

Art Museum and Medical School Partnerships

Bibliography

August 2018

Research supported by
The University of Texas at Dallas
The Edith O'Donnell Institute of Art History

This is the third year presenting bibliographic resources for programs in which art museums partner with medical schools to cultivate medical students' skills in rigorous observation, critical thinking, communication, team-building, empathy in relation to diagnostic practices.

Participating art museums and medical schools who attended "The Art of Examination: Art Museum and Medical School Partnerships" Forum that took place on June 8 and 9, 2016 at the Museum of Modern Art, New York initially contributed to this bibliography of journal articles, books and reports, and other media. One recommendation from the Forum is to continue to support the network of collaborators and partnerships between art museums and medical schools by offering a current listing of resources. These will

advance the field by creating opportunities to exchange teaching methodologies and establish networks for research and evaluation.

New sources in this 2018 version are listed in **red**.

The Edith O'Donnell Institute for Art History, The University of Texas at Dallas continues to compile these sources and stores them on our website at <http://www.utdallas.edu/arthistory/medicine/#resources>.

The PDF version of this bibliography includes embedded links to resources. These links were all working at the time of publication, but we cannot guarantee they will remain stable over time.

The Bibliography is Organized into 5 sections

1. Program Descriptions
2. Medical Humanities
3. Research and Evaluation
4. Books and Reports
5. Video, Podcast, and Other Media

Program Descriptions

Bardes, Charles L., Debra Gillers, and Amy E. Herman. "Learning to Look: Developing Clinical Observational Skills at an Art Museum." *Medical Education* 35.12 (2001): 1157-1161. Retrieved from

<http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2923.2001.01088.x/abstract>

Frick Collection program in which medical students examine painted portraits, then apply the same skills to examine photographs of patients' faces.

Baruch, Jay. "From Museum to Bedside: The Need for Museum Educators in Medical Education." Manual/a resource about art and its making. Rhode Island: Rhode Island School of Design. Retrieved from

https://risdmuseum.org/manual/450_from_museum_to_bedside_the_need_for_museum_educators_in_medical_education

RISD program with Alpert Medical School.

Bell, Lawrence T., and Darrell J. R. Evans. "Art, Anatomy, and Medicine: Is There a Place for Art in Medical Education?" *Anatomical Sciences Education* 7.5 (2014): 370-378. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/ase.1435/abstract>

Student perception using an "Art in Medicine" 8-week course for first-year medical students at the Brighton and Sussex Medical School as a sample study.

Blanding, Michael. Harvard Medicine, "Museum Studies: Art Unleashes Emotions and Discussion Among New Doctors." Winter, 2016. Retrieved from

<http://magazine.hms.harvard.edu/art-medicine/museum-studies>

Overview of Boston programs in art of observation.

Boisaubin, E. V., and M. G. Winkler. "Seeing Patients and Life Contexts: The Visual Arts in Medical Education." *American Journal of Medical Science* 319.5 (2000): 292-296.

Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/10830552>

Studying works by classic and contemporary artists to increase awareness of the complex nature of human beings and their conditions.

Boudreau, J. Donald, Eric J. Cassell, and Abraham Fuks. "Preparing Medical Students to Become Skilled at Clinical Observation." *Medical Teacher* 30.9-10 (2008): 857-862.

Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/18825545>.

Four guiding principles to pedagogy eight core principles of clinical observation.

- Braverman, Irwin M. "To See or Not to See: How Visual Training Can Improve Observational Skills." *Clinics in Dermatology* 29.3 (2011): 343-346. Retrieved from [http://www.cidjournal.com/article/S0738-081X\(10\)00151-3/abstract](http://www.cidjournal.com/article/S0738-081X(10)00151-3/abstract)
History and importance of Yale's observational skills program.
- Buetow, Steven, and Tim Kenealy. "Learning to 'See' in the Clinician-Patient Relationship." *Journal of Primary Health Care* 1.2 (2009): 148-150. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/20690368>
Ten strategies to enhance clinician's ability to see and increase perceptiveness.
- Campbell JI. "Art and the Uncertainty of Medicine." *Journal of the American Medical Association*. 2014;312(22):2337-2339. doi:10.1001/jama.2014.10773. Retrieved from <https://jamanetwork.com/journals/jama/article-abstract/2020377>
A student shares his experience in Harvard Medical School's Training the Eye program
- DasGupta, Sayantani, and Rita Charon. "Personal Illness Narratives: Using Reflective Writing to Teach Empathy." *Academic Medicine* 79.4 (2004): 351-356. Retrieved from http://journals.lww.com/academicmedicine/Fulltext/2004/04000/Personal_Illness_Narratives_Using_Reflective.13.aspx
Describes a reflective writing exercise conducted in a second-year medical student humanities seminar.
- Dolev, J C, Friedlaender Linda K., Braverman Irwin. "Use of Fine Art to Enhance Visual Diagnostic Skills." *Journal of the American Medical Association* 286.9 (2001): 1020-1021. Retrieved from https://www.researchgate.net/publication/11789211_Use_of_fine_art_to_enhance_visual_diagnostic_skills
Yale Center for British Art study that measured students' observational abilities by analyzing their descriptions of representational paintings in pretests and posttests.
- Elder, Nancy C., Barbara Tobias, Amber Lucero-Criswell, and Linda Goldenhar. "The Art of Observation: Impact of a Family Medicine and Art Museum Partnership on Student Education." *Family Medicine* 38.6 (2006): 393-398. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16741837>
Cincinnati Art Museum program.
- Frei, Judith, Sarah E. Alvarez, and Michelle B. Alexander. "Ways of Seeing: Using the Visual Arts in Nursing Education." *Journal of Nursing Education* 49.12 (2010): 672-676. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/20795611>
Qualitative evaluation on Art Institute of Chicago's "The Discerning Eye" program.

