

Medicine and the Art of Seeing

Leah Natalie Rosetti¹

¹Faculty of Medicine, University of Ottawa

ABSTRACT

This Humanities in Medicine article is an examination of the use of formal fine arts training in medical curricula to enhance diagnostic skills. A great amount can be discerned about pathology and pathophysiology using visual cues. Conventional medical education stresses the importance of physical diagnostic skills but often omits explicit teaching on how to methodically observe for information that could be useful for diagnosis. The current curriculum could be greatly complimented by the study of fine arts, which deals directly with the careful observation, description, and interpretation of the visual world.

RÉSUMÉ

Cet article sur la médecine et les humanités est un aperçu sur la pertinence d'incorporer une formation formelle des beaux-arts dans le curriculum médical afin d'optimiser l'habileté des cliniciens à poser un bon diagnostic. L'utilisation de repères visuels est d'une grande utilité pour discerner la pathologie et la physiopathologie de différentes maladies. L'éducation médicale conventionnelle souligne l'importance de l'examen physique lorsqu'on doit poser un diagnostic, mais néglige parfois l'enseignement d'une approche méthodique qui utilise activement l'observation afin de repérer des informations qui pourraient être très utiles dans le diagnostic d'un patient. Le curriculum actuel pourrait très bien incorporer l'étude des beaux-arts, car celle-ci implique une observation, une description et une interprétation du monde visuel qui nous entoure.

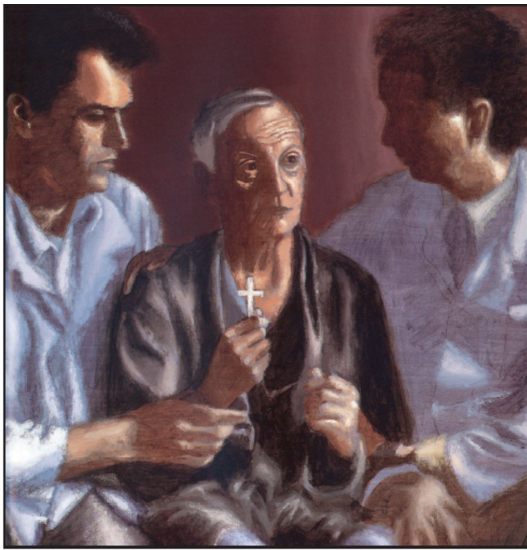
William Osler, one of the most celebrated doctors in Canadian history, once said that the “whole art of medicine is in observation” [1]. Indeed, a great deal of diagnostic power can be drawn from the visual world. Currently, medical educators train students by teaching them the cardinal features of disease and how to differentiate between normal and abnormal signs and symptoms. The skills underpinning this process are often taken for granted, however, and students may never be taught how to carefully and methodically observe their patients for all the relevant visual data points. The skill of deliberate looking falls into the realm of fine arts, where artists are trained in observing, describing and interpreting colours, textures, and shades; skills which are also essential to being an effective diagnostician. Formal training in fine arts for medical students has been shown to translate into better clinical skills and could have an increasing role in medical education.

One method of enhancing visual literacy that has been used with success in medical education is known as visual thinking strategies (VTS), which encourages students to answer open ended questions about the content and meaning of specific works of art and build upon the ideas of their classmates. A family medicine residency program in Los Angeles incorporated VTS into their curriculum using well-known medical works of art including “Mr. S is

Told He Will Die” (Figure 1) and “The Doctor” (Figure 2) [2–4]. Facilitators found that, in addition to improving teamwork among the residents, VTS improved their ability to “decode” the images in the paintings and develop a unified idea of what each piece of art was communicating. After these learning modules, residents reported improved ability to discern the nuances in color, texture, perspective, and shading of the various art pieces they examined while also broadening their interpretation of the artwork by scaffolding on the ideas of their classmates. Facilitators suggested that this would help the students solve more complex problems in medicine that draw on the same skills, like reading X-rays or ECGs [2].

On a larger scale, a study at Harvard used fine arts in their medical education program by using a nine-week elective format and employing VTS in combination with didactic sessions exploring core artistic concepts [5]. Additionally, they gave participants a chance to directly apply what they had learned through art to a physical assessment of patients with a variety of conditions that could be elucidated with visual inspection. The study found that students who received this fine arts regimen were more likely to make accurate observations and diagnoses of these conditions than students who only received conventional physical diagnosis training.

Keywords: Medical education; Visual arts; Arts in medicine



© Robert Pope Foundation, 2006

Figure 1. "Mr. S is Told He Will Die" by Robert Pope [3].



Figure 2. "The Doctor" by Luke Fildes [4].

The study of fine arts has proven useful even when applied to works of art that do not specifically contain medical themes. When examining art that contained less familiar imagery and representations, such as surrealist and abstract pieces, medical students still experienced improvements in skills that would help them in clinical settings [6]. After undergoing a curriculum of three two-hour sessions that included abstract art, students reported that they were able to develop a systematic approach to the visual world and found that they were able to identify patterns more readily, a skill which would translate into improved ability to make connections between patient cases [6]. In addition to developing pattern recognition skills, studying non-representational art encourages creative, on-the-spot interpretation because of its dearth of familiar imagery. It is one thing to examine and analyze a work of art full of easily recognizable symbols, but it is another thing entirely to examine non-representational art and make rapid decisions about its meaning. This makes for excellent practice in decision-making and in gaining comfort with uncertainty. These skills would undoubtedly be useful when encountering new cases and navigating unfamiliar territory during medical training.

A great amount of information can be discerned about pathology and pathophysiology using visual cues. Conventional medical education stresses the importance of physical diagnostic skills but often omits explicit teaching on how to methodically observe for information that could be useful for diagnosis. The current curriculum could be greatly complimented by the study of fine arts, which deals directly with the careful observation, description, and interpretation of the visual world. By encouraging medical learners to spend time dissecting works of art in addition to the traditional cadaver, their observational acuity can develop and enhance their efficacy as diagnosticians.

REFERENCES

1. Osler W. The natural method of teaching the subject of medicine. *JAMA*. 1901;36(24):1673–1679.
2. Reilly JM, Ring J, Duke L. Visual thinking strategies: a new role for art in medical education. *Fam Med*. 2005;37(4):250–252.
3. Fildes L. The Doctor. Available from: <http://www.tate.org.uk/art/artworks/fildes-the-doctor-n01522>.
4. Pope R. Mr S is told he will die. The Robert Pope Foundation.
5. Naghshineh S, Hafler JP, Miller AR, et al. Formal art observation training improves medical students' visual diagnostic skills. *J Gen Intern Med*. 2008;23(7):991–997.
6. Shapiro J, Rucker L, Beck J. Training the clinical eye and mind: using the arts to develop medical students' observational and pattern recognition skills. *Med Ed*. 2006;40(3):263–268.