Author's response to reviews

Title: Clinical realism: A new literary genre and a potential tool for encouraging empathy in medical students.

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Author's response to reviews: see over
Andrew Papanikitas

Thankyou for these helpful and perceptive comments. I have noted my response to each comment below.

1. I have included this in the discussion, line 583
2. Implemented, line 218
3. Thankyou for this comment. I have thought hard about whether or not I should change the title. I was trying to convey the idea that the writing would systematically represent what it is like to live with a chronic disorder without making it a plot point or an illness narrative. I wanted it to be presented as on a par with someone’s other characteristics such as appearance, ethnicity, class, personal interests—all of the things that make up someone’s identity—rather than being seen in isolation, or being wheeled on as a plot point. I don’t think this happened systematically in the medical realism era, where there was some representation of illness, but usually for a reason to do with the plot. There doesn’t seem to have been a unifying medical realism movement, with most people just doing their own thing, and the outputs only analysed in retrospect.

In the end I have written quite a long explanation and used the term clinical realism with a clearer definition. I hope this seems reasonable.

Line 155 explains that CR was developed specifically for the SSC
I have now specified that it was developed by myself (PM)

4. I have added these in.
5. I have reworded this to make it clearer
6. I have developed the results section, putting in more discussion and more quotes.
7. I have now defined affinity in the introduction, thankyou!
8. I had recently been attending writing workshops as part of the MA course. Some of the people doing the MA were already published writers. The quality of the students’ writing in the SSC varied more than the MA, but overall, the quality was at least as good as, and in some cases better, than the writing in the MA workshops. Also, the students learned very fast. As soon as a writing principle was discussed, they would implement it, and they generally took feedback on board and acted in response to it, more so than some of my colleagues on the MA course.
9. Very good point, thanks, I have included this in the paper
10. I have removed this, on reflection I don’t think it is the best course to pursue.
11. &12, Fair point, I have removed the last paragraph.
Thankyou for your detailed comments and for going to the trouble to suggest references. I have responded to the individual points below:

1. I have discussed this in the discussion section at the end of the paper. Basically, it appears from this and other papers that rehearsing empathy can help students become more empathic. The ability to “step into another’s shoes” equates to cognitive empathy, one of the dimensions of empathy. It is not surprising, but it is a mechanism that can be used. I have discussed this at the end of the discussion section.

2. I have put a more detailed definition of empathy in the introduction, plus some information about the neurobiological correlates of empathy. I have come back to this in the discussion. Empathy scales are quite heavily criticised in the systematic review I mentioned. I have put a bit more information about this in the article, and also commented on the use of qualitative investigation in narrative research. There isn’t enough space in the article to go into this in detail, but I have recently looked at this in some detail, so I have put some additional information about the measurement of empathy below.

3. While engaging with real patients is clearly important, it appears that “rehearsing” empathy in a safe environment can also be helpful.

4. I’m not able to say how a student’s fictional account would differ from that of a real patient, a carer, a doctor etc., nor compare the sue of fictional and real accounts, these would need separate studies. There has not been a great deal of research in this area and there is certainly plenty of scope to do some.

5. The student’s accounts were already based on their own interactions with patients and on the research they did in blogs etc- healthtalk online was one of the resources they used. I hope that they learnt from these.

I am not suggesting that illness narratives do not exist, I am suggesting that representation of people with chronic disorders happens very little in fiction. I have rewritten the section on this to make this clearer.

I have put some information about the basic demographics of the students in the article. I do have information about why they chose the course, but as the article is already 27 pages long, I haven’t included it. I can add it in if you think it is important.

I think the group is too small to discuss why their approaches differed without identifying individual students.

6. Some of the students made the point in their end of course essays that they felt increased empathy with their character as they wrote more about them. I then asked all of the students to write about how they had developed their character, and I asked directly if they had noticed any difference in how empathic they felt towards their character as the course progressed, and all of them said that they had. I have now put all of their responses in the article.

7. I suspect that empathy is like happiness: different people are at different starting points, but in the same way that research shows that you can learn to be happier, I suspect that you can learn to be more empathic. Over the three years of the course, we had the odd student who chose the course because they were disillusioned with medicine and it was about as far from clinical medicine as they could get. One of these students later left the course, although a couple more reported that they had been re-motivated by it. However all of them engaged in the course, some of them wrote less elegantly, but they still took their characters seriously and seemed to care about them. We also promoted the course to students who spoke English as a second language as a way of improving their written
English. These students tended to write shorter accounts for obvious reasons, but also engaged well with their characters, as did a student who was added to the group after an accident meant that she couldn’t get to her original SSC choice. This makes me think that the intervention could be used with a reasonably wide group of students—although others might prefer different approaches such as visual narratives.

