CHAPTER 4

Physician, Know Thyself: Using Digital Storytelling to Promote Reflection in Medical Education

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The Need for Reflection in Healthcare

Reflection is one of the hallmarks of a true professional (Winter 1992; Boud et al. 1985) and its value in professional development across many fields of practice has grown since John Dewey pointed out that "we do not learn from experience; we learn from reflecting on experience" (Dewey 1938). Forty-five years later, Donald Schön attempted to reform professional knowledge by giving prominence to the "competence and artistry already embedded in skilful practice, especially "reflection-in-action" (the "thinking what they are doing while they are doing it") that practitioners sometimes bring to situations of uncertainty, uniqueness and conflict" (Schön 1983, 1987).

This ability to reflect in action is paramount in the practice of healthcare, where the ability to make swift decisions in the face of this "uncertainty, uniqueness and conflict" is critical and where the wrong decision can cost a life.

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In addition to the clinical skills they must acquire, nurses, doctors and allied health professionals are encouraged to become reflective practitioners, in the expectation that the ability to reflect on and in practice—and to learn from that reflection—will contribute to better care for patients. Despite growing attempts to promote reflection in the curriculum and numerous books advocating different approaches and models, it seems that the teaching of reflection, although universally acknowledged as important by schools of medicine and healthcare globally, may be easier said than done (Mann et al. 2009).

While the United Kingdom General Medical Council (GMC) requires doctors to be reflective practitioners (GMC 2009), reflection in medical school is often taught in a prescriptive and formulaic way—a tickbox exercise signifying little other than students' ability to answer a pre-set list of questions. In the words of one student, "We reflect all the time and then we reflect on our reflections until we're sick of it" (Corry-Bass et al. 2014). Furthermore, pressure to accumulate clinical practice sign-offs trumps most other activities and so the development of reflection, self-awareness, emotional intelligence and resilience, and the cultivation of empathy and compassion remain secondary to the acquisition of clinical skills. This presents a dilemma: medical students are expected to reflect but the opportunity to develop the necessary skills is not prioritised.

Medical and healthcare educators in the United Kingdom and elsewhere have been challenged to support reflection in their students. This may relate to a trend towards linking reflective skills with diagnostic ability (Sobral 2000) and the requisite objective testing to measure this ability; although other approaches seek to develop reflective skills as part of the development of well-rounded, humane and caring professionals (Wald et al. 2015). Some programmes and initiatives attempt to improve reflection through the introduction of the arts and humanities and the use of stories. In the second half of the twentieth century, Robert Coles championed the importance of stories in medical education, responding to his mentor's plea for "more stories, less theory," urging Coles to "err on the side of each person's particularity and only later add a more general statement" (Coles 1989, p. 27). More recently, medical educators have advocated the use of music (Janaudis et al. 2011), film (Blasco et al. 2006), literature and narrative (Charon and Montello 2002), reflective writing (RW) (Wald et al. 2015) and even digital storytelling (Sandars 2009;

Jamissen and Skou 2010; Stacey and Hardy 2011; Anderson and Kinnair 2014). Some of these more creative approaches have encouraged deeper and more emotionally engaged responses to practice and patients, but they are still not widely used.

Patient Voices and Reflection

Reflection lies at the heart of the Patient Voices Programme. Prior to its inception, the founders had spent many years imparting the skills and attitudes of reflection to professionals in various fields, including healthcare, through the design and development of open, distance and work-based learning programmes. The particular challenges faced by those working in healthcare—illness, pain, trauma, fear and death—make it important for clinicians to be able to integrate their feelings rather than simply defending against the anxieties inherent in their work (Hardy 2007; Menzies-Lyth 1988). This requires a commitment to the practice of reflection, the cultivation of self-awareness, the development of resilience and an enhanced capacity to care—all aspects of professional identity formation (Wald et al. 2015) as well as being hallmarks of a true professional (Winter 1992).

The Patient Voices Programme (www.patientvoices.org.uk) was founded with the intention of promoting deep reflection by means of watching and responding to digital stories created by patients, carers and clinicians. Our belief that telling and listening to stories was and is a cornerstone of reflective learning, experiential learning and community learning is supported by a number of theorists (Dewey 1938; Wenger 1999; Moon 1999) and borne out by research into the use of digital stories as prompts to reflection (Hardy 2007).

