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Abstract

Context

Experience-based learning (EBL) may contribute to confidence, competence and professional identity; early experiences may be particularly formative. This study explored how pre-clinical students make sense of their participation in the provision of end-of-life care within community settings.

Methods

We performed dialogic narrative analysis on essays written by junior medical students in New Zealand. Students had reflected on their participation as assistant caregivers in nursing homes, contributing to the personal care of elderly 'residents' who lived there. Essays had been submitted to a reflective writing competition, separate to their medical studies. We analysed five essays about nursing placements, focusing on students' stories about their engagement with residents who were suffering or receiving end-of-life care.

Results

In their essays, students wrote about powerful and at times intense learning experiences during these early clinical attachments; their attitudes to death and dying were both highlighted and changed. Allied health professionals (for example, caregivers) provided important support for student learning, especially in relation to seminal encounters such as end-of-life care. Support increased students' participation and confidence. Reflective writing helped students make sense of their learning, leading to thoughts about their own professional identities, even in the absence of observing or working with doctors in those settings.

Discussion

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Students' reflections revealed that they tend to filter their learning experiences through the lens of future doctoring, especially when involved in challenging clinical situations. Although medical schools have limited influence on interprofessional relationships or mentoring within the environment of community hospitals, support from other staff can help junior students make the most of their engagement in end-of-life care. In-depth reflection may facilitate the links between experience-based learning and students' emerging ideas about their own professional identities, but the underlying mechanisms need further work.

Introduction

'Experience-based learning' (EBL) has a strong theoretical foundation(1) and is a key component in learning how to become a doctor.(2) Learning from real patients helps students link medical theory to the reality of clinical work, as well as offering a potential range of positive outcomes such as increased confidence, motivation and sense of professional identity.(3) 'Early authentic experience' refers to experience-based learning in the pre-clinical phase of training, where junior (year 1 or 2) students are allocated to workplaces in order to gain understanding of patient perspectives, practice their communication skills and provide opportunities for early professional development.(4) Learning from real patients has been strongly advocated in medical education,(5) but there are considerable challenges in implementing meaningful patient contact for pre-clinical students including logistics, informed consent and briefing of staff.(6)

Theoretical perspectives

Experience-based learning in education is based on social constructionist theories emerging from innovations by John Dewey, Jean Piaget, David Kolb, Etienne Wenger and many other

theorists.(1) In contrast to behavioural models of learning based on 'transmission of knowledge' from experts to learners, social learning theories focus on student 'learning by doing' in relation to real-world problems within specific social contexts.(7) Learning is framed as an outcome of social and cultural processes, with a 'core condition' being participation; learners start by observing experts in the field, then become increasingly active participants.(8)

Consistent with these theories about experiential learning, there is a well-established tradition in medicine of 'learning on the job'. This tradition is especially relevant to clinical phases of training where both experts and novices, as part of the same social group, are engaged in mutually supportive tasks. Social learning theory puts emphasis on the crucial relationship between senior practitioners and learners, particularly in how experts welcome, encourage and challenge novice learners in the workplace setting. Making sense of their experiences or meaning is facilitated through reflection on experience, such as reflective journals and critical incident reports.(9) Through such supported participation, students may develop a 'positive state of mind' (confidence, motivation, sense of identity and meaning) as well as 'practical competence' (applied knowledge and clinical skills).(2).

However, the nature of experience-based learning means that students may be exposed to quite challenging clinical situations. These situations can be even more problematic for preclinical students who may not know what to expect. While EBL may help students to develop a 'virtuous' circle of learning (increasing confidence leading to participation, enabling more confidence and competence), others may become overwhelmed or feel marginalised and excluded from group activities, leading to reduced confidence and slower rates of learning.(2)

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These issues may become more apparent when students are engaged with patients who are suffering or dying, areas of clinical practice that pose particular challenges for students.(10, 11)

