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Using Patient Perspective Sessions to Increase Empathy and Recall in Preclinical Medical Students

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Financial Disclosures:

None reported.

Support: None reported.

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Submitted

February 29, 2016;

final revision received

July 20, 2016;

accepted July 26, 2016.

Context: At the author's institution, patient perspective sessions were added to the preclinical curricula, in which actual patients present their medical stories and experiences to large groups of first- and second-year medical students. This curricular approach was designed to help address concerns about limited patient interaction during these years, which could lead to empathy erosion, academic burnout, and poor memory retention.

Objective: To determine whether patient perspective sessions conducted in the first and second years of medical school had an effect on students' empathy toward patients and perceived retention of material.

Methods: In the summer of 2014, an anonymous electronic survey was sent to medical students in the class of 2016 who had completed the mandatory patient perspective curricula. The patient perspective sessions had started in the academic year of 2012-2013, and they involved real patients who presented their medical stories and experiences in the medical setting.

Results: Of 135 surveys sent, 43 completed surveys (32%) were returned. Twenty-seven respondents (89%) reported that the patient perspective sessions met the objective of "enhancing empathy toward the patient experience," and 23 respondents (75%) reported that the sessions made the material easier to remember. Further, 24 respondents (91%) reported enjoying the sessions, and all respondents reported that they wanted the patient perspective sessions to continue.

Conclusion: Patient perspective sessions are a unique way to add more clinical exposure to the preclinical curriculum. These sessions have the potential to increase students' empathy toward patients, to increase their retention of material, and to provide new perspective. Further, students reported enjoying the sessions, which can help decrease the potential for academic burnout.

J Am Osteopath Assoc. 2016;116(10):662-666

doi:10.7556/jaoa.2016.130

Keywords: burnout, empathy, medical student, stress

The first 2 years of medical school are spent predominately in the classroom setting, often with limited patient interaction. Multiple studies in medical education suggest that the intense academic environment and lack of clinical context may serve as a stressor for preclinical students and can be associated with adverse educational and personal outcomes. The heavily science-based curriculum in the first 2 years of medical school tends to be rigorous, which could lead to academic burnout.^{1,2} In addition, the lack of clinical exposure during these preclinical years can contribute to a loss of the motivation behind the decision to go to medical school.³⁻⁵ Furthermore, studies have shown that medical students face an increased risk of depression resulting from relentless academic demands and stressors.^{5,6} This factor can contribute to poor memory retention and further burnout.⁵ Studies have demonstrated an erosion of empathy throughout the 4 years of medical school,⁷⁻¹⁰ and a 2013 study¹¹ suggests that a decline in idealism happens as early as the first 2 years. These findings propose that traditional preclinical curricula may negatively affect medical students' motivation, mental health, memory retention of new material, and empathy.

In the 2012-2013 academic year, the Touro University College of Osteopathic Medicine-CA (TUCOM) introduced mandatory patient perspective sessions into their osteopathic doctoring curriculum. Four sessions occur in year 1 and three in year 2. These sessions provide an innovative curricular approach to address the issue of limited patient interactions in the preclinical years by engaging real patients to present their medical stories. The goals of this early introduction of patient interaction were to combat empathy erosion, reduce academic burnout, and improve memory retention during the first 2 years of medical school.

The use of patients in educational settings has been found to successfully increase active engagement of students in the learning process and improve information retention.^{12,13} Easton¹² wrote that "narratives tap into several key learning processes including providing a

relevant context for understanding, engaging learners, and promoting memory." He went on to explain that narratives may promote humanistic aspects of medicine, such as empathy, when used in medical school lectures. Additional studies have shown that interaction with patients may increase medical student empathy.¹⁴⁻¹⁶

The topics of the patient perspective sessions at TUCOM matched the physiologic system the students were studying at the time. The patients were encouraged to talk about their experiences with a particular disease process as well as their experiences in the health care setting, with an emphasis on the physician traits that they most and least appreciated. A clinical faculty member was present at all of the sessions to help facilitate the discussion and answer any questions that the patients themselves were not able to answer, such as those in reference to disease pathophysiology or health care systems.

The objectives of the patient perspective sessions were 2-fold: (1) to increase patient contact time during the preclinical years, thereby enhancing empathy toward the patient experience and increasing awareness of patient-physician relationships, and (2) to increase curiosity, interest, and humanism regarding the disease processes discussed, thereby motivating learners and making the material easier to remember.

The objective of the current study was to determine whether these patient perspective sessions had an effect on first- and second-year students' empathy toward patients and their perceived retention of material. It was hypothesized that these patient stories would help students maintain their empathy and remember the material presented.

