, caring and engaging into therapeutic or end-of-life (EOL) discussions (Oneschuk et al. 1997).

Once on the field, SMRs have mastered many basic clinical skills but still lack the expertise that makes intensivists confident and quicker to respond. But they remain extremely open to educational experiences that might help them in their practice. Narrative Pedagogy has been touted as a unique tool in nursing interventions, engaging both teachers and students in pooling their wisdom, challenging their preconceptions, envisioning new possibilities for providing care and sharing with others to ensure patient-centered care and safety (Brown et al. 2008; Forneris and Peden-McAlpine 2006). Artificial intelligence program designers and educators also emphasize its role in inquiry-based learning: students are encouraged to iterate through cycles of questioning, hypothesis generation, data collection and hypothesis testing. Closer to us, medical educators such as Bradford and Lester (2008) describe the narrative's value in apprenticeship through contextual experiential learning (Dyrbye et al. 2007).

In order to deepen the current understanding of the educational experience of SMRs, a multinational literature review of studies involving physician trainees over a 20-year time frame was conducted. It revealed that little is known about their training needs and experiences while caring for critically ill patients at EOL (Gorman et al. 2005). An interview-based qualitative study was then conducted to identify what is important to physician trainees in ICU and infer on positive educational experiences for physician trainees. This study may help experts assemble more efficient learning environments, training programs and teaching strategies, like the use of narratives, more coherent with the day-to-day realities and *lifeworlds* of critical care physician trainees (Fins and Nilson 2000; Poses et al. 1990).

Methods

Research strategy: hermeneutic phenomenology

To gain a broader understanding of SMRs experiences while learning to care for patients at EOL in ICUs, the qualitative approach of *hermeneutic phenomenology* was favoured (Gadamer 1975). Through this approach, the researchers attempt to obtain detailed and realistic narrative accounts of lived situations (Frank 2000). This framework is another approach-specific variation of the thematic analysis widely used in qualitative studies (Marshall and Rossman 2006). Hermeneutic phenomenology seeks to interpret and understand human phenomena such as subjective experiences or social events by analyzing the possible meanings to the cultural *beings* that live them (Jackson 1996). To see

phenomena as “the things themselves” (Husserl and Moran 2001), the structure of the experience and the socio-cultural context within which it occurs are considered.

Researchers

The principal investigators’ careers consist of caring for critically ill patients, teaching medical students and training residents in ICUs. Their professional experiences and observations of physician trainees in different ICUs across Canada were implemented in a research project that was empirically grounded. To evaluate the appropriateness of the analysis of participants’ narrative accounts, a medical anthropologist was integrated to the research team.

Participants and sampling procedures

To achieve a broad understanding of the experiences of SMRs while caring for patients at EOL, data were collected from a non-probabilistic purposeful sample of critical care physician trainees in their post-graduate years (R4–R6). The directors of the 10 medical programs devoted to adult critical care across Canada were contacted to help reach the potential candidates. Nine of them agreed to provide us with the email addresses of all physician trainees enrolled in their critical care programs (anaesthesia, surgery, and internal medicine). These residents were solicited because they were the most exposed to (adult) critical care at EOL. A geographic cross-section of physician trainees with varying specialization emphasized the commonalities in their experiences at patients’ bedsides (in ICUs) as opposed to location- or specialty-specific commonalities.

Within a month, 45 emails were sent to prospective interviewees. They were asked to be interviewed at a national yearly critical care meeting. But the project and the participants’ duties were not described in detail so that they could not ponder their story in advance. Thirty-eight SMRs expressed their willingness to participate in this study by replying to our emails (85%). A convenience sample of 21 participants were interviewed over a 4-day period, and 2 recordings were inaudible ($n = 19$). Of these interviewees, 17 were Canadian (89%) and the other 2 were born and initially trained abroad (1 in Europe, and 1 in Saudi Arabia).