8. I think it was fairly predictable which disorders and characteristics would be initially unpopular—they were the more stigmatising ones. It seems that in the same way that we do not want to have stigmatising disorders ourselves, we also do not want to adopt a persona with these disorders. Interestingly, however, although difficult to quantify, once they had got used to their characters, some of the most empathic and moving narratives came out of these characters—there is a hint of this in the narratives used in the article, in which the patient with a head injury is, to my mind, very movingly portrayed. Conversely, students were usually pleased initially to be allocated a character who lived in a mansion, one of the initial accommodation choices, but I stopped using it because it led to less interesting narratives.

9. Beyond empathy—there seems to be a bit of a backlash against empathy in medical humanities circles. I have mentioned this view and put some references about this at the start of the article. There is a suggestion that learning to be empathic is transformational learning i.e., once you have learnt it, you can always do it. There is some research on other interventions that have been shown to increase empathy that suggests that the effects are long-lasting, and I have discussed this in the article. This is obviously a preliminary report on the intervention, further research would be needed to establish whether the effects were long-lasting. I have asked the students if they believe the course changed their empathy levels, and most said that it did. One gave a more nuanced reply saying that he didn’t think it had changed his empathy level but it had made him reflect more about narratives and empathy and has helped him understand empathy better.

Thankyou for sharing your own fictional narratives with me. I think there is a lot of scope for using patient narratives in medical education.

Comments on measuring empathy

Two systematic reviews have assessed attempts to measure empathy in medicine. Pederson (2009) found 38 different quantitative measures and 31 qualitative measures, but noted that many studies purporting to examine the effects of physician empathy do not describe how it had been assessed. Most studies used quantitative self-report measures. Less commonly, patients, often simulated patients, were asked for their views, but he noted that studies of empathy in practice were rare. He identified 9 empathy self-report questionnaires, 12 observer scales and, 9 patient scales, and seven more deemed to be “miscellaneous,” for example group rating scales. He questioned the relevance of some questions e.g., one scale assumes that being interested in the arts equates to empathy and pointed out that most scales were based “solely on self-reports far away from medical practice and the patient” and that self-reports had poor correspondence with empathy in practice. Pederson is also critical of observer scales, noting that most are “uncritically focused on observable aspects.” He concludes that more than one method and perspective should be
used, that qualitative methods should be included and assessment should be based on the physician and patient’s concrete experiences and interpretations.

Pederson didn’t comment on whether or not the various scales have been validated, but Hemmerdinger, and colleagues (2007)\(^i\) carried out a systematic search of the literature relating to empathy assessment in medicine, including validation. They found 50 papers reporting on 36 different tests of empathy. Eight of these tests had evidence concerning reliability and validity. The validity of first person (self-completion) tests was mainly done by comparing test results with “various aspects of the consultation or clinical knowledge” and no tests had tried to use patient assessment for validation, although the JSPE, a commonly used test, had been validated against “later ratings of empathy from directors during residencies.” Somewhat worryingly, they noted that “The first person tests do not appear to be very reliable over periods of 4 to 12 months. Not only do the mean results change over time, but they are poorly correlated, so the rank order of those being tested may not remain constant.” This presumably calls into question whether we should be using these tests, and indeed they concluded that the tests should not be used to select medical students.

They also looked at “second person” tests (those with an outside rater), and reported: “One reassuring finding was that...the CARE (Consultation and Relational Empathy) measure... has been subjected to sufficient psychometric evaluation to be considered a useful measure of empathy from the patient’s perspective.” I would question this conclusion as the evaluation of the final version of the test was based on a sample of just 10 patients\(^iii\).

After the systematic reviews were published, the JSPE, already one of the better -validated self-report questionnaires, was evaluated for validity using patient perceptions. A modestly positive correlation value of r=0.48 was found, based on a sample of 36 physicians and 90 of their patients.\(^iv\)

Neither of the systematic reviews found any papers using neuro-imaging as a gold standard or as part of the process of empathy testing, and a literature search in March 2015 did not identify any, however it seems likely that this will be a future direction of research.

A final point worth noting is that there is controversy about whether or not empathy declines during medical education.\(^vi\)\(^vii\)\(^viii\) If this was indeed the case, it would affect the outcome of longitudinal monitoring studies.

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\(^i\) Austin Z, Gregory P. Evaluating the accuracy of pharmacy students’ self-assessment skills.. *Am J Pharm Educ* 2007;71


Hojat M, Vergare MJ, Maxwell K et al. The devil is in the third year: A longitudinal study of erosion of empathy in medical school. *Acad Med* 2009, 34; 1182-1191

Colliver JA, Conlee MJ, Verhulst SJ, Dorsey JK. Reports of the decline of empathy during medical education are greatly exaggerated: A re-examination of the research. *Acad med* 2010, 85; 588-593

Chen DCR, Pahilain ME, Orlander JD. Comparing a Self-Administered Measure of Empathy with Observed Behavior Among Medical Students. *J Gen Int Med* 2010, 25; 200-202