

Art Museum and Medical School Partnerships

Program Descriptions

July 2019

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

This is the fourth year presenting documentation on collaborative programs developed by art museums partnered with medical schools that cultivate medical students' skills in rigorous observation, critical thinking, communication, team-building, empathy in relation to diagnostic practices.

This document contains information on the art museum and medical school partnership, key personnel, brief descriptions of the program, and additional resources. The listing for 2019 includes 125+ programs as provided by the institutions (new information in this edition is noted in red). This year continues to expand to other medical-related programs.

The collection of program descriptions originated from participating art museums and medical schools who attended the first gathering of the field: "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. One recommendation from the Forum is to continue to support the network of collaborators and partnerships between art museums and medical schools by providing and disseminating current information.

Syllabi and additional resources are available through direct communication with the facilitator contact. There is also a TAB on the UT Dallas Edith O'Donnell Institute of Art History, Art & Medicine website that includes syllabi:

<https://www.utdallas.edu/arhistory/medicine/syllabi/index.html>.

We gratefully acknowledge the many contributors to this document for sharing this information.

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How to use this document

This is a self-reported, unedited collection of program descriptions compiled during the development of the *Art of Examination: Art Museum and Medical School Partnerships* Forum in 2016, and has expanded over the years to include new programs and partnerships.

Intended as an introduction to the various programs of art museum and medical school partnerships, this document is organized alphabetically by art museum or, as applicable, by medical school.

This document is searchable by subject matter including art museum, medical school, topic (i.e. research & evaluation, art making, team building, empathy), program structure (i.e. first-year medical students, elective course), and additional key words.

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**New 2019*

Ackland Art Museum

Chapel Hill, NC

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UNC-Chapel Hill – Schools of Medicine, Nursing, Dentistry, Public Health, Pharmacy, and Social Work

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With faculty in the University's health affairs units, the Ackland Museum designs and implements art-based class sessions, held in the galleries or in the classroom, tailored to support faculty learning objectives, usually focused on observation, communication, and cultural awareness. Regular partners include faculty who teach required courses for graduate programs in Occupational Therapy, Social Work, Nutrition, and Nursing, among others.

In each instance, we develop an interaction that supports the faculty member's individual learning goals and makes good use of individual works – or types of works – in the Ackland's collection. Often something developed for one faculty member also works well for another faculty member. Faculty members handle the evaluation of the program within the context of their course evaluations; however, feedback is received from the faculty members. We consider repeat visits to be another form of endorsement of the program.

Observational skills

Observational skills that connect with the need to develop skills and abilities associated with diagnostics

- First year Medical Students
Working together with faculty in the Medical School, we developed a program for 100 first-year Medical students that focuses on learning observational skills and piloted it in

January, 2015. Response by the students and faculty was extremely favorable; we are investigating the best ways to continue this experience during the current year.

- **Nutrition** (a department in the School of Public Health)
The professor for this course came to us in fall 2014 seeking help in how to refine her students' ability to write precise reports and recommendations about patients they saw in their practicum work; feedback from the students' practicum instructors indicated that it was difficult to understand the students' recommendations. The class came to the museum during a class session in which they practiced observation and communication skills using works of art. The professor reported that the students' next written assignments were significant improvements – their practicum instructors all remarked on how much clearer they were.
- **Nursing**
The professor for this course designed an art-based activity for her online course of 80 students to carry out working in groups of 7-8 students each; we have done this activity each year for the past 3 years, principally providing logistical support for the activity of her design. Students focus on an assigned work of art to practice observational and analytical skills. We are working with her to refine the activity and continue to develop its potential to support her teaching goals.

Cultural sensitivity/cultural awareness - health professionals need to be able to treat diverse populations. At the Ackland, this approach is heavily indebted to the lessons learned while working on our Five Faiths Project, initiative in the 1990s by Ray Williams, who is now Director of Education at the Blanton Museum at UT-Austin. <http://ackland.org/five-faiths-project/>

- **Occupational Therapy** (a department in the School of Medicine)
To prepare students both to notice the nuances of their clients' conditions and environments and also to practice clear, respectful, and effective communication with the widest variety of clients, we designed a class session in which the students examined and analyzed a selection of works of art chosen to represent a range of cultural traditions.

Related Research Project: based on the success of these class sessions, the professor and one of her graduate students designed a research project to assess OT students' perceptions of the value of incorporating art in their curriculum; I am a co-investigator in this project.

- **Social Work**

One professor in particular from the School of Social Work has been a galvanizing force in our work with this school and with others in a network of health affairs professions across campus. She became convinced years ago through working with the Ackland that works of art were powerfully effective at helping students perceive, understand, and overcome their own biases and assumptions – improving their ability to function effectively at social workers in varied contexts. For these classes, students examine and discuss selected works of art that introduce them to varied cultural traditions and perspectives and consider their own responses to those works of art.

Related Research Project: Mimi Chapman leads an interdisciplinary research team (including Public Health, Medicine, Psychology, and Social Work as well) exploring the potential for art to improve understanding and communication between health providers and patients. This team had pilot funding from the NEH and reapplied for additional funding.

Envisioning Health/Yo Veo Salud is a training experience for medical residents designed to modify implicit and explicit biases toward Latino patients. Using long-form photo-documentary and patient-generated images, combined with data and group reflection, we have pilot findings that demonstrate that this method can modify both implicit and explicit attitudes. Our next steps are to test the work with a larger sample and a wider variety of medical resident specialties. Thus far, the program has been delivered to 1st and 3rd year pediatric residents. This project has brought together a trans-disciplinary team including social work, art history, public health, social psychology, and medicine to create and test this intervention and to begin to understand the mechanisms by which visual interventions with health care providers may improve the patient-provider relationship for adolescents of color.

https://ssw.unc.edu/about/news/latino_healthcare_study

Collaborative skills

- **Interdisciplinary Certificate in Aging** (an interdisciplinary program including the Schools of Social Work, Pharmacy, Public Health, Medicine, and Information and Library Science, and focused on students planning careers working with aging populations)

The emphasis of the course we worked with in this program is on helping students from these diverse disciplines practice the skills they will need to work in interdisciplinary health care teams. We examined, analyzed, and interpreted selected works in the Ackland's collection and discussed how each student's educational background shaped the kinds of things he/she noticed first (or didn't notice) in the works of art – and what additional insights they got when they listened to the perspectives of students from other disciplines. We also did a drawing and describing exercise with this group (as

described above with Medical and Nutrition students), and these students told us it offered them valuable insight into what their patients experience when they are trying to come to terms with a diagnosis they can't see and don't yet understand.

Related Research Project: based on the potential for art to enhance interdisciplinary communication and collaborative skills, a professor in Public Health designed a research project that investigated the efficacy of discussing works of art on improving work teams' communication skills. Carolyn Allmendinger was a co-investigator on this project, as was the director of education at the University's translational clinical science unit – that unit also provided financial support for the project.

Resources:

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.

Art Institute of Chicago

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Rush Medical College

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An 18-session elective offered to first year medical students, this course examines how empathy, observation and interpretation impact and are impacted by one's experiences of visual arts, performing arts, and literature. Particular attention is paid to the ways in which observation and engagement with the arts parallel observation and engagement in patient care. Individual sessions focus on the role of perspective in describing medical events, differences and similarities in observational skills in the arts and medicine, and the use of movement and drama exercises to examine how one experiences and is experienced by others. Course activities include gallery sessions, movement activities, acting exercises and reading and writing about selected works of literature.

Title: Humanities in Medicine

Length: 18 sessions

Summary: The first four sessions at the Art Institute of Chicago are led by Jay Behel engaging students with literary texts. Concentrating on the narratives in these works, students reflect on the emotional and clinical perspectives created by the author, and discuss their own experiences with illness, death, and grieving. Four additional sessions at the museum are led in collaboration with a museum educator, articulating perspectives and identifying bias, reflecting on cultural differences and similarities, and honing observational and reporting skills. Two subsequent 4-week sessions with movement and theater faculty extend the student's experience through physical action and emotional response.

Number of Students Served: 15-18 per semester

Evaluation: Attendance and active participation at all sessions, submission of written assignments, and submission and discussion of journal entries is required to pass. Students evaluate the program at its conclusion.

Resources:

Edson, M. (1999). *Wit*. Dramatists Play Service, New York.

Moore, L. (1998). *Birds of America*. Vintage, New York.

Porter, K.A. (1939, reprinted 1990). *Pale Horse, Pale Rider*. Houghton Mifflin Harcourt, NY

Stone, J. (2004). *Music from Apartment 8: New and Selected Poems*.

Blanton Museum of Art

Austin, TX

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(For Family Medicine Residents)

Clarissa Johnston, MD and Alejandro Moreno, MD

(For First Year Medical Students)

Title: Medical Humanities

Length: 1.5 to 2 hour sessions 3-4 times per year

Summary: 1st year medical students will make 4 two-hour visits to the Blanton: Observation Skills; Empathy; Avoiding Burnout; End-of-Life issues.

Family Medicine Residents come to the Blanton Museum for 1.5 to 2 hour sessions 3-4 times per year for experiences designed to hone observation skills, learn about uncovering hidden agendas, focus on self-care, connect to health care disparities, build community and encourage professional reflection.

Number of Students Served: 10-15 per semester

Cantor Arts Center at Stanford

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"The Art of Observation: Enhancing Clinical Skills through Visual Analysis," is supported by the Bioethics and Medical Humanities Scholarly Concentration. The practice of close observation is the primary goal of the winter quarter course, which was developed by Genna Braverman, a medical student; Yinshi Lerman-Tan, a graduate student in art history; Audrey Shafer, MD, a professor of anesthesiology, perioperative and pain medicine and director of the Medicine and the Muse Program in medical humanities; Sam Rodriguez, MD, a clinical instructor in anesthesiology, perioperative and pain medicine; and Issa Lampe, curator of education at the Cantor Center. Shafer and Rodriguez are the course directors.

The clinical correlate hour of the course involves Stanford medical faculty members taking the lessons of the art gallery sessions and applying them to the clinical setting. (Each of the students also had the opportunity to go on rounds of a hospital ward with one of the participating physicians to apply their observation skills to real patients.) Topics of the course included narrative, body in motion, skin and tone, and death, with doctors from the fields of family medicine, orthopedics, dermatology, pathology and anesthesiology leading each session.

Title: The Art of Observation: Enhancing Clinical Skills through Visual Analysis

Length: 4 sessions, each session 2.5 h

Number of students served: 12-15

Summary:

This medical school elective will offer students the opportunity to sharpen their observational and descriptive skills. Each week, students will spend the first hour of the session observing works of art alongside art history graduate students at the Cantor Arts Center.

The second hour will be dedicated to working with medical school faculty to apply visual skills to the clinical realm. The course will also include an optional wards session, which will offer students the opportunity to have an applied clinical experience under the guidance of a faculty member.

- Elective course for preclinical medical students on observation skills taught by PhD grad students in Art History, with clinical correlates by medical faculty; 4 sessions
- breakout sessions for medical student humanities/ethics concentrators held at museums
- poetry and writers forum events showcasing writing by physicians and medical trainees, held at museums, including ekphrastic poetry; 1-2 events/year
- occasional collaborative interdisciplinary events such as PTSD & art, held at museums, which attract mixed audiences including students

Evaluation: course evaluation at end of quarter

Resources:

<http://med.stanford.edu/news/all-news/2015/03/honing-the-art-of-observation-and-observing-art.html>

Medicine & the Muse Program website: <http://med.stanford.edu/medicineandthemuse.html>

Carnegie Museum of Art & Andy Warhol Museum

Pittsburgh, PA

Carnegie Museum of Art collaborates with the Andy Warhol Museum

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Medical School Partner

University of Pittsburgh School of Medicine

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The Warhol and the Carnegie Museum of Art offer joint courses for 1st and 2nd year Medical Students at the University of Pittsburgh. Art and Medicine is a 4, 2-hour sessions guides students in observation and interpretation skills. There are two sessions in each museum's galleries. On occasion, have included "under the skin" session with conservator covering when observation must be augmented with "diagnostic testing" to achieve more complete understanding. Drawing for Seeing and Understanding is four, 2-hour sessions incorporating drawing from the draped and undraped model with observation, discussion and drawing from artwork in galleries at CMOA.

Title: Art and Medicine (Course Director Marilyn M. Russell)

Length: April 9, 16, 23, 30 Times: 1-3pm

Number of Students Served: 6-15 students each mini elective since 2007

Summary: It is a little known fact that a 19th century doctor, Giovanni Morelli, invented modern art connoisseurship by adapting the methods of comparative anatomy to create a scientific approach to art. Today, modern connoisseurship and modern medicine blend art and science in the observation and analysis of visual information, as well as in interpreting the expressive languages of the human body.

To explore these ideas, museum educators and curators will lead students through a series of observations, discussions, and exercises based on works of art in the galleries at Carnegie Museum of Art and at The Andy Warhol Museum. This 4-session course uses art to hone visual acuity skills while increasing awareness of factors that influence what we see, how we interpret it, and subsequent assessments, evaluations, and decisions. Throughout the course, implications for medical practice will be considered.

Course Objectives:

- To enhance participants' abilities for careful observation, description, and interpretation of visual information;
- To gain an awareness and understanding of conscious and unconscious factors that influence observation and interpretation of visual information and the implications for decision making;
- To engage in thoughtful consideration of some implications of visual learning for medical practice;
- To deepen awareness of the arts as a vehicle for understanding the human condition.

Resources: Article published in *Carnegie Magazine* about pilot program for 2015 classes:
www.carnegiemuseums.org/cmp/cmag/article

...

Title: Drawing for Seeing and Understanding: the Human Figure

Length: Thursdays - Jan 15, 22 and Feb 12, 19 Time: 1-3 pm

Number of Students Served: 6-12 students in each mini elective since 2007

Summary: This four-session life drawing course is presented in response to interest expressed by students in previous Art and Medicine classes. The ability to draw depends in large measure on the ability to see and this skill, rather than developing artistic talent, is the theme of the course. Students will engage in thoughtful and trained observation focusing on the relationship between the eye, the mind, and the hand in depicting the three dimensional human form on the two-dimensional surface of the paper. Instructors will lead students in observation-based gallery discussions and gallery sketching and in studio drawing exercises from the live model. Instructors will describe and demonstrate drawing techniques (such as gesture drawing, contour drawing, and effective use of light and shadow) and guide students in application of these and other techniques using a variety of drawing materials.

Evaluation: Evaluation done by University of Pittsburgh Medical School exclusively

Resources: Course outlines and evaluation materials available from museum professional

Cincinnati Art Museum

Cincinnati, OH

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Medical Partner

Family Medicine Department at UC

CAM did a class with the Family Medicine Department at UC for years (last one in 2010) called the Art of the Clinical Encounter. It was a class that was for undergrads that was team-taught by Holtrop and their professor. Holtrop handled the art side, professor the medical side.

It was a semester long class that was broken up into visits to the Art Museum, clinical observations, and discussion sessions. Each visit was part teaching and part practice by the students. They covered everything from the difference between describing and interpreting as well as emotional response. The only reason they no longer do the class is because UC lost funding to continue the program.

Resources: Syllabus, some evaluation information and an article available on request to museum professional.