Methods

An anonymous electronic survey was administered in the summer of 2014 to TUCOM medical students in the class of 2016 who participated in the patient perspective sessions in the 2012-2013 and 2013-2014

academic years. The survey assessed their perceptions of and opinions about the effectiveness of the sessions' objectives. The survey was created using the 2 objectives, each followed by a 3-point Likert-type scale with clear verbal descriptors. Since the objectives each had 2 components, this survey focused on 1 component of each objective (enhancing empathy and improving retention of material). Additional questions concerned enjoyment of the sessions (which used a 5-point Likert-type scale) and whether the sessions should continue. Exempt status was granted by the Touro University California Institutional Review Board.

A link to the survey was sent to students via their TUCOM e-mail addresses after each session. Reminders to complete the survey were sent to the entire cohort of students on 4 different occasions. There was no further follow-up with the students who had not completed the survey.

The survey responses were reviewed and analyzed. Some students may not have attended all of the sessions, and students were encouraged to only give responses based on the sessions that they attended. One-way analyses of variance were conducted to compare the survey responses to questions 2 (How much did you enjoy each patient perspective session?), 3 (How well did this patient perspective session meet the objective of "enhancing empathy towards the patient experience?"), and 4 (How well did this patient perspective session meet the objective of "making the material easier to remember?"). Free-text responses in the optional comment text box were evaluated using conventional content qualitative analysis to identify common themes within the learners' responses.

Results

Of the 135 students who were sent the survey, 43 (32%) responded. Overall, an average of 89% of respondents (27 of 30) reported that the sessions met the objective of enhancing empathy. Respondents were least likely to report more empathy after the obesity

and bariatric surgery session (10 of 14 [71%]) and most likely to report more empathy after *The Power of Two* documentary (40 of 41 [98%]) (Figure 1). One-way analysis of variance demonstrated that a statistically significant greater number of respondents reported having increased empathy after the patient perspective sessions ($F_{2,18}=41, P<.005$).

For the question assessing recall, an average of 75% of respondents (24 of 30) reported that the sessions made the material easier to remember ($F_{2,18}=20, P<.005$). Respondents were least likely to report that the congenital heart disease session (12 of 24 [50%]) made the material easier to remember and most likely to report that *The Power of Two* documentary (37 of 41 [90%]) made the material easier to remember (Figure 2).

The percentage of respondents who enjoyed or greatly enjoyed this session ranged from 73% (8 of 11) for obesity and bariatric surgery to 100% (26 of 26) for leukemia. Most respondents (24 of 26 [91%]) reported enjoying or greatly enjoying the patient perspective sessions ($F_{2,18}=41.0, P<.005$). The session on obesity and bariatric surgery had a high rate of respondents who reported feeling neutral about whether they enjoyed the session (18% compared with 3%-10% of the other sessions). This session also had the highest percentage of respondents who reported disliking it (9% compared with a mean of 1.3% for all other sessions) as well as the lowest overall response rate (11% compared with a mean of 28.5% for the other sessions). Owing to the discrepancy in the number of students who responded to this question, it is difficult to ascertain whether there truly was a higher negative impression of this session compared with the others. The obesity and bariatric surgery session also had the highest percentage of respondents who reported that their empathy toward patients with obesity had neither increased nor decreased 29% compared with 2% to 13% for other sessions). The majority of the respondents did report enjoying that session (8 of 11 [73%]) and having more empathy toward patients with obesity and bariatric surgery resulting from that session (10 of 14 [71%]).

All respondents reported that they wanted the patient perspective sessions to continue. Twenty of 43 respondents (47%) indicated that they wanted additional sessions.

Twenty-three responses in the optional free-text commentary box were qualitatively analyzed. The commentary was overwhelmingly positive, revealing 4 common themes: enjoyment of the sessions, improved retention of the material presented during the sessions, learner gaining a new perspective, and constructive feedback regarding the timing of the sessions.

Discussion

Respondents noted that the majority of the patient perspective sessions achieved the goals of enhancing their empathy and increasing their retention of the topics that were covered in each session (*Figure 1* and *Figure 2*). Studies have shown that personal stories can improve memory retention^{12,13} and that patient interaction may increase medical student empathy.¹⁴⁻¹⁶

The themes expressed in the free-text responses echoed the findings of improved retention of the material presented. One lesson learned from implementing this curricular design was to avoid scheduling these sessions near the timing of high-stakes examinations, which typically occur at the end of the semester. Further surveying of all of the students would be necessary to better elucidate the general opinions on the scheduling of the patient perspective sessions.