- Friedlaender, Gary E., and Linda K. Friedlaender. "Art in Science: Enhancing Observational Skills." *Clinical Orthopaedics and Related Research* 471.7 (2013): 2065-2067. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3676632/>
Introduction to the methodology of the Yale Center for British Art observational program including visual analysis exercises.
- Garino, Alexandria. "Improving Observation Skill in Physician Assistant Students." *The Journal of Physician Assistant Education* 19.1 (2008): 47-52. Retrieved from http://journals.lww.com/jpae/Abstract/2008/19010/Improving_Observation_Skill_in_Physician_Assistant.11.aspx
Study on improvement of PA visual skills from workshop at Yale Center for British Art.
- Gaufberg, Elizabeth, and Ray Williams. "Reflection in a Museum Setting: The Personal Responses Tour." *Journal of Graduate Medical Education* 3.4 (2011): 546-549. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3244323/>
Study on the Personal Responses Tour at Harvard Art Museums; its effectiveness led to it being a required exercise for first-year medical students.
- Gooding Holly C., Mariah Quinn, Barbara Martin, Alexandra Charrow, and Joel T. Katz. "Fostering humanism in medicine through art and reflection." *Journal of Museum Education* (2016); 41:2, 123-130. Retrieved from <http://www.tandfonline.com/doi/full/10.1080/10598650.2016.1169732>
The Brigham and Women's Hospital Department of Medicine and the Boston Museum of Fine Arts program combats physician burnout and empathy erosion.
- Grossman, S., J. Deupi, and K. Leitao. "Seeing the Forest and the Trees: Increasing Nurse Practitioner Students' Observational and Mindfulness Skills." *Creative Nursing* 20.1 (2014): 67-72. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/24730194>
Indiana University School of Nursing use of VTS.
- Haseltine, Justin. "Art Observation as a Vehicle for Clinical Education." *American Medical Student Research Journal AMSRJ* 1.1 (2014): n. pg. doi: <http://dx.doi.org/10.15422/amsrj.2014.05.014>. Retrieved from [https://amsrj.org/index.php?journal=amsrj&page=article&op=view&path\[\]=57](https://amsrj.org/index.php?journal=amsrj&page=article&op=view&path[]=57)
Weill Cornell Medical College art elective at the Metropolitan Museum of Art.
- Herman, Amy. "How the long arm of the law is reaching the Frick collection." *Museum News*. May/June 2007. Retrieved from [www.brooklyn.k12.ny.us/userfiles/42/Classes/28339/HSThe Art of Observation.pdf](http://www.brooklyn.k12.ny.us/userfiles/42/Classes/28339/HSThe%20Art%20of%20Observation.pdf)
On the Frick Collection's training of law enforcement officers.

Hirschfeld Neal. "Teaching cops to see." *Smithsonian magazine*, October 2009. Retrieved from <https://www.smithsonianmag.com/arts-culture/teaching-cops-to-see-138500635/>
New York City Metropolitan Museum of Art's "The Art of Perception" course for police.

Jacques, Andres, Rachel Trinkley, Linda Stone, Richard Tang, William A. Hudson, and Sorabh Khandelwal. "Art of Analysis: A Cooperative Program between a Museum and Medicine." *Journal for Learning through the Arts* 8.1 (2012): 1-13. Retrieved from <http://files.eric.ed.gov/fulltext/EJ985635.pdf>
Ohio State University College of Medicine, Columbus Museum of Art: Art of Analysis.

Karkabi, Khaled and Orit Cohen Castel. "Deepening Compassion through the Mirror of Painting." *Medical Education* 40.5 (2006): 197-203. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2929.2006.02439.x/abstract>
Results of a 2-hour workshop on 'Suffering in the Mirror of Arts', focus was to enhance the understanding of suffering and deepening compassion for sufferers.

Katz, Joel T. and Shahram Khoshbin. "Can Visual Arts Training Improve Physician Performance?" *Transactions of the American Clinical and Climatological Association* 125 (2014): 331-342. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112699/>
Case study on three HMS and/or Brigham and Women's Hospital (BWH) courses that address specific health care provider competencies.

Klugman, Craig M., Jennifer Peel, and Diana Beckmann-Mendez. "Art Rounds: Teaching Interprofessional Students Visual Thinking Strategies at One School." *Art and Medical Education, Academic Medicine* 86.10 (2011). Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/21869658>
The Art Rounds program teaches visual observation skills to medical and nursing students at the University of Texas Health Science Center, San Antonio.

Kumagai, Arno K. "Perspective: Acts of Interpretation: A Philosophical Approach to Using Creative Arts in Medical Education." *Academic Medicine* 87.8 (2012): 1138-1144. Retrieved from https://www.researchgate.net/publication/227856860_Perspective_Acts_of_Interpretation_on_A_Philosophical_Approach_to_Using_Creative_Arts_in_Medical_Education
University of Michigan Medical School's Family Centered Experience art making.

Lehe, Jennifer; Stone, Linda. "Art of Analysis: A Case Study in Fostering Empathy, Critical Thinking, and Mindfulness through Museum-University Partnership." Ohio State University presentation. Retrieved from <http://hdl.handle.net/1811/84728>
Presentation showcasing Columbus Museum of Art and The Ohio State University College of Medicine's Art of Analysis course.

Liou, K. T., et al. "Playing in the "Gutter": Cultivating Creativity in Medical Education and Practice." *Acad Med* 91(3): 322-327. (2016). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/26630602>
To cultivate medical students' creative capacity, the authors developed the Integrated Clinical Arts (ICA) program, a required component of the first-year curriculum at the Warren Alpert Medical School of Brown University.

Miller, Alexa, Michelle Grohe, Shahram Khoshbin, and Joel T. Katz. "From the Galleries to the Clinic: Applying Art Museum Lessons to Patient Care." *Journal of Medical Humanities* 34.4 (2013): 433-438. Retrieved from <http://link.springer.com/article/10.1007%2Fs10912-013-9250-8#/page-1>
Summary results from ten weekly art museum sessions. Describes the benefits of VTS facilitation and includes a process example.

Mullangi, S. "The synergy of medicine and art in the curriculum." *Acad Med* 2013;88(7):921–923. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/23799442>
Commentary in which a fourth-year medical student argues for the relevance of the arts and humanities and the need to sustain medical students' exposure to these through the medical curriculum.

Naghshineh, Sheila, Janet Hafler, Alexa Miller, Maria Blanco, Stuart Lipsitz, Rachael Dubroff, Shahram Khoshbin, Joel T. Katz. "Formal Art Observation Training Improves Medical Students' Visual Diagnostic Skills." *Journal of General Internal Medicine* 23.7 (2008): 991-997. Doi: [10.1007/s11606-008-0667-0](https://doi.org/10.1007/s11606-008-0667-0) Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2517949/>
Measured results showing an interdisciplinary course improved participants' capacity to make accurate observations of art and physical findings.