Experiential learning about death and dying in medical education

While death and dying in medical practice is now more openly acknowledged(12) and palliative care has become a distinct discipline,(13, 14) medical students still enter the institutional culture of medicine where attitudes to the dying patient remain complex and ambiguous.(15) Most medical schools have quite well developed curricula in palliative care, but much of this occurs as theory in the pre-clinical phase of training by way of lectures or case-based tutorial discussion.(16, 17) In the clinical phase of training, the attitudes and behaviours by senior clinicians in their care of the dying patient are highly variable, perhaps an outcome of inconsistent training for palliative care and/or uncomfortable personal feelings about dying.(18)

Medical students are often powerfully affected by a death, even if they have had little contact with the patient.(19, 20) Their first observed death can be their most memorable one, with heightened emotional reactions if the patient had been suffering prior to dying.(21) Unfortunately, attending physicians may not notice or respond to students' emotional needs, perhaps because their own training ignored emotions and/or avoided discussions about death. Clinicians may also lack insight, skills or confidence in responding to their students' emotional states, thinking that student welfare is not their role.(22) Furthermore, it is uncommon for students to be encouraged to reflect on or discuss their personal responses to the dying patient.(21).

These observations of student learning about end-of-life care are consistent with the longstanding avoidance of death within medical discourse. They also reflect a lack of understanding of the principles of experience-based learning, where the clinical teacher has an important role in helping students make meaning from such sentinel experiences.

Because experiential learning is less prevalent in the pre-clinical curriculum, it is relatively uncommon for early medical students to become directly involved in palliative care or to have available for analysis their reflections on such seminal clinical experiences. However, junior students' perceptions of end-of-life care may be particularly informative, as they are yet to be fully socialized into medical culture and discourse. They may be able to offer useful insights into how such challenging experiences are experienced and incorporated, especially in relation to their long-term goal of becoming a doctor.

In this research, we aimed to explore the reflections of pre-clinical students who attempt to make sense of their interactions with people who were suffering or dying. We also sought to re-examine the theoretical principles of experience-based learning, especially within the preclinical phase of training.

Methods

The context for experience-based learning

Since 2008, junior medical students at Otago Medical School in New Zealand work as assistant caregivers in nursing or residential care facilities, known locally as 'rest homes'. These early

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clinical attachments are timetabled for four hours weekly for five weeks or for longer shifts during weekends. Similar to nursing attachments for junior medical students in the Netherlands,(23, 24) educational goals for students are to provide opportunities to become involved in the personal care of elderly and dependent people, improve communication skills and reflect on their learning and ideas about doctoring. Students gain individual consent from residents or their family members for in-depth individual patient interviews and write-ups as part of course requirements.

After a preparatory lecture and tutorial, students are expected to contribute to all the necessary tasks of daily living for residents in the facilities including dressing, feeding and toileting as required. There is emphasis on being aware of their own affective responses and those of residents and caregivers as part of training for social and emotional intelligence.(25) Caregivers in each facility are advised in advance on the role of medical students in their facility, with the expectation that students will work alongside them and will increase their participation and responsibilities during the attachment. Tutors have interim meetings with subgroups of students and a review tutorial. At the end of their clinical attachment, students write a reflective essay on their experiences and what they have learned.

Data collection

The essays analysed for this study were written for and submitted in 2015 to an international reflective essay writing competition open to medical students in Australia and New Zealand (instructions to entrants provided in the Appendix). The essays had to be written in the first person and contain student's reflections on specific interactions with patients during the course of their medical studies. Participation was voluntary and had no impact on course

assessments. Submitted essays could not be identical to those written as part of course requirements but could be based on them.

Of the 58 essays submitted in 2015, we selected the 24 rated highest by the judging panel and approached their authors for consent to use them in this study; 22 students gave their consent. We chose to analyse essays that reflected on experiences in one particular setting, namely aged care facilities or rest homes, of which there were five essays. Subsequently, all the authors of those essays were found to be pre-clinical students at Otago Medical School, who had written about their learning experiences in their first clinical attachment.

