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Medical humanities: a closer look at learning

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ABSTRACT

The inclusion of medical humanities with medical curricula is a question that has been the focus of attention for many within the evolving field. This study addressed the question from a medical education perspective and aimed to investigate what students at Trinity College Dublin learned from participating in a short medical humanities student-selected module in their first year of an undergraduate medical programme. A total of 156 students provided a written reflection on a memorable event that occurred during their student-selected module. The reflections were analysed using the Reflection Evaluation for Learners' Enhanced Competencies Tool (REFLECT) and through qualitative thematic analysis of the written reflections. Evidence of learning from the REFLECT quantitative analysis showed that 50% of students displayed higher levels of reflection when describing their experience. The reflection content analysis supported the heterogeneous nature of learning outcome for students, with evidence to support the idea that the module provided opportunities for students to explore their beliefs, ideas and feelings regarding a range of areas outside their current experience or world view, to consider the views of others that they may have not previously been aware of, to reflect on their current views, and to consider their future professional practice.

INTRODUCTION

Medical humanities as a field has steadily gained a foothold in medical curricula leading to discussions about what it is and what ends does it serve?

We define the term medical humanities as an inter- and multi-disciplinary field of humanities, social sciences and the arts and their application to medical education and practice.[1]

Despite its nebulous scope, studying medical humanities is credited with many benefits for the learner—in particular, for medical students.[2] Conspicuous integration of the medical humanities in medical curricula to augment the learning and development of medical students supports the argument that the practice of medicine is both an art and a science,[3] although this is an idea that is contested by some.[4] For others, the postulation of medicine being an art and a science falsely dichotomises medicine into separate entities rather than related aspects of the same 'science-using clinical practice'.[5] The view that humanities will rescue medicine from the cold objectifying nature of scientism is considered to be distracting[6] and does not further the enquiry into how aesthetic and ethical attention are required for the development of sensibility in medicine.[7]

The range of motivations for including the humanities in medical education is captured by Shapiro,[8] who describes two emerging models that defend the trend. In the acquiescence model, programmes are developed to provide assistance to the biomedical model of medical education. They may be used as a time-out from the stressful environment of medicine,[9] designated as an ornamental function, or they may be used to assist in the fostering of empathy[10] or communication[11] skills, an instrumental purpose. In support of the acquiescence model, arguments for the development of empathetic skills, through lyricism[12] or drama,[13 14] have been developed. Similarly, engagement with the medical humanities as a novel teaching and learning methodology, for subjects such as anatomy,[15] medical politics,[16] communication skills[10] and teamwork,[17] has been proposed. Alternatively, the resistance model examines the fundamental thinking that underpins medical practice; within this model, the role of the medical humanities is to analyse conventional assumptions and to question the status quo of medicine and the healthcare system. This feature ranges from promoting sustained reflection to the prompting of emancipatory concepts and insights and is credited with fostering creative thinking, reflection or critical appraisal.[18 19] More recently, Bleakley[7] has advanced this argument showing that the arts and humanities have a central role to play both politically and aesthetically. The former is viewed as part of a second wave of critical medical humanities, calling for the democratisation of medical education, with the medical humanities as a core discipline required to reshape clinical thinking, practice and imagination. The latter underpins the ability to communicate sensitively with patients and colleagues, through the engagement of moral reasoning and the senses, such as close noticing or listening.

Ousager and Johannessen[4] caution that the value of the humanities is not self-evident and, despite the extensive humanities programmes currently being rolled out in many medical schools, the evidence has not been gathered within the dominant paradigm. For Belling,[20] this approach is reductionist in nature. She asserts "that the value of the humanities can be defended by demonstrating the need for more complex approaches to knowledge construction" (p. 938). Within educational research, quantitative methodologies addressing the instrumental nature of the medical humanities include pre-/post-tests and validated surveys to examine learning and attitudinal changes.[21] Narratives and reflections are explored through qualitative methods to explore students' changing views on professional dilemmas[22] or the repression of personal values experienced at medical school,[23] promoting reflection as a meta-cognitive tool to process difficult experiences and attitudinal shifts. Evidently, investigation of educational approaches to rejoin medicine and the humanities will require cooperation from these established fields, as ways

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are explored to best investigate and incorporate both complementary and disrupting elements.