Pearson, Rachel. "How Doctors Can Confront Racial Bias in Medicine." *Scientific American* (2015). Retrieved from <https://www.scientificamerican.com/article/how-doctors-can-confront-racial-bias-in-medicine>
Exploration of doctors and "objectivity".

Phillips, P. S. "Running a Life Drawing Class for Pre-Clinical Medical Students." *Medical Education* 34.12 (2000): 1020-1025. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/11123568>
First- and second-year medical students at Southampton University took part in 3-hour life drawing classes with a life drawing tutor and an anatomist.

- Pitman, Bonnie. "The Art of Examination: Medical School and Art Museum Partnerships." *San Antonio Medicine*. (July 2017): 14 – 17. Retrieved from <http://www.bcms.org/SAM/2017/SAMJuly2017/mobile/index.html#p=14>
Dallas Museum of Art and UT Southwestern Medical School partnered program.
- Reilly, Jo Marie, Jeffrey Ring, and Linda Duke. "Visual Thinking Strategies: A New Role for Art in Medical Education." *Family Medicine* 37.4 (2005): 250-252. Retrieved from <http://www.stfm.org/fmhub/fm2005/april/jo250.pdf>
Visual Thinking Strategies methodology and benefits.
- Roberts, H. J., and J. M. Noble. "Education Research: Changing Medical Student Perceptions of Dementia: An Arts-Centered Experience." *Neurology* 85.8 (2015): 739-741. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/26224726>
Columbia University medical students attended a single 90-minute museum-based art-centered program designed to engage patients with dementia and caregivers at three New York Museums.
- Russell, Stephen W. "Improving Observational Skills to Enhance the Clinical Examination." *Medical Clinics of North America*. Volume 102, Issue 3 (May 2018). Pages 495-507. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0025712517302109?via%3Dihub>
On Birmingham Museum of Art observation program.
- Schaff, Pamela B., Suzanne Isken, and Robert M. Tager. "From Contemporary Art to Core Clinical Skills: Observation, Interpretation, and Meaning-Making in a Complex Environment." *Academic Medicine* 86.10 (2011): 1272-1276. Retrieved from http://journals.lww.com/academicmedicine/Fulltext/2011/10000/From_Contemporary_Art_to_Core_Clinical_Skills_.25.aspx
The Keck School of Medicine of the University of Southern California partnered with Los Angeles' Museum of Contemporary Art to design an educational experience to observe, describe, and interpret complex information.
- Shapiro, Joanna, Dean Gianakos, ed., Richard W. Pretorius, Ginney O'Brien Lohr, Niv Mor, Karen H. Zinnerstrom, and Ana T. Blohm. "Is It Impressionism or Is It Medicine?" *Family Medicine* 41.4 (2006): 246-248. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/19343553>
Outlines benefits of close looking exercises.
- Sheets, Hilarie M. "How an Aesthete's Eye Can Help a Doctor's Hand." *New York Times*, (October 30, 2016.) Retrieved from <https://www.nytimes.com/2016/10/30/arts/design/how-an-aesthetes-eye-can-help>
Bonnie Pitman's work in the field of the art of observation.

Stonehocker S, MD, Wood K, MD Candidate (2016), Robinson L, MD Candidate (2015), Brett-MacLean P, PhD. "The Art of Observation: Learning to See". *University of Alberta Health Sciences Journal* (July 2015): Volume 11, Issue 1, 23 – 24. Retrieved from <https://www.researchgate.net/publication/295707047>
University of Alberta Arts & Humanities in Health & Medicine Program.

Wellbery, Caroline, and Rebecca A. McAteer, MD. "The Art of Observation: A Pedagogical Framework." *Academic Medicine* 90.12 (2014): 1624-1630. Retrieved from http://journals.lww.com/academicmedicine/Citation/2015/12000/The_Art_of_Observation_A_Pedagogical_Framework.19.aspx
Resources to enhance scientific observation including a proposed curriculum for an eight-week arts observation seminar.

Williams, Ray. "Honoring the Personal Response: A Strategy for Serving the Public Hunger for Connection." *Journal of Museum Education* 35, no. 1 (2010), 93-101. Retrieved from <http://www.jstor.org/stable/25701644>
Describes an approach to gallery teaching that honors the memories, associations, and emotions that visitors bring to their encounters with works of art.

Zazulak, J., et al. "The Impact of an Arts-Based Programme on the Affective and Cognitive Components of Empathic Development." *Medical Humanities* 41.1 (2015): 69-74. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/25657263>
Health Sciences students were assigned to two learning groups that participated in a visual literacy program at the McMaster Museum of Art in Ontario.

Medical Humanities

Arntfield, Shannon L., Kristen Slesar, Jennifer Dickson, and Rita Charon. "Narrative medicine as a means of training medical students toward residency competencies." *Patient Educ Couns.* June (2013); 91(3): 280–286. doi:10.1016/j.pec.2013.01.014. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3992707/pdf/nihms-572162.pdf>
This study sought to explore the perceived influence of narrative medicine training on clinical skill development of fourth-year medical students, focusing on competencies mandated by ACGME and the RCPSC in areas of communication, collaboration, and professionalism.