Ethical approval

Ethical approval was sought and gained from the University of Otago Human Ethics Committee (Category B) for research on selected essays from the competition. The authors were three male and two female students, with an average age of 20 years. Four of them entered medicine after completing their secondary education, while one student had a prior science degree. Names of students, caregivers and patients have been changed to protect their privacy.

Dialogic narrative analysis

Mikhail Bakhtin was a Russian philosopher and social theorist who considered human relations to be an ongoing dialogue.(26) Building on this idea, dialogic approaches to research include a form of narrative analysis,(27-30) where researchers identify participants' diverse voices and perspectives and place them in dialogue or juxtaposition with each other. Highlighting differences between stories helps to explore different perspectives and voices,

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rather than reducing them to an average or common experience. In this way, dialogic analysis is a suitable method for exploring experiential learning, where different learners may have quite different perceptions and interpretations of their experiences within similar settings.

Dialogic analysis considers the particular context or environment in which each story was written, including time and place, how the story was elicited and who the intended audience is. Researchers need to consider the history, cultural background and subject positions of narrator, characters and researcher, looking also for perspectives that may be under-acknowledged or even absent. They attempt to interrogate narrators' use of words and language styles to explore underlying meanings, rather than to simply accept what is said at face value. By examining language use in this way, researchers can explore how narrators describe and characterize others in order to *position* themselves in relation to story characters, audiences and events. This process of 'interactional positioning' allows insight into the identity work accomplished by narrators during the storytelling process.(31)

The three members of the research team separately reviewed each of the selected essays using this approach. After each essay had been analysed, we met to discuss what had emerged. Common and divergent perspectives or interpretations were noted and juxtaposed. These discussions would often produce insights that would not have emerged if we had acted alone. Between research meetings, each researcher would analyse the next story and similar discussions would occur at a subsequent meeting. The potential for multiple layers of meaning to emerge through such an iterative, interactive process is a feature of the dialogic approach.

This method of analysis led to multiple findings including changes in how students described and characterized residents over the course of their placements, as well as how students positioned themselves in relation to both residents and caregivers. This article focuses on preclinical students' reflections on their own responses to witnessing suffering and death during their rest home placements and how those experiences impact on their ideas about future doctoring.

Reflexivity

All authors are medical practitioners and health care researchers with experience of qualitative methods. SW and MLJ had no contact with participants, although they have associations with medical training in Australia and Norway respectively. SW was one of the judging panel for the 2015 BSANZ Essay Competition. HW is an educator at the Otago Medical School and convenes the programme that places students in rest homes. He is also one of the curators of the essay competition. He did not know any of the Otago students personally or through teaching. To reduce the risk of such multiple roles influencing the analysis, all three researchers reviewed each essay individually and then shared ideas at research meetings. This method helped to broaden our collective interpretations.

Results

Extracts from four of the essays are presented below. These extracts illustrate students' reflections on their encounters with residents and professional caregivers. Students also discuss their own responses to suffering and end-of-life care, as well as their emerging ideas about future medical practice.

"Strange noises"

In Richard's essay, he describes one of his 'most disturbing moments' which occurred during his initial orientation to the rest home. He is passing by the room of 'Mr Norton,' an old man with breathing problems. Richard is shocked to hear Mr Norton's gasps, thinking immediately that he is dying. Richard soon realises however, that Mr Norton is now confined to his room, apparently so that his regular bouts of coughing would not upset the other residents. Richard learns to help Claire, the regular caregiver, look after this elderly man.

"He was desperately gasping for breath and making strange sounds I had never heard before. No one was with him - no nurse or carer was attending to him. In that moment, I thought that this man was about to die - gasping for his last breaths. Fortunately, he didn't...

The thing that struck me most was his eyes. They were still and motionless, fixed on an object far in the distance. Yet, they weren't helpless eyes; rather strong determined eyes (as if he was trying to remember something)."

Mr Norton has few visitors and his personal background also remains a mystery to both the student and to Claire. The absence of a medical presence, not only in this particular extract, but throughout the essay, is noteworthy. There is no mention of medical details or observations of a visiting doctor, that might have provided an explanation for what is happening. The reasons for confining Mr Norton to his room are not explored or contested

by the student; perhaps there are limited numbers of staff or the extent of Mr Norton's suffering is not being recognized.