The Cleveland Museum of Art

Cleveland, OH

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Cleveland Museum of Art

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Medical School Partner

Case Western Reserve University, Physical Therapy at Cleveland State University and the College of Pharmacy at NEOMED

Medical School Partner

Cleveland Clinic Lerner College of Medicine of Case Western Reserve University

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The program is in transition; no longer called “Vital Signs” – it’s now called “Art and Insight”. They have been working on integrating the program into the mainstream of our department; previously it existed apart from the rest of our operation. The program’s objectives can meet the needs of audiences beyond the medical professions. They are thinking about advancing a corporate teambuilding program, similar to what the Cincinnati Art Museum has created (www.cincinnatiartmuseum.org/events-programs/adults/art-inc-teambuilding). They have a number of partners to whom they do not offer or team-teach a course, per se. Rather, they offer sessions that are part of each partner’s curriculum. Some come to the museum once, some come several times, and they don’t all have exactly the same experiences.

With Case Western Reserve University School of Medicine, they provide visual art-based training to hone observation and communications skills for first-year medical students in the Foundations of Medicine block.

For the University Hospitals Residency program, Clinical Skills Block, a required two-week session on professional skills development within the first year of residency training, they provide aim to address key objectives related to improving professional healthcare team dynamics, including coping with ambiguity, communicating in teams, discovering personal preferences and bias in observation, negotiating differences in opinion, and developing empathy and cultural awareness.

For the V.A. Cleveland Center of Excellence, they work with medical and advanced practice nurse residents who are in their first, second, and third years of clinical practice. They have worked with residents from psychology as well. The V.A.'s Cleveland Center of Excellence aims to transform primary care through cross-professional training that emphasizes shared decisions, sustained relationships, inter-professional collaboration, and performance improvement. Art and Insight targets this team-based approach, while also addressing observation skills and cultural awareness.

In general, they engage the partners in a variety of gallery experiences and discussions with works of art in the museum's collection to hone observation skills, combat individual bias and stereotyping, and build communication, empathy, and cross-cultural effectiveness. They also offer teambuilding and focus through hands-on activities with the museum's Education Art Collection, allowing participants to work in teams and with their senses to "diagnose" art objects from around the world that are unknown to them. By looking, handling, and even smelling these objects, participants hone observation, communication, critical thinking, and team building skills in activities that test group dynamics and develop cultural competence. They also offer a contour drawing exercise that allows participants to work individually to practice focus and reflection. Museum facilitators introduce the principles of blind contour drawing, which privilege process over product. In the museum's galleries, participants look closely at the contours of a sculpture, while they record what they see with pencil on paper. They do not avert their eyes from the sculpture, and they make a continuous-line drawing. Not only does this exercise improve observational skills but it also provides participants with a method to practice focus, especially critical for medical students and residents in the fast-paced, often stressful clinical environment.

To date, the program, which began in 2013, has served about 600 participants. So far, evaluation has taken the form of post-program discussions with our partners. They had considered launching a serious research effort, but with change in program personnel have put that on hold.

Cleveland Clinic partnership:

There is a group forming, likely to be called the Society for Health Humanities, which is having its annual meeting here in April 2016 that will focus on the Arts and Health Humanities. The gathering is being hosted by the Program in Medical Humanities of Cleveland Clinic Lerner College of Medicine. Their first such meeting was in Denver earlier this year and attracted about 100 people.

Approximately 110 classroom hours in required medical humanities (traditional humanities, bioethics, social sciences, critical studies, e.g. disability, arts, reflective writing) are offered during the first 2 years of study. Additional work, on a lesser scale follows in years 3-5.

Resources: [Cleveland Clinic Website](#)

Colby Art Museum

Waterville, Maine

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Kents Hill School Visual Arts Department

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Title: The Art and Science of Observation Program

Length: 4 Hour Session

Number of Students Served: 25 per session

Summary:

This program is designed for medical students, medical residents, and other health care professionals to enhance visual diagnostic skill.

It is modeled after the Yale Medical School and Yale Center for British Art Enhancing Observational Skills Program.

The program uses original works of art at Colby Art Museum to help strengthen observation and communication skills of medical students and professionals. Working closely with an art educator, representational artworks are discussed and offer the opportunity for focused conversations.

Participants work in small groups led by an art educator to facilitate the viewing experiences. First, participants study a painting on their own through concentrated viewing. Next, they objectively describe the artwork to their small group in as much detail as possible. Finally, using only this visual information, they develop an interpretation or draw conclusions about the narrative presented based only on what they see. Participants require no art or art history background.

Evaluation:

1. Evaluation of participant medical observation skill:
 - a. written pre- and post-program test

2. Evaluation of the session by reviews:
 - a. Participants are asked to complete a review.
 - b. What did they learn from the session?
 - c. What did they like about the session?
 - d. What would they change about the session?
 - e. Was this session valuable to their medical education?

3. Art Educators and Staff are asked to complete a review.
 - a. Would they participate in the session again?
 - b. What was well done?
 - c. What would they change about the session?

Resources:

Artworks for this program include:

- The Harriott Children, 1884, Frederick R. Spencer
- Watching the Circus, 1881, John George Brown
- Hannah Duston Killing, 1847, Junius Brutus Stearns
- Caravan en Route, c. 1850, Alfred Jacob Miller
- The Silk Merchants, c. 1885, Edwin Lord Weeks
- Sideshow, 1935, Samuel Rosenberg

Columbus Museum of Art

Columbus, OH

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Medical School Partner

Ohio State University College of Medicine

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Title: The Art of Analysis

Summary: *The Art of Analysis* brings together an interprofessional group of medical science students and faculty at Ohio State University to the Columbus Museum of Art for a one-time, two-hour experience led by leadership in the Learning Department. The experience begins with a creativity challenge designed to prime participants to engage with ambiguity and with one another, while establishing expectations for the experience. Then, in groups of no more than 11 participants to each facilitator, participants move into the galleries. There, CMA educators lead participants through their ODIP thinking routine for close looking (Observe, Describe, Interpret, Prove). The thinking routine fosters careful looking, resisting assumptions, collaborative thinking, reasoning with evidence, and perspective-taking, all of which are key dispositions of critical, creative, and empathetic thinking. The group will use ODIP to discuss a single work for up to 40 minutes. Then, each participant receives a prompt connected to a concept central to the practice of medicine, e.g. "What does 'being humane' (or 'cruelty,' 'care,' etc.) look like? Find the best representation in this gallery and make the case for why you chose it." After participants have made selections, the group visits each selected work and discusses the concept their groupmate began with, as well as other ideas that surface during close, collaborative engagement with the work and the connections that grow from that.

1. CMA and OSU conduct will conduct four sessions in school year 2018-19; participants may attend multiple sessions, but they are not sequential. CMA is in conversation with members of the OSU clinical faculty about the possibility of creating a four-session sequence.
2. All sessions take place at the Museum.

3. While the program began serving second-year medical students, it has expanded to engage an interprofessional group of any department in the medical sciences.
4. Typically, the group is approximately 20-25 (primarily students, with up to five clinical faculty), with two CMA educators

Program goals and outcomes:

1. To encourage slow looking, careful noticing, and the consideration of many possible interpretations
2. To foster dialogue that values many perspectives and experiences
3. To nurture greater comfort with ambiguity
4. To increase awareness of implicit bias and the importance of resisting assumptions

Evaluation: External evaluation has not been conducted due to lack of funds. However, at the close of each session, participants answer a questionnaire (closed- and open ended questions), and throughout the in-gallery experience, CMA educators document the thinking in the style of Harvard's Project Zero Visible Thinking project. Feedback questionnaires reveal participant perception that Art of Analysis supports their observation skills and shifts their thinking about the role of ambiguity/developing and reasoning through multiple interpretations. Evaluations also surfaced emergent, highly-valuable outcomes; students reported: feeling compassion for subjects of works of art, valuing the exploration of points of view different from their own, gaining appreciation for peers' perspectives, and cherishing the time to slow down. In other words, the experience created the opportunity to build empathetic behaviors necessary for the diagnostic and human work of medicine, and provided participants with self-care strategies to support resilience as students and medical professionals.

Resources:

"Art of Analysis: A cooperative program between a museum and medicine" Author(s): Jacques, Andrew; Trinkley, Rachel; Stone, Linda; Tang, Richard; Hudson, William A; Khandelwal, Sorabh.

<http://escholarship.org/uc/item/36n2t2w9>

"Art of Analysis: A Case Study in Fostering Empathy, Critical Thinking, and Mindfulness through Museum-University Partnership;" Lehe, Jennifer; Stone, Linda (2018-04)

<http://hdl.handle.net/1811/84728>

Crocker Art Museum*

Sacramento, CA

Erin Dorn

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Medical School Partner

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Title: Art Rx

Length: This is a public program that takes place once every other month; beginning in September 2019, it will take place every month; each session is 1 hour

Number of students per program: n/a; this program is open to anyone who self-identifies as living with chronic pain, as well as their friends, family members, and caregivers

Summary:

Art Rx is a public program offered for free at the Crocker Art Museum, open to individuals living with chronic pain, as well as their friends, family members, and caregivers. The program consists of a docent-facilitated conversation about select pieces of art in one of the Crocker's galleries. Art Rx is a partnership between the Integrative Pain Management Program at UC Davis and The Crocker. Several studies have examined the program's feasibility and future research is under development, including competitive support from UC Davis' NIH CTSC KL2 grant program.

Program objectives:

The goal of the program is to mitigate the social isolation that often accompanies chronic pain and to help people living with chronic pain to experience the joy of arts engagement.

Evaluation: In addition to the research efforts outlined above participants are surveyed after each tour to measure program satisfaction.

Resources:

Academic Articles

Koebner, Ian J. PhD, Scott M. Fishman, MD, Debora Paterniti, PhD, Doris Sommer, PhD, Claudia M Witt, MD, MBA, Deborah Ward, RN, FAAN, PhD, Jill G Joseph, PhD, MD. "The Art of Analgesia: A Pilot Study of Art Museum Tours to Decrease Pain and Social Disconnection Among Individuals with Chronic Pain." *Pain Medicine*. (April 2019). Vol. 20, Issue 4. Pp 681–691. Retrieved from

<https://doi.org/10.1093/pm/pny148>

Mixed-methods study examines feasibility of art museum tours (Art Rx) as an intervention for individuals with chronic pain.

Koebner, Ian J. PhD, Scott M. Fishman, MD, Debora Paterniti, PhD, Doris Sommer, PhD, Deborah Ward, RN, FAAN, PhD, Jill G Joseph, PhD, MD. "Curating Care: The Design and Feasibility of a Partnership Between an Art Museum and an Academic Pain Center." *The Museum Journal*. (July 2018). Vol. 61, Number 3. Pp 415–429. Retrieved from

https://health.ucdavis.edu/pain/acupuncture/ArtRx/Curator_The_Museum_Journal.pdf

Qualitative study describes the design and feasibility of a partnership between an art museum and an academic pain center (Art Rx) to address chronic pain.

Press (partial list)

- The Art of Pain Relief: How museums may help address chronic pain
 - <https://health.ucdavis.edu/publish/news/newsroom/13091>
- Art and Pain: Researchers from UC Davis are collaborating with the Crocker Art Museum to relieve chronic pain.
 - <https://health.ucdavis.edu/pain/acupuncture/CrockerArtRx.html>
- Art Tours Tied to Easing of Chronic Pain; Reuters
 - <https://www.reuters.com/article/us-health-pain-distraction/art-tours-tied-to-easing-of-chronic-pain-idUSKBN1L22AJ>
- Healing Gallery: Can Fine Art Help Mitigate Physical Pain? A Free Crocker Program Aims to Find Out; Sacramento News & Review
 - <https://www.newsreview.com/sacramento/healing-gallery/content?oid=26541955>

*New 2019

The Dallas Museum of Art

Dallas, TX

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Title: The Art of Examination

Length: 8 sessions x 2 hours each

Number of students served: 30 UT Southwestern Medical Students

Summary: The Art of Examination is a preclinical elective open to first and second-year medical students at UT Southwestern Medical School focusing on developing skills for clinical diagnosis through looking at works of art. This course is meant to foster early in students' medical careers the habits of close visual inspection and cognitive reflection of those observations. This habit engenders a form of "metacognition" in which students learn to synthesize observations with their knowledge and experiences as well as consider the collaborative thinking process of the group, skills vital to successful clinical practice. These skills can be learned utilizing master works of art, teaching medical students "visual literacy", which is the ability to reason from careful, unbiased observation. Looking carefully at art involves analyzing the entire work before making judgments or interpretations. The course uses the power of art to promote the

analysis and communication necessary in addressing ambiguity in the physical exam and patient interaction.

Participants in the Art of Examination learn to focus their attention on works of art and to use this visual exercise to reach conclusions. Exploration of core artistic concepts such as line, color, shape, form, texture, pattern, balance, and symmetry to analyze a work of art will be taught and utilized. Group discussions are lively and invite individual interpretations. We discuss factors influencing what we see, and how we interpret visual information. Other topics include conservation, artists with disease, empathy, physician burnout and cultural influences, with their implications for medical practice.

The class engages students in discussions, drawing and writing exercises, lectures, and interactive experiences that foster communication. The course meets in accordance with the schedules at The Dallas Museum of Art, Nasher Sculpture Center, The Warehouse, The Crow Collection of Asian Art, and UT Southwestern Medical Campus.

Course Goals:

- To make detailed observations and improve visual analysis
- To communicate observations more effectively
- To identify how emotions and bias can affect objective observations

Objectives:

- Demonstrate visual analysis skills through accurate and detailed descriptions of art and clinical images
- Increase comfort speaking and writing about visual observations
- Develop strategies for dealing with ambiguity and evaluating diverse interpretations
- Demonstrate empathetic communication in the discussion of the human body
- Increase student engagement with the arts, The Dallas Museum of Art and other museums

Course Structure:

Each class meets at the designated museum for that date. We discuss the agenda and work in large and small groups directly with works of art in the galleries to develop visual literacy skills through observation, description, analysis, collaborative interpretations, empathy and presentations of their findings. Each session has a wrap-up discussion for students to provide feedback and discuss how the activity might apply to clinical practice. The students maintain a journal to complete weekly assignments and to document their work in class.

Evaluation: Syllabi and student evaluations available at utdallas.edu/arthistory/medicine/course

Course Image documentation at [instagram.com/artdocs/](https://www.instagram.com/artdocs/) Search on Instagram: @artdocs

Denver Art Museum

Denver, CO

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Medical School Partner

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Title: The Art of Observation, Foundations of Doctoring, Humanities, Ethics, Professionalism Thread

Length: 1 session, 2 hours long

Number of students served: Required of all 1st-year medical students, 180

PURPOSE: To engage and instruct students in the close observation of art as a method of improving observational and communication skills

METHODS:

Large Group Lecture: Information about the learning goals and the context of the session within physical exam and communication skills curriculum; introductory lecture on the art of observation.

Small Group Workshop: Observation and discussion of one or two selected works of art; drawing and description of an image with students in pairs; discussion of techniques and debrief of session.