- Baruch, J. M. "Doctors as Makers." *Acad Med.* (2017): Jan;92(1):40-44.
doi: 10.1097/ACM.0000000000001312. Retrieved from:
<https://www.ncbi.nlm.nih.gov/pubmed/27438158>
Expanding the traditional role of doctor as science-using, evidence-based practitioner to include that of doctor as a "maker" (creator) and artist.
- Brody, Howard, and Mark Clark. "Narrative Ethics: A Narrative". *Hastings Center Report* Jan-Feb (2014): S7-S11. Retrieved from
<http://onlinelibrary.wiley.com/wol1/doi/10.1002/hast.261/full>
Report on the importance of narrative.
- Campbell, Don. "This is your brain on art: a Q & A with Oshin Vartanian." University of Toronto. (2014). Retrieved from
<https://www.utoronto.ca/news/your-brain-art-q-oshin-vartanian>
The University of Toronto Scarborough's Oshin Vartanian is an expert on the neuroscience of aesthetics and creativity. In a recent study he explored the different ways people observe and appreciate art on a neurological level.
- Campo, Rafael. "'The medical humanities,' for lack of a better term." *Journal of the American Medical Association* (2005): 294(9):1009-1011. Retrieved from
<https://jamanetwork.com/journals/jama/article-abstract/201480>
Observations on practicing medicine in a modern world.
- Carey, Benedict. "In Battle, Hunches Prove to be Valuable." *New York Times*. July 27, 2009. Retrieved from
<https://www.nytimes.com/2009/07/28/health/research/28brain.html>
The brain's ability to observe plays in relation to the battlefield.
- Chapman EN, Kaatz A, Carnes M. "Physicians and Implicit Bias: How Doctors May Unwittingly Perpetuate Health Care Disparities." *JGIM* 28(11):1504-10. Retrieved from
<https://link.springer.com/article/10.1007%2Fs11606-013-2441-1>
Bias-reducing observations and strategies.
- Charon, Rita. "Narrative Medicine: A Model for Empathy, Reflection, Profession, and Trust." *Journal of the American Medical Association* 286.15 (2001): 1897-1902. Retrieved from
<https://pdfs.semanticscholar.org/0204/80aa98e20330762e76c662af31435b5951bd.pdf>
Call to adopt the model of narrative medicine.

- Christenson, Gary. "Why We Need the Arts in Medicine: Studies Show the Incorporating the Arts Can Save Money, Improve the Patient Experience – and Do a Lot More." *Minnesota Medicine* (2011). Retrieved from www.researchgate.net/publication/51622219_Why_we_need_the_arts_in_medicine
The benefits of the arts in healthcare from the director of the mental health clinic at the University of Minnesota's Boynton Health Service and president of the Society for the Arts in Healthcare.
- Collins, Francis S. MD, Fleming Renée, PhD. "Sound Health: An NIH-Kennedy Center Initiative to Explore Music and the Mind". *Journal of the American Medical Association* (June 2, 2017). Retrieved from <https://jamanetwork.com/journals/jama/article-abstract/2630954>
Sound Health: Music and the Mind initiative workshops in which music therapists, experts in the neuroscience of music, and supporters of biomedical research and the arts discuss the current state of the field and identify future research needs.
- De la Croix, Anne, Catharine Rose, Emma Wildig, and Suzy Willson. "Arts-Based Learning in Medical Education: The Students' Perspective." *Medical Education* 45.11 (2011): 1090-1100. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2923.2011.04060.x/abstract>
Analysis of student material about Performing Medicine, a collaborative program between a theatre company and The London School of Medicine and Dentistry.
- De Santis Sara, Giuliani Chiara, Staffoli Claudia, Ferrara Vincenza. "Visual Thinking Strategies in Nursing: a systematic review." In *Senses Sci* 2016; ; 3 (4):297-302
doi: 10.14616/sands-2016-4- 297302. Retrieved from <http://www.sensesandsciences.com/ferrarav3i4>
Systematic Review Visual Thinking Strategies in Nursing
- Elberly JB, "Look. Listen. Receive. Surrendering to the Art." *JAMA* 317(15):1508-1509.
Retrieved from <https://jamanetwork.com/journals/jama/fullarticle/2618599>
How surrendering to an artwork benefits the medical professional.
- Evans, Brooke DiGiovanni, Heather Serrill Johnson, and Carole Krucoff. "Health and Wellness in Our Communities: The Impact of Museums." *Journal of Museum Education* 41.2 (2016): 77-81. Retrieved from www.tandfonline.com/doi/abs/10.1080/10598650.2016.1169733?journalCode=rjme20
How museums play into the social ideas of well-being and health.

Ferrara Vincenza, De Santis Sara, Staffoli Claudia. "Art and medicina: from anatomic studies to Visual Thinking Strategies." in *Senses Sci* 2015; 2 (2):40 -44 doi: 10.14616/sands-2015-2-4044). Retrieved from: http://media.wix.com/ugd/00b67f_89512a6d4fdf434895216f5e044c3c9c.pdf
Review of art observation in medicine.

Fins, Joseph J.; Barbara Pohl; and David J Doukas. "In Praise of the Humanities in Academic Medicine: Values, Metrics, and Ethics in Uncertain Times." *Cambridge Quarterly of Healthcare Ethics* (2013), 22: 355-364. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/23930711>
Importance of humanities in a medical education.

Freedberg, David and Vittorio Gallese. "Motion, Emotion and Empathy in Esthetic Experience." *TRENDS in Cognitive Sciences* 11.5 (2007): 197-203. Retrieved from <http://academiccommons.columbia.edu/catalog/ac%3A125567>
Explores mechanisms that enact empathetic responses.

Grossman, E., et al. "Flipped Classroom on Humanities: Medicine, Narrative and Art." *Medical Education* 49.11 (2015): 1142. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/26494071>
A module was developed in a virtual learning environment based on narrative medicine, with the purpose of discussing key subjects of adolescent health care.

Haidet, P., J. Jarecke, N.E. Adams, H. L. Stuckey, M. J. Green, D. Shapiro, C. R. Teal, and D. R. Wolpaw. "A Guiding Framework to Maximise the Power of the Arts in Medical Education: A Systematic Review and Metasynthesis." *Medical Education* 50.3 (2016): 320-321. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/26896017>
A systematic literature review using the PubMed and ERIC databases; qualitative content analysis of 49 included articles, identifying themes related to educational characteristics, processes and outcomes in arts-based education.

Horowitz, MD, MPH, Carol R.; Anthony L. Suchman, MD; William T. Branch, MD; Richard M. Frankel, PhD. "What Do Doctors Find Meaningful about Their Work?" *Ann Intern Med.* 2003;138(9):772-775. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4303370/pdf/nihms655234.pdf>
Stories and examples on what is meaningful about doctors' practice and to remoralize doctors and help them advocate for their needs more clearly.

Jacobs, Tom. "Future Physician, Get Thee to a Gallery." *Pacific Standard.* (Jan 30, 2018.) Retrieved from <https://psmag.com/news/future-physician-get-thee-to-a-gallery>
The key to a new generation of compassionate, less burnt-out, less biased doctors is in humanities education.