Data collection procedures: the interviews

Narrative accounts are commonly used in qualitative research (Fins et al. 2000), in medical education (Dyrbye et al. 2007), and particularly in ethics (Hall 2002; Jones 1999; Newell 1998; Nicholas and Gillett 1997; Raholm 2008; Tanner 1999; Tovey 1998). Three team members conducted 21 face-to-face in-depth interviews (Glaser and Strauss 1966; Kvale 1996) in Toronto (Canada), during a Canadian Critical Care Conference. Since the interviewers were fluent in both English and French, the interviews were conducted in the participant’s working language. The study, its background, its purposes and the recording of their narratives were briefly explained at the beginning of each interview, and a signed voluntary consent was obtained from each participant.

An interview guide based on narrative storytelling of significant lived experiences was used; this guide had previously been validated in medical ethics education (Brazeau-Lamontagne et al. 2003). The interviewers first asked open-ended questions (Denzin and Lincoln 2008) to interviewees about their medical background and clinical activities at that

time. Then they asked each participant to recall the experience that he/she considered the most meaningful while deciding upon the level of care of an ICU patient at EOL. When instructing the participants, no special emphasis was given to either positive or negative incidents. Moreover, no specific guidance was given to the interviewees regarding what constitutes a meaningful experience at EOL. The interviewers did specify, however, that they were seeking experiences that had the greatest impact on them.

The semi-structured interviews (Crabtree and Miller 1999) lasted 1–2 h. The participants were encouraged to describe with maximal accuracy the setting of their stories, circumstances surrounding the care of patients at EOL, decision-making (DM) milestones in their experience and the denouement thereof. Special attention was given to the thoughts and feelings expressed. The interviews were taped with a small portable audio-recorder. Each interview was recorded and transcribed in the participant's working language, so no translation was necessary.

Data processing: coding and analysis

The interviewers reread the transcripts while listening to the tapes in order to review them for accuracy, and 2 members of the research team independently coded each verbatim. Analysis entailed applying 2 different coding schemes to the ensemble of interviews. The first coding scheme consisted of a *contextual descriptive analysis* of the interviews and was intended to guide the initial data processing. This analysis focused on characteristics of the participants such as their academic background; settings in which the events took place (bedside, conference or operating room, etc.); characters in the story (patients, patients' families, colleagues, etc.); DM processes at EOL; actions undertaken; and denouements. The coding was performed and recorded using NVivo 7, a qualitative data analysis computer software package.

The second coding scheme applied to the narrative accounts was *phenomenological* (thematic) and was intended to distill the essential features of the participants' experiences with critically ill patients at EOL, the patients' families and ICU colleagues (Boyatzis 1998). From this emerged 6 major themes that were refined continually throughout the analysis process. These themes were subsequently gathered into 2 dominant categories: EOL DM with reference to physician colleagues, and EOL DM with reference to the patients' families.

To confirm the transparency and objectivity of the phenomenological coding scheme, an independent qualitative researcher applied the coding protocol to 5 transcripts chosen randomly. Where discrepancies occurred, the team met to resolve them through dialogue and negotiated consensus (Miles and Huberman 1994). The interpretations and the reasoning behind the thematic classifications were grounded in direct quotations from the interviews (Stiles 1993). These supporting quotations do not represent the entire range of experiences that may embody a particular theme: they merely comprise a quotations sample.

Ethical considerations

The Research Ethics Board (REB) of Maisonneuve-Rosemont Hospital approved the research protocol, the in-depth interview guide and the consent form. The latter was written in accordance with the recommendations of the Tri-council policy statement on ethical conduct for research involving humans (NSERC 1998). The data and informed consent forms will be kept in a locked closet during the 5 years following publication of results.

Results

Nineteen SMRs undergoing training in various Canadian ICUs were interviewed for this study. They were asked to provide a description of their medical backgrounds, their clinical experience and to recount their most meaningful experience involving the care of a critically ill patient at EOL. The results of the thematic coding and analysis are reported alongside supporting quotations taken from the participants' narrative accounts. These quotations are attributed to the SMR group as a whole rather than to any individual participant.

Contextual analysis

All of the 19 participants recounted experiences with ICU patients at EOL. The stories involved the narrator and other participants such as: patients (in 19 stories: 100%); patients' extended families (9: 47%); spouses (13: 68%); children (17: 90%); attending physicians (12: 63%); physicians from other departments (11: 58%); nurses (12: 63%); social workers (6: 32%); or the ICU team in general (13: 68%) (Fig. 1).