The overall impression is that this resident is suffering terribly, but he is unable to express that verbally. As Richard says "It was heartbreaking to see this old man, trapped inside his frail, motionless body." As a young medical student, these encounters take Richard out of his knowledge and comfort zone. Empathically, Richard directly feels Mr Norton's isolation; his suffering is somehow 'injected' into Richard, who is now both observer and participant in this situation. As the narrator for Mr Norton, he attempts to put into words what the old man cannot.

Richard has discovered a hidden world of suffering in this relatively invisible community; his clinical experiences are quite different to other concurrent learning tasks in early training such as laboratory work, tutorial discussion or taking notes in lectures. Rather than seeing Mr Norton through the lens of medical theory, Richard writes about his own personal connections and empathic responses to an elderly man in constant distress. This is an illustration of the unique potential of experiential learning.

"Coming to terms with tragedy." Sean's encounter with a dying resident

In one of the more poignant scenes in his essay, Sean helps the caregivers look after another elderly man. In this particular story, there is no doubt that the resident is dying. Having never experienced loss himself, Sean admits to 'retreating' initially, but then he gets involved in skin and incontinence care, staying an extra hour one evening to help. Like Richard, he has

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considerable empathy for the old man, vowing to 'never forget [his own parents] if they ever became like this.'

"He was completely incontinent and was passing motions frequently. Cleaning his diapers was extremely unpleasant, and his parchment like skin was fragile... He looked so defeated, his eyes glistened with tears and he was in terrible pain... To me his howls were like a baby's screams and I felt tears welling up in my eyes."

Similar to Richard's story, this experience is quite different to students' usual mode of learning. Sean finds himself very quickly 'in the deep end' of providing care for a particular person. He finds that he feels helpless in relation to such suffering. In this particular scene, other staff are also reported as being affected.

"The nurses were feeling the severity of the situation, and I could see a few getting increasingly upset. It was incredibly tragic; I felt like he was a reject of society, an outcast forgotten by those who loved him and spat out by the people who couldn't understand him. Here he was, surrounded by strangers in horrible pain, alienated by his incontinence."

Sean's experience touches on the modern trend to separate the elderly away from their family, even during their final days. It is possible that both staff and student become surrogate relatives in such situations, emotionally in touch with the sadness and tragedy of a man dying alone in this way. There may have been a medical plan in place for this resident, however from what has been described, he did not receive adequate pain relief or some of the other

usual interventions in terminal care. The distress of staff may have been related to such deficiencies and it is curious there was no call for further medical input. The student also seems to accept this situation as inevitable, perhaps not realizing how end-of-life care can be more effectively managed.

It is perhaps not surprising that Sean feels a variety of emotions such as fear (not knowing how to respond to suffering), blame (against society for being so callous) and action-anxiety (desire to care more effectively for his own parents). The title of his essay (A thousand visions and revisions) may be referring to a roller-coaster of emotions as he encounters end-of-life care so directly at this early stage in his training.

Karen and the absent resident

In her essay ('The start of my journey to becoming a doctor'), Karen wonders if she had contributed to a resident's death. The patient had started coughing when she helped to feed him the previous day. His coughing is now worse, and next week, Karen finds an empty room. He had died before she returned. In retrospect, Karen acknowledges she is powerless against death. Perhaps to distance herself against her own 'sadness, frustration and guilt', she writes this passage in the third person: 'doctors could feel sadness,' especially if they are implicated in a death in some way. Later, she recounts these events to her tutorial group, acknowledging the value in talking with others and eventually feeling a 'release of burden.'

"I felt very sad about [his] death, despite only knowing him for a brief amount of time. It was strange to feel his absence in the lounge on that third shift. I also understood how limited my skills were in caring for him and how powerless I was against death.