- Katz, Joel T. "Applied medical humanities: Addressing vexing deficits, promoting enduring skills." *Journal of Medical Ethics: Virtual Mentor*. (2014): 16;8:610-13. Retrieved from <http://journalofethics.ama-assn.org/2014/08/medu1-1408.html>
How medical humanities can improve physician skills.
- Kinsella EA & Bidinosti S. (2015). "'I now have a visual image in my mind and it is something I will never forget': An analysis of an arts-informed approach to health professions ethics education." *Advances in Health Sciences Education, Early On-line*: 1-18
Retrieved from: <http://link.springer.com/article/10.1007%2Fs10459-015-9628-7>
This paper reports on a study of an arts informed approach to ethics education in a health professions education context.
- Kirklin, Deborah "The Centre for Medical Humanities, Royal Free and University College Medical School, London, England." *Academic Medicine* 78.10 (2003): 1048-1053. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/14534108>
Overview of the UK Centre for Medical Humanities programs and goals for the field.
- Kumagai, Arno K., and Delese Wear. "'Making Strange': A Role for the Humanities in Medical Education." *Academic Medicine* 89.7 (2014): 973-977. Retrieved from https://www.researchgate.net/publication/261770361_Making_Strange_A_Role_for_the_Humanities_in_Medical_Education
How "estrangement" and "alienation effect" techniques can disrupt be used in order to discover new ways of perceiving and being in the world.
- Lesser, Casey. "Why Med Schools are Requiring Art Classes." *Artsy*. August 21, 2017. <https://www.artsy.net/article/artsy-editorial-med-schools-requiring-art-classes>
Overview of current programs and benefits.
- Lyall, S. (2016). "Off the Beat and Into a Museum: Art Helps Police Officers Learn to Look." *The New York Times*. New York. April 26, 2016. <https://www.nytimes.com/2016/04/27/arts/design/art-helps-police-officers-learn-to-look.html>
Article on the Met's program with police officers and art of observation.
- Ness, Roberta. B. "Commentary: Teaching Creativity and Innovative Thinking in Medicine and the Health Sciences." *Academic Medicine* 86.10 (2011): 1201-1203. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/21955715>
New methods for enhancing science students' innovative thinking, in a pilot program developed to teach innovative thinking.

- Nordell, Jessica. "A Fix for Gender Bias in Health Care? Check." *New York Times*. Jan. 11, 2017. Retrieved from www.nytimes.com/2017/01/11/opinion/a-fix-for-gender-bias-in-health-care-check.html
How a computerized checklist that requires doctors to review blood clot prevention for every patient helped to eliminate bias.
- Ofri, Danielle. "Medical Humanities: The Rx for Uncertainty?" *Academic Medicine*. Vol. 92 (12) (2017.) Retrieved from <https://insights.ovid.com/pubmed?pmid=28991847>
The medical humanities specialize in this ambiguity and uncertainty, which are hallmarks of actual clinical practice but rarely addressed in medical education.
- Ousager J.; Johannessen H. "Humanities in undergraduate medical education: a literature review." *Acad Med*. 2010; 85(6):988–98. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/20505399>
Medline was searched for publications concerning the humanities in undergraduate medical education appearing from January 2000 to December 2008.
- Pearson, Rachel. "How Doctors Can Confront Racial Bias in Medicine," *Scientific American*. Retrieved from <http://www.scientificamerican.com/article/how-doctors-can-confront-racial-bias-in-medicine/>
Commonsense measures to tackle bias in care.
- Perry, Mark, Nicola Maffulli, Suzy Willson, and Dylan Morrissey. "The Effectiveness of Arts-Based Interventions in Medical Education: A Literature Review." *Medical Education* 45.2 (2011): 141-148. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2923.2010.03848.x/abstract>
The MEDLINE, Google Scholar and ISI Web of Knowledge databases were searched for published articles on studies that have attempted to evaluate the efficacy of an arts-based approach in undergraduate medical education; one mixed, 10 qualitative and four quantitative studies were reviewed.
- Pitman, Bonnie. "Pharma Art - Abstract Medication in the Work of Beverly Fishman." *Journal of the American Medical Association* Volume 319, Number 4 (Jan 2018): 326-328. Retrieved from <https://jamanetwork.com/journals/jama/article-abstract/2670231>
Work of visual artist Beverly Fishman as it relates to medicine and the pharmaceutical field.

Reiss, Helen. "Are Empathic Doctors Seen as More Competent?" *Greater Good Magazine, The Greater Good Science Center at the University of California, Berkeley*. (2017). Retrieved from https://greatergood.berkeley.edu/article/item/are_empathic_doctors_seen_as_more_competent
How expectations of empathy can affect perceptions of competency and credibility.

Rian J, Hammer R. "The practical application of narrative medicine at Mayo Clinic: imagining the scaffold of a worthy house." *Culture, medicine and psychiatry*. 2013;37:670-680. <https://www.ncbi.nlm.nih.gov/pubmed/24130048>
Health care institutions seeking to build a legacy of leadership in empathic patient care, narrative--employed in mentoring physicians in training and in establishing strong, dialogic relationships with patients and colleagues--should serve as a central strategy, or scaffold.

Shapiro, Johanna. "Walking a Mile in Their Patients' Shoes: Empathy and Othering in Medical Students' Education." *Philosophy, Ethics, and Humanities in Medicine* (2008). 12. 3:10. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2278157/>
Explores the complexities and difficulties for medical education to promote and medical students to internalize empathy.

Shapiro, Johanna, and Joel Shallit. "A Night at the Museum—Helping Residents “See” Their Patients." *Virtual Mentor* 16.8 (2014): 599-603. Retrieved from <http://journalofethics.ama-assn.org/2014/08/ecas2-1408.html>
Addresses concerns for residents' potential negativity on humanities-based education.

Simpkin, A. and RM Schwartzstein. "Tolerating Uncertainty – The Next Medical Revolution?" *New England Journal of Medicine*. 375(18): (2016.) Retrieved from <https://www.nejm.org/doi/pdf/10.1056/NEJMp1606402>
Belief that cultivating a tolerance of uncertainty, and addressing the barriers to this goal for physicians, patients, and the health care system, will require a revolutionary change in medicine's cultural attitude and approach to uncertainty.