The patients from the SMRs narratives were admitted to ICU as a result of: transfer from other hospital wards due to hemodynamic or respiratory instability (12: 63%); severe pneumonia (3: 16%); post-operative complications (2: 10.5%) and; severe accidents (2: 10.5%). Three also suffered from a chronic illness (16%). Sixteen patients died in the hospital (84%), 5 of cancer (26%). One patient survived and was eventually transferred to another ward (5%). The 2 remaining stories involved inpatients whose outcomes were unknown at the time of the interviews (11%).

The patients' wishes regarding advance care planning at EOL were written down in living wills in 2 cases (11%). They were known by next-of-kin in 4 other stories (21%). They had to be inferred in all of the remaining 13 cases (68%), as the EOL wishes had not been discussed between patients, their next of kin and doctors.

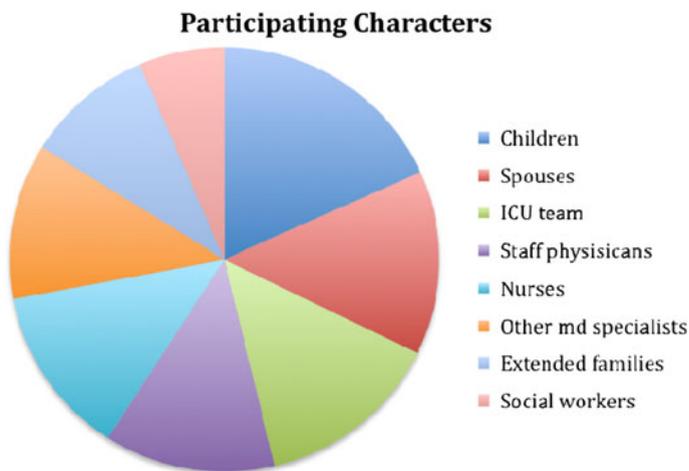


Fig. 1 People involved while deciding for patients at EOL

Thematic analysis

The majority of patients in the participant accounts had neither planned nor discussed their EOL wishes. In these cases, health care teams had to speculate while discussing with shocked, grieving, sad or angry family members, adding a level of difficulty in the DM process. The majority of the participating SMRs' most meaningful experiences thus involved incidents with complex EOL DM processes. Negative events accounted for 58% of our participants' stories (11/19); 7 interviewees described negative experiences with positive learning opportunities (37%); the remaining story described harmony between sisters regarding their father's EOL directives and was thus a positive and comforting one (5%).

SMRs expressed a wide range of emotions during the interviews. Several wept, others expressed sadness, fear or anger. Among the feelings there was guilt, grief and helplessness. Suffering was ubiquitous in the participants' experience of deciding upon the level of care for critically ill patients at EOL, in striking parallel to the suffering of their patients. Negative experiences were sometimes accompanied by feelings of surprise and satisfaction at the opportunity to learn from them.

But for 1 narrative account, SMRs told of delicate situations with either physician colleagues or patients' families regarding the care of a critically ill patient at EOL. Complex family dynamics and their management were the main focus of 7 stories (37%); ICU team dynamics, tensions between physician colleagues, and the management thereof were the main concerns in 9 others (47%). Some stories dealt exclusively with difficult interactions within patient's families or between coworkers, however many of them focused on both at the same time. Most problematic situations arose from disagreements between healthcare professionals and patients' next-of-kin, leaving the SMRs feeling torn and somewhat responsible for the resulting chaotic interactions (15: 79%). These findings served as the basis for the classification of conflicts and suffering into 2 categories: ones closely related to SMRs interactions with patients at EOL and their families (Table 1), and others closely related to SMRs EOL DM experience regarding their physician colleagues (Table 2).

The SMRs, the patients and their families at EOL

The most common theme in the participants' accounts was a *desire to respect the patients' wishes*. When patients were sedated, as critically ill patients often are, they had to determine whether they could be considered competent to make decisions or not:

Even though [the patient] was aware, she couldn't tell us what she wanted...I really didn't feel comfortable having those discussions with her because I didn't think she was *compos mentis* with all the analgesia. So most of my EOL decisions were made with the husband.