LEARNING OBJECTIVES:

- At the conclusion of the session, students should be able to:
- Describe how closely studying works of art can translate to observational skills useful for both physical examination and communication in a clinical encounter
- On careful observation, articulate appropriate details and relevant narrative elements in a work of art to peers as practice for communicating a patient's problem representation.

- Describe the importance of understanding the context, including the reasons for seeking care, in which patients present for a clinical encounter.

READING: "Problem Representation: The Key to Understanding the Patient's Story," T Guth MD

Resources: Packet of drawing activity and discussion questions available from museum professional.

Future plans are to follow up the session with a "museum rounds" elective session next month.

The Detroit Institute of Arts

Detroit, MI

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Starting in fall 2016, the Detroit Institute of Arts, Department of Learning and Audience Engagement, in partnership with the Wayne State University School of Medicine, Office of Learning and Teaching, have developed workshops for the staff and students of the WSU School of Medicine. These workshops will include training in the Visual Thinking Strategies (VTS) at the DIA and will empower participants to learn new skills that they can utilize in their teaching and in their future practice.

Title: Visual Literacy and Learner-Centered Teaching

Length: 1-2 Half-days (approximately 3-4 hours)

Summary:

Participants will begin by exploring works of art in the DIA's galleries through facilitated discussion. The works of art will be accessible for the entire group to understand and find meaning. They will be asked to supply evidence for any subjective observations and to define medical terms and jargon that may not be understood by the entire group. This initial phase is set up to introduce participants to the basic process for evidence-based interpretation, group problem-solving, and clear communication. At the end of the first session, the group will be asked to think and talk about the process, the skills they used, and the overall experience.

Part two will begin with reflections on what has already occurred. Any additional observations, revelations, or questions that surface will be discussed. The group will participate in discussions with works of art that will increase in complexity and diversity. Additional probing questions will be asked that will encourage the participants to dig deeper to figure out what's going on in the works of art. The need to supply evidence for ungrounded observations and comments will increase as will respect for diverse cultures and points of view.

Goals and Outcomes

This workshop will enable participants to:

For Staff:

- Make careful observations with supported evidence
- Increase verbal skills using descriptive language
- Find new ways to incorporate new teaching strategies into their coursework at WSU
- Understand better how and what their students learned and be able to make connections to their own teaching
- Find the DIA a welcoming and supportive environment and feel comfortable using its spaces in a new way
- Be surprised by what they learn and discover

For Students:

- Make careful observations with supported evidence
- Increase verbal skills using descriptive language
- Use vocabulary and definitions that can be understood by non-medical individuals
- Work as a team to problem-solve and find possible resolutions
- Find the DIA a welcoming and supportive environment and feel comfortable using its spaces in a new way
- Be surprised by what they learn and discover

Participants:

The initial phase of the partnership included 45 Year I and Year II anatomy students in addition to the Dean of the Wayne State University School of Medicine Dr. Richard Baker, faculty from the School of Dermatology, and faculty from across other departments. A subsequent workshop was given for the Leadership Group of the Wayne State University School of Medicine. Moving forward, all incoming medical students, approximately 400+, will have a VTS learning experience at the DIA. Additional staff will be encouraged to participate in this training.

Evaluation:

While it is still too early in the partnership to evaluate long-term changes or growth, anecdotal evidence suggests that the goals and outcomes outlined above are being met. Formal evaluation of the impact will begin with the fall 2017 semester.

Resources:

The Visual Thinking Strategies: www.vtshome.org

The Detroit Institute of Arts: www.dia.org

Fairfield University Thomas J. Walsh Art Gallery

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Fairfield University Nurse Practitioners Program

Sheila Grossman, PhD, APRN, FNP-BC, FAAN

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Coordinator of Family Nurse Practitioner Program

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Title of the Course: NS 642 Adult Health I

Length: over one full semester meets each week, the Art of Seeing is one session for 4 students/semester.

Summary: This is the first didactic course in the Family Nurse Practitioner Curriculum and deals with Differential Diagnosis, Management, and Evaluation of adult patients in primary care.

Number of students served: ~ 15 students each fall semester

Evaluation: for the Art of Seeing we use a pre and post test; for the course it is 80% exams, 10% case study analysis and 10% simulations

Resources: for Art of Seeing -

Grossman, S. Deupi, J. & Leitao, C. (2014). Seeing The Trees and Forest(s): Increasing Nurse Practitioner Students' Observational and Mindfulness Skills. *The Journal of Nursing Creativity*, 20 (1), 67-72.

Fleisher Art Memorial

Philadelphia, PA

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Julia Clift
Instructor, drawing classes

Title: "Art for the Healer"

Length: five week summer workshop, 3 hour weekly sessions

Students served: designed for medical students and practicing professionals.

Summary: Taking place on Fleisher's campus, the five-week workshop serves as an introduction to the visual principals and elements of art and design. Informed by Bauhaus *Vorkus* pedagogy and maintaining an emphasis on observation, the course introduces students to technical skills in different media while encouraging intuitive self-expression.

Lessons are tailored to serve medical professionals particularly, encompassing goals of increasing empathy, strengthening crucial perceptual skills, and studying anatomical structures. The majority of class time is devoted to inquiry-based exercises that provide hands-on experience with graphite, ink, paint, and clay, and encourage learning through playful experimentation. Additionally, students are exposed to the ideas and works of artists past and present through presentations, a field trip to the Rodin Museum, and supplemental readings.

Learning Outcomes

- Students gain familiarity with universal elements of visual art
- Students learn the basics of manipulating graphite, ink, paint, and clay
- Students hone observational skills, with the goal of improving patient observations and image-reading
 - Recognizing subtle shifts in color, value, and pattern

- Truly seeing vs. assuming what is before your eyes
- Students become more acutely aware of typical body proportions, and gain familiarity with the particular anatomical structures, including the hand and head
- Students engage in thoughtful consideration of their peers' artistic decisions through group critiques, practicing empathy skills
- Students gain insights into historical and contemporary artists' works through presentations, a field trip to the Rodin Museum, supplemental readings, and guided discussions
- Students express emotions, arising independently or through empathy with subjects, through visual language

Resources:

Elizabeth Prelinger, *Kollwitz Reconsidered*, from *Kathe Kollwitz*, Yale University Press, 1992.
<https://www.nga.gov/content/dam/ngaweb/research/publications/pdfs/kathe-kollwitz.pdf>

Podcast - *The Sculptor's Funeral*, Episode 3, October 19, 2014
<http://www.thesculptorsfuneral.com/episodes/2014/10/18/episode-03-what-is-clay>

The Conversation, We Can Use Color To Communicate How We Feel, January 22, 2018
<https://theconversation.com/we-can-use-colour-to-communicate-how-we-feel-heres-how-90157>

Vibrations in the Soul: Moe Brooker's Sacred Paintings. Nikki A. Greene (Spring 2018)
<http://journalpanorama.org/vibrations-in-the-soul/>

...

Title: "Seeing with a Better Eye: Drawing as a way to Foster Medical Students' Observational Skills"

Many programs in visual arts: drawing, sketching, caricatures and VTS visits to museum. Target medical school freshmen. Planned a pilot project for medical students to test the hypothesis that the skill and practice of drawing might rekindle both the right brain and the power of observation, and thus in turn improve bedside detection of physical findings.

Long-term goal is to provide a foundation for eventually incorporating drawing as a centerpiece of medical humanities programs, both at Jefferson and in other institutions. Fleisher Art Memorial runs a ten-session course on Basic Drawing, with instructor Julia Clift for up to 40 Jefferson Medical students who are in their first year of study.

The course particularly emphasizes the study of human figures and faces. It also includes a session of observational sketching at the Mutter Museum of the College of Physicians in Philadelphia, and two sessions drawing from live figure model.

Length: Fall series – three 1.5 hour anatomy sketching workshops, which follow along their anatomy curriculum. Winter Courses – two sections of drawing, one basic and one advanced basic drawing, ten-week classes

Summary: Astute observation is a right-brain trait and one that is highly desirable for a physician. Yet, this is not taught during medical school, and in fact may even be hindered by a curriculum heavily skewed towards the sciences. Drawing may offer a simple but effective way to rekindle both the right brain and the power of observation, and thus in turn improve bedside detection of physical findings. There is indeed evidence that observing artworks can do so, and yet there are no data on whether drawing per se might actually improve this capacity.

Our premise was that drawing does indeed foster visual-spatial thinking and observation, but might also nurture other important right-brain traits, such as empathy and tolerance of ambiguity, and possibly even prevent students' burnout. We pre- and post-measured those domains.

The Fralin Museum of Art

Charlottesville, VA

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Medical School Partner

University of Virginia School of Medicine

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Clinician's Eye is a one-time, highly interactive museum-based exercise in mindful, deliberate attention for a group of up to 20 medical (or other health professional) students/trainees. The two-hour workshop uses visual analysis to improve participants' core clinical skills in observation, collaboration, communication, compassion, and reflection.

Clinician's Eye takes place in the museum for approximately two hours. Workshops are offered both to specific medical and nursing school classes, and we also offer open, first-come, first-served workshops in the evenings to medical or nursing students of any year. I also do a 45 minute presentation to the incoming medical school class every August. Classes are often hosted in the evenings to accommodate the students' busy schedules. Due to our size and staff, we limit workshops to 20-30 students.

Title: Clinician's Eye

Length: 45 minutes intro lecture during orientation, then I hold 4 sessions a year. They are optional electives and are first-come, first-serve for sign-up.

Summary: We don't have the staff time or museum size to do a regular course, but a 2 hour workshop works perfectly. Activities: two visual analysis discussions, one drawing exercise, one word association.

Evaluation: With certain groups we do an online pre- and post-test, with questions developed by a colleague in the Bioethics department. These questions rate on a scale from 1-5 participants comfort with different ambiguous situations and communication styles.

There are also examples of art that they are asked to describe. We have seen measurable and significant differences between pre and post-test responses that demonstrate and increased

tolerance for ambiguity, improved communication, and an increase in number of descriptive words used.

Additional notes: Partnership workshop at The Fralin with the UVA Medical School have been in place for three years and the program has assessment data to share.

Resources:

- 1) Art Rounds: Teaching Interprofessional Students Visual Thinking Strategies at One School
- 2) From Contemporary Art to Core Clinical Skills: Observation, Interpretation, and Meaning-Making in a Complex Environment

The Frick Collection

New York, NY

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In *Why Works of Art Matter*, we propose that the relationship between art and medicine is rich and multifaceted. Students engage in dialogues about masterpieces of The Frick Collection, opening up a complex array of subtexts and interpretive possibilities. Discussing one masterpiece at a time, participants develop appreciation for works of art and contemplate how we understand them. As a class we think broadly and deeply about experiences of works of art, why they matter, and their relevance within the study and practice of medicine. At Columbia Physicians and Surgeons, it's required and part of a larger Narrative Medicine initiative for first year medical students.

Title: Why Art Matters

Length: The medical program at The Frick Collection is once a week for six consecutive weeks. The entire Narrative Medicine program/first year class convenes at the Frick at the end of the six-weeks for an evening of art, programs, and reflections. The program is for 12 – 15 first year medical students who have chosen art-based classes for an intensive narrative medicine seminar.

Evaluation: At the end of the six weeks, we require student papers meditating on the application of the interpretation of works of art to issues of interpretation in medicine. These papers serve as evaluations.

Grand Rapids Art Museum
Eli and Edythe Broad Art Museum
Grand Rapids, MI

Grand Rapids Art Museum
Bruce Wright
Education Docent

Eli and Edythe Broad Art Museum
Kristin McCool
Education Docent

Medical School Partner

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Title: Medical Humanities Intersession

Length: 1 month, 12 sessions for first and second year medical students

Students served in each course: 15 divided into 3 sections.

Summary: This course examines how the arts (narrative, story-telling, and fine art) can enhance physician skills in empathy creation, observation, communication, and dealing with uncertainty and ambiguity. Students are taught how to read and view art as well as engage in their own artistic creations.

Program goals and outcomes:

By the end of the course students are expected to be able to:

- Recognize the arts and humanities as a resource for cultivating empathy, understanding, and moral reflection in medical professionals
- Describe how closely studying works of art can translate to observational skills useful for both physical examination and communication in a clinical encounter
- Work collaboratively with arts students to develop communication skills across disciplines

- Discern how describing works of art to another person (including its features, the concept of the art work and its overall message) can increase communication skills
- Discover how to cope with ambiguity in art and describe how these skills apply to medical care
- Develop skills to critique works of art and evaluate the art's ability to express its intended concept

Evaluation:

Weekly projects, including narrative writing, poetry writing, description of art piece, and reflection on in-class art projects. Final project which is an extension of weekly project for the class.

Resources:

- Joseph J. Fins, 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.
- Chapman EN, Kaatz A, Carnes M. "[Physicians and Implicit Bias: How Doctors May Unwittingly Perpetuate Health Care Disparities.](#)" *JGIM* 28(11):1504-10.
- Lisa Sanders. 2009. *Every Patient Tells a Story: Medical Mysteries and the Art of Diagnosis* (Random House, NY).
- "How Art Can Help You Analyze," Amy Herman <https://ed.ted.com/lessons/how-art-can-help-you-analyze-amy-e-herman>
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- Danielle Ofri, "[Medical Humanities: The RX for Uncertainty? Academic Medicine](#)", Vol. 92 (12) 2017.
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Harn Museum of Art at University of Florida

Gainesville, FL

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Medical School Partners

Department of Physical Therapy, College of Public Health and Health Professions, University of Florida

College of Nursing, University of Florida

UF Center for Arts in Medicine

Observation and Empathy for Physical Therapy Students at the Harn Museum of Art is a two-hour session meeting with 2nd year graduate physical therapy students in a geriatrics course. The 70 students participate in a brief orientation session setting the stage for the work and expectations to follow. Students then break into small groups to tour, in rotation, a pre-selected group of objects (all students will see the same works). The guided inquiry exercise focuses on objective visual observation and verbal articulation, rational analysis and reflection on empathic experience. A summative discussion allows students to reflect together on the experience.

<http://www.harn.ufl.edu/collaborations>

Title: Geriatric Physical Therapy

Length: Single class visit of graduate course in physical therapy. Session lasts 1.5 hr

Number of students served: 70 students in a single visit.

Summary: This session for graduate students in physical therapy is designed to focus on two clinical skills identified in recent research as commonly weak among emerging health care professionals: objective observation and empathetic patient interaction.

The session begins with a museum-educator led group discussion of visual observation in art and development of empathetic skills through close attention, and how both have been employed to train health professionals. The group also participates in an initial visual analysis exercise based upon digital images.

After this preparatory session, students break up into small groups for one-hour docent tours focusing on visual observation in the galleries. The visit concludes with a summative discussion involving education staff and the class instructor.

Evaluation: Informal feedback from the instructor is positive and the program will be repeated in future course sessions. A brief, anonymous survey sent via the instructors to all enrolled students provided 22 responses, including numerical and narrative feedback.

1. To what degree was the introductory orientation (including the discussion of the painting of a mother & child reaching towards an apple) useful in preparing you for the docent tour that followed?
2. To what degree did you employ your observational skills during the docent tour?
3. -If so, to what degree do you feel this relates to developing observational skills for a clinical context?
4. To what degree did you exercise your empathetic skills during the docent tour?
5. To what degree do you feel this relates to developing empathetic skills for a clinical context?
6. To what degree did you find useful the closing wrap-up session in which students shared their responses?
7. How might this experience benefit you in your clinical work?
8. Additional comments.