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In this narrative, there is once again a sense of isolation and sadness: the student sounds as if she is entirely on her own in the rest home, perhaps unconsciously picking up and mirroring the felt experience of the residents. The necessity for adequate debriefing and sharing of seminal experiences is also illustrated by this essay; first by its absence within the rest home itself, and second, by its benefit in the follow-up tutorial.

Learning from caregivers

Despite the absence of medical input, both Richard and Sean were impressed by the capacity of caregivers to engage with residents, to offer empathy and caring, and to be compassionate in response to suffering. Richard watches Claire provide comfort:

"As Mr. Norton continued to cough and splutter, struggling to swallow, Claire gently stroked his head providing him the only comfort she could. This calmed him - you could tell as his fists unclenched."

While the theoretical concept of caring as a doctor or health professional may be mentioned within medical school, Claire's response to Mr Norton is an example of explicit role-modeling. The immediacy of her actions has a clear impact on Richard who translates those 'small acts' of caring into how he wants to care for his own patients.

"And yet with this sadness came an overwhelming sense of appreciation for Claire and for the care she does every day. What I learnt from her will stay with me for the rest

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of my career... she is kind and genuine. The way she cared for her residents is how I want to care for my patients."

In contrast, Sean observes a wide range of caregivers' responses to the dying man mentioned above. Some 'retreated', some 'made jokes', while others 'jumped into action.' Similar to Richard however, Sean noticed how some of the nurse and caregivers 'could implement techniques to ease resident suffering and even bring joy to their eyes.' In brief, students observe both positive and negative role-modelling from the caregivers.

In these clinical settings, there are also many opportunities for young students to talk to caregivers about their approach to caring. Sean finds it helpful to enquire of one of the nurses about her coping mechanisms in terminal care.

"The most experienced nurse later reassured me that with time it got easier and that you learnt of ways [sic] to cope. She told me that death was a part of life and a natural process with its own sense of renewal and honour as it provided the opportunity for newer generations to thrive. It was a beautiful perspective. I decided that I needed to adopt a similar outlook, although I think it will take me some time to come to terms with death and its inevitability."

At this point in his learning, Sean may believe that he has to get used to suffering, not realizing that the discipline of palliative care can offer considerable help for the dying patient. This conversation on a philosophy of caring between Sean and the nurse may help to address this student's death anxiety and his concerns about how to engage with a dying patient.

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Jim is another student who feels that his practical learning experiences helped to reduce his anxieties around dying:

"... through my experiences with two residents in a rest home, I found a certain comfort in my discomfort around death and dying. I realised that this discomfort was necessary in allowing me to make sense of death and grow from these experiences."

Even though there were no doctors present, all these students commented how their experiences and actions in their clinical placements had influenced their ideas about what sort of medicine they would like to offer, not only in relation to end-of-life care, but also about what sort of doctor they want to be. For example, Jim asserts that:

"Without empathy, healthcare would almost be no different from tending to livestock and possibly even worse. In the rush of modern medicine, taking the time and effort to show empathy and understanding can make all the difference to our patients."

Discussion

While the context is the pre-clinical curriculum, this example of experience-based learning is consistent with socio-cultural learning theory.(1) Although experiences were short, learning was 'situated' within community health care settings. Student engagement with residents, caregivers and nurses provided many authentic experiences, where learning emerged through the collective provision of personal care to residents. Students moved from being

peripheral observers to more active participants within the rest home 'community of practice.'(8) Although doctors were largely absent, students learned a wide range of new skills as part of being immersed within such a community. Subsequently, students reviewed and described their learning in their reflective writing.

The intention to help others is one of many reasons why students choose medicine as a career. However, those intentions may also include naïve ideas about their future effectiveness. Working in rest homes at an early stage in medical training presents a powerful dissonance between their prior expectations and the reality of elderly life. Students may have chosen medicine to help others or to prevent or respond to suffering, yet they observe and describe examples of abject suffering that appear unresolvable. This may be an explanation for some of the poignant, emotional nature of their writing, perhaps a heartfelt lament as they acknowledge the limitations of their future agency.