This excerpt is from an account that focuses on the patients' right to make decisions regarding their care, and the necessity to deal with the next-of-kin (or surrogate decision-makers) in cases of cognitive (and legal) incapacity. While trying to assess the patients' EOL wishes, many SMRs felt uneasy not talking to them directly. They had to follow the instructions of the patients' close relatives without certainty that they truly reflected the patients' wishes.

The second most common theme in this category focused on the *balance between patient families' wishes and appropriateness of care*. These stories dealt with the role of

Table 1 Thematic content of Canadian fellow students' narratives, Critical medicine programs, 2005 (critical care fellow students' incidents with patients and their close relatives)

Themes	Subcategories
Theoretical and technical skills	Assessing patients' diagnoses in cases of uncertainty Doing a thorough evaluation of the patients' health Evaluating patients' decision-making capacities
Communication skills	Answering questions Using appropriate language/vocabulary Communicating bad news in a compassionate way Talking with angry people Convincing patients to adhere to the proposed intervention plan Explaining uncertainty surrounding the patients' conditions Having experience in family meetings Listening to concerns Managing difficult conversations between family members
Moral values and ethical sensibility	Doing more than what is expected to help grieving families Being respectful of cultural or spiritual differences Taking time for patients and family members Respecting EOL wishes and patients' right to self-determination Caring for others Choosing beneficial interventions for patients Trying to understand patients' families' perspectives Relating to patients as individuals
Emotions and feelings	Identification with patients' or their families' life situation Fear of hurting patients Fear of causing irreparable harm to patients Fear of causing undue suffering to families Dealing with the stress and anger of patients' families Guilt from spending little time at bedside Helplessness of not knowing what to do to help family members Happiness from helping a family with their grief Happiness from helping patients die surrounded by close relatives Anger from having to comply with families' wishes at EOL

the patient's family in EOL DM, the conduct of conversations with families regarding the critically ill patient, and the SMRs reflections on these matters. The interviewees acknowledged the significance of the patients' family members in such discussions:

Early on in medicine, there was this paternalistic model where the doctor said, the doctor was right, the doctor did. And then things swung the other way: it was all about patient autonomy, sort of the patient and the doctor or the team deciding together. But now it's starting to swing a bit farther: the expertise of the doctors and nurses is being overlooked for what the family wants!

SMRs were thus aware of the challenge of negotiating between the ICU team's care plan for a critically ill patient (consisting of physical therapy, symptoms management, and health related quality-of-life (HRQOL) assessments) and the patients' family wishes

Table 2 Thematic content of Canadian fellow students' narratives, Critical medicine programs, 2005 (critical care fellow students' incidents with physician colleagues and coworkers)

Themes	Subcategories
Theoretical and technical skills	Running tests despite the patients' poor prognosis
Communication skills	Managing difficult conversations with physician colleagues Managing difficult conversations with other physicians Communicating with experts from other specialties Convincing colleagues while discussing a patient case Getting constructive feedback Having guidance in family meetings Talking and learning from attending physicians
Moral values and ethical sensibility	Teaching other students Taking time for other residents Respecting diverging opinions within the ICU team Caring for coworkers Sorting through ordinary and extraordinary measures
Emotions and feelings	Guilt from being with a disrespectful doctor Happiness from having support or backup in the team Fear of being judged Anger at having to comply with attending physicians Anger at doing more than what is expected Trauma from over-treating patients by complying with their relatives

regarding their loved one. Most experiences in this category were negative ones. Cases of families pressuring ICU teams to uphold treatment for critically ill patients despite poor prognoses were reported, as were situations in which family members were upset about the aggressiveness of care provided to their unwilling (and unconscious) loved one. The following is an example of how participants felt when in such a position:

We had a patient on life support for weeks and weeks and weeks, with no hope of ever going off. And his family would not allow us to proceed with comfort measures! We all felt horrible keeping this man alive who was just never ever going to have any quality of life. And the family refusing the withdrawal of life support: that was traumatic for the healthcare team!