The local curriculum

Since 2008, a series of student-selected modules (SSMs) embracing the medical humanities have been taken as a core compulsory module by first-year medical students at the School of Medicine at Trinity College, Dublin.[24 25] The medical humanities were introduced in year 1 in order to engage students' enthusiasm and idealism early in their professional formation[26] and to integrate the area with medicine from the beginning rather than as an 'add-on' in the later years. The undergraduate medical curriculum is based on a spiral model whereby learning is progressive and more sophisticated at each phase. We anticipated that successful incorporation of the programme in the early years would facilitate the inclusion of a second, deeper phase of humanities later in the programme when students have experienced medicine and can bring depth to their thinking and analysis of clinical practice.[27] The population of students includes a majority of national and international school leavers and graduate international students, with a small proportion having already studied arts, humanities or social sciences. The modules cover a range of humanity disciplines including: more traditional areas such as art, history, literature and philosophy; more abstract interdisciplinary themes such as death and dignity, creative writing, film and medicine, and perception; and more sociologically based disciplines such as advocacy, global health, and power in medicine. The wide array of module options prompted debate locally, mirroring international deliberations on what constitute the medical humanities[28] Irrespective of whether a discipline or thematic approach was adopted, each module aimed to foster an environment that promoted discussion and questioning of the human condition and medical practice. The aims of the modules were: to provide students with an opportunity to consider and reflect on medical practice; to encourage insight into, and concern for, different aspects of the human condition; and to recognise the role of medicine in enabling individuals to participate fully in life unhampered as far as possible by illness or disability.[29] Individual SSMs included instrumental aims that intersected with their discipline and medicine—for example, close noticing and observational skills.[30]

The SSMs occurred twice a year, over a period of 6 weeks, for one afternoon a week. This was followed by a group project presented at the end of the year at a medical humanities poster presentation day. The modules were delivered by either medical practitioners with additional expertise in arts, ethics, history or humanities or by humanities experts with input from medical practitioners. Media such as literature, poetry, film and paintings were used in conjunction with visits to galleries, hospitals, hospices and marginalised groups. Each SSM was assessed at module level by the academic lead and included a range of assessments such as short essays, critiques of set readings, group work, journalistic work, presentations, or creative practice assignments. The non-standardised format of the assessments was reviewed to ensure that student workload was even across the modules. Finally, students completed a reflection assignment, which provided the opportunity to gain insight into an overall learning experience. The presentations were also a key element of the assessment and provided an avenue for the dissemination, sharing and celebration of student learning from all SSMs and have recently been re-formed as an exhibition day where students are encouraged to present a creative piece and a reflection on what the piece represents

METHODS

The analysis presented in this paper was undertaken on evaluation material collected as part of the medical curriculum 2010–2011 for first-year medical students. The module has not changed substantively since 2011 and the student reflections were considered a useful way to explore student learning as a result of the SSM. Ethics approval was granted by the Faculty of Health Sciences Ethics Committee, University of Dublin. From an entire cohort of 160, a total of 156 students took part in the study; four students were excluded as they had chosen an alternative language module. Nine academic leads responded to allow the reflections from 10 modules to be included in the study, equating to 141 students or 90% of the population. The remaining two leads could not be contacted or did not respond to the request. All students completed a reflection assignment where they described an event of significance to them, what issues were raised, how they were affected and what new learning objectives they had formed. There was no word minimum or limit on the reflections. All material was anonymised to ensure confidentiality.

The reflections were analysed at two levels. The first was at the depth of the reflection itself. The Reflection Evaluation for Learners' Enhanced Competencies Tool (REFLECT)[31] was used to categorise reflective writing against four reflective capacity levels. Level 1 indicates a narrative that is non-reflective and habitual in nature. Level 2 is considered thoughtful action or introspection. Level 3 shows clear reflection, and level 4 shows evidence of critical reflection, aligning with the features of reflexivity.[31] The process of applying the REFLECT rubric consisted of four steps. First, the reflection was read in its entirety. Second, the reflection was broken down into phrases or sentences to assess the presence and quality of all criteria. Next, the reviewers considered the overall gestalt of the narrative and determined the level of reflection apparent as a whole. Finally, the level of assignment was defended by identifying supporting extracts from the text. Reflections were rated by authors MH and AP, with an initial 94% agreement. The remaining 6% were discussed and agreement on categorisation reached after extensive reasoning.

