Harnessing the power of patient videos to enhance social and behavioral sciences education

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**Categories:** Educational Strategies

Received: 19/12/2016
Published: 20/12/2016

**Abstract**

It has become increasingly important to address the challenge of incorporating social and behavioral sciences (SBS) into medical curricula. This commentary describes how the use of patient videos can be used to overcome barriers in teaching of SBS in non-clinical settings, and enhance recall and foster humanism in medical students. Recommendations are also provided in both creating and identifying optimal patient videos to incorporate into classrooms.

**Keywords:** Patient Videos, Social and Behavioral Sciences, Teaching

**Introduction:**

As Drs. Harden, Kendall, and MacBride-Stewart point out in their introduction to this AMEE MedEdPublish theme issue, social and behavioral factors have been increasingly recognized as critical to health and are thus imperative to include in medical education. Yet, despite recommendations from experts and professional societies on what should be taught and how to teach it, educators often struggle to incorporate social and behavioral sciences (SBS) into medical curricula. Reasons for this include the breadth of content that SBS can encompass, limited curriculum space, unfamiliarity of many faculty with these content areas, and the need to interweave SBS education throughout training (AAMC, 2011).

Incorporating SBS education into non-clinical teaching scenarios may be most challenging. Yet it can also be increasingly important, as medical students enter medical school excited to embark on their careers as healers, yet often find themselves swimming in the ocean of medical facts that must be learned for effective clinical practice. Indeed, an overly narrow focus on pathophysiology may make students more emotionally distant than they were when they entered training (Shapiro 2011).

In this commentary, we describe how the use of patient videos, a simple and familiar educational tool, can be used to...
overcome current barriers and enhance the teaching of SBS in non-clinical settings.

Why Patient Videos?

"For the junior student in medicine and surgery, it is a safe rule to have no teaching without a patient for a text, and the best teaching is that taught by the patient himself." William Osler, 1905

There are numerous theories and frameworks, hailing from diverse fields such as anthropology, sociology, psychology, and economics, which can structure medical trainees’ thinking about SBS. Indeed recommendations for SBS educational strategies often focus on how to incorporate these into formal curricula (AAMC, 2011, Martinez et al, 2015).

The need to learn directly from the patient has been surprisingly underemphasized in consensus documents on SBS education. Indeed, the root of learning medicine is by observing and listening to patients - even at the ancient medical school in Cos, Hippocrates advocated for patient-centered medical education, and similar encouragements have echoed throughout the ensuing millennia, recently culminating in calls for patients to assume formal roles as teachers in medical education (Towel et al, 2016).

We would argue that the true experts on how SBS impact health and well-being are patients themselves. Patients with financial strains can explain to medical trainees that the reason they do not take their medicines or attend appointments is because they decide to pay for light and heating bills instead. Patients with low health literacy can describe to future providers their struggle to understand the educational materials they may be given when exiting clinic. Patients who feel that they cannot trust their physician or the health system can explain why this is and can suggest how greater trust can be engendered.

Currently, having real patients speak about their experiences with illness in classroom settings is a widespread practice, although incorporating live patients into curricula requires significant numbers of patients, and no real-patient programs have been generalizable across multiple settings (Towel 2010, Bere 2016). Standardized patients have been widely adopted to fill the real-patient void, but they likewise require significant resources to train and schedule into a curriculum, and most standardized patients are not asked to speak from their personal experience with illness. Videos of patients, on the other hand, are plentiful and sharable, can overcome live patient and standardized patient resource constraints, and be implemented in a generalizable manner.

Use of patient videos in medical education is not new. In 1976, the Faculty of Medicine of the University of Leuven began using patient videos to improve students' history-taking and clinical reasoning skills (Dequeker, 1997). Since then, there have been many reports of "patient video cases,” (Roland, 2012) and online "virtual patients.” (Woodham et al, 2015, Posel et al, 2015) These have also by and large focused on teaching history-taking, physical exam, and clinical reasoning skills. While these videos are valuable resources for learners at all levels, videos which focus on the "patient case" risk overlooking each individual's unique experience with illness and may slowly extinguish the passion most medical students originally had to heal and comfort others. Indeed, we believe patient videos which speak to a person's experience with illness can shift students away from a "case mentality" that objectifies patient disease (MacLeod, 2011) and enhance SBS education while bringing greater compassion and humanism to non-clinical education.
Tips for using patient videos for SBS

With the advent of media-sharing sites, such as YouTube, patients and advocacy organizations have begun sharing patient stories online. There is now a wealth of potentially useful videos already available, and new videos can be filmed by anyone with a mobile device. Below we offer tips on how to incorporate patient videos into classroom settings to greatest advantage.