The sense of helplessness in this excerpt reflects a sentiment that is recurrent in the corpus of SMR accounts. The ICU team in these conditions usually continued treating the patient, being professional but openly or tacitly condemning the patient family's persistence.

Professionalism towards patients was considered a distinct theme in the SMRs, patients and their family's category. This theme was manifest in the participants' generosity with their time towards both the patients and their families. Participants described spending time by bedside evaluating DM capacities and discussing treatment strategies. They felt that it was their duty to investigate a patient's condition as thoroughly as possible, in order to identify the illness, to fight it thoroughly and to give that person a chance to live. The gift of time spent with patients was mainly considered a positive gesture, but it was deemed a waste of energy when SMRs thought they were being overly aggressive with treatment. Spending time with the patients' close relatives in order to ease their grief and suffering,

after delivering bad news for example, was also presented as a positive gesture, but disagreement or extended hesitation over a decision were considered time wasted.

Another display of professionalism toward the patients' families was to over-treat dying patients (medical futility) to give them time to better prepare for the inevitable. Waiting few days for relatives to arrive for instance, or resuscitating in front of them to show that every medical alternative had been tried. In such circumstances, SMRs expressed sorrow and dissatisfaction with harming dying patients. However, they felt that over treating was necessary and justifiable in some cases to help grieving families:

I had to convince myself that [the patient] was gone and that I couldn't do anything else for him. He was not aware: paralyzed, sedated. He didn't know what was going on. He's out of pain. He's gone. I felt extremely driven to help him. But after he dies, his life is over. I had to take care of [the wife] now! It was devastating to see her go through that. She was not ready! I had to switch to take care of her...

This excerpt refers to behaviors motivated by sensitivity to the patient relative's needs. Whether or not this action was medically preferable, the participating SMRs described reaching a point where the care of the patient became secondary to the family's well-being. Other aspects of professionalism involving teamwork, relationships with physician colleagues and coworkers are discussed in the second thematic category.

The SMRs and their colleagues caring for critically ill patients

The dichotomy between teamwork and autonomy was also part of the SMRs' narrative accounts of their most meaningful experience at EOL. The participants identified with their colleagues and socialized with the members of their respective ICU teams. They strongly appreciated the opportunity to learn from attending physicians and had a desire to nurture junior students by taking them to family conferences in order to let them observe the ongoing interactions and learn from them. It was apparent in the corpus of interviews that the interviewees benefited from, contributed to, and enjoyed working in a medical team. But on-call periods often left them with limited supervision. When faced with making patient care decisions in the absence of an attending physician, some reported feeling as though they lacked guidance:

There were so many things going on: the family dynamics, the patient, my own feelings, the attending, and the patient's haematologist...The family was fighting; the haematologist taking care of [the patient] wanted to be quite aggressive, wait out and see what happened, give her more time in the ICU. But I couldn't get a hold of him that day! So I tried to page him. I was annoyed because he was unavailable to discuss it on that day! We had to make a decision today, and he wasn't involved, or couldn't be! ...I couldn't page the attending either, he had left! He was on his way to the airport because he had a conference. I just wanted to update him on what was going on...It was frustrating just trying to gather all the facts and people involved, and really just try to make the best decision I could for the patient. The bottom line is that I wanted to do the right thing, but I wasn't sure... I wasn't in a position to drive. I was sort of thrust in there... I wanted the haematologist involved, and I wanted back-up from the attending. I didn't necessarily want to be the driver of this! I just wanted to give the information that I had, and to get the information that I needed to make the best decision. And that wasn't happening!