The Patient Voices approach to digital storytelling is based in the "classical" digital storytelling model developed by StoryCenter but adapted to, and with a clear focus on, healthcare. These digital stories are, effectively, short, facilitated auto-ethnographies (Sumner 2015), created through a hermeneutic process designed to illuminate understanding of a particular event or experience. Patient Voices was established in an attempt to align hearts and minds with respect to the design and delivery of healthcare through the creation and dissemination of stories that would prompt reflection on practice, promote greater empathy and humanity and, ultimately, lead to more compassionate, as well as safer, care (Hardy 2004).

How the Project Came about

The Director of Educational Research and Innovation at Kings College London (KCL) had participated in a Patient Voices workshop in 2008 and wanted to explore the use of digital storytelling within the medical school to deepen reflective skills, increase self-knowledge and awareness, promote greater creativity and contribute to the formation of professional identity. She approached Patient Voices to develop a Student Selected Component (SSC) that built on a model previously piloted at the University of Leicester (Anderson et al. 2012) and would be capable of assessment.

It was important to decision-makers at KCL that the SSC would be based on the Patient Voices approach to reflective practice internationally recognised by the *British Medical Journal* and others for supporting culture change and improving service delivery in healthcare (BMJ 2010); it was equally important for them that the Leicester medical students had benefited from the experience of creating digital stories (Anderson et al. 2012). Reflecting on the experience, some years later, one of the Leicester junior doctor/storytellers reported that "the digital storytelling workshop was "one of the most memorable experiences I had at Medical School" and has heavily influenced my attitude and approach to reflective practice," while another said that the workshop "served as an opportunity to develop as an individual, and as a reflective practitioner in my own right, building on my own professional identity" (Corry-Bass et al. 2014). Students exposed to the stories report a deeper understanding of themselves and the realities of providing care (Anderson and Kinnair 2014).

An application was submitted to KCL based on the following aims and learning outcomes:

> The aim of this Student Selected Component is to support and enhance your future professional practice by developing skills of reflection and learning from experience in the clinical setting through the creation of a personal digital story. Focusing upon the human experience of healthcare, this experience will provide opportunities to explore the practical realities of providing professional, empathic and compassionate healthcare.
>
> By the end of the SSC, you will be able to:
>
> - articulate and reflect on your learning from experience in the clinical setting
> - appreciate the power of personal stories
> - create a digital story
> - reflect on the creation of the digital story

- develop empathy and compassion
- enhance your presentation skills.

(From *'Physician, know thyself: Tomorrow's doctors reflected in today's technology*' module guide)

The submission was successful and so we began our work with four third-year medical students.

Method and Approach

Development of a module guide ensured the integrity of the classical digital storytelling process whilst meeting the needs of the students and their busy schedules; some adaptations were necessary in order to suit the ten-week SSC format, increase independent and/or virtual learning and meet formal assessment requirements.

The schedule included a mix of face-to-face, virtual and independent learning. A key requirement of the SSC was the creation of the summative reflective statement of formative, weekly, reflective tasks that are not included in the timetable below (Table 4.1).

Table 4.1 From the module guide

Week 1	Group session to introduce the SSC and digital storytelling in healthcare Independent learning tasks (to be completed in own time): watch some Patient Voices digital stories and evaluate according to agreed framework. Begin thinking of story ideas
Week 2	Group session to explore ideas for stories (Story circle 1) Discuss and agree reflective framework to support development and construction of the story and the reflective statement Co-create and agree criteria for assessing your digital stories Independent learning task (to be completed in own time): develop story ideas and begin scripting
Week 3	Independent learning: develop story scripts, begin to think about images
Week 4	Group session to share scripts and obtain feedback. (Story circle 2)
Week 5	Photography and image editing tutorial and recording of voiceovers
Week 6	Independent learning to be completed in own time: select and edit images, prepare storyboards
Week 7	Group introduction to video editing programme (hardware and software provided)
Week 8	Group session to continue video editing and review images
Week 9	Group session to continue video editing, finalise stories
Week 10	Premier of stories
Week 11	Reflection and peer review

Ethics: Care and Consent and a (Trigger) Warning

The module guide also included information about the potentially emotional nature of digital storytelling, alerting students to its potential to arouse sometimes-painful memories and feelings. It was suggested that, if they found themselves in distress, students should seek help from a friend or mentor or from the Patient Voices facilitators, one of whom is a trained counsellor. None of the students requested additional support.