The reflection assignments were also reviewed at the level of content through a thematic analysis by two reviewers. The results of the initial analysis carried out by authors DS and AP discerned similar themes independently, adding to the reliability of the data. There were some minor differences between the reviewers, but these were either an amalgamation or subdivision of themes depending on the definition of the theme and were easily reconciled. The final point of analysis was the write-up of the major themes by AP, which had been agreed upon by DS and AP. In addition, six out of nine module academic leads participated in an interview about student learning and their experience of the module; this was conducted face-to-face or by telephone or email.

FINDINGS

The results are presented at both levels of analysis: reflection and content.

Evidence of learning (REFLECT rubric)

The results from the REFLECT analysis revealed that half of the students were categorised as level 1 or 2: 15% of students were categorised as level 1, meaning 'habitual' or non-reflective, and 35% of the cohort were considered to be level 2, showing thoughtful action. On the higher levels, 22% were rated as

having achieved reflection (level 3), and a further 28% as having achieved critical reflection (level 4) in either transformative or confirmatory learning (figure 1).

Content analysis

The content analysis carried out on the reflective assignments revealed a number of themes (table 1).

A selection of quotes from each theme is presented to illustrate the findings. The themes described were identified across all SSMs, ranging from the more traditional medical humanities to the more sociologically grounded areas.

Theme 1: the new experience—'a real eye opener'

The majority of students described an experience that was novel to them and challenged their preconceived ideas regarding different areas, issues or people. Students reported feeling more enlightened, and there was a realisation among some students of their inexperience and unawareness of many societal issues.

> It opened my eyes to the difficult circumstances a lot of drug addicts are in and helped me to see these people as often victims of their socioeconomic background and tough upbringing, rather than just another statistic. (SSM1 #8)

> Viewing these films has certainly opened my eyes to many issues which I may not have previously considered. (SSM4 #1)

Theme 2: the emotional response—the challenge

There was a wide range of emotional responses reported as students confronted difficult, complex, confusing and sometimes personally relevant issues. Surprise, disgust, enjoyment, inspiration, the feeling of being challenged or feeling uncomfortable were commonly reported, occasionally within the same encounter or event.

> I was appalled to see that being of a low socio-economic group in those days was seen as a disability or malady, … I am glad that this idea has changed in our society and that hospitals can now solely be dedicated to the well-being and recovery of the invalid. (SSM10 #6)

> One session which I particularly enjoyed was when we took part in a life drawing class. I found the interaction between the artist and the model quite fascinating. (SSM8 #12)

> At first many of us were baffled, as we had never stopped to really look at paintings before. The process of examining the small details was one we had never really gone through before. It was a challenge to try and make deductions on what seemed at first to be very scant information. (SSM8 #3)

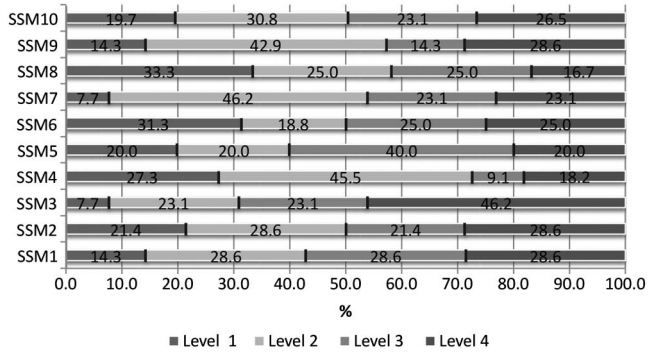

Figure 1 Level of reflections per individual student-selected module (SSM).

Table 1 Final agreement of themes

Theme	Example
1. The new experience	'A real eye opener'
2. The emotional response: the challenge	Shock, surprise, distress, enjoyment
3. Broadening perspectives: exploring empathy	'Other's shoes'
4. Professional perspective	'My role as a medical practitioner in the future is multifaceted'
5. Reflection in action	'I no longer accept things at face value'
6. The role of the medical humanities, 'a new appreciation'	'Complementary nature of medical humanities'

Theme 3: broadening perspectives—exploring empathy

The consideration of other perspectives was articulated by many of the students and is well captured by the comment: "It allowed me to put myself in others' shoes".

> First this module has changed the way I view the idea of physician-assisted suicide and that now I can see both sides of the argument. (SSM3 #8)

> I find now that I accept everyone's point of view and am not dismissive of other's arguments. (SSM9 #17)

There were also reports of developing an awareness of preconceptions and a propensity to judge situations or people without due consideration and empathy.