These students commented on how their existing attitudes to death have been both highlighted and altered by these real-life learning experiences. Karen noted how powerless she was against death, Sean acknowledged it would take time to come to terms with the 'inevitability' of death, while Jim asserted that death was something 'we all will face.' While they may not have been aware of the concept of 'death anxiety,'(18) they were now grappling with their own views about death and how they might respond to dying patients in the clinical setting. During pre-clinical training they attend many lectures on end-of-life care, but it is doubtful such theoretical presentations will be as effective for their learning as their discussions with caregivers and nurses, based on their immediate personal experience of being involved with a dying person.

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For several reasons, it is not surprising that these encounters with frail and elderly people were considered to be challenging. Our students do not appear to have had previous interactions with older people, let alone those who were dying, perhaps reflecting societal changes to family structure and the separation of older or dying people into institutional care. These medical students were also younger than others in graduate entry schools who may have had more prior life-experience.

The absence of doctors and their input into patient care in these narratives is striking. Students did not seem to contest the quality of end-of-life care or to ask staff to request further medical supervision. Criticism was often couched in general terms (for example, about society being 'callous'), than about specific staff who were responsible at the time. Students may not have felt sufficiently confident in their role to ask such questions, or because they were inexperienced, may not have realised that symptoms could in fact be better managed. These issues have implications for the preparation and debriefing of students; accepting and not responding to preventable suffering would be undesirable learning outcomes that need to be specifically addressed.

The student narratives also illustrate their difficulties in managing emotions, confirming existing knowledge on students' powerful emotional experiences in end-of-life care.(15, 21) As observed above, students seem to be quite open or permeable to feeling much of what each resident feels and suffers. Such emotional challenges are not surprising, as at such an early stage in training, junior students may tend to identify readily with patients and have not had time to acquire a more professional stance.(32)

However, despite these difficulties, all students in the sample were positive about their learning experiences, especially as they gained more confidence. While they were challenged at times, they acknowledged in retrospect that such experiences were helpful in their journey of training. They had shifted from an initial peripheral observer stance to more active engagement, not only in providing general care for elderly people, but also in relation to death and dying. This study demonstrates that pre-clinical students can have meaningful learning experiences of suffering and end-of-life care, particularly if they are held and supported by staff, either at the time or in later discussions with tutors and other students.

Significantly, all students mentioned that professional caregivers can be positive role models who demonstrate caring and compassion in response to suffering and dying. As new findings, we suggest that junior students are quite sensitive to role modelling by nurses and particularly by caregivers, who have not been previously acknowledged as having such a potential impact on medical training. The students in this study were proactive at times in seeking out the opinions of caregivers, but such inter-professional discussions were usually opportunistic rather than planned. Professional caregivers have a wide variety of backgrounds and training for their role, and their enthusiasm for engagement with students will be variable and difficult to mandate.(33) In general, medical students can gain useful support from caregivers if there are opportunities to talk about their shared practical experiences.

The research has raised some ethical and pedagogical issues relating to the implementation of residential care facility placements for experience-based learning in the early medical curriculum. While recognising the potential for caregivers to contribute to student learning,

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we also acknowledge there are many challenges in accomplishing this effectively. Adequate staffing must be available to minimise the risk of increasing the work of caregivers who may already be overloaded. If medical schools use residential care facilities and their staff as teaching resources, then appropriate training for the supervisory role of caregivers should be developed and offered as well as appropriate financial remuneration.

Another issue arising from this research is the need to ensure informed consent has been given in advance for students to be involved in residents' care, either directly if they are competent, otherwise from family members or other substitute decision makers. Aged care facility residents are a vulnerable group and although they may benefit from students' involvement, it is essential to ensure that residents are not exploited or used for teaching without their meaningful consent.

The role of reflection in identity formation

In this paper, we have provided examples of how students in their pre-clinical phase of training can encounter suffering and dying for the first time, and how those students attempt to make meaning from those experiences. A further new finding from this study is that preclinical students' reflection on their end-of-life care experiences can trigger thoughts about what sort of doctor they want to be, even in the absence of observing doctors in action. By putting into words their feelings, thoughts and responses to challenging clinical experiences, students are starting to work on and develop their own professional identities.