The students signed consent forms, agreeing to participate in the workshop and to the use of their reflective statements as potential data for research, and acknowledging that further consent would be sought before any stories they created were released (Hardy 2015).

Preparation

The students were contacted by email before the first session and invited to read the module guide, which included several reflective frameworks and encouragement to watch some stories, including those created by the Leicester Medical students (www.patientvoices.org.uk/lssc.htm). They were asked to reflect on the stories using the Patient Voices "EAR" (Effective, Affective, Reflective) framework (Sumner 2009), and to deconstruct the stories using the Seven Elements of Digital Storytelling (Lambert 2002) according to the *schema* below. Note: for discussing the construction of stories and considering digital storytelling as a distinct genre, we have found the Seven Elements provides a more useful framework than the Seven Steps later introduced by StoryCenter (Lambert 2010), and so it was more suitable for our purpose here (Fig. 4.1).

Working with students over ten weeks rather than three days gave us the luxury of time and we were able to help them "limber up" their storytelling muscles with a variety of writing activities and paired storytelling exercises during the first two sessions. Initial concerns about how "personal" the stories could be, gave way to a willingness to be open and transparent about their personal—and professional—lives.

Assessment

Gaining formal credit for the SSC required a form of assessment that would gain institutional approval. The solution that was robust enough to meet the KCL standard marking scheme and assessment criteria, appro-

Element	1	5
Point of view	There appears to be no clear point or purpose to the story and little awareness of the audience.	There is a clear purpose to the story, with consistent focus, and the storyteller's point of view is obvious. There is a strong awareness of audience.
Dramatic question	There is little or no suspense, the resolution of the story is predictable; there may not really be a story at all.	A tension is created so that we are desperate to know what's going to happen; there may be an element of surprise and the resolution may differ from our expectation.
Emotional content	There is little or no emotional engagement; we may not really care what happens.	There is deep and strong emotional engagement – we really *care* about what happens.
Voice	Little consistency, poor inflection, more like a monologue than a conversation.	Good, clear and consistent use of voice, with varied inflection, and a slow, clear, conversational style.
Soundtrack	There is no music, it is inappropriate, distracting, used indiscreetly or simply adds nothing to the story.	Music is used to stir an emotional response, clearly sets the tone of the story.
Economy	The story is too long (losing our interest); the words and pictures may duplicate rather than enhance one another; images may be very literal and add little to the spoken words.	Images and words work well and succinctly together to convey the story and the atmosphere; images may be symbolic or metaphorical.
Pacing	Mechanical rhythm with limited vitality, and limited 'punctuation' either through use of voice or images. The pacing may not fit the story line.	Engaging, interesting, varied, vital and appropriate rhythm and pacing; using pauses to convey emotion or emphasis and allowing the story to breathe

Fig. 4.1 Schema for deconstructing and assessing stories

priate to the reflective nature of the work, innovative enough to suit the teaching methods and learning outcomes and co-designed with the students was as follows (Table 4.2):

The challenges of marking such subjective work had to be balanced with KCL's requirement that marking schemes be consistent across the School. Standardised marking schemes guide examination of written work but offer little help in assessing audio-visual work, but we found it possible to apply some of the guidance for written work to the assessment of the digital stories. Work that would receive a mark of 70–100%, for example, would be well written, logical, accurate and comprehensive in its coverage of the topic; the student would have to provide evidence of independent study and critical evaluation and, overall, there would have to be a high standard of presentation and analysis.

Criteria were agreed with the students, based on the Seven Elements, on which to assess their own and each other's digital stories. This collaborative involvement in designing the assessment contributed to their understanding of key features of the reflective process and how that would be evidenced.