Resources: Among other materials, we share the following with docents as they prepare for this tour:

Heather Gaunt, "Using visual art to develop observation skills and empathy in medical and dental students," University of Melbourne Collections, issue 11, December 2012.

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Title: NUR 3738L: Systems of Care 2: Restoration of Wellness at University of Florida College of Nursing

Length: One class session per term.

Number of students served: Typically two sessions of 30+ students each.

Summary: The nursing course follows "characters" in a "neighborhood" as they face wellness issues understood in the context of social and cultural contexts. The topics for museum sessions have varied, and have included: maternity and lactation; reproduction, sexuality and STDs; and death, loss and grieving.

The goal of the museum sessions are to introduce nursing students to diverse mores and cultural ideas about a given topic by examining works of art. Works are presented by curators

and educators, providing the occasion to elaborate on how artistic expressions embody and provide a window onto various concepts.

Nursing staff participate by drawing connections to specific aspects of the syllabus. Students are often assigned to bring in their own visual expressions related to topics. In future sessions, we think nursing students will also benefit from observational skills training. Session may include digital images, but always include objects brought from storage for study and/or viewed in the galleries.

Evaluation: Informal feedback gathered by instructors.

Resources:

"Ways of Seeing: Using the Visual Arts in Nursing Education." Judith Frei, Sarah E. Alvarez, and Michelle B. Alexander. *The Journal of Nursing Education*. 2010, 49(12):672-676.

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Title: Virtual (video) tour for hospital patient to the museum

Summary: Working with the UF Center for Arts in Medicine, the Harn provided a virtual tour for a 14 year old patient at the UF Health Congenital Heart Center's Pediatric Cardiac Intensive Care Unit. The tour allowed this child to virtually explore an exhibition of paintings, Monet and American Impressionism, that she could not visit while confined to hospital.

Evaluation: Informal feedback from staff and patient. The latter reported: "It was an amazing visit to the Harn Museum virtually from my hospital room."

Resources: Further information on the tour:

<http://artsinmedicine.ufhealth.org/2015/03/27/patient-receives-virtual-tour-at-the-harn-museum/>

<https://www.facebook.com/ufhealthkids/photos/a.809026799163129.1073741832.798596293539513/810751285657347/?type=1&fref=nf>

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Title: Art display: Robert Cunningham: Parkinson's and Creativity and Panel discussion: "Parkinson's, Painting and Healthy Outcomes"

Length: Display: June 29-Aug 9, 2015. Panel Discussion: July 11 at 3pm-5.

Summary: Robert Cunningham, of Hattiesburg, Mississippi, has been painting for more than 15 years. He was diagnosed with early-onset Parkinson's more than 25 years ago. When Parkinson's forced him to retire, he soon turned to painting to avoid social isolation and as a means to gain a handle on the disease. "I used the tremors," he has observed, "to make

different effects with the paint.” The burst of creative energy he experienced is a phenomenon often shared by other Parkinson’s patients, as a result of deep brain stimulation and other therapy. The display and discussion were the result of a partnership between the UF Center for Arts in Medicine, the UF Center for Movement Disorders, and the Harn Museum of Art, and was supported by the UF Creative B program.

Resources: <http://www.gainesville.com/article/20150710/ENT/150719978>

Harvard Art Museums

Cambridge, MA

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Medical School Partner

Harvard Medical School

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Harvard Art Museums has been the site for a medical humanities course in January for the past 4 years, and this year we can offer the medical faculty, students and residents new opportunities given our renovated and expanded facility. Before that, former Harvard Art Museums education staff members Ray Williams (Blanton Museum of Art, ray.williams@blantonmuseum.org), Corinne Zimmermann (Isabella Stewart Gardner Museum, czimmermann@isgm.org) and Judy Murray (consultant, mpembroke63@comcast.net) did important work around medicine focused on empathy and team-building.

Our mission is to foster creativity and scholarship in the arts and humanities at HMS and its affiliated hospitals, to promote a community of faculty and students interested in the arts and humanities, and to enhance patient care through reflection and compassion.

Currently extra-curricular, AHI offers several activities including artmaking, writing, musical performances, theater and an artist-in-residence program. We are exploring the challenges and opportunities of incorporating the arts into an already full and intense medical school curriculum and plan to measure the impact of such interventions, including the impact professionalism, communication, and patient care.

Large group sessions: med school partners addressing participants; small group (ca. 15) with students in galleries and art study center.

Harvard Medical School

Boston, MA

Harvard Medical School Partners

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Harvard Art Museums

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Harvard Medical School Arts and Humanities Initiative

The Arts and Humanities Initiative is the hub for arts and humanities at Harvard Medical School and its affiliated hospitals. The Initiative is multi-disciplinary and multi-institutional, with members from nearly every hospital affiliate of Harvard Medical School, every medical specialty, every art form. The arts and humanities are powerful tools in medical education that have the potential to improve professionalism, reflection and empathy among physicians and trainees, foster humanism, reduce burnout, enhance perspective, sharpen physicians' analytic and diagnostic skills, and improve teamwork and communication.

Mission

The Arts and Humanities Initiative aims to foster creativity and scholarship in the arts and medical humanities at Harvard Medical School and its affiliated hospitals, to support a community of faculty and students engaged and interested in the arts and humanities, and to enhance patient care through reflection and compassion.

Program Descriptions - there are several collaborations between Harvard and partner museums

January Winter Session Arts and Media Seminars

For the past four years, the Arts and Humanities Initiative at Harvard Medical School has partnered with Office for the Arts at Harvard and the Harvard Art Museums to present “Arts, Creativity, and Medicine,” a 1-day course made up of a series of workshops during Harvard’s January Winter session. The workshops are jointly taught by Museums and Harvard Medical School faculty. Offerings include gallery observation from the perspective of medicine and art; narrative medicine writing; movement and health; and music and medicine. The course, offered University-wide, is mainly attended by undergraduates in premedical concentrations, although students from the graduate schools of design, education, law, business and medicine are also represented.

Dr. Lisa Wong, coordinator, with faculty of the Arts and Humanities Initiative at Harvard Medical School; Dr. Martinez and Dr. Odo, Harvard Art Museums

Training the Eye: Improving the Art of Physical Diagnosis at HMS

HMS offers a spring MS-1 elective, “Training the Eye: Improving the art of physical diagnosis” (TTE).

The goals include:

- 1) making careful observation a habit (flexible thinking)
- 2) linking form to function (visual literacy)
- 3) explore how observation impacts physical diagnosis/inspection (embracing ambiguity)
- 4) visit local art museums.

The TTE course consists of ten 2.5 hour sessions at local art museums, each divided between arts observation exercises and physical examination didactics. Students also participate in bedside rounds, life drawing and other drawing exercises.

Medical educators: Drs. Ganske, Katz and Khoshbin

Arts educators: Ms. Murray, Ms. DiGiovanni Evans

Inter-professional Team Building on the Integrated Teaching Service at BWH

- Single 2.5 hour session at the MFA required for all team members rotating on the inpatient “Integrated Teaching Unit” at Brigham and Women’s Hospital (see: NEJM 2010, 362:1304)

- Focus: Teambuilding (improved communication, breaking down hierarchy, clinical collaboration)
- Affiliation: MFA, Boston & Brigham and Women's Hospital

Arts educators: Corinne Zimmermann and Judy Murray

Medical educators: Erin Kelleher, R.N., Naada Ali, M.D., M.Ed.

Humanistic Curriculum at BWH

Since the fall of 2009, the MFA, Boston has presented this workshop as part of the Humanistic Curriculum, an integral component of the wellness curriculum for first-year residents that focuses on the often challenging humanistic components of medical practice. The MFA workshop is co-taught by Museum educators and the physician director of the Humanistic Curriculum. Using objects from the Contemporary, Ancient, Asian, American, and European collections as springboards, this workshop stimulates discussions on issues of dealing with death, sharing different perspectives, professionalism, and self care.

Arts educators: Brooke DiGiovanni-Evans, Barbara Martin, Akiko Yamagata and Nora Elton

Medical educators: Elizabeth Harry, MD

Sanctuary at the Gardner Museum

A multiple visit series of creative workshops for Harvard Medical Students with a focus on self-care, personal and professional reflection, and community building. Sessions are co-designed by Corinne Zimmermann, Lisa Wong and HMS students, and address topics that students identify, including working in teams, managing transitions, and contemplative practices.

Creative expression and art-making practices, such as music, poetry, drawing, improvisation, are an integral part of the program

Art educator: Corinne Zimmermann

Medical educator: Lisa Wong, MD

Cambridge Health Alliance Medical Student and Intern Orientation at the Harvard Art Museums

Our new CHA medical students and residents experience a 2 hour orientation session at the Harvard Art Museum. We engage participants in a Personal Response Tour to convey the importance of reflective practice and to allow learners and program directors to get to know one another 'beyond what's on their CV'. A Visual Thinking strategies exercise communicates the importance of close looking and listening in patient care, of holding uncertainty in the practice of medicine, and models problem-solving within groups. Trainees come to experience the museum as an easily accessible place of reflection and renewal, that can contribute to trainee well-being.

Medical Educator: Elizabeth Gaufberg MD MPH

Museum Partners have included Corinne Zimmermann, Judy Murray and Jessica Martinez, PhD

Hofstra University Museum, Hofstra University

Hempstead, NY

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Medical School Partner

Donald and Barbara Zucker School of Medicine at Hofstra/Northwell

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The Museum works closely with the Donald and Barbara Zucker School of Medicine at Hofstra/Northwell (SOM) on a wide array of humanities initiatives designed for current and future medical professionals, including medical students, residents, fellows, faculty, nurses, graduate students in healthcare education, and high school students participating in a medical pipeline program at the SOM.

In each case, the Museum designs and implements instructional sessions either in the Museum's galleries, in SOM classrooms, or in faculty boardrooms or learning facilities at various Northwell hospitals and medical offices. Each session is tailored to the particular audience involved, many of which are interdisciplinary, with the overall objectives being to enhance skills of observation, empathy and communication, as well as broaden participants' cultural competency.

Among the many SOM educational programs featuring, among other humanities disciplines, the study of art and observation through the SOM/Museum partnership, are the following:

- SOM Fourth Year Elective: The Narrative Perspective and Reflective Writing: An Elective in Medical Humanities
 - Approximately 16-20 Medical Students take this elective annually
 - Students participate in writing exercises, discussions, and program evaluations.

- **Masters in Health Profession Pedagogy and Leadership (HPPL)**, Narrative Perspective and Reflective Writing: An Elective in Health Humanities (syllabus with resource materials included)
 - This program is designed for physicians and other health professionals seeking a master's degree in education and leadership.
 - Approximately 12-18 health professionals participate in this program annually
 - Participants required to create a teaching session specific to their discipline using of the humanities as a pedagogy. These sessions were orally reported, with a demonstration, to peers during class.
- **Humanities Programs for Residents** of Various Medical Departments at Northwell
 - a four-session program offered/provided to Northwell Health residency departments, one session of which is offered by a museum educator devoted to the study of art, observation and medical inquiry.
 - This program is offered to residency groups from all medical disciplines, and recently has been provided to Urology residents, Ob/Gyn residents, and Pediatric Hematology-Oncology fellows.
- **The Art of Observation** sessions periodically offered to SOM students and SOM Art Club student at the Hofstra University Museum
- **The Art of Observation** one session as part of a comprehensive program designed to prepare high school students for a career in medicine
 - Museum based classes provided to high school students participating in the **Medical Scholars Pipeline Program** at the SOM. This program aims to advance high-achieving students from groups underrepresented in medicine.
- Humanities in Medicine Extra Curricular Special Events
 - **Coping with Suffering through Creativity**, an event featuring an art exhibit, musical concert and speaker presentation.
 - **Attaining Cultural Competency in Transgender Healthcare**, a humanities in medicine program which incorporates the Hofstra University Museum exhibit, **Converging Voices, Gender and Identity**, with medical experts in transgender healthcare.
 - **Celebration of Visual Arts**, SOM, an annual event featuring the artwork of SOM students and faculty, as well as pre-med/healthcare students from Hofstra University and medical personnel and staff of Northwell Health
 - **Beyond the Diagnosis**, at annual Art Exhibit by Rare Diseases United Foundation featuring portraits of children with rare genetic diseases, combined with educational programming during with patients and their families interact with students and faculty
 - Art Exhibits featuring physician artists:

- Dr. Ron Israeli, life-cast sculptures
- Dr. Arnold Prywes, sculpture exhibit
- **Art Exhibits** featuring individuals battling disease:
 - Dylan Thompson, digital artwork

Title: The Narrative Perspective and Reflective Writing: An Elective in Health Humanities

Length: 7 sessions

Summary: This elective is medical humanities curriculum with narrative perspective and reflective writing as a pedagogical foundation. It will be offered as an elective in the Masters in health Professions Pedagogy and Leadership. The purpose of this elective is to develop students' capacities for continuous reflection and self-assessment through the lens of health humanities readings, visual arts and reflective writing. For each component of health humanities, selected literature supporting this component will be discussed to explore its relevance as pedagogy.

Syllabus available at <http://www.utdallas.edu/arhistory/medicine/syllabi/index.html>

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Title: The Narrative Perspective and Reflective Writing: An Elective in Medical Humanities 2017/18

Length: 24 sessions

Summary:

The goal of this elective is to help students develop their capacities for continuous reflection and improvement by creating a community of practice. Students will honor patients' stories by seeking to understand their perspectives about the impact of illness on their lives. They will practice effective communication skills by building and sharing coherent narratives. By working to locate themselves within their own stories and those of others, students will learn to more effectively process their clinical experiences and practice reflections as a skill for meaning-making and self-understanding throughout their careers. For more information about the importance of including Narrative Medicine as part of the training for medical professionals, please see <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3992707/pdf/nihms-572162.pdf>

Syllabus available at <http://www.utdallas.edu/arhistory/medicine/syllabi/index.html>

Resources: <https://www.northwell.edu/about/news/press-releases/art-improving-clinician-observation-skills>

Hood Museum of Art, Dartmouth College

Hanover, NH

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Medical School Partner

Geisel Medical School at Dartmouth College, the Dartmouth Hitchcock Medical Center (DHMC), and the Norris Cotton Cancer Center at DHMC

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Following is a summary of five programs that the Hood Museum of Art has implemented with the Geisel School of Medicine at Dartmouth.

Title: The Art of Clinical Observation

Length: One session, two hours; 2-8 sessions/year, each for a different group of students

Number of students served: 8 students and one member of the medical faculty per session
Several Art of Clinical Observation sessions have been offered each year since 2006. For several years, it was offered to small sections of students enrolled in the 1st year On Doctoring class. More recently, it has been offered to 2nd year dermatology students. The number of students served each year has varied from 16 to 72.