> This event challenged my preconceived notions and has helped me develop a more well-rounded view of the intellectually disabled…This has shown me that I should never judge someone before I know them. (SSM1 #3)

> I would love to not judge people preliminarily because, as I have learnt from the movies, there is so much more to that person than their exterior. (SSM4 #8)

> Whenever I meet someone/a group of people that think differently, I will first put myself in their shoes and assess the situation accordingly. (SSM1 #5)

Theme 4: professional perspective

This theme describes how many students hoped to apply their learning to future practice, with the development of a code of practice, a professional identity and respect for their future role.

> It gave me insight on how massive the role of a doctor is, not just someone who treats, but who listens, understands and interprets the patients. (SSM2 #11)

> History provides us with an identity and changes how we see things. We can now value modern medical practice and thus cultivate our professional skills. (SSM6 #10)

> I now have a better insight into some of the perceptions placed on the medical profession and, possibly more interesting, an insight into how the medical profession views itself. (SSM7 #3)

There was also evidence of an appreciation for the position of privilege and, consequently, respect for their future role as doctors.

> Ironically, this module has taught me more about how I value life than about death. …. I appreciate how lucky I am to be healthy and truly alive. (SSM3 #8)

The understanding of the professional role within society was accompanied for many by an enhanced societal responsibility

that they associated with the role. The multidimensional nature of the doctor's role was explored in the wider sociocultural context.

> it caused me to consider the doctor's role in the community and society as much more than a scientific role…..In the future I will strive to be a 'rounded' doctor, recognising both my scientific and social role in medicine. (SSM7 #7)

> I was impressed by the dedication the great Irish physicians of the past had for medicine and how they managed to contribute greatly to the field of medicine to benefit others. (SSM6 #7)

Theme 5: reflection in action

The students who reported a changed perspective as a result of the modules described how a specific event made them question their existing ideas or beliefs. These students described a more deliberate consideration and interrogation of issues as a result of completing the SSMs. Their ability to see multiple perspectives as described in theme 3 may assist students in developing more considered viewpoints and willingness to engage with challenging issues.

> This event actually influenced me on the way of thinking as I will see things not only on surface but looking things as wholly and deeply. (SSM2 #7)

> Upon completion of this module, I realised that it is important to really consider every aspect of a problem. It is important to consider what others have tried and failed and what works for others in similar situations. (SSM5 #10)

> It encouraged me to try to think about things in a way that I would never have done before, to question whether the conclusion that I had arrived at first is correct or merely a possibility or plausibility. (SSM9 #3)

Students described a desire to integrate what they had learned into their future learning and medical practice and how the change will be sustained in how they view the world.

> I will no longer simply learn facts from a textbook but will question how it is that these facts ended up in the text book in the first place. (SSM6 #13)

> By undertaking this module I have learned to be more inquisitive in my daily life. It will change how I see things as I am less accepting of things without questioning them. (SSM9 #6)

Theme 6: the role of the medical humanities—'a new appreciation'

The final theme identified from the reflective writings was the attainment of a new appreciation for the role of medical humanities. Many students referred to gaining a new respect for aesthetics and beauty, and this was often reported as surprising.

> The most noticeable change I saw is that after the course I appreciated movies a lot more than last time. This is because I have realised the beauty of the play of the language of film. (SSM4 #8)

> Before participating in this module, I had only ever looked at art as something aesthetically pleasing, not as a medium to convey information, or from which you can draw greater depth of meaning. (SSM8 #3)

For some, the medical humanities were felt to be an important escape from traditional medicine subjects and were described as an enjoyable experience or an opportunity to de-stress. Others reported experiencing renewed creativity and planned to continue this during their studies.

> Poetry is something that I have an affinity for and I enjoy both reading and writing it; however due to the demands of my work I had abandoned the hobby. The opportunity to combine it with medicine allowed me to enjoy poetry once more and I am really grateful for it. (SSM2 #8)

> It provided me with an enjoyable release from the more taxing, academic aspects of the medical curriculum, while providing a relevant and worthwhile educational experience. (SSM8 #1)

For others, the usefulness of the medical humanities was apparent; they described the skill(s) they developed as a result of the module. These included communication skills, analytical skills and the ability to empathise.

> After going through this, I realized that … one can actually learn to appreciate other people by going through the experiences of others. This has helped me to be a more empathetic and thoughtful medical student. (SSM2 #2)

> I will certainly never be able to just read a book again but now every time I read a book I will be using what I have learnt to analyse it and try to understand exactly what it is the author is trying to get across! (SSM7 #3)

The opportunity to reflect on their current views of medicine and medical practice was described by a further set of students.