Theoretically, the effectiveness of reflection is strengthened when facilitated by a role model or mentor and carried out as a group activity or in a well-facilitated tutorial.(9) Furthermore,

the added value of reflection on experience may be contingent on the depth or quality of reflection.(34) Putting experience into words may help with 'confidence, motivation, satisfaction and a sense of professional identity,'(3) but students may require quite detailed and ongoing coaching from faculty if they are to reach sufficient depth of reflection that will afford such benefits.(35, 36) It is possible that the detailed instructions for the essay competition were instrumental in helping students formulate the rich insights that we observed. The implications are that reflective work may need to be well-integrated into an EBL programme if students are to make the most of their formative experiences, and that indepth reflection may need to be taught explicitly.

Experience-based learning

These students' active participation and subsequent essays are consistent with Kolb's learning cycle which includes concrete experiences, reflective observation and abstract conceptualization.(37) Their process of learning was also consistent with experience-based learning models, where supported participation can facilitate students' gradual transition from student to doctor. Figure 1 is adapted from an earlier EBL model,(2) where we now emphasise the role of reflection in facilitating positive outcomes. Potentially, there is a virtuous circle of learning between supported participation, reflection, and positive states of mind as well as practical competence.

Figure 1 here

Limitations

This research has several limitations. As noted earlier, the students were relatively young in age; students from graduate entry schools with more life experience may have responded differently to end-of-life care or to those particular learning environments. It is also possible that the essays available for analysis were only from students who found their rest home placements to be useful overall. As the analysed essays were written for a separate writing competition, students might have exaggerated their learning experiences or their own responses in order to maximize the impact of the essay for reviewers. Additionally, only the 24 students with the highest rating essays were asked to provide their essays for this research; reviewers for the competition may have been biased towards more articulate students who were positive about their placements or who could link their learning to ideas about what sort of doctor they want to be. Further research could explore the experiences of all students in a cohort after their clinical placement. The views of other significant actors in the workplace also need to be elicited, particularly that of caregivers and residents.

We were conscious that the dual roles of HW as researcher and programme convener could affect his responses to the data, perhaps unconsciously seeking favourable outcomes from the clinical placements. This issue has been mitigated by the contributions and input from the other researchers.

Conclusions

Our findings support and extend the existing understanding of experience-based learning in medical education. In this illustrative example of EBL within a pre-clinical curriculum, junior medical students contributed to the daily care of elderly people in nursing or rest homes.

Caregivers in rest homes have not previously been considered as part of interprofessional collaboration or training, but this data suggest they can mentor students and help them make meaning from important learning experiences. Further curriculum development could focus on more specific preparation for caregivers and other health professionals who become involved with medical students, gaining consent directly from residents or family members for students to be involved in their care, and more attention to workplace conditions such as staffing levels that may hinder or support students' interpersonal learning experiences. Positive outcomes of EBL are contingent on detailed attention to the context of learning as well as on providing sufficient backup and support for students so they can effectively process their powerful learning experiences.

Through such engagement including end-of-life care, students' authentic experiences can trigger useful reflection on their role as doctors, even at early stages in training. Students need to be provided with a variety of reflective opportunities to help them make sense of their learning, especially in terms of ideas about their emerging professional identities and their understanding of future doctoring. Further research could focus on how in-depth reflection appears to facilitate useful ideas about professional identity, and how medical schools can coach students towards deeper levels of reflection.