The lack of guidance from attending physicians appears superseded by the *management of communication challenges between physician colleagues*, the most common theme in this category. Some SMRs portrayed nurses and social workers as very helpful in managing challenging situations with patients and their families. The ‘communication challenges’ chiefly concerned physician colleagues. The main conflicts that arose between physicians related to the handling of cases of extended ICU stays. Whereas the attending physicians rotated duty from week to week, the participants, by nature of their rotations, spent time with patients over much longer periods. They thus had a longer-term understanding of the patient cases and family dynamics. Their need to consider and consult with the patients’ relatives in the DM process often led to friction with new attending physicians:

One thing that was difficult in the intensive care is that the staff physician changed every week. He would come on a Monday and get to know the family just then. Sometimes he doesn’t have the same vision that you have as a fellow, because you’re there all the time! You’ve been there like a whole month! It’s good because [the attending physicians] often let us lead the discussion with the family. But with the rotations, you don’t have a strong person to support you as you’re trying to inform the family and make them participate [in decision-making].

Aside from the feeling of isolation resulting from the lack of consistent support from an attending physician, divergent positions on patient care within the medical team were found to provoke distrust from the patients’ relatives. The SMRs’ testify that such situations are very difficult to resolve, thus felling wedged between the 2.

The final theme in this category focused on the *management of interactions complicated by hierarchy*. The staff hierarchy inherent to the ICU compelled SMRs to comply with the staff’s perspective in cases of disagreement, leading to feelings of frustration. When they felt that the attending physicians were not respecting the agreements previously established with patients’ families, participants elaborated strategies to navigate between loyalty to colleagues and professional obligations toward patients and their relatives:

I didn’t think it was appropriate to continue reciting it [the prognosis] in front of the [patient’s] daughter with everybody involved, sort of making her more and more sad. So I said: “Let’s move on and come back to this later”. And when we moved on, I got back to her quickly and said: “We’re not ignoring you. I think this is a very important issue. What I want to do is to get other things done so we can sit down later and have time to discuss this again”. That was the strategy that I tried to use. But I felt I had to use a strategy to keep good relationships with her. The new attending was just changing the whole thing, breaking our established agreement!

Discussion

The phenomenological analysis applied to the interviews yielded 6 major themes. These were classified into 2 categories: the SMRs, the patients at EOL and their families; and themes that involved physician trainees, physician colleagues and other health care professionals. The desire to respect patients’ wishes, the management of a balance between patients’ families’ wishes and appropriate care; and professionalism towards patients were gathered in the former. Whereas the dichotomy of teamwork and autonomy, management of communicational challenges between physician colleagues and management of interactions complicated by hierarchy were gathered in the latter.

The SMRs' most meaningful ICU experiences while caring for critically ill patients at EOL tended to be negative ones (18/19, 95%). This proportion of negative accounts suggests that deciding upon the level of care for critically ill patients is still a difficult task in residency. The participants talked about their need for professionalism towards patients, by spending time with them, listening and trying to accommodate their demands into the care plan. But they described conflicting situations between the medical interventions decided by the attending physicians and those agreed upon between the trainees and the patient families, like maintaining a mother alive for 2 weeks for the daughter to arrive from Europe. They also talked about professionalism in ethical terms, describing conflicting relationships between the care team and families holding divergent views on the best care for critically ill patient. Over-treating a patient was all right if it helped patient relatives in their grieving process. But it was wrong and upsetting when done for bad reasons, like maintaining a chronically ill elderly patient alive because he is Catholic and it is for God to decide when his time comes. Thus more and more discussed in classrooms (Donaldson et al. 2010; Eckles et al. 2005), such ethical issues are difficult to appraise when facing real-life situations, uncertainty, irreversible consequences and grieving families. Plus the stress attributable to workload, involvement, time pressure, low threshold for errors, high stakes and the heavy weight of responsibilities of caregivers for the critically ill (Piquette et al. 2009). The knowledge and skills gained through training based on structured lectures, textbooks and other educational tools may be ineffective in preparing physician trainees for real-life aspects of clinical practice, including stress, management of time and other conflicting interests.