Summary of the course: The goals of this workshop are to encourage students to slow down, look carefully, and explore the ways in which visual information can be used to develop an interpretation or diagnosis. It is also designed to introduce students to the Hood Museum of Art as a resource. After an introduction that outlines the goals of the program and credits the Yale Center for British Art and the Yale Medical School for creating this type of programming, the group of eight students is divided, and each group of four students is assigned to a facilitator.

Individuals are then assigned to a work of art to study for ten minutes. Students are asked to look carefully at the work of art and then present a detailed description of the object to the group. The facilitator encourages the student to describe only what they see, avoiding analysis and interpretation. Once the facilitator is satisfied that the student has thoroughly described the work of art, he/she invites the other three students to supply observations.

The original student is then invited to analyze and interpret the work based on the visual evidence, following which the members of the group are invited to share their interpretations. Each exploration of a work of art concludes with the facilitator providing contextual information to support the group's observations, interpretations, and remaining questions. This process repeats three more times. Both groups of four see the same objects during the workshop. During the last half hour, the entire group comes together to reflect on what they learned in the galleries.

They then apply the same, slow, careful description and analysis to diagnosing images of patients. The medical faculty member provides direction and contextual information to support the students' observations and ideas.

Through this workshop, participants learn:

- to slow down
- the importance of observation skills
- the richness of conversation that results from collaborative learning
- that multiple interpretations about an object or ailment can exist at the same time
- to embrace divergent rather than convergent thinking
- to question their assumptions, stereotypes, prejudices about each other, the art, the individual or cultures the art represents, and their patients
- to embrace learning about new things and taking time for themselves

Evaluation:

Evaluation forms are distributed at the end of each workshop. A compilation of the responses from the first year of the program is available by contacting Vivian Ladd.

Resources:

Jacqueline C. Dolev, MD; Linda Krohner Friedlaender, MS; Irwin M. Braverman, MD. "Use of Fine Art to Enhance Visual Diagnostic Skills." [Journal of the American Medical Association \(JAMA\)](#), September 5, 2001.

McGarvey, Kathleen. "Practicing the Art of Observation." Rochester Review, January/February, 2008.

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Title: Team Building Workshops

Length: One session, 90-120 minutes

Number of students served: 12 -24 participants/workshop

Summary:

The museum has offered a number of workshops that support team building through problem solving in the galleries. Groups that are often isolated from one another by hierarchies within the medical school or the hospital are invited to get to know one another better at the museum. Groups include faculty and students, 4th year and 1st year medical students, student doctors and their patients, retired doctors and graduating medical students, doctors and nurses, etc. A museum educator models a strategy for looking carefully and thinking critically about a work of art.

Teams made up of members from each group are then assigned to another work of art and asked to use these strategies to analyze and interpret it. Everyone has an opportunity to contribute because the playing field is leveled in terms of knowledge of and experience with works of art. After 20 minutes, each group shares their discoveries and theories about their object with the rest of the participants. At the end of the workshop, the group is asked to reflect on the process and what they learned about each other.

The goals of these workshops are:

- to introduce participants to the museum and what it means to experience a work of art
- team and relationship building
- to break down hierarchies between participants

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Title: Programs that Encourage Personal Reflection

Length: One session, 60 minutes

Number of students served: 12 -24 participants/workshop

Summary: These programs invite medical students and professionals to come together and reflect on some aspect of their medical training, experience, or work. After modeling for the group a method for looking carefully and thinking critically about works of art, participants are invited to explore a particular gallery for objects that reflect something about themselves. Participants are given a prompt designed specifically for the group. Examples of previous prompts include:

- Choose a work of art that in some way reflects your thoughts about this past year. What is it about the work of art that echoes your experience as a medical intern?
- Choose a work of art that soothes your spirit. What is it about this work that you find healing?

- Choose a work of art that reflects your professional practice. What is it about the work that echoes your approach or philosophy?

Participants then share their choices and reflections with the group. At the end of the workshop, the group is invited to reflect upon the experience, what they learned from one another, and the ways in which the museum can be a resource for work/life balance.

The goals of these workshops are:

- to introduce participants to the museum
- to serve as a resource for reflection
- to provide a place of restoration and healing
- to advocate for a more humane discipline for medical students, established health professionals, and patients.

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Title: Medical Program Sampler

Length: One session, 90 minutes

Number of students served: 12 -24 participants/workshop

Summary: These programs provide medical groups with an overview of the types of experiences they can have in the museum. Participants are offered 30-minute experiences from each of the above workshops (The Art of Clinical Observation, Team Building/Problem Solving, Personal Reflection.) These workshops have been offered to Dartmouth undergraduate students interested in a career in the health professions, hospital residency programs, and medical symposia participants.

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Title: Elective Courses

Length: 2-3 sessions for two hours

Number of students served: The Art and Craft of Medicine (13) Observation and Expression (8)

Summary: The museum collaborated with second year medical students to create two elective courses open to all Geisel School of Medicine students.

The first course offered in 2006-2007, The Art and Craft of Medicine, involved three sessions in our study-storage center and in the galleries examining objects that referred to medical technology, the human body, and the doctor-patient relationship. We looked at western and non-western objects and exposed students to many different approaches to learning about art including a lecture format, a collaborative, inquiry-based experience, and sketching. There

were an additional three classes led by the medical student and guests in an art studio that focused on art making.

The second course: Observation and Expression: The Cultivating and Therapeutic Power of Art, offered in 2007-2008, involved two sessions at the museum, one in the galleries and one in study-storage. It was designed to train medical students to offer art experiences as a form of therapy and healing to patients. Students learned how to engage patients in looking carefully and thinking critically about works of art and spent time exploring works that expressed strong emotions. In four separate sessions that took place elsewhere, students learned about dance therapy, various art making techniques, and how to work effectively with patients.

Evaluation: An evaluation form was circulated at the end of each course. The compiled evaluation responses from "The Art and Craft of Medicine" is available by contacting Vivian Ladd.

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Christina Yang
Director of Education, Public Programs

Title: The Pulse of Art: Connections Between the History of Art and the History of Medicine

Length: Full semester course comprising 10-11 sessions lasting one hour and half each

Number of students served: Class is limited to 20 students.

Summary:

The Pulse of Art: Connections Between the History of Art and the History of Medicine is a unique, full-semester course that harnesses the power of significant works of art to increase the observation skills and empathic responses of medical students, physicians, and health-care providers. By organizing the course into thematic topics ranging from plague and ebola to portraiture and prosopagnosia, and recognizing historic contexts for the art and science discussed, students also gain an awareness and understanding of the trajectory of medical understanding and discovery. Because the classes engage the students in discussion and activities, they are limited in size to encourage verbalization, discussion, active participation, and teamwork. Most classes center on the observation of carefully-selected images of art which serve as a springboard for important medical topics.

Each session is designed around significant global works of art selected to focus on a key topics relevant for students and practicing physicians. In addition to careful observation, the students engage in activities to enhance verbalization and evidence-based opinions. At the conclusion of each session, the students consider a question related to the topic.

Renowned guest speakers who have creatively pursued careers merging art and medicine are invited to lead lectures. Two sessions take place at the Guggenheim and one at the Rare Book Room of the New York Academy of Medicine.

Program Goals

1. Increase observation skills by focusing on works of art that offer rich visual information.
2. Improve descriptive skills through verbalization of the formal, narrative and emotional elements of the art viewed.
3. Enhance empathy by examining the experience of illness and range of human conditions as expressed through the powerful and personal vision of artists.
4. Relate art to the cultural, scientific, and medical context of the age in which it was produced providing an awareness of the change in medical knowledge and therapies over time.
5. Experience the possibility of various interpretations and several equally valid readings of a single work of art.
6. Provide an opportunity to hear individual perceptions and to work in teams in order to gain insight into the meaning of a work of art and respect for different opinions. A process that is similar to the way physicians must use individual perception and then work as a team to gain insight into the totality of a patient's care.

Learning Outcomes

Students will:

1. Practice active looking and communication by examining both original works of art and reproductions.
2. Engage in exercises to enhance observation and communication skills and translate these into everyday situations such as physical diagnosis and effective patient communication.
3. Reflect on the privileges and responsibilities of the physician through discussion of ethical and humanistic questions.
4. Increase their respect of the differences among colleagues and among the people who need medical attention.
5. Gain a framework for the sweep of medical history to better appreciate the current state of medical knowledge.

Evaluation:

The students are asked to fill out an evaluation after each session as well as a detailed, four-page evaluation with comments after the completion of the course.

A former student at The Icahn School of Medicine at Mount Sinai, Gabriel Slamovits, is currently engaged in a scientific study to evaluate the impact of the course. After participating in The Pulse of Art during his first year in medical school, he proposed designing a controlled study to measure the effect of the course on the students. He is gathering data from pre-course and post-course exercises in making observations about works of art. He presented his initial results at the Medical Student Research Day at Mount Sinai in 2014.

Resources: Since the course is an elective, there are no assigned readings; however, the leaders bring many important books on the history of medicine to each class for review, and relevant sources are recommended for voluntary reading on each topic.

Evaluation and syllabus available at

<http://www.utdallas.edu/arhistory/medicine/syllabi/index.html>

Isabella Stewart Gardner Museum

Boston, MA

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Gardner Museum Programs

The Gardner Museum offers custom designed programs for medical providers, students and educators that hone observation and critical thinking skills, provide a forum for professional reflection, support compassionate practice and promote well-being.

Sanctuary at the Gardner Museum

Harvard Medical School, Arts and Humanities Initiative

A series of three creative workshops offered to Harvard Medical Students with a focus on self-care, personal and professional reflection, and community building. Sessions are co-designed by Corinne Zimmermann, Lisa Wong and HMS students, and address topics that students identify, including working in teams, managing transitions, and contemplative practices. Creative expression and art-making practices, such as music, poetry, drawing, improvisation, are an integral part of the program

Museum educator: Corinne Zimmermann

Medical educator: Lisa Wong, MD

Boston University Henry M. Goldman School of Dental Medicine

Annual VTS workshop for Advanced Standing Class

A 75 minute session held at the Gardner Museum introducing students to the museum's collection and to the method of the Visual Thinking Strategies (VTS). The museum visit provides students with a tool for close observation and critical thinking.

Museum Educators: Corinne Zimmermann, Michelle Grohe, Sara Egan

Medical Educator: Neal Fleisher

Boston University Henry M. Goldman School of Dental Medicine

Annual VTS workshop for 4th year students receiving a doctorate in dental medicine (DMD)

A 75 minute session held at the Gardner Museum introducing students to the museum's collection and to the method of the Visual Thinking Strategies (VTS). The museum visit provides students with a tool for close observation and critical thinking.

<http://www.bu.edu/dental/2014/08/05/why-art-is-important-to-dentists-dr-neal-fleisher-explains/>

<http://www.bu.edu/arts/arts-integration-video-series/>

Museum Educator: Corinne Zimmermann, Michelle Grohe, Sara Egan

Medical Educator: Neal Fleisher

Boston University, Department of Occupational Therapy, Sargent College

A 75-minute session at the Gardner Museum held during orientation for all incoming doctoral students. Students are introduced to the method of Visual Thinking Strategies (VTS) with goal of providing them with a tool for close observation and critical thinking. Establishes a framework for key habits of mind that are reinforced throughout the program.

Museum Educator: Corinne Zimmermann

Medical Educator: Anne Escher

Joslyn Art Museum

Omaha, NE

Nancy Round

Director of Education & Outreach

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Medical School Partner

Creighton University School of Medicine

Susie Severson, Director of Adult Programs

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Title: Clinical Moral Perception, Art, and Medicine

Length: Four-week elective offered by Creighton University at Joslyn Art Museum. Students are required to meet with the course director and Joslyn staff at the Museum twice during the semester. Additional visits to the museum occur as needed.

Number of students served: Attendance capped at 5 people, all fourth-year medical students.

Summary: "Observation, representation, and interpretation of visual and narrative information are critical components of the clinical diagnostic skill set. Such skills also situate clinicians to be morally responsive, to respond with care to the needs and vulnerabilities of their patients.

The purpose of the course is to offer students opportunities to experience art, reflect on their futures as physicians, resonate with the humanities and visual art in this phase of their professional development, internalize the humanistic impulses of artists whose work is represented at Joslyn, critically appraise their own patterns of perception, and relate their own sensitivities to the relationships with patients, patient's loved ones, and colleagues."

Lawrence Wilson Art Gallery

Perth, Western Australia

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Title: Object Based Learning for Emergency Medicine

Length: A series of eight monthly interactive Object Based Learning workshops.

Number of Participants: Varied from 10 – 18 per session according to availability of the participants.

Summary:

A series of Object Based Learning workshops was conducted for Emergency Medicine Specialists and Trainees. These were Mentor (Consultant) and Mentee (Registrar) partners in Emergency Medicine working at Sir Charles Gairdner Hospital, Perth, Western Australia. The workshops were conducted at the Lawrence Wilson Art Gallery at the University of Western Australia. They were led by Dr Ioana Vlad Co-Director of Emergency Medicine Training at Sir Charles Gairdner Hospital and Dr Janice Lally, Curator of Academic and Public Programs at LWAG.

The workshops were planned to utilize artworks displayed in the annual program of exhibitions on display at the Lawrence Wilson Art Gallery or from the gallery's collections. They were run 6 -7:30pm when the gallery was closed to the public and the participants were able to attend. Individual sessions provided an opportunity for each participant's own close observations to be done quietly with time for them to explore and then share their different responses to the same

artwork. Small group and then large group discussions provided opportunities to share responses, with each individual's personal observations and descriptions and self expression to be heard and valued within a non threatening group context, no matter their level of seniority in the workday context.

Program: The aim was to: LOOK, THINK, ENGAGE and to experience close observation of unfamiliar material in a non threatening context, to develop an extended vocabulary for description, together with promoting confidence in communication amongst the partner mentors and mentees.

At the outset, the participants were given brief background notes:

'The analysis of art and cultural objects promotes specialised skills complimentary to other disciplines, including:

- Creative thinking
- Close visual-spatial observation
- Critical thinking, reflection and analytical skills
- Tolerance of ambiguity
- Intuitive and emphatic thinking
- Complex ideas are communicated through artworks. Artistic interpretation and analysis is beneficial for disciplines unfamiliar with art to be used as a way to support students to think differently.
- This approach develops visual literacy together with perspectives on what it means to be human across various cultures.
- Art is a window into the world in which we live, stimulating self-reflection and demonstrating the value of collaborative problem solving interaction.
- No previous training in the arts or art history is necessary, simply the ability to look, think and engage.'

The workshops commenced with a short introduction to each other, the process for the evening and a brief introduction to the artworks to be considered for that session.

The participants then separated into two groups each led by one presenter. They were invited to quietly observe alone, without discussion with the others, noting details in the artworks. Each individual was then invited in turn to have a voice, alone at first, and to share their personal observations as to what were the prominent visual details they had observed; ie physical descriptors, such as colour, form, darkness, contrast etc.

This was invited from each person in the group before then returning to each participant once more inviting them to discuss their impression of the subject or story depicted in the picture, thereby introducing emotions or specific narrative factors.

In turns, each person was thus able to freely tell the whole group what they both observed and felt, with each sharing first what they had observed before sharing what they considered may

be portrayed (eg Story? Ideas?). Then further discussion amongst themselves in the small groups was invited. The two groups then reunited and joint discussion of the large group was invited. In this context the medical practitioner leader offered more thematic focus.