> This module allowed me to reflect on my own opinions and feelings on the area of death and dignity and develop new opinions on what is a good death. (SSM3 #6)

> These attitudes provoke us as students to think of medicine differently, not simply as a clinical science, but with a more holistic perspective that incorporates medical practice with lifelong interests. (SSM6 #13)

The response of the academic faculty

Six of the nine academic leads participated in an interview about student learning and their experience of the module, either face-to-face or by telephone or email. The interviews were semistructured using several prompt questions around what students learned from the module, their own experience of the module, and how they would like to see the medical humanities developed further.

Faculty comments regarding the purpose of the medical humanities echoed the emergent themes from the student reflections. They reported that the experience included sharing their insights and perspectives with students and they valued the opportunity to provide some medical context to their first year of professionalisation. They commented on the importance of students having the opportunity to develop their fluency in reading, writing, observing, communicating, interpreting and analysing information outside their normal realm of experience. Some also described how the medical humanities acted as a 'counterbalance to the scientific curriculum' with the extension that it provided opportunities for students to stay grounded with 'their ethical selves' in order to become more 'resilient and enlightened' and thereby act as a respite from the latent risk of attrition. All commented on the possibility of extending the modules to later years, when students would have had a chance to experience the clinical realities and have experiences of their own to reflect upon. Two leads noted that the first-year students were still in an 'idealistic' phase and that it was relatively easy to tap into this. A final point that emerged was the idea of professional simulation, where students are provided with a safe space to simulate future practice and ethical dilemmas through the medical humanities, in whatever guise, to explore their thoughts

and reasoning on how they would behave and the consequent effects of that behaviour on themselves and others.

DISCUSSION

REFLECT rubric and reflection

The investigation into the level of reflection presented gave insight into the range of the depth of experiences reported by students. Reflections were anonymised and therefore gender, ethnic or educational background were not explored in this analysis. The levels of reflection shown were fairly similar irrespective of the subject, with the exception of one, which showed a higher percentage of students displaying transformative reflection. With 50% of the cohort achieving the highest levels of reflection and 35% displaying thoughtful action, there is a validation of the learning and experience gained for at least half the cohort at the higher levels of reflection. The majority of the remaining students displayed introspection, which can be considered a first step to the development of a reflective practice, which may be fostered further throughout the programme. Importantly, there is scope to improve the educational effect of the module for these students. On review, the overarching aims of the module articulated the potential reflexive nature of the experience; however, this could be supported further by introducing supporting interventions, such as reconstructing or reframing modular aims, including reflective writing instructions and guided feedback in order to examine factors that contribute to a more transformative learning experience. It is proposed that making the aims more explicit to include aims considered in the second wave of 'critical medical humanities', such as the democratisation of medicine, may influence the learning of faculty and students. These results may be considered a baseline from which to measure the effect of any subsequent interventions.

Content analysis

Five of the six themes identified related to the process of reflection, with the final theme addressing the purpose of the medical humanities within medical education and the potential learning outcome(s) experienced by students. When the five themes are considered in their totality, a pattern of learning is evident, which is presented in figure 2.

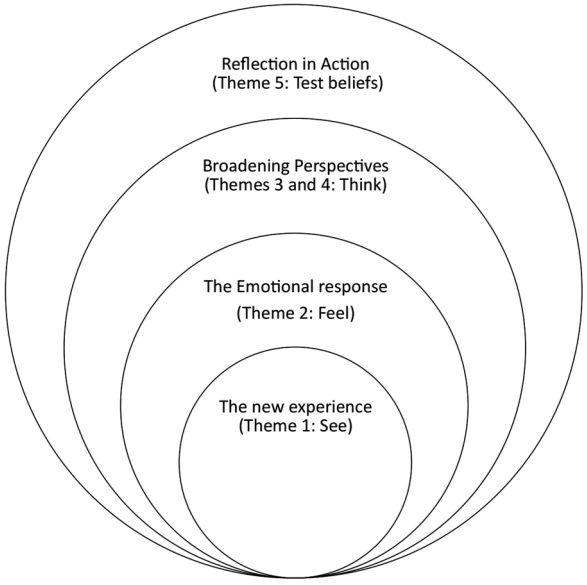

Figure 2 Pattern of student learning.