The emphasis in the theory of critical care at EOL has yet been placed on symptoms management, communication skills and ethical issues (MacLeod 2001). Since it is known that emotions, personal values and cultural beliefs are inherent to the reasoning process (Haidt 2001), it is without surprise that the participants described how their feelings interfered in their DM process while establishing the level of care for critically ill patients at EOL. Like having a wife or daughter in the resuscitating room to show that nothing more could be done to save their beloved. In the midst of such critical incidents, the interviewees felt strong feelings like fear, helplessness, incompetence and frustration. Joy and happiness was expressed by a single participant in a fell-good story. SMRs were moved by their patients' life situations, sometimes even identified with them and felt compelled to act upon those feelings (a summary of the emotional responses of the residents' interviews is provided in Tables 3, 4). These complex cases rendered the process of establishing level of care a distressing and suffering-ridden experience. With the exception of 2 recent publications which address the burden and distress of healthcare providers in ICUs (Embriaco et al. 2007; Hurst and Koplin-Baucum 2005), medical culture doesn't easily acknowledge caregivers' suffering as part of palliative care. Therefore most descriptive accounts of the DM process for physicians in ICUs do not incorporate emotions into the paradigm. However, many interviewees felt relief after telling their tales. Our data suggest that suffering was significant while establishing level of care in the ICU, at least when the DM was perceived as 'meaningful'. Since deep emotional experiences facilitate the retention of information, by triggering a reflection process for example (Cohen 2005), the expression of emotions and feelings may be both useful and helpful in the learning process of medical students.

The SMRs negative experiences while caring for critically ill patients at EOL offered positive learning opportunities for 7 of the 19 participants. Adding the happy story, half the interviewees said to have discovered something favourable from their experience, either personally or professionally. The importance of reflection and reflective practice are already known to optimize medical learning and training (Mann et al. 2007). Moreover, all

Table 3 Emotionally positive elements identified in the Canadian fellow students' narratives, Critical medicine programs, 2005

	Specific dimensions
Autonomy	Working as a trained physician (i.e. actively caring for patients, meeting and discussing with patients and/or relatives)
Dependency	Direct staff supervision while meeting with family Organized debriefing session Learning skills and observing experienced colleagues
Engaging	Teamwork (i.e. being part of a group) Professional implication (i.e. holding responsibilities, being powerful and useful) Getting positive feedback (being appreciated)
Distancing	Opportunity to manage emotions (and stress) by being temporarily assigned to an ICU Exploration and growth of Self through this process (identity defining process)
Socialization	Structuring thoughts, ways of being and thinking Allowing oral exchange with peers (opportunity to speak and to share emotions, and skills, by verbalizing/discussing cases with peers)
Proximity	Identification with (intra and interdisciplinary) professional and skilled teammates Identification with suffering patients or their relatives
False medical certainty	Assertiveness based on evidence-based knowledge Desire to cure patients

interviewees considered revisiting their difficult experiences as valuable. As positive training experiences shape future professional attitudes and lifelong practice patterns, the telling (or writing) of difficult events into narratives could thus be instrumental in medical training, offering physician trainees a valuable opportunity to dynamically reappraise the EOL DM process (Karnieli-Miller et al. 2010).

One of the strengths of this qualitative study of Canadian fellows' experiences with critically ill patients at EOL is that there is little data on what is important to them and what constitutes positive meaningful educational experiences during their training. The recruitment of critical care residents from surgical, anaesthesiology and medicine programs from several universities across Canada is also novel if compared to the studies on physician trainees in ICU (Brazeau-Lamontagne et al. 2003). From this geographically broad sample of SMRs, common themes emerged from their experiences and saturation was obtained. Finally, the multidisciplinary research team, along with the qualitative research expertise of collaborators (bioethics, medical anthropology and medical education) not only allowed triangulation of the data, but also a multifaceted analysis of this problematic.

Since this study investigated a relatively unexplored topic, limitations are inevitable. There were no models to assist conceptualization or studies to compare the findings to. As for the interview guide, it had participants focus on their most meaningful experience while caring for a critically ill patient at EOL. But there is no technical procedure for validating that such accounts are true. Moreover, the recounting of narratives evokes a recall strategy that doesn't necessarily produce reliable data, especially if the stories are assumed to be of personal importance. The memories collected in our interviews may then be biased towards educational experiences with the greatest emotional weight. The researchers being both educators and mentors in ICU, the analysis could also be biased towards what they observe on a day-to-day basis rather than just describe trainees' experiences as a phenomenon. But being insiders may also help better understanding the interviewees and the problems they face, like ethnographers on the field. The training needs of SMRs should be investigated