Vergheze, Abraham. "The Importance Of Being." *Health Affairs* 35.10 (2016): 1924-1927. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/27702966>
Good patient care is found in being truly present with patients.

Watson, K. "Perspective: Serious Play: Teaching Medical Skills with Improvisational Theater Techniques." *Academic Medicine* 86.10 (2011): 1260-1265. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/21869654>
Theater techniques in medical skill teaching.

Wummel, Jessica "Medical Students Create Art Depicting Doctor-Patient Relationship" *Medical Student Research Journal* Dec. 31, 2014. Retrieved from <http://msrj.chm.msu.edu/medstudentart/>
Each fall, the first year medical students at Michigan State University COLLEGE OF Human Medicine are asked to create an art project for their "Doctor/Patient Relationship" course.

Research and Evaluation

Chapman, Mimi V. et al. "Making a Difference in Medical Trainees' Attitudes toward Latino Patients: A Pilot Study of an Intervention to Modify Implicit and Explicit Attitudes." *Social science & medicine* (1982) 199 (2018): 202–208. PMC. Web. (24 July 2018.) Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/28532893>
Findings of a pilot test of Yo Veo Salud (I See Health), an intervention designed to positively modify attitudes toward Latinos among medical trainees.

Coppola, Susan; Miao, Adrienne F.; Allmendinger, Carolyn; and Zhang, Wanqing. "Art in Occupational Therapy Education: An Exploratory Mixed-Methods Study of an Arts-Based Module," *The Open Journal of Occupational Therapy*: Vol. 5: Iss. 4, Article 8. (2017) Retrieved from <https://doi.org/10.15453/2168-6408.1320>
Describes the effects of an art-based module in an entry-level curriculum for occupational therapy (OT) students in which an exploratory pilot study investigated the feasibility of a group-administered visual art-based module for 20 first-year OT graduate students with the Ackland Art Museum.

Dennhardt, Silke, Tavis Apramian, Lorelei Lingard, Nazi Torabi, and Shannon Arntfield. "Rethinking Research in the Medical Humanities: A Scoping Review and Narrative Synthesis of Quantitative Outcome Studies." *Medical Education* 50.3 (2016): 285-299. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/medu.12812/abstract>
Review and analysis of 62 studies using quantitative evaluation methods.

Epstein, David & Gladwell, Malcolm. (2018). "The Temin Effect." *Ophthalmology*. 125. 2-3.

Retrieved from

<https://doi.org/10.1016/j.ophtha.2017.11.008>

Commentary on the Gurwin et al 2018 study in which a group of medical students at the University of Pennsylvania were given six 90-minute training sessions at the Philadelphia Museum of Art.

Ferrara Vincenza, De Santis Sara, Giuliani Chiara, et al., "L'Arte dell'osservazione, dall'opera artistica alla diagnosi Le prime esperienze in Sapienza Università di Roma, a Medicina e Chirurgia", *Medicina e Chirurgia*, 72: 3269-3273, 2016.

DOI: 10.4487/medchir2016-72-2. Retrieved from

<http://www.quaderni-conferenze-medicina.it/larte-dellosservazione-dallopera-artistica-alla-diagnosi-le-prime-esperienze-in-sapienza-universita-di-roma-a-medicina-e-chirurgia/>

Qualitative Results of Art elective in collaboration between Sapienza University and Art specialist group (Intro English, article Italian)

Gurwin, Jaclyn; Karen E. Revere, Suzannah Niepold, Barbara Bassett, Rebecca Mitchell, Stephanie Davidson, Horace DeLisser, Gil Binenbaum. "A Randomized Controlled Study of Art Observation Training to Improve Medical Student Ophthalmology Skills." *Ophthalmology*, Volume 125, Issue 1, 2018, Pages 8-14, ISSN 0161-6420. Retrieved from

<https://doi.org/10.1016/j.ophtha.2017.06.031>

<http://www.sciencedirect.com/science/article/pii/S0161642017317086>

Randomized, single-masked, controlled trial to evaluate the effects of formal observation training in the visual arts on the general and ophthalmologic observational skills of medical students.

Honan, Shealy, Fennie, Duffy, Friedlaender, Del Vecchio. "Looking Is Not Seeing and Listening Is Not Hearing: A Replication Study with Accelerated BSN students." *Journal of Professional Nursing*, May 2016. Retrieved from

<http://dx.doi.org/10.1016/j.profnurs.2016.05.002>

Study found that auscultative and observational abilities of soon-to-be Registered Nurses (RNs) improved with visual training and music training.

Jasani, Sona K., and Norma S. Saks. "Utilizing Visual Art to Enhance Observation Skills of Medicine." *Medical Teacher* 35.7 (2013): 1327-1331. Retrieved from

<http://www.pubfacts.com/detail/23641917/Utilizing-visual-art-to-enhance-the-clinical-observation-skills-of-medical-students>

Case study on a pre- and post-test and evaluation survey developed for a three-hour exercise presented to medical students just before starting clerkships.

- Keaton A. Fletcher, Wendy L. Bedwell, Megan Voeller, Dolores Coe, Merry Lynn Morris, Bruce Marsh & Cheryl Zambroski. "The Art of Critical Thinking in Nursing: a Novel Multi-modal Humanities Curriculum." *Medical Science Educator*. Vol 28, No 1. Jan 2018. Retrieved from https://www.academia.edu/36261293/The_Art_of_Critical_Thinking_in_Nursing_a_Novel_Multi-modal_Humanities_Curriculum
Study results of art of observation for nurses course.
- Kirklin, Deborah, Jane Duncan, Sandy McBride, Sam Hunt, and Mark Griffin. "A Cluster Design Controlled Trial of Arts-Based Observational Skills Training in Primary Care." *Medical Education* 41.4 (2007): 395-401. Retrieved from <http://scholar.qsensei.com/content/136wg7>
Controlled trial involving 42 general practitioners and 26 primary care nurses in 12 primary care practices in London.
- Klugman, Craig M., Diana Beckmann-Mendez. "One Thousand Words: Evaluating an Interdisciplinary Art Education Program." *Journal of Nursing Education* 54.4 (2015): 220-223. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/25826763>
Evaluating the success of Art Rounds for nursing students.
- Klugman, Craig M.; Jennifer Peel; Diana Beckmann-Mendez. "Art Rounds: Teaching Interprofessional Students Visual Thinking Strategies at One School." *Academic Medicine* 86 (10): 2011. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/21869658>
Study at University of Texas Health Science Center San Antonio shows students increased the amount of time they spent looking at patients and patient images, and other skills after Art Rounds course.
- Lesser, Casey. "Study Finds Med Students Who Make Time for Art Have More Empathy." *Artsy*. (Jan 30, 2018.) Retrieved from <https://www.artsy.net/article/artsy-editorial-med-students-time-art-empathy>
Further commentary on the 2018 study "Medical Students' Exposure to the Humanities Correlates with Positive Personal Qualities and Reduced Burnout: A Multi-Institutional U.S. Survey" (Mangione, etc.).