All students received high marks for the SSC, capped by KCL at 85%. A request to provide a justification for each mark gave us an opportunity to describe changes we observed in students' skills of reflection, written

Table 4.2 From the module guide

Students will be assessed on the creation of a digital story about an experience of clinical practice, together with a reflective statement describing the reasons for the choice of story, explaining the choice and juxtaposition of words and images, aesthetic and editorial choices and the experience of editing their own short video. Students will be involved in co-creating the criteria for assessment of their digital stories at an early stage in the SSC; elements of peer review are intrinsic to the digital storytelling process. Finally, students will design and participate in a presentation of their digital stories to other third-year students and staff and respond to questions and comments from the audience. In brief: 1. 2–3-minute digital story (60%) 2. 500–1000-word reflective statement explaining and reviewing the creation of their digital story, including selection of subject, editorial choices and decisions, identifying key personal learning and so on (20%) 3. Formal presentation (screening) of digital stories, open to the third-year students and the public, for SSC students to showcase their work and respond to questions and comments from the audience (20%)

and spoken expression, use of images, analysis of story choice and editorial decisions and the impact of this work on their learning and their clinical practice.

Gathering and Analysing Data

The SSC was planned and implemented as an educational intervention rather than as a research project. However, in signing the Patient Voices consent form, storytellers also agree to participate in research; the intention to write a paper based on the SSC was discussed with the students. They were invited to bear this in mind as they wrote their weekly reflective statements and their final, assessed piece of reflection.

The data that informs the discussion below are drawn from these reflective writings. In addition, 18 months after the completion of the SSC, an email was sent to the students designed to evaluate the longer-term impact of the digital storytelling process on their practice. While all responded enthusiastically, only two had time to engage in this longer-term reflection.

The reflective statements were considered and roughly coded in relation to the aims of the SSC and the key theories of reflection that underpin the work of Patient Voices and of this project, resulting in identification of the following themes:

- Learning together (the value of community)
- Deepening reflection
- The value of stories
- Developing personal/professional identity
- Seeing patients as people

Results and Discussion: A Small Revolution

Each student produced two digital stories, indicating their deep engagement with the process and their willingness to spend more time in face-to-face sessions. The students worked well as a group, sharing ideas and experiences openly and honestly and learning from each other. The ability to distil an experience into one 2–3-minute story is no small feat and these students demonstrated determination, sensitivity, intelligence, creativity and a willingness to learn how to look at the world—themselves, their work and their patients—differently, with the potential to work in new and different ways.

Barnett has written about a revolution in pedagogy, one that shifts the focus from *knowledge* as the central focus of education to *being*.

> The key problem of super-complexity is not one of knowledge; it is one of being. Accordingly, we have to displace knowledge from the core of our pedagogies. The student's being has to take centre stage. Feeling uncertainty, responding to uncertainty, gaining confidence to insert oneself amid the numerous counter-claims to which one is exposed, these are matters of being.
>
> Their acquisition calls for a revolution in the pedagogical relationships within a university. (Barnett 2012)

Learning together

From the outset, it was clear that the medical students found our approach unusual.

> it didn't feel like they were the teachers and we were the pupils; suddenly we were a small group of interesting, diverse and unique people sat in a room each with different experiences and opinions. But it really felt like our opinions, as students, were greatly valued—this (perhaps unfortunately) is something that is relatively unusual when one studies medicine.
>
> What a refreshing experience it was to feel that our supervisors were even in very small ways learning from us in the same way we were learning from them. DG

The students enjoyed and valued "communal activities" (Palmer 1983)—those educational activities that do not separate teaching and learning but rather seek to extend and transform knowledge through creative use of the tools and technologies available (Boyer 1990), while also acknowledging the value of working and learning together, as these quotes reveal:

> One of the best things about this SSC was working genuinely as a tight-knit group together. DG

The students appreciated being able to learn from one another and recognised that openness and honesty can provide valuable opportunities for learning about themselves and their patients:

> I thoroughly valued the times of group reflection … listening to others, hearing their point of view and learning from them, other ways to see and think about things. LP

Their experiences echo the finding of Wald and colleagues that interactive RW with medical students has resulted in "a richness of insight in students' RW and small-group reflection, and we observe students gaining a deeper understanding of themselves and their roles as physicians" (Wald et al. 2015), as the following quote shows:

> The small group session also allowed for us to be quite open with each other and all the feedback received was in a positive direction, that is, how something could be better rather than how something was done badly. MM

Deepening Reflection

Although learning about reflection might not have been the students' primary motivation for electing this SSC, it became evident that reflective skills had value:

> My reasons for choosing [the SSC] had been much more to do with the opportunity to make a film than to enhance my appreciation of reflection. However very soon … I realised that the real thing I was going to gain from the module was a new insight into the importance of reflection. DG