This pilot study has several limitations. As with most surveys of this nature, there is the potential for recall and sample biases. This study focused on students who completed their second year of medical school; thus, their recollection of the patient perspective sessions that took place during their first year may not have been as strong as the sessions that took place during the second year. Sample bias is also a concern given the low response rate. It is possible that the students who chose to complete this survey were the ones who enjoyed the sessions. However, both enjoyment and dislike may have motivated students to respond to the survey. It would have been more ideal to survey all of

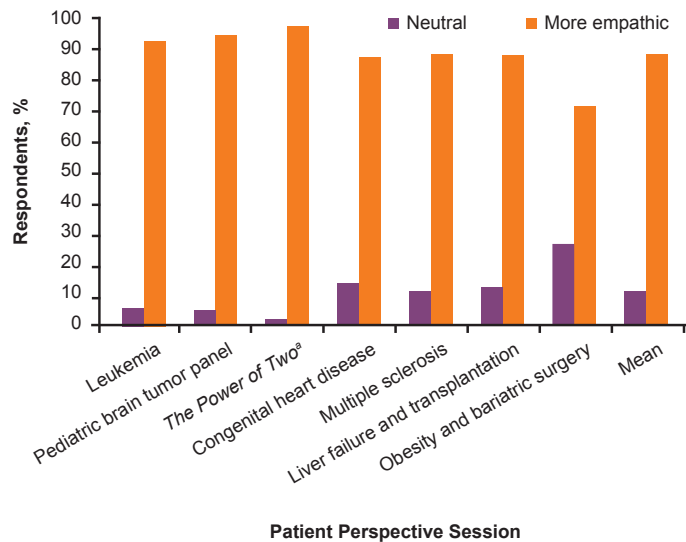


Figure 1.

Responses to the question "How well did this patient perspective session meet the objective of enhancing empathy toward the patient experience?" by osteopathic medical students who attended patient perspective sessions during their first and second years of medical school. The number of respondents for each session ranged from 14 to 41. No respondents reported less empathy. *Documentary about twin sisters telling their story of having cystic fibrosis and undergoing lung transplants. After the film was shown, the patients highlighted in the film did a Q&A with the students.

the students immediately after each patient perspective session and to have better distribution and follow-up of the nonresponders to improve the response rate.

Additionally, the design of the survey itself could be greatly improved to allow for more rigorous analysis, including a comparison group to objectively measure differences in empathy and memory. The objectives each had 2 variables, which would have made the survey questions double-barreled and difficult to accurately interpret. Further clarity could have been gained by separating out each individual variable, however. Validating the survey would also add strength to the study as well as incorporating quantitative measurements of empathy (eg, the Jefferson Scale of Empathy) and medical knowledge (eg, standardized self-examinations or practice board questions) both before and after each session.

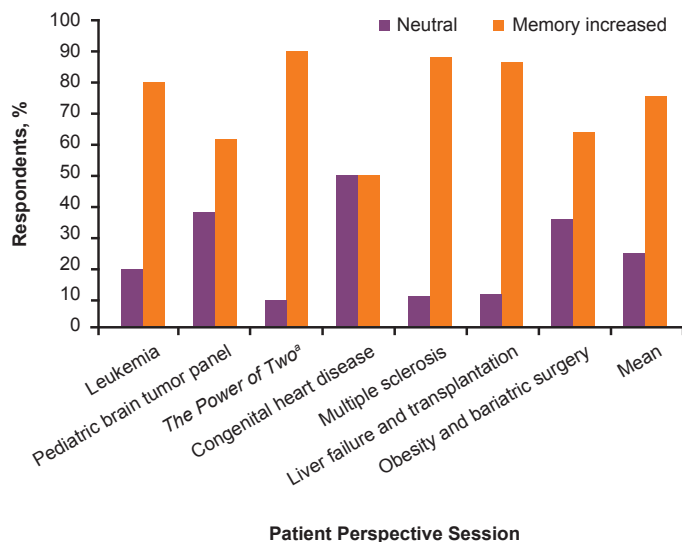


Figure 2.

Responses to the question “How well did this patient perspective session meet the objective of making the material easier to remember?” by osteopathic medical students who attended patient perspective sessions during their first and second years of medical school. The number of respondents for each session ranged from 14 to 41. No respondents reported decreased memory. ^aDocumentary about twin sisters telling their story of having cystic fibrosis and undergoing lung transplants. After the film was shown, the patients highlighted in the film did a Q&A with the students.

Conclusion

Patient perspective sessions are a way to incorporate additional clinical exposure during the preclinical years of medical school. This curricular model can be relatively easily replicated across different medical schools. Our results suggest that these sessions have the potential to help increase empathy toward patients and increase retention of material. Most of all, students reported enjoying these sessions. This enjoyment may help increase empathy and motivation and decrease burnout and depression during the first 2 years of medical school.

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