The curator leader then provided more art historical information about the artworks, the artists and the exhibition in which they were displayed and then folded this information back into the group discussion issues. On each occasion, according to the artworks observed, a different set of questions and issues were highlighted for discussion. These included for example: identity, cultural differences; personal perspectives, changing values over times and across cultures, environmental concerns and changes over time, and workplace bullying, and harassment. Emotions, chaos, defiance, anger, pain; physical and mental, and dark issues including violence, physical and mental were able to be canvassed in a comfortable context.

Evaluation: This series was not formally evaluated; but primarily provided opportunities for mentors and mentees to gain confidence in working together.

Positive feedback included repeated attendance (which was voluntary), verbal expressions of enthusiasm for this experience, their stated appreciation of experiencing artworks in a pleasant context and learning about artworks from each other's observations as well as from the art curator.

...

Title: Medicine and Art Workshop

Length: A series of eight monthly interactive workshops.

Students served: 20 registered participants; medical and health professionals, per workshop.

Summary:

Scheduled as a Public Program of the Lawrence Wilson Art Gallery the events were open for public registration by medical and health professionals. They were conducted 6-7:30pm on a Thursday evening, one per month for 8 months during the Gallery's annual exhibition program, commencing in March and finishing in October.

The workshops invited the participants to 'develop your visual language skills while refining communication skills through close observation of artworks. Feel more comfortable with ambiguity and develop reflective practice as you explore the human condition. Enrich your empathic skills while enhancing social and cultural awareness.'

Medicine and Art takes the form of a series of workshop events in which artworks within a gallery context are observed closely and then discussed in an informal group context led by two presenters working in partnership.

One presenter is a qualified and active medical practitioner who is a medical educator and the other an art historian who is a curator of public and academic programs. The presenters meet in the gallery prior to the workshop to view the exhibitions and to select the artworks to discuss and finalize the workshop plan, formulating key questions and issues for consideration.

Program goals and objectives:

- To make detailed observations and improve visual analysis
- To communicate observations more effectively
- To identify how emotions and bias can affect objective observations
- Demonstrate visual analysis skills through accurate and detailed descriptions of art
- Increase comfort in speaking (and writing) about visual observations
- Develop strategies for dealing with ambiguity and evaluating diverse interpretations
- Demonstrate empathetic communication in the discussion of the human condition
- Increase comfort speaking (and writing) about cultural and social differences

Evaluation: This was a series of voluntary free public workshops targeted to medical and health professionals. A number of participants returned for repeat attendance.

Formal pre and post evaluation forms were completed.

The feedback was positive; a number of participants indicated that they already had a prior opinion that there was a link between Art and Medicine. A number of participants requested a longer time be allotted for each workshop. A number indicated that they valued the art historical information and working in the gallery context.

Resources:

- <https://theconversation.com/friday-essay-can-looking-at-art-make-for-better-doctors-70484>
- <http://www.healthandculture.org.uk/not-so-grim-up-north/prof-helen-chatterjee/>
- https://www.heacademy.ac.uk/system/files/kirsten_hardie_final.pdf
- <http://www.utdallas.edu/arhistory/medicine/>

Low Art Museum, University of Miami

Miami, FL

Hope Torrents
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Medical School Partner

University of Miami Miller School of Medicine, School of Nursing and Department of Psychology, Residents in Pediatrics, Internal Medicine and Psychiatry, VA Hospital Jackson Memorial, Department of Physical Therapy, Lennar Medical Center

Summary: The Fine Art of Health Care is a program created in partnership with the Lowe Art Museum, Miller School of Medicine, School of Nursing Health Studies and the School of Education at the University of Miami, Miller School of Medicine Residency programs in: psychiatry, pediatrics and internal medicine, VA Hospital Jackson Memorial. Graduate students and in-service professionals spend time looking at and discussing works of art to hone observation and communication skills in the service of clinical diagnosis.

The workshop(s) are embedded into the first year MPH/MD program. Our workshops goals are: improving interdisciplinary exchange, observational literacy, honing critical thinking, & enhancing professional communication. Currently the Miller School of Medicine is doing a research study on the impact of the program on first year internal medicine residents.

The School of Nursing Health Studies has incorporated VTS into our curriculum for nurse anesthesia students with the goal of improving interdisciplinary interaction, developing observational literacy, improving critical thinking, and expanding communication skills. SONHS has applied for a Mellon Grant to study the effects of the Fine Art of Healthcare program on nursing students and their communication skills while they are in the simulation hospital.

Title: Fine Art of Health Care

Length: Isolated workshops can last between 2-3 hours and we have inter-professional workshops that we run in the fall semester; September, October and November and they are 2 1/2 hours.

Evaluation: currently two (2) studies are being done in the Miller School of Medicine and the School of Nursing Health Studies at the University of Miami.

Resources:

- www.nytimes.com/2014/03/20/arts/artsspecial/is-there-a-doctor-in-the-exhibition
- www.miamiherald.com/living/health-fitness/article31354835
- [VTS in Medicine Video](#)
- <http://wlrn.org/post/how-university-miami-uses-art-train-future-doctors>

Mayo Clinic College of Medicine

Mayo Clinic Lyndra P. Daniel Center for Humanities in Medicine

Jacksonville, Florida

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Museum Partners

Cummer Museum of Art & Gardens

Jacksonville, FL

Director of Education
904-356-6857
www.cummERMuseum.org

Museum of Contemporary Art (MOCA) Jacksonville

A Cultural Institute of UNF
Jacksonville, FL

Caitlin Doherty

Director

904-366-6911

mocajacksonville.unf.edu/

Yellow House

Jacksonville, FL

Hope McMath

Director

904-419-9180

yellowhouseart.org/

Title: Humanities in Medicine for the Physician

Length: Half day course conducted 4 times per year at the Cummer Museum of Art & Gardens.

Length: Half day course conducted 3-4 times per year at the Museum of Contemporary Art Jacksonville.

Length: Half day course conducted 3-4 times per year at Yellow House.

Number of medical students / learners served: 20 per class

Summary:

The Center for Humanities in Medicine supports Mayo Clinic's primary value, the needs of the patient come first, by integrating the arts and other expressions of human culture into the healing environment. The Center engages interconnected communities of patients, families, staff, learners, and the public to promote the artful and compassionate delivery of healthcare. Music, visual art, gallery exhibitions, dance, theatre, creative writing, lectures and other educational programs all contribute to the healing environment and uniquely touch each of Mayo's three shields: Patient Care, Education, and Research. Furthermore, Humanities in Medicine is a champion and ideal collaborator for Mayo Clinic initiatives such as the institution's commitment to diversity and inclusion, emphasis on innovation, encouragement of continued professional development, and most significantly, belief in caring for the whole

patient. The Center has identified four primary objectives: caring for patients and visitors; caring for caregivers (and self-care); educating staff and learners; research.

We have developed a medical humanities curriculum that is conducted at the museum on a quarterly basis for primary care residents at Mayo Clinic, which we believe provides evidence for the utility of medical humanities activities in resident education and professional development.

Seminars conducted at partnered museums offer analysis, reflection, and participation in a variety of medical humanities activities including narrative medicine, visual arts, facilitated art discussion and interpretation, medical improvisation, dance/movement, yoga/meditation. Through regular participation in medical humanities activities, we expect primary care residents will report improved capacity in communication skills and empathy as measured by ACGME Aims 2 and 3:

ACGME Aim 2: Demonstrate improved interpersonal and communication skills with patients, families, colleagues, and health team members (ACGME Competency IV.A.5.d)

ACGME Aim 3: Determine increased ability to demonstrate compassion and empathy to all patients, families, and colleagues, including respect for diverse ethical and religious perspectives, diversity in gender, age, sexual orientation, and race, resulting in an enhanced perception of the profession of medicine in society and community (IV.A.5.e.)

Teaching objectives include:

- Introduce medical students to the Humanities and humanities-based learning activities and experiences in a museum setting as a complement to the sciences in the traditional medical curriculum.
- Guide students in utilizing humanities activities as a strategy for sustaining empathy, managing stress and avoiding burn-out both during medical school and in their future careers.
- Expose students to the practical application of humanities and arts activities as healing tools with the potential to positively impact patient outcomes.
- Engage medical students with professional teaching artists representing the full range of humanities disciplines.
- Introduce residents to tools for recognizing the humanity in medicine and safeguarding their own through the rigors of medical training and practice.

Learner Outcomes:

1. Identify attributes of compassion as illustrated in paintings, sculptures and works of art.
2. Analyze the affective aspects of their personal/professional experience through critical art analysis.

3. Evaluate the nature of suffering in paintings, sculpture and works of art.
4. Interpret patient stories (narratives), vis-à-vis impact on choice of health care through guided discussion.
5. Exhibit increased empathy and appreciation for diversity through paintings, sculptures and works of art as personal expression and cultural tradition.

Teaching Methods: Facilitated group discussion, group activities, individual reflection.

Sample course outline:

Participants engage in facilitated discussion of original works of art in the galleries. Participants view each work of art together from a shared starting point as images are not circulated in advance of the meeting. Discussions focus on the work that is viewed together and is examined using the “Feldman Approach” of art analysis. Also referred to as the Inquiry Method (or Inquiry-Discussion Method), the Feldman Approach is typically used in museum education. The objective of this approach is to promote interaction between the facilitator and audience using questioning strategies that invite critical thinking, comparing and evaluating. Questions are formulated in a way to direct the audience’s attention to specific details of the work of art. Feldman’s 4 steps are: 1) Description, 2) Analysis, 3) Interpretation, 4) Judgement. Facilitation techniques include using open-ended questions that do not denote value judgements, linking and framing participants’ comments, and paraphrasing comments neutrally. Participants are then offered a writing prompt for a free-writing session related to their choice of one of the works of art discussed, followed by group share and discussion of reflective writing.

Evaluation: Pre and post-intervention surveys are administered that will allow us to learn how Humanities immersion activities in resident education might best enhance progress toward ACGME competencies.

Resources:

Mueller PS. Incorporating professionalism into medical education: the Mayo Clinic experience. *The Keio journal of medicine*. 2009;58:133-143.

Hedges, M. S., MD, Werlang, M. E., MD, Yates, C. M., BA, & Lewis, M. D., MD. Promoting wellness in residency training. *Northeast Florida Medicine*. 2017;68(4), 29-36.

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.

McNay Art Museum

San Antonio, TX

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UT Health Science Center, Center for Medical Ethics and Humanities

Title of the Course: Art Rounds

Length: 4-5 sessions at McNay; 3-4 lectures at UTHSC; Student display of creative responses at UTHSC (2 hours per class)

Summary of Course: For the past four years, the course included medical and nursing students only. In 2015, Art Rounds expanded to students in the Health Professions School including Occupational Therapy, Respiratory Therapy, and Physical Therapy.

Art Rounds is an elective class offered in the fall semester with 4-5 sessions at the museum. Other sessions take place at the medical school. Sessions at the McNay focus on observing physical qualities of objects; communicating effectively with peers about observations; recognizing and discussing ambiguity in interpretations; and applying observation skills with works of art to observing and treating patients.

Favorite Features:

1. Food—participants enjoy light refreshments and a warm-up activity at the beginning of each museum session.
2. Art Patient—pairs of students are assigned and art patient (work of art in the McNay Collection) to visit each time they come to the museum. With each visit, they have a different assignment for looking.
3. Differential Diagnosis—students create a differential diagnosis based on portraits in the McNay collection
4. Actor—students apply observational skills developed in looking at works of art to observing and treating an improvised patient or actor displaying pre-determined symptoms.
5. Creative Response—Inspired by their art patient (work of art in the McNay Collection), students create a response. Creative writing, photography, collage, sculpture, painting, and cooking are just a few of the wide ranging responses exhibited in the past.

Measured Outcomes:

Participating students have displayed:

- Gains in number of observations
- Gains in words used describing observations
- Longer observation times in post-test compared to pre-test
- Gains in comfort level with ambiguity
- Enhanced communication skills

Contact Kate Carey for student evaluation response samples.

Resources:

Klugman, C., Peel, J., Beckmann-Mendez, D. "Art Rounds: Teaching Interprofessional Students Visual Thinking Strategies at One School." *Academic Medicine*, 2011; 86(10): 1266-1271.

Klugman, C., Beckmann-Mendez, D. "One Thousand Words: Evaluating an Interdisciplinary Art Education Program." *Journal of Nursing Education*, 2015; 54(4): 220-223.

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The University of the Incarnate School of Osteopathic Medicine (UIWSOM)

Title: Art & Medicine

Length: 2 semesters—integrated with Professional Development Seminar

Number of Students Served: 37

Summary: Integrated with the Professional Development Seminar, the Art & Medicine Program is designed to improve learners' powers of observation while increasing their humanistic sensitivities and cultural and emotional intelligence in an interprofessional and interdisciplinary environment.

Memorial Art Gallery, University of Rochester*

Rochester, NY

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Medical School Partner

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Title: Anatomy in Art

Length: 2-hour session held at the Memorial Art Gallery

Elective offered for 1st year medical students. Offered in the fall of the 1st year during the semester that students are enrolled in Gross Anatomy.

Number of students served: Participation capped at 15 students.

Summary: For centuries, artists have visited anatomy labs to learn how to draw the human body. In this two-hour session students will explore how artists from the ancient world to today have represented the human body in art.

Course objectives:

1. Development of observational skills;
2. Enhancement of critical thinking skills;
3. Development of verbal communication skills.

Evaluation: No formal evaluation for this single session elective.

...

Title: Art, Literature, and Medicine

Length: 10-session class offered over 2 weeks

Number of students served: Participation in this class was capped at 8 students.

Summary: This course is being offered to 4th year medical students to give them the opportunity to use works of art and short selections of literature to reflect on their experience of doctoring and medical life. Students will be asked to identify a patient they have cared for and find a work of art in the Memorial Art gallery's collection to help them process the experience in a written reflection. The last session the students will share their written reflections with their classmates in front of the work of art.

Evaluation: Pass/fail class. To pass, students were required to attend and participate in all 10 sessions. The written reflection piece was also a requirement for a passing grade.

...

Title: Art, Observation, and Mental Illness

Length: 10 two-hour sessions held daily over 2 weeks; offered as elective for 4th year medical students. Sessions held at Memorial Art Gallery and George Eastman Museum.

Number of students served: Course was limited to 12 students.

Summary: Works of art will be studied in this course through the "lens" of the Mental Status Exam. The focus of the course is the improvement of observational and communication skills, particularly as related to the assessment of patients with mental illness.

Course objectives:

1. Development of observational skills;
2. Understand the components of the Mental Status Exam and use it as a tool to observe works of art.
3. Enrich appreciation for the representation of mental illness in art and for works of art created by individuals with mental illness
4. Become more familiar with the DSM criteria for common psychiatric illnesses.

Evaluation: This was offered as a pass/fail class. Attendance at all 10 sessions was required to receive a pass. Written reflection on a work of art that represented an assigned mental illness.

...

Title: Human Development in Art

Length: 8 week seminar, offered as an elective for 2nd year medical students from 2007-2012.