All students made progress in their ability to reflect deeply and meaningfully on an experience and to apply that learning to practice (Kolb 1983). The students felt they had learned about reflection in a way that was of practical benefit as well as being enjoyable:

> This experience has been incredibly useful. The teaching itself has taught me the practical aspects for how to reflect, and more than that how to do this in a scientific manner. This allows for a practical way to apply a thought process to an experience that it's usually hard to work out. MM

> During the SSC, through the process of developing an idea, writing a script and making a film about an incident you couldn't help but reflect. Sometimes it was disguised under the cover of fun and exciting "filmmaking" but essentially what we did for 12 weeks was solid deep reflecting. I loved it. I realised how enjoyable, interesting and useful reflection is. DG

In some cases, the reflection went deeper, resulting in profound realisations and clear development of moral imagination (Coles 1989).

> After taking a substandard history (when I reflect back) … I was subsequently brought to the grave realisation that she had cancer which was spreading; and all of a sudden my [personal] concerns were minute specks of dust. … From that day forwards, I have endeavoured to put my life into perspective with the patient's life and recognise that any complaint from a patient (no matter how small it may seem) should be acknowledged, as well as recognising that my interaction with patients should never be tainted by my day's experiences. CA

The Value of Stories

The students also grew in self-awareness, creativity, imagination and competence in the use of narrative and audio-visual storytelling as "convivial tools," that is, items or practices that "give each person who uses them the greatest opportunity to enrich the environment with the fruits of his or her vision" (Illich 1973). One student writes about an exercise during one early session:

> This was an activity that allowed me to start thinking critically about which clinical experiences I could translate into a story. I noticed that as we carried out the activity a second time, my ability to condense detail and convey the salient points was strengthened and this would prove to be extremely advantageous when I started putting my story together, especially because it reaffirmed the reality that the best stories are "effective, affective and reflective." CA

As well as valuing the practical aspects of digital storytelling, one student notes the value of learning from the stories of the other students, recognising a small community of practice (Wenger 1999).

> My classmates were also fantastic at storytelling and due to the group nature of the project it was possible to learn from them as well as from the teaching. The story circles where we produced a story without previous preparation and then cutting this story down to the fine points showed us the correct way to be economic with our timings and helped in the finalised production of our stories. MM

Another describes how watching other students' stories enabled her to think about the difference between reflection and "just thinking":

> Watching the videos made me think about reflection and question if I reflect after I have seen a patient? It's easy to think that just thinking over their

> case, presenting to a consultant or explain to a friend about a condition counts as reflections but did I actually think about the patient as a person? The fact that we are just two human beings in a situation? LP

Developing Professional Identity

Recognising the value of both watching and creating stories feeds into developing professional identity:

> It strikes me that if all medical students made—or even watched—these [stories] perhaps we would all feel more empowered and actually more energised to learn as we would feel part of a team, we would feel we had an important role and we would feel we could actually be "producers" of patients' good health and happiness. DG

The students changed from being passive recipients of knowledge "sitting open-eyed and open-booked to consume information from our lecturers, tutors or consultants," as one student commented, to people aware of their own value, and the importance of their relationships with patients.

> It helped me to realise that every medical problem doesn't require a book-smart doctor with no social skills but instead often requires a personal touch. From this experience I have tried to carry out all my exams and histories by listening to my patients about what they say and how this affects them rather than trying to follow a flowchart through to arrive at a diagnosis. MM

All students expressed a growing awareness of the human (as opposed to the clinical) nature of healthcare:

> Something that always strikes me when I watch the stories is the breakdown of any division between clinicians and patients, when a clinician or patient talks of their own experience you no longer see clinicians and patients but just two human beings trying to help each other. For me many of the stories are a true reminder that at the times when we are most vulnerable or even close to death we no longer want "doctors" or "nurses" around us, we simply want other human beings around us. DG

People want to be treated as individuals rather than diseases:

> [Making my story] allowed me to realise how all patients want to be treated as individuals with an illness, and how I should not attempt to trivialise my patient by seeing them as a defining problem that requires treatment. MM

The students' responses have important implications for teaching, learning and practice; opportunities for creative expression in an atmosphere of non-judgemental appreciation can promote the development of professional identity characterised by humanity and self-awareness that arises from meaningful reflection on practice.