- Mangione, S; Chakraborti, C; Staltari, G; Harrison, R; Tunkel, AR; Liou, KT; Cerceo, E; Voeller, M; Bedwell, WL; Fletcher, K; Kahn, MJ. "Medical Students' Exposure to the Humanities Correlates with Positive Personal Qualities and Reduced Burnout: A Multi-Institutional U.S. Survey." Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/29380213>
Online survey to test the hypothesis that medical students with higher exposure to the humanities would report higher levels of positive physician qualities (e.g., wisdom, empathy, self-efficacy, emotional appraisal, spatial skills), while reporting lower levels of negative qualities that are detrimental to physician well-being (e.g., intolerance of ambiguity, physical fatigue, emotional exhaustion, and cognitive weariness).
- Moorman, Margaret. "The Meaning of Visual Thinking Strategies for Nursing Students." *Humanities* 4.4 (2015): 748-759. Retrieved from <http://www.mdpi.com/2076-0787/4/4/748/htm>
Research study sought to answer the questions: What meaning does VTS have for nursing students? How do nursing students use it in caring for patients?
- Pellico, Linda N., Linda Friedlaender, and Kristopher P. Fennie. "Looking Is Not Seeing: Using Art to Improve Observational Skills." *Journal of Nursing Education* 48.11 (2009): 648-653. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/19731892>
Study in which half of a class of non-nurse college graduates entering a master's degree program was assigned to a museum experience, whereas the other half received traditional teaching methods.
- Shapiro, J., L. Rucker, and J. Beck. "Training the Clinical Eye and Mind: Using the Arts to Develop Medical Students' Observational and Pattern Recognition Skills." *Medical Education* 40.3 (2006): 263-268. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16483329>
Clinical qualitative study in which students appeared to hone observation skills and improve pattern recognition.
- Zareva, Teodora. "How 'Artful Thinking' Can Improve Your Visual Intelligence." Big Think. Web article. Retrieved from <https://bigthink.com/design-for-good/how-artful-thinking-can-improve-your-visual-intelligence>
Article on study of observation sessions at the Philadelphia Museum of Art where facilitators used the "Artful Thinking" approach, which focuses on introspection and observation before interpretation.

Books and Reports

2016 Journal of Museum Education Reader Guide

<http://museumeducation.info/jme/reader-guide>

Acton, Mary. *Learning to Look at Paintings*. London: New York, 1997. Print.

Anderson, Julie Johnstone, Emm Barnes, and Emma Shackleton. *The Art of Medicine: Over 2000 Years of Medicine in Our Lives*. London: Wellcome Collection, 2011. Print.

Andrè, Christophe, and Selous Trista. *Looking at Mindfulness: Twenty-Five Paintings to Change the Way You Live*. New York: Blue Rider Press, 2016. Print.

Arnheim, Rudolf. *Art and Visual Perception: A Psychology of the Creative Eye*. New version, expanded and rev. ed. Berkeley: University of California Press, 1974. Print.

“Arts, Health, and Well-Being in America”: A White Paper”

<https://thenoah.net/about/arts-health-and-well-being-in-america-a-white-paper/>

NOAH white paper which was unveiled in a print version at the inaugural Arts in Health conference for the organization in September 2017.

Berg, Gerry. *The Visual Arts and Medical Education*. Carbondale, IL: Southern Illinois University Press; 1994. Print.

Berger, John. *Ways of Seeing*. British Broadcasting and Penguin Books, 1972. Print.

Berger, John. *About Looking*. 1st American ed. New York: Pantheon Books, 1980. Print.

Bordin, Giorgio, and Laura Polo D'Ambrosio. *Medicine in Art. A Guide to Imagery; Variation: A Guide to Imagery*. Los Angeles: J Paul Getty Museum, 2010. Print.

Burnham, Rika, and Kai-Ke Elliott. *Teaching in the Art Museum: Interpretation as Experience*. Los Angeles: J Paul Getty Museum, 2011. Print.

Bynum, William and Hellen, Editors. *Great Discoveries in Medicine*. New York: Thames and Hudson, 2011. Print.

Carmichael, Ann G. and Richard M. Ratzan, Editors. *Medicine: A Treasury of Art and Literature*. New York: Hugh Lauter Levin Associates, Inc., 1991. Print.

Csikszentmihalyi, Mihaly, and Rick Emery Robinson. *The Art of Seeing: An Interpretation of the Aesthetic Encounter*. Malibu, Calif.: The Getty Center for Education in the Arts, 1990. Print.

Dittrich, Lisa R. *Ten Years of Medicine and the Arts: 100 Selections from Academic Medicine, 1991-2001*. Washington, D.C.: Association of American Medical Colleges, 2001. Print.

Donnie, E.S., Editor. *The Healing Arts, An Oxford Illustrated Anthology*. Oxford England, Oxford University Press, 1994. Print.

Elkins, James. *How to Use Your Eyes*. New York: Routledge, 2000. Print.

Emery, Alan E. H., and Marcia L. H. Emery. *Medicine and Art*. London: Royal Society of Medicine, 2002. Print.

Goleman, Daniel, and Richard J. Davidson. "Altered Traits: Science Reveals How Meditation Changes Your Mind, Brain, and Body." New York: Avery, 2017. Print.

Groopman, Jerome E., M.D. "The Eye of the Beholder." *How Doctors Think*. Boston: Houghton Mifflin, 2007. 177-202. Print.