Table 4 Emotionally negative elements identified in the Canadian fellow students' narratives, Critical medicine programs, 2005 (emotionally negative perceptions of the trainee's EOL DM process)

	Specific dimensions
Autonomy	Insecurity from being alone when meeting with families (i.e. staff not in attendance) and uncertainty as to how to divulge diagnoses Modification of care plan following staff changes (lack of continuity in patient's care and futility) Worry about influencing patients from their natural authority over patients or their relatives Being unsupervised, not getting the best training Difficulty in developing directed self-learning competencies
Dependency	Obedience and compliance to hierarchical orders (helplessness from doing something perceived as wrong or malevolent for a patient) Being evaluated from one's ability to persuade families/staff to adopt a particular approach
Engaging	Holding too many responsibilities (i.e. time management issues) Getting contradictory or ambiguous messages Inter-professional (ethical or with regard to prognosis or diagnosis) Inter-familial (conflicts, different values, or ignorance of patient's wishes) Perception of non-acknowledgement (i.e. getting negative feedback after meeting with family)
Distancing	Inability to dialogue with patient or teammates Having little credibility from being a student, being young, or having little experience Fear of choosing for someone else and being wrong Past history triggering emotional states (and not knowing how to cope with such personal feelings)
Socialization	Stigmatization and loneliness when being/thinking differently (i.e. disagreeing with a patient's care plan)
Proximity	Inability to protect oneself from identifying strongly to a person, or a situation Fear of burdening a shocked family Need to make ICU stay a positive experience
Real life experience	Need to cure patients and feeling of failure otherwise Doubting textbook cases based on intuitive knowledge or past experiences Attempting to balance care for the patient versus surviving significant other(s) (i.e. benevolence vs. non-malevolence)

otherwise, with questionnaires for example, to choose educational approaches that are best suited to them while learning to care for dying patients.

Conclusion

The use of a qualitative methodology revealed unmentioned data concerning SMRs' experiences while caring for critically ill patients at EOL. The 19 study participants reported that their most meaningful experience occurred when they found themselves in delicate and distressing situations. The stories spoke of stress resulting from either over- or under-treating patients, to accommodate either the family's wishes or those of physician colleagues. Since negative emotional experiences can be shaped into positive learning opportunities, a structured narration of stressing events could thus optimize learning and training in ICU.

The medical culture has a strong oral tradition (Becker et al. 1961). Contextual and medical patient stories are already being told at bedside, in more detailed manners than is

ever documented in medical charts. The narrative at times of difficult decisions is familiar to all critical care specialists, the authors among them. It is a central process to human cognition, in particular because of its motivational force. And ICU physicians seek to tell their tales to colleagues (or other trusted professionals within their specialized medical world), and strongly consider the feedback they get. Since clinicians on the field already use this method, we believe that it could also be structured and implemented with medical students. Bradford and Lester (2008) for instance noted that story-based education could be both engaging and effective in medicine. Moreover, the usefulness of narrative in the context of student suffering could also be addressed, recognized and integrated into new mentoring models. From our study results, and as MacLeod (2001) did before us, we strongly believe that EOL DM skills could benefit from alternative approaches such as mentored narration. Students' reflexive narrative could also constitute an important resource for faculty development, especially since it requires little infrastructure (Karnieli-Miller et al. 2010).

EOL care is an essential skill for SMRs, and a challenge for educators. Whether integrating the narrative improves the critical care trainee's pedagogical EOL experience remains to be tested. In order to perform need assessments for medical trainees, the next steps should consist of defining their perceived educational needs; ask educators such as critical care program directors how they wish to convey this type of knowledge; validate the approach with bedside clinicians mentoring trainees when these experiences occur; and finally check with faculty members the available resources to make the pedagogical adjustments required. Once the educational model is defined, its application should be validated in a prospective study in order for this new approach to gain buy-in from members of a medical community such as intensive care specialists. Our study only describes the first step of a complex process. The remaining elements of the learning assessments and the validation for narratives in the EOL critical care setting remain to be investigated.

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Conflict of interest None.

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