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Figure 1. Context, process and outcomes of experience-based learning

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Figure 1. A generic outline of the processes within experience-based learning (EBL) and how EBL contributes to identity formation. Students need to be well-prepared with learning objectives and specific tasks for their allocated placements within particular institutions, where they observe and participate in teams engaged in healthcare work. In-depth reflection (group discussion facilitated by tutors or through individual writing) may help students make more sense of challenging clinical situations such as end-of-life care. Having positive and supported learning experiences can help to increase confidence, leading to a virtuous circle of more participation, more confidence and more competence. Adapted from Dornan et al, 2007(2)

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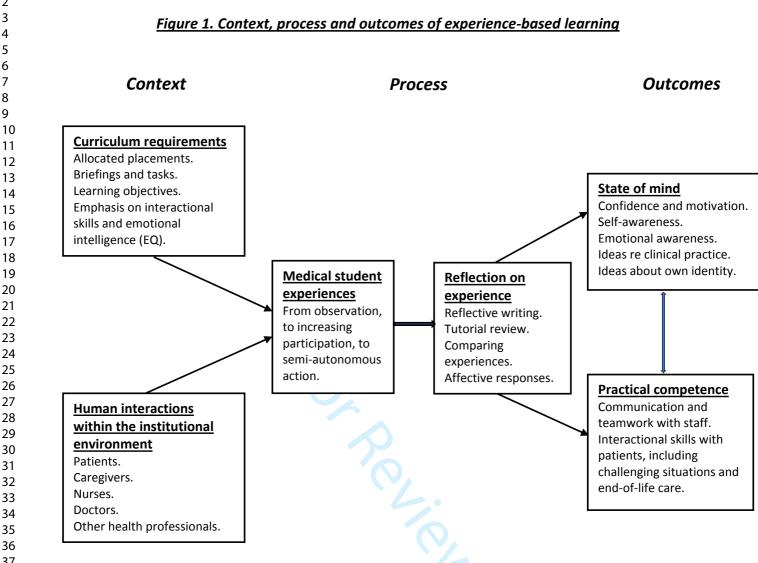


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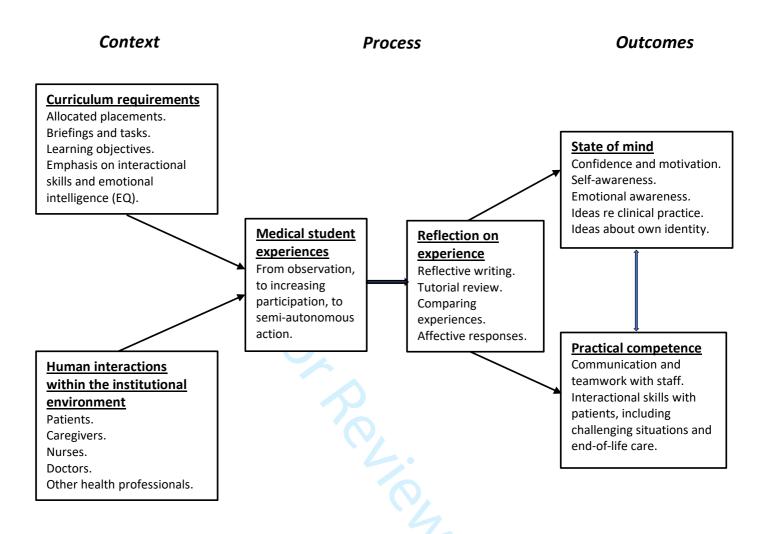


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Appendix. Instructions for the Balint Society of Australia and New Zealand

(BSANZ) Medical Student Reflective Essay Competition

Introduction

Reflective essays submitted should describe and critically reflect on a student-patient relationship from within the student's medical studies. Material already used for course work must be re-worked for submission. Previously published work for medical theses or diplomas should not be submitted. Each essay should include:

Description

A detailed presentation of a personal experience of a student-patient interaction or relationship.

Reflection

Review or reflection on how the student experienced this relationship, either individually or as part of the medical team. Analysis should include the student's own perception of the situation, the challenges faced and how he or she responded.

Implications or 'critical reflection'

Discussion about ways in which the student's own approach might change in the future, and/or also possible ways in which medical training might enhance the capacity of students to engage thoughtfully and compassionately in patient care.

See also: http://www.balintaustralianewzealand.org/bsanz-writing-prize/

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