Groopman, Jerome, E., M.D. and Hartzband, Pamela, M.D. "Your Medical Mind: How to Decide What is Right for You." The Penguin Press. New York. 2011. Print

Hailey, Dabney, Miller, Alexa, & Yenawine, Philip. "Understanding visual literacy: The visual thinking strategies approach." In D. M. Baylen, & A. D'Alba (eds.), *Essentials of teaching and integrating visual and media literacy — Visualizing learning*. New York: Springer. (2015.) Print.
https://link.springer.com/chapter/10.1007/978-3-319-05837-5_3
Chapter that includes substantial sections on VTS's applications in medicine, including a literature review and a discussion of assessment.

Hanna, PhD, MFA, Gay with Judy Rollins, PhD, RN and Lorie Lewis, MA. "Arts in Medicine Literature Review". February 2017.
<https://www.giarts.org/sites/default/files/2017-02-Arts-Medicine-Literature-Review.pdf>

Hepler, Lindsey. *Changing Views: Art, Contemplation & Wellness*. Charlottesville, VA: OpenGrounds, University of Virginia, 2015. Print.

Herman, Amy. *Visual Intelligence: Sharpen Your Perception, Change Your Life*. New York, New York: Houghton Mifflin Harcourt, 2016. Print.

Hershman, W, Yadavalli, G and Miller, A. "Cultivating Fresh Eyes: An Arts-Based Workshop Series for Clinical Faculty." chapter in *Peterkin, A and Brett-McLean, P, Keeping Reflection Fresh: Top Educators Share Their Innovations in Health Professional Education*, Kent State Press. 2016. Print.

Horowitz, Alexandra. *On Looking: Eleven Walks with Expert Eyes*. New York: Scribner 2013. Print.

Jauhar, Sandeep, M.D. "Doctored: The Disillusionment of an American Physician." Farrar, Straus and Giroux, New York. 2014. Print.

Kabat-Zinn, Jon. "Arriving at Your Own Door: 108 Lessons in Mindfulness." Hachette Books. 2007. Print. Kabat-Zinn, Jon. "Full Catastrophe Living." Random House. 2013. Print.

Kalanithi, Paul, M.D. "When Breath Becomes Air." Random House. 2016. Print.

Kandel, Eric R. "Reductionism in Art and Brain Science: Bridging the Two Cultures." New York: Columbia University Press. 2016. Print.

Krawczyk, Daniel. "Reasoning: The Neuroscience of How We Think." Academic Press. 2017. Print.

Livingstone, Margaret Hubel. *Vision and Art: The Biology of Seeing*. Revised and expanded edition. ed. New York: Abrams, 2014. Print.

O'Reilly, Sally. *The Body in Contemporary Art*. New York: Thames & Hudson, 2009. Print.

Ofri, Danielle M.D. "What Patients Say, What Doctors Hear." Beacon Press, Boston. 2017. Print.

Ofri, Danielle, M.D. "What Doctors Feel. What Doctors Feel." Beacon Press, Boston. 2013. Print.

Pitman, Bonnie, and Ellen Hirzy. *Ignite the Power of Art: Advancing Visitor Engagement in Museums*. New Haven: Yale University Press, 2010. Print.

Pitman, Bonnie. "The Art of Examination: Art Museums and Medical School Partnerships Forum Report". 2016.

<https://www.utdallas.edu/arthistory/medicine/moma-2016/documents/Report.pdf>

Sanders, Lisa, M.D. "Every Patient Tells a Story: Medical Mysteries and the Art of Diagnosis." Potter/TenSpeed/Harmony. 2009. Print.

Seifter, Harvey. "Proof of Impact: Arts-Based Learning to Improvements in Creative Thinking Skills, Collaborative Behaviors and Innovation Outcomes". New York, 2016. *The Art of Science Learning*.
<http://www.artofsciencelearning.org/phase2-research-findings/>

Silverman, Lois H. *The Social Work of Museums*. New York: Routledge, 2010. Print.

Tishman, Shari. *Slow Looking: The Art and Practice of Learning Through Observation*. New York: Routledge, 2018. Print.

Yenawine, Philip. *Visual Thinking Strategies: Using Art to Deepen Learning across School Disciplines*. Cambridge, Mass.: Harvard Education Press, 2013. Print.

Video, Podcast, and Other Media

"Empathy the Human Connection to Patient Care." Cleveland Clinic. Youtube. Posted February 2013.
https://www.youtube.com/watch?v=cDDWvj_q-o8
Patient care is more than just healing -- it's building a connection that encompasses mind, body and soul.

"Episode 1: The Art of Noticing". Itunes podcast. Released 2/8/2016
<https://medicine.yale.edu/alumni/ysmnews/drdr/artofnoticing.aspx>
Yale physicians Jacqueline Dolev and Irwin M. Braverman explain how trips to a museum improved students' powers of observation.

Gawande, Atul. "How Do We Heal Medicine?" TED Talk. Posted February 2012.
https://www.ted.com/talks/atul_gawande_how_do_we_heal_medicine
Doctor and writer Atul Gawande suggests we take a step back and look at new ways to do medicine -- with fewer cowboys and more pit crews.

Herman, Amy. "How Art Can Help You Analyze."

<https://ed.ted.com/lessons/how-art-can-help-you-analyze-amy-e-herman>

Amy E. Herman explains why art historical training can prepare you for real world investigation.

Miller, BJ. "What Really Matters at the End of Life." TED Talk. Posted March 2015.

https://www.ted.com/talks/bj_miller_what_really_matters_at_the_end_of_life

BJ Miller is a hospice and palliative medicine physician who thinks deeply about how to create a dignified, graceful end of life for his patients.

"No. 47: The Latest Requirement for Med Students?" The Artsy Podcast. Released 9/7/2017.

<https://soundcloud.com/artsypodcast/no-47-the-latest-requirement-for-med-students-studio-art>

Columbia University's Dr. Delphine Taylor discusses how life-drawing classes or visits to the Met help her students tackle ambiguity and humanize their patients.

Verghese, Abraham. "A Doctor's Touch." Posted July 2011.

https://www.ted.com/talks/abraham_verghese_a_doctor_s_touch

Physician and writer Abraham Verghese describes our strange new world where patients are merely data points, and calls for a return to the traditional one-on-one physical exam.

New sources as of August, 2018