Number of students served: Seminar class was capped at 12 students.

Summary: This course will be given at the Memorial Art Gallery for two hours per week. Students will observe, interpret and discuss various artworks. Some very short literary pieces will be paired with selected works of art, and these will need to be read before each class so they may be discussed in front of the work of art.

Individual sessions covered such topics as: Mother and Child; Father and Child; Adults in Relationship; Men and Women at Work and Leisure; Men at War; Aging; Mortality and the Wish for Eternal Life.

Course Objectives:

1. To enhance skills in observation and communication through looking at Art at MAG (Memorial Art Gallery);
2. To understand the stages of human development and learn how artists depicted individuals throughout the life cycle over the course of civilization and in different cultures.
3. To discuss and explore some humanistic themes in Art and some Literature including attachment, loss, birth, death, and the wish for immortality.

Required Assignments: Each student will select a work of art from the collection and write a brief (one page) personal reflection about how it relates to the student's life. The art may stimulate a memory, an association or connection, or a familiar or important feeling or idea.

Evaluation: Offered as a pass/fail class. Attendance and participation at all sessions and writing a final reflection paper is required.

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Title: Visual Arts and Healthcare: Framing the Field

Length: Semester-long, 14 weeks. Class is offered once a week, each session is 3 hours long.

Students served: This course is offered to both undergraduate and graduate students at the University of Rochester. Class size is capped at 16 students.

Course Description: As the fields of medicine and healthcare developed, the visual arts played important roles in their histories: 1) portraying of the human body—inside and out; 2)

recording the symptoms and progression of disease; 3) representing the practice of medicine; 4) and integrating visual imagery in healing itself.

Field trips to area collections with relevant primary materials will include visits to the UR's Miner Library, the Memorial Art Gallery, and the George Eastman Museum. Joining the course throughout will be curators, historians, archivists, and artists from the Rochester community. Students will:

1. Study the visual arts as essential subjects in themselves and not simply as illustrations of the history of healthcare;
2. Develop an awareness of the cultural impact that the visual arts have had representing diverse aspects of health, illness and healthcare;
3. Be introduced to object-based learning and guided in the practice of this discipline. Included will be experiences with close-looking at works of art and artifacts in a diversity of media, from a wide range of time periods and cultures;
4. Consider works of visual art through diverse perspectives (race, gender, religion, age, etc.) and the effects these perspectives have on interpretation;
5. Be introduced to historical and contemporary ways the visual arts have been directly used in healthcare settings and in patient care.

Evaluation: Attendance and active class participation, including discussion of readings, constitute 20% of the grade.

Resources:

The Five Question Protocol: Art and Observation at the University of Rochester:

<https://medhum.digitalscholar.rochester.edu/>

Beyond Observation: Developing Clinical Competencies at the Art Gallery

Stephanie Brown Clark, MD, PhD and Susan Dodge-Peters Daiss, MA, MDIV

Since 2002, Stephanie Brown Clark from the University of Rochester School of Medicine & Dentistry's Department of Medical Humanities and Bioethics and Susan Dodge-Peters Daiss from the University of Rochester's Memorial Art Gallery have partnered to develop a protocol using the visual arts to enhance skills of observation for medical students and health practitioners. This interactive site demonstrates the Five Question Protocol they developed, and sets this project within the context of both medical and museum education.

**New 2019*

The Metropolitan Museum of Art

New York, NY

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The Center for Innovations in the Advancement of Care (CIAC) at NYU Langone Health, New York

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Health Sciences Library

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...

Title: The Art of Medicine

Summary: The Art of Medicine is a series of three sequential courses, each consisting of five weekly two-hour sessions at the Metropolitan Museum of Art, offered during the first two years of medical school. The courses are designed to enhance observational skills, draw attention to the importance of perception (i.e., the role of the self in observation), and augment communication skills via student-centered exercises focused on interaction with art with the guidance of professional art educators. Throughout, students also develop skills in teamwork, attention, management of ambiguity, and receptivity. We are studying both short- and long-term outcomes of the courses.

Design and implementation of a variety of art programs for healthcare practitioners.

www.artmedinsight.org

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Title: Observation and Uncertainty in Art and Medicine: A Combined Course for Columbia and Weill Cornell Medical Students

Length: Six sessions, class time: 12 hours (2 hours per week for 6 weeks)

Students Served: Participation limited to 6 first-year students from Columbia and 6 from Cornell. (Class format changed in 2015).

Course description: Based at the Metropolitan Museum of Art, this course will use looking at, describing and interpreting art in order to strengthen diagnostic and communication skills. The course will focus on the subjective and interpretive stance inherent in the process of seeing while further developing techniques of visual analysis.

Through a variety of participant-centered exercises, students will have the opportunity to enhance their observational skills and reflect in particular on issues concerning the management of uncertainty, biases, and ambiguity. The majority of time will be spent in the galleries actively exploring these issues through discussion, writing and sketching.

Basis of course sessions

- Interactive exploration of art works emphasizing description and interpretation
- Discussion of perceptual issues
- Hands-on art and writing exercises
- Observational exercises
- Review of assignments

Evaluation: Columbia has been conducting evaluations since the class' inception in 2005 and Anna Willieme, who teaches the class, has student evaluations as well. Columbia and Cornell have been organizing a joint study of the class over the last two years which should result in a published article.

Resources: <http://www.narrativemedicine.org/aimseminars.html>.

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Title: Reflecting Art in Nursing Practice taught at The Center for Innovations in the Advancement of Care (CIAC) at NYU Langone Health, New York

Length: 4 sessions

Number of students served: 12-15 experienced nurses in practice

Course description:

Health humanities education provides health professionals a creative, interdisciplinary approach to clinical problem-solving scenarios as well as a humanistic approach to patient care. Many experienced nurses lack professional development opportunities that are intellectually challenging and creatively engaging. Humanities education programs bolster reflection, self-care and innovation. The purpose of the course is to help nurses infuse clinical practice with creative thinking framed in a visual arts context. Through facilitated learning activities, visual problem solving strategies and discussions of works in the collection of The Metropolitan Museum of Art, participating nurses will be able to improve skills of observation, description, communication and empathy.

All participants will complete an evaluation after each workshop related to the learning objectives. The evaluation will include questions on whether nurses feel they will use what they have learned in their practice, and how they will use it. They will be asked to reflect on how viewing, discussion and analysis of art may influence their practice more broadly.

Program goals and outcomes:

At the completion of this program the learner will be able to:

- Identify connections between the visual arts and clinical practice
- Develop personal awareness and advanced skills of observation, description and communication
- Apply new strategies to clinical practice and self-care.

Mildred Lane Kemper Art Museum at Washington University in St. Louis

St. Louis, MO

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Medical School Partner

Washington University School of Medicine in St. Louis

Title: Art of Observation

Length: One 90-minute session

Students served: 12-15 first year medical students

Summary: Collaborations between medical schools and art museums have proved successful in increasing students' ability to look deeper by using interaction with works of art to develop visual analysis skills. This program reinforces the importance of the art of observation within the practice of medicine and is open to interested medical school educators and their students.

Students will:

- examine and analyze a selection of artworks in the Kemper Art Museum galleries
- form interpretations using visual evidence
- hone their observational and descriptive abilities
- improve their verbal and nonverbal communication skills

<http://kemperartmuseum.wustl.edu/files/Art%20of%20Observation%20Flyer.pdf>

Evaluation: Medical school educators and students are asked to complete a survey at end of program. Link to the survey: <https://www.surveymonkey.com/r/YVLLG5Y>

Resources:

<https://www.artsy.net/article/artsy-editorial-med-schools-requiring-art-classes>

<https://www.nytimes.com/2016/10/30/arts/design/how-an-aesthetes-eye-can-help-a-doctors-hand.html>

<https://americarichest.com/the-best-leaders-see-things-that-others-dont-art-can-help/>

Montreal Museum of Fine Arts

Montreal, Quebec

[Marilyn Lajeunesse](#)

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Please note that this is a pilot project.

Title: Elective Module for Physicianship Apprenticeship: The Montreal Museum of Fine Arts and the McGill MSS Humanities and Arts in Medicine Student Interest Group

Length: Sessions (1 per group of students with their physician mentor) were 1.5 to 2 hours each

Number of Students Served: 9 sessions with approximately 7-8 students per session

Summary:

Each session will be led by an experienced museum educator. It will be approximately 1 ½ to 2 hours in length. It will be scheduled at a time of mutual convenience for the museum staff and the PA groups. The sessions will be offered on Wednesday evenings. This is ideal because the galleries of the temporary exhibitions are open at that time (and there are extra security people on hand). A few Saturdays are also available.

Specific objectives of the module:

- To cultivate close observational skills in viewing the artworks in the MMFA's encyclopaedic collection
- To develop tools in engaging in a formal analysis of the works observed
- To encourage interpretation of the works, using evidence (i.e. primary observation) found directly in the object under discussion

- To make connections between these aesthetic observations, analyses and informed interpretations and to consider their application to clinical situations
- To create an atmosphere of respect and tolerance of other's opinions through discussion and sharing of individual perspectives of the art object
- To foster reflection

Evaluation: An evaluation form is distributed to students and their mentors.

Resources:

Boudreau, J. Donald, Cassell, Eric J., Fuks, Abraham, Preparing medical students to become skilled at clinical observation in Medical Teacher, 2009.

Mount Saint Mary's University Los Angeles

Los Angeles, CA

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Title: Looking Is Not Seeing, an innovative pedagogy

Length: Looking Is Not Seeing is taught once every semester to each cohort of BSN nursing students at Mount Saint Mary's. Classes are held at museums and on campus with mobile toolkit.

Students served: 30-50 per cohort group, total approximately 160 students per year of accelerated BSN students and Traditional BSN students.

Program goals and outcomes: Looking Is Not Seeing is offered to enhance clinical observation skills, provide student centered, hands on collaborative learning experience that enhances teamwork and builds awareness of implicit bias, the need for attention to detail, and the value of a diversity of voices in the clinical arena.

Evaluation: Current research in progress on the impact of Looking Is Not Seeing.

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

Museum of Fine Arts, Boston

Boston, MA

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MFA Programs

Since 2009 the MFA has worked with doctors to provide workshops focusing on reflection, dialogue, and relaxation. Sessions activities also include building communication skills, teamwork and improving observation skills all through the lens of the MFA's collection. We've developed programs for residents, interns, nurses and other medical specialists. Workshops are co-taught with museum educators and medical educators. Most are two-hour single session workshops that include three to five activities in the museum's galleries.

Training the Eye: the Art of Physical Diagnosis

Harvard Medical School faculty in collaboration museum educators and MFA staff developed this Harvard Medical School (HMS) course in 2003. It uses the Visual Thinking Strategies approach to looking and discussing, as well as other techniques, to stimulate both close looking and the kind of thoughtful group development of a theory based on visual evidence that plays an important part in diagnosis.

This course is currently taught and coordinated by Dr. Joel Katz and Judy Murray, and takes place at the MFA, using galleries and a classroom space.

Visual Arts and Dermatology

A workshop with first through third year dermatology residents from Harvard Medical School. Through a series of activities in the galleries with the museum's collection the workshop focused on improving observation skills, critical thinking, diagnostic abilities, leadership and communication skills among the residents. Discussions also centered on patient-doctor relationships as well as how to confront one's assumptions and fear of ambiguity. The artwork provided a safe space for the residents to build important skills and discuss challenging topics that they face on a regular basis.

Developed and taught by museum educators, Brooke DiGiovanni Evans and Corinne Zimmerman and dermatology faculty, Dr. Jennifer Huang and Dr. Elizabeth Buzney.

Brigham and Women's First Year Humanistic Curriculum Residents

Since the fall of 2009, the MFA, Boston has presented this workshop as part of the Humanistic Curriculum, an integral component of the wellness curriculum for first-year residents that focuses on the often challenging humanistic components of medical practice. The MFA workshop is co-taught by museum educators and the physician director of the Humanistic Curriculum. Using objects from the Contemporary, Ancient, Asian, American, and European collections as springboards, this workshop stimulates discussions on issues of dealing with death, sharing different perspectives, professionalism, and self care. Co-taught by museum educators, Brooke DiGiovanni Evans, Barbara Martin, Akiko Yamagata and Nora Elton and medical educator Dr. Elizabeth Harry.

Teambuilding Workshops for the Integrated Teaching Unit at Brigham and Women's Hospital
The Integrated Teaching Unit at BWH provides a special inpatient experience, in which doctors work with a dedicated team of nurses, case managers, social workers and physical therapists to optimize goal oriented patient care. In these workshops, museum educators use a variety of activities and discussions, centered around works of art from all parts of the Museum, to promote teambuilding and communication within this group. Organized and taught by museum educators Corinne Zimmerman and Judy Murray along with Dr. Nadaa Ali.

OB/GYN Boot Camp

This MFA workshop is part of a wellness/ self-care curriculum that also includes a yoga class and written self-reflection exercises for fourth year medical students entering Beth Israel Deaconess Medical Center OBGYN. Using objects from the Contemporary, Ancient, Asian, American, and European collections as springboards, this workshop stimulates discussions on issues of dealing with death, sharing different perspectives, professionalism, and self care. This course is co-taught by museum educator Brooke DiGiovanni Evans and medical educator Dr. Celeste Royce.

Additional partnerships and new workshops are continually being developed for local hospitals and medical programs. Other MFA partners are Tufts Medical Center, first through third year residents in all specialties and Northeastern University, PA students.

Attendance FY 2015 YTD: 536 people

1st quarter: 154 people

3rd quarter: 79 people

2nd quarter: 62 people

4th quarter: 241 people

(Dermatology, HSPH, BWH OB/GYN, BWH Humanism, ITU Teambuilding, ACP, HMS Advanced Skills, BIMDC OB/GYN, Tufts Medical Center)

Resources:

- Harvard Medicine, "Museum Studies: Art Unleashes Emotions and Discussion Among New Doctors." Winter, 2016.

- Huffington Post, "What Medical Students Can Learn from Art Museums." February 2016.
- Journal of Museum Education, "Health and Wellness in Museums." Guest Edited by Brooke DiGiovanni Evans, Spring 2016.
- Boston Magazine, "The Art of Medicine." December 2014
- The Lancet, "Eulogy." Dr Joshua Liao, Volume 382, Issue 9907, Pages 1775 -1776, November 2013.