The initial theme, where students describe a new experience outside their current realisation, is depicted by the inner circle as 'The experience' or 'See', as many describe the event in visual terms. This is followed by a description of an emotional response, ranging from positive to uncomfortable feelings, and is captured in the subsequent circle as 'Feel'. The third and fourth themes address the widening of perspectives to consider the patient view, that of the future self as a practising doctor, and their role within society. Students described how, through taking the modules, they became more open to considering others' opinions, more tolerant of diverse opinions, and less quick to judge on the basis of preconceptions, which is shown as 'Consider others and future self' or 'Think'. The fifth theme corresponds to the testing of beliefs and either the confirmation of pre-existing ideas or the realisation that a change has occurred. The themes have commonalities with the theories of reflection proposed by Dewey,[32] Boud *et al*,[33] Moon[34] and Mezirow *et al*.[35] Taken in their entirety, the emergent themes are more aligned with the Mezirow model and the concept of emancipatory learning. Hence this model[35] would provide a suitable instructional basis for future cohorts of students.

What is the purpose of the humanities?

The results presented in theme 6—The role of the medical humanities, 'a new appreciation'—illustrate similarities with the Shapiro model for inclusion of the humanities.[8] There are definite clusters that follow the 'acquiescence' model, where the learning has been described as ornamental in terms of being enjoyable or a break from the usual study routine. Alternatively, some described their learning in more instrumental terms, by gaining new skills relevant to the practice of medicine. The 'resistance' model was also apparent in the reflective writings, where students commented on the transformative nature of their experiences and reflections. In some instances, the status quo was undoubtedly questioned, with the outcome of clarifying or reconfirming existing beliefs.

The faculty interviewed had not read the Shapiro article[8]; however, all reported the possibility of student learning in all areas identified by the model. It is not only academic faculty and researchers[20] that have mixed views on the purpose of the medical humanities, but it may also be a feature of student engagement with the module. It appears that, while students may technically undertake the same module, they actually 'experience' very different outcomes depending on their perspective and many other factors that would be useful to examine further.

With the range of reflection levels comparable across 9/10 modules, the educational environment and mentoring provided is appropriate for facilitating reflection for the majority of students. However, the concrete themes discussed in the modules may also be contributing factors. In this study, a higher percentage of students displayed transformative reflection levels when they undertook the module that considered death as a major theme.[19]

In summary, review of learning from the REFLECT analysis and the reflection content analysis showed the heterogeneous nature of learning outcome. However, there is strong evidence that students learned to:

- Develop specific skills pertinent to medical practice
- Explore their beliefs, ideas and feelings regarding a range of areas outside their current experience or world view
- Consider the views of others that they may have not previously been aware of
- Reflect and critically reflect on their own current views

Interestingly, the learning outcomes are all on the higher spectrum, addressing the cognitive, affective and psychomotor domains of Bloom's taxonomy of learning.[36]

Final thoughts

The development and implementation of SSMs in the medical humanities, including a range of outlooks from the patient perspective to the global view, provide students with the opportunity to engage with medicine on a number of levels. For some, it is an enjoyable experience or one where they can practise and develop specific skills. For others, the experience is a useful and illuminating insight into future practice and/or an opportunity to consider existing beliefs and test them in alternative scenarios. The reason for this variance in experience is unknown; it may be related to personal attributes, preconceived ideas, life circumstances of the student or the role modelling of faculty views. The realisation that the variation exists will enable faculty and students to explore their views and explore the complex nature of the tensions that exists in the medical humanities field.

This analysis shows that there is merit and real value in including a safe place where students can explore their future practice through the medical humanities and where many issues can be discussed and reasoned out before they have to be dealt with in reality. In essence, if a physician is to deal with the emotional turmoil that medicine unmistakeably bestows, it may be of benefit to all to have thought about this, or to have listened to others' experience, and to know how to reflect on difficult issues and to recognise when internal conflict arises.[2,3] Ultimately, SSMs involving the medical humanities provide opportunities to reflect on the relationship between doctor, patient, environment and society with all the complexities that entails.

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Contributors AP conceived the study and AP and MP initiated the study design with educational expertise provided by SS. All authors contributed to refinement of the study protocol. AP, DS and MH carried out the qualitative and quantitative analysis, with advice from SS. AP, DS, MH and SS interpreted the work. AP drafted the work, and AP, DS, MP and SS critically revised the paper. All authors approved the final manuscript and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Notes