**Make them short.**

Most people will stop watching online videos in under five minutes (Guo et al, 2014), which is important to consider if one would ask students to watch videos on their own time. A study of medical students watching video cases found that they similarly prefer short videos (De Leng, 2007). Should longer videos be warranted, class time may need to be allotted for students to view them.

**Make videos relevant to classroom content**

Videos should illustrate the connection between diseases, which may be taught in basic science or organ-systems courses, and a given SBS topic and should link to learning objectives for both topics. For example, students learning about Celiac disease can hear how eliminating gluten from a patient's diet impacts cultural eating traditions and home environment (Celiac Patient Disease Video, 2013). When discussing Tourette's Disorder, students are able to observe a variety of the manifestations of tics, while also observing patient difficulties with peers and the challenges of negotiating these symptoms in social situations (Pollack, 2014). A video on a patient with cystic fibrosis provides insight into how a poor prognosis can affect one's life, but also how it can be overcome. (Bryan, 2013). Even very rare diseases have useful patient videos - first semester health professions students learning about collagen disorders can watch a video of a 10-year old girl with osteogenesis imperfecta describe challenges she faced dealing with disease and the health care system (Oi World, 2014).

To find these videos, faculty may search online, ask students to locate them, or use technologies which can link curricular content with a database of curated patient videos. For example, one learning platform that we have worked with, called Osmosis, automatically links an institution's curriculum content to a growing library of over 500 patient videos.

**Use patient videos that have narratives**

Narratives or stories are believed to tap a fundamental aspect of human cognition - experiences need to be turned into stories before meaning can be taken from them (Rossiter, 2002). Listening to stories also requires active engagement in meaning-making so that learners integrate new ideas into current schema.

**Use videos intended to elicit emotions**
An additional advantage of many patient narratives is their ability to evoke emotions. Research indicates that when an emotion is attached to an experience, it leads to improved encoding into long-term memory (Cahill and McGaugh, 1998). Evidence suggests that emotions fostered by patient narratives in particular can lead to greater engagement with course material and better learning retention (Jha et al, 2015, Kumbagai, 2008). This can help students link social or behavioral risk factors to illnesses. For example, listening to a patient discuss alcohol use disorder, and its many social and behavioral dimensions, makes it clear how these influence one another. When the same patient goes on to describe thoughts of suicidal ideation, students can also associate this with alcohol use disorder in a powerful way which is likely to be retained.

In addition to retaining and integrating material, providing compassionate care has increasingly become an expectation from patients. (Lown et al, 2011). When students are able to observe emotional vulnerability, they are more inclined to have an empathic response (Foster, 2016). Patient narratives that encourage students to have their own emotional reaction can help them stay in touch with their empathy and humanism.

**Encourage reflection after the video**

Permitting time for guided reflection is an important factor in getting the most from patient videos. It allows learners to unpack the meaning from the videos and make explicit connections between SBS and illness. Reflection can also help learners become more aware of their own backgrounds and how SBS have impacted their lives, for better or worse. Indeed, such personal awareness is considered a core competency in the AAMC framework.(p.24) and vital to maintaining empathy and humanism in medicine (Sandars 2009).

Effective reflective practice can take many shapes, including reflective writing and discussions, which can occur in small and large groups and in online blogs. When discussing the sensitive issues that can be raised in SBS education it can help to have a consistent group of students and faculty to create a safe environment. In any case, reflection should occur shortly after a video is viewed and receive guidance from skilled facilitators.

**Consider making new videos**

Sometimes, high quality videos that meet the above criteria can be difficult to find or access. In such cases, an educator may wish to create his or her own library of patient videos. In our experience, certain guidelines may be helpful. First, to maintain patient privacy (and not violate the Health Insurance Portability and Accountability Act (HIPAA)), it's essential that permission is asked and granted by the patient for use of their video in medical education. Second, often using an interviewing technique can be helpful to facilitate responses which are directed to the desired SBS topic. Videos can then be edited to omit the interviewer asking the questions. Third, in cases where it may be difficult to arrange a face-to-face meeting with patients, other options can be considered. Patient videos can be recorded remotely, via video chat software. Students can be asked to video patients. Patients may film their own videos based on written guidance from the educator; a video tour of their home or community or experience visiting their providers may be especially effective at demonstrating ways in which SBS effects patients.

**Concluding Thoughts:**

Patient videos are a readily available and sharable resource which offer untapped potential to integrate SBS
education into non-clinical settings and thereby enhance recall and foster humanism. Our tips may optimize the impact of these patient videos.

Additionally, as there is currently a limited evidence base to guide the use of patient videos in medical education, we would advocate for research which builds this evidence base, by investigating optimal implementation of videos and their impact on student knowledge acquisition and retention, student self-awareness and other affective attributes, and curricular resource-utilization.

**Take Home Messages**

**Notes On Contributors**

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**Acknowledgements**

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Appendices

Declaration of Interest

The author has declared that there are no conflicts of interest.