Seeing Patients as People

A key aspect of developing as a healthcare professional is the ability to see patients as human beings; this theme was at the core of all the students' reflective statements.

> I take time now. I stop and think now. I've learnt medicine isn't about passing exams; it isn't about getting the best marks or impressing your consultant the most. It's about people. Sick people who need to know you're there, that they aren't alone. They aren't just another case study or Grand Round patient; they are a father, a mother, a daughter, a son. … Another person just like me in this dangerous world. LP

Students reported shifting away from regarding patients as collections of symptoms or interesting opportunities for practice, to seeing them as people.

> I have truly been challenged to think more holistically of each patient that I am privileged to talk with. Finally, for every single patient I speak with now and in the future, this SSC has taught me (in an unorthodox way) to recognise that each patient is a human person with a human life full of human experiences and stories and thus it would only make sense to approach each one as a human person and not as a potential sign up, grand round presentation or practical skills opportunity. CA

Students also found value in other Patient Voices stories:

> One of the previous stories has also helped to show me how while for us the "sign off" culture is acceptable and common, we need to remember not to treat our patients as conditions and sign offs. We need to always remember to treat our patients with the respect they deserve and not break them down to their condition or the task that they need done. MM

One student had a profound realisation about patients:

> Through the better reflection that came about through this module it became so clear to me that all patients should be seen as equal to us. They are not just tools for our own education; they are human beings—some of whom are going through terrible periods of their life and we should treat every single patient the same. DG

Longer-Term Impact

In healthcare, as in digital storytelling, there is increasing emphasis on impact—impact of treatment, of intervention, of research, of education and training. To assess the longer-term impact of creating a digital story, the students were invited to offer their reflections on whether and how the SSC had affected them in the 18 months following its completion. Two responded, offering indications as to the ongoing benefits of the classical digital storytelling process, with implications for its use in medical education. They wrote about how the process of creating their own stories had contributed to their development as professionals, to becoming better doctors and seeing their patients as people, and of how reflection contributes to greater resilience in the face of the inevitable stresses of delivering healthcare.

> Over a year on, this appreciation for reflection very much remains. I still find myself at the end of the day taking time to pause, think and reflect on my experiences of that day, either privately or with others, telling them the story of what had happened. This allows me to make sense of any difficulties I encounter and allows me to see what I could have done differently.
>
> Being better at reflection has had a huge impact on me personally in terms of my psychological well-being and on how I interact with patients. Firstly for me being able to look back on situations and think "why was I stressed?," "why was I really anxious?" and actually find answers to it has reduced my levels of stress and anxiety dramatically. DG

Perhaps the most valuable learning of all is summed up in CA's recognition of the "gift of a listening ear and heart."

> I found myself on the wards in my final rotation of Year 3 and all of Year 4 looking far beyond the physical or mental illness which human beings in hospitals had. I was now seeing each one as an individual and deeply reflecting on their story, their experience and truly empathising with sincerity.

> This is a great achievement for an SSC which I never thought would offer as much as it has done! It went beyond my expectations and has equipped me with skills—the ones which may not pass contribute to the passing of exams as we're so conditioned to think—but the ones which will make me a better doctor.
>
> I look forward to engaging with all my patients from this new-found vantage point. It brought to light the fundamental truth that I am not just a doctor with patients; I am a fellow human being. Just as I would expect to be respected as such, I should and will continue to go beyond the confines of a checklist giving the intangible gift of a listening ear and heart. CA

Conclusion and Recommendations

The process of creating reflective digital stories was experienced as transformational by these medical students, offering them new ways of seeing themselves and their patients. The students' ability to reflect improved in ways that affected their clinical work with patients and peers as well as their emotional well-being. The opportunity to think deeply about an experience and reflect on its meaning, while working in a respectful environment of equals contributed to greater confidence and deeper insights as well as an appreciation of the need for humanity and empathy in the practice of medicine.

On the basis of this study, digital storytelling has the potential to enhance skills of reflection, increase self-awareness, deepen insight, strengthen professional identity and contribute to a new, more humane way of approaching learning and practice. Further research could usefully be conducted with more or larger cohorts of medical and other healthcare students.

The medical students' stories can be seen at www.patientvoices.org.uk/pkt.htm

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