Museum of Fine Arts, Houston

Houston, TX

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The University of Texas Health Science Center (UT Health), McGovern Medical School, McGovern Center for Humanities & Ethics

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The University of Texas Health Science Center at Houston (UT Health) in collaboration with McGovern Medical School, School of Dentistry, School of Nursing, and School of Public Health

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Summer Health Professions Education Program (SHPEP) at the University of Texas Health Science Center at Houston (UT Health) in collaboration with McGovern Medical School, School of Dentistry, School of Nursing, and School of Public Health

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Title: The Art of Observation [University of Texas Health Science Center at Houston (UT Health) in collaboration with McGovern Medical School, School of Dentistry, and McGovern Center for Humanities & Ethics]

Length: 3 sessions; 2 hours per session; total of 6 class hours. Course held once each semester in September and January, sessions occur on three consecutive Thursday evenings when the MFAH has extended evening hours. Taught at Museum of Fine Arts, Houston, brief introductions in a classroom on the Museum's campus with the majority of each session taught in the galleries

Number of students served: 30 first and second year medical and dental students each course

Goals:

- To make detailed observations and improve visual analysis
- To communicate observations more effectively
- Identify how emotions and bias can affect objective observations

Objectives:

- Demonstrate visual analysis skills through accurate and detailed descriptions of art and clinical images
- Increased comfort speaking and writing about visual observations
- Develop strategies for dealing with ambiguity and evaluating diverse interpretations
- Demonstrate empathetic communication in the discussion of the human body
- Increase student engagement with the arts and the Museum of Fine Arts, Houston

Evaluation:

Students completed a self-assessment survey and respond to reflection questions following the first and third sessions. The reflection questions prompted students to draw connections between the topics addressed in the Art of Observation elective and their experiences as medical or dental students. For example, students were asked to respond to the following

question after the first class session: "As a health care provider, do you think it is important to make close observations and describe your observations to others accurately and clearly? Why or why not? If possible, describe an instance in your training as a health care provider when you used visual observation to inform your assessment of a patient." After the final class, students also complete surveys soliciting feedback on the course and suggestions for improvement. The final survey evaluates student's overall level of engagement using the provisions of engagement identified through the MFAH's audience research study with Slover Linnett and measures the specific course goals outlined in the syllabus.

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Title: The Art of Communication [with Summer Health Professions Education Program (SHPEP) at the University of Texas Health Science Center at Houston (UT Health) in collaboration with McGovern Medical School, School of Dentistry, School of Nursing, and School of Public Health]

Length: A five part summer course, in which the Museum of Fine Arts, Houston (MFAH) leads one part for three different groups of students. Taught at the MFAH and UT Health Campus; the sessions at the MFAH are two hours and taught in the galleries. An additional session in the course is led by Dr. John Foringer from McGovern Medical School leads a conversation with the students observing and investigating clinical photographs; this directly session builds on the skills practices at the MFAH.

Students served: 87 undergraduate students pursuing pre-medical, dental, or nursing programs per course

Goals:

- Introduce students to the art museum as a place to hone skills and support reflective practices
- To make detailed observations and improve visual analysis
- To communicate observations more effectively and with greater detail

Outcomes:

- Develop strategies for dealing with ambiguity and evaluating diverse interpretations
- Increase student engagement with the arts and the Museum of Fine Arts, Houston
- Introduce students to gallery exercises that utilize dialogue, drawing, and personal response to engage with works of art and improve observation skills

Evaluation: Course and program evaluations are administered through UT Health; a separate survey for the MFAH session is being developed for next year's summer program.

Resources: Further information about the program at UT Health is available [here](#) and information about the national program [here](#).

Title: Art of the Human Body [with Baylor College of Medicine]

Length: Four to five sessions: Four museum based sessions at the MFAH and one physician led session based on availability (2 hours per session; total of 8-10 hours). Taught at the Museum of Fine Arts, Houston, introductions in a classroom on the Museum's campus with the majority of each session taught in the galleries

Students served: 35 first and second year medical student per course

Goals:

- To make detailed observations and improve visual analysis
- To communicate observations more effectively
- Identify how emotions and bias can affect objective observations

Objectives:

- Demonstrate visual analysis skills through accurate and detailed descriptions of art and clinical images
- Increased comfort speaking and writing about visual observations
- Develop strategies for dealing with ambiguity and evaluating diverse interpretations
- Demonstrate empathetic communication in the discussion of the human body
- Increase student engagement with the arts and the Museum of Fine Arts, Houston

Evaluation:

To evaluate the students' progress, all participants are given a pre-test and post-test to evaluate their observation and communication skills. Students are asked to evaluate clinical images and visual art at the beginning and end of the course and asked to describe their observations. Instructors will be evaluating the pre- and post- tests based on a standardized rubric measuring observation and communication skills. After the final class, students also completed surveys soliciting feedback on the course. The final survey evaluates student's overall level of engagement using the provisions of engagement identified through the MFAH's audience research study with Slover Linett and measures the specific course goals outlined in the syllabus.

Resources:

Rachel Pearson, "How Doctors Can Confront Racial Bias in Medicine," *Scientific American*
<http://www.scientificamerican.com/article/how-doctors-can-confront-racial-bias-in-medicine/>

Jessica Nordell, "A Fix for Gender Bias in Health Care? Check," *New York Times*, Jan. 11, 2017
<https://www.nytimes.com/2017/01/11/opinion/a-fix-for-gender-bias-in-health-care-check.html>

"Medical Students' Exposure to the Humanities Correlates with Positive Personal Qualities and Reduced Burnout: A Multi-Institutional U.S. Survey."
<https://www.ncbi.nlm.nih.gov/pubmed/29380213>

The Museum of Modern Art, New York

New York, NY

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MoMA's program is offered as a seminar (six 2-hour sessions) for twelve first-year medical students from Columbia University College of Physicians and Surgeons. It takes place entirely in MoMA's galleries. Using various methods of inquiry (close looking, discussion, touch, writing, drawing and asking questions), we pay attention to works of art and to each other. In doing so we investigate what it means to "see" an image or object, and explore our own mechanisms of seeing, listening and meaning-making.

Title: The Art of Paying Attention

Length: Six sessions. Two hours per session. All sessions at the Museum

Summary:

MoMA's seminars are offered in partnership with Columbia University College of Physicians and Surgeons. Columbia requires all first-year medical students to take a narrative medicine seminar of their choosing. The MoMA course is limited to 12 students each year, first year medical students.

Resources: <http://www.narrativemedicine.org/aim.html>

National Gallery of Art*

Washington, D.C.

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Georgetown University Medical Center

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Title: The National Gallery of Art & The Making of the Modern Physician

Length: 6 sessions, 2 hours each

Students served: 12

Summary:

This program is designed for first-semester, second-year medical students at the Georgetown University School of Medicine. The first meeting of this program takes place on the Georgetown University campus and the remaining sessions meet at the National Gallery of Art.

Throughout the program, students critically analyze original works of art to build skills that support visual literacy, communication, and empathy. Working independently and collaboratively in small groups, participants learn to closely examine works of art, articulate and acknowledge their personal preconceived notions, collaborate on problem-solving, and increase communication through analysis and discussion. Students then create a plan to apply these skills to their work to enhance relationships with patients, other members of medical teams, caregivers and colleagues. The course is completely interactive and largely discussion-based. Each meeting at the National Gallery focuses on one of four major themes: observation, communication, empathy, and facing bias.

Program objectives:

- Use encounters with and conversations about original works of art to dissect, examine, and build skills in observation, communication, fostering empathy, and facing bias.
- Explore how these skills can enhance professional relationships with patients and their families, fellow students and professors, and medical teams in future practice.
- Introduce museums as place to build resilience.

Evaluation: Survey at the end of the program

Resources:

Margaret Slota, Maureen McLaughlin, Lorena Bradford, Julia F. Langley, and Sarah Vittone, "Visual intelligence education as an innovative interdisciplinary approach to advancing communication and collaboration skills in nursing practice," *Journal of Professional Nursing* 34: 5 (September-October 2018), 357-363.

Syllabus: listed on <https://www.utdallas.edu/arthistory/medicine/syllabi/index.html>

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Title: The Art of Care, multi-visit public program

Length: Four weekly sessions, two hours each

Students served: 12-15

Summary:

This is a public program, in which any student or professional in any area of healthcare can register and participate. The sessions are co-led by Lorena and Julia.

The Art of Care takes place entirely in the galleries at the National Gallery of Art. Through interactive discussions and guided activities about original works of art, participants critically analyze paintings and sculpture to build skills that support visual literacy, communication, and empathy. Working independently and collaboratively in small groups, participants learn to closely observe and articulate what they notice, acknowledge their personal preconceived notions, collaborate on problem-solving, and increase communication through analysis and discussion. Participants also reflect on how they can apply these skills to their work to enhance relationships with care recipients, members of medical teams, and colleagues.

Program objectives:

- Use encounters with and conversations about original works of art to dissect, examine, and build skills in observation, communication, fostering empathy, and facing bias.
- Explore how these skills can enhance relationships with care recipients, members of medical teams, and colleagues.
- Introduce museums as place to build resilience.

Evaluation: Evaluation form filled out at the end of every session.

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Title: The Art of Care, single 3-hour program

Length: Three hours

Students served: 12-20

Summary:

These workshops are offered to groups of students and/or medical residents coming from a single university or academic program. Participants have included physical therapists, physicians, nurses, social workers, health care administration students, and others. These workshops are offered by request and the sessions are co-led by Lorena and Julia.

The Art of Care takes place entirely in the galleries at the National Gallery of Art. Through interactive discussions and guided activities about original works of art, participants critically analyze paintings and sculpture to build skills that support visual literacy and communication. Working independently and collaboratively in small groups, participants learn to closely observe and articulate what they notice, acknowledge their personal preconceived notions, collaborate on problem-solving, and increase communication through analysis and discussion. Participants also reflect on how they can apply these skills to their work to enhance relationships with care recipients, members of medical teams, and colleagues.

Program objectives:

- Use encounters with and conversations about original works of art to dissect, examine, and build skills in observation, communication, and perspective-taking.
- Explore how these skills can enhance relationships with care recipients, members of medical teams, and colleagues.
- Introduce museums as place to build resilience.

Evaluation: Evaluation form filled out at the end of every session.

**New 2019*

National Gallery of Australia

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Artmed is the National Gallery of Australia's suite of programs for medical students and health professionals.

The Artmed program has been offered at the NGA since 2009. The program includes the NGA's collaboration with the Australian National University Medical School to deliver sessions for first year medical students related to topics in the ethics, law and human rights area of the curriculum. The program also offers medical students the opportunity to undertake a twelve month research project at the National Gallery of Australia linking the visual arts and health during the first and second year of their medical degree.

Artmed sessions are also delivered to nursing and allied health professionals from healthcare facilities in our region. Our most recent addition to the established Artmed offering is the physicians in training program, a partnership between the NGA and ACT Health Directorate commencing in March 2017.

We have also recently facilitated Artmed sessions for social workers from Child and Youth Protection Services with anticipated benefits including improvements in the participants ability to manage perceptions and judgement in their observation and recording practices resulting in improved assessment of child concern and youth justice matters.

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Title: Artmed for first year medical students

Length: 90 minute sessions associated with a range of curriculum topics e.g. euthanasia, mental health, healthcare whistleblowing, confidentiality, clinical competence, and medical ethics in the Middle Ages and Renaissance.

Number of students served: 100 students visit in small groups of 4-8 throughout the year and then return to university to deliver a presentation to their cohort accompanied by digital images of the works of art discussed during the session.

Summary: The students involved are post-graduate medical students who have completed a prior degree most often, but not exclusively, in a science field. Works of art in the NGA's collection are used as a stimulus for developing observation and communication skills in the early part of the session progressing to interpretation and finally linking these ideas to the curriculum topic.

Evaluation: students complete an evaluation at the end of each session. These have been used to affirm the content and direction of the sessions and also fine-tune duration, number of works of art used etc.

Resources: Course readings supplied by the students to NGA educators e.g government policy documents, historical documents, literature, film segments, legal and medical journal articles.

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Title: Extended Artmed enrichment program

Length: Four 90 minute sessions over four weeks

Number of students served: 10 students per program. 20 students total participated so far.

Summary: This course is voluntary and enables interested students who have completed a single session Artmed experience to develop their skills further.

Course goals: develop visual language skills; refine communication skills; understand the benefits of collaborative observation; explore the human condition; enrich empathic skills; develop reflective practice; feel more comfortable with ambiguity; enhance social and cultural awareness; boost resilience through mindfulness exercises; and foster collegiality.

Evaluation: The program is evaluated by the students after the final session.

Resources: this 4-session program has a different focus each week: The elements of art and the principles of design; A focus on the Aboriginal and Torres Strait Islander collection; Resilience; Building the narrative with students delivering a short presentation on a work of art in the final session.

...

Title: Artmed research projects

Length: a 12-month research project opportunity for first-second year medical students. Co-supervised by Frances Wild at the NGA and Associate Professor Christine Phillips at ANUMS.

Number of students served: 2-3 students per year

Summary: The students choose a topic from a list supplied by the NGA's Learning and Access Department or propose their own topic if relevant to the intersection of art and medicine and the NGA's collection.

Topics completed:

- The depiction of sexuality and sexual well-being in Aboriginal and Torres Strait Islander art
- An analysis of cognitive development in drawings from the Frances Derham collection of children's art
- Representations of death in modern art
- Art and collective consciousness: representations of death in Sumatran textiles and other contemporary works of art of the European vanitas tradition
- Exploring Indigenous identity and well-being through contemporary Indigenous art

- Creative Ageing: A study into the health and well-being benefits experienced by older volunteer guides at the NGA
- Imagining fertility: a critique of biological creative processes as expressed through art

Evaluation:

The student's research papers are marked by the supervisor at the NGA and an ANU Medical School staff member. Students are then invited to deliver a lunchtime talk based on their research project in the NGA's public program. Follow up evaluations are provided to students following the submission of their paper.

Instructors: Ms. Frances Wild; Christine Phillips

...

Title: NGA/ACT Health collaboration with Patient Experience Leader

Length: single sessions for nursing and allied health staff as well as one 4 week extended Artmed program for a group of 10 participants in senior management roles.

Number of professionals served: so far 75 individuals have attended the NGA for a single Artmed session or an extended Artmed program

Summary: Artmed sessions have been conducted on the following topics: compassion and caring; resilience; partnering with consumers to improve patient experience; celebration; sexual health and well-being.

Evaluation: the program is evaluated at the completion of the single sessions and on week 4 of the extended Artmed program.

Instructors: Ms. Frances Wild; Heather Needham

...

Title: NGA/ACT Health partnership- Physicians in training Artmed program

Length: The Royal Australasian College of Physicians (RACP), Physician Readiness in Expert Practice (PREP) program is the internationally recognised and preeminent specialist medical training program for medical graduates in Australia and New Zealand. The current ACT PREP training network supports about 50 basic physician trainees and 30 advanced trainees. Each year group will visit the NGA for an Artmed session 3 times per year. By the completion of the program trainees will have participated in 9 Artmed sessions.

Number of trainees served: This program is commencing in March 2017, following a 3 visit pilot program for final year physician trainees held during 2016. Potentially up to 60 trainee physicians per year.

Summary: Each year group has a specific focus: Year 1 will focus on communication and resilience; Year 2- end of life care, doctor as philosopher and empathy; Year 3- an intense focus on observation skills in preparation for final exams.

A set of objectives has been developed by NGA educators in collaboration with senior clinicians. Objectives include: develop visual language skills; refine communication skills; understand the benefits of collaborative observation; explore the human condition; enrich empathic skills; develop reflective practice; feel more comfortable with ambiguity; enhance social and cultural awareness; boost resilience through mindfulness exercises and foster collegiality.

Evaluation: Participants will complete evaluations at the end of each session as some may not be able to attend all sessions due to the rostering commitments in the hospital system in the ACT.

Instructors: Ms. Frances Wild; Professor Walter. P. Abhayaratna

...

Title: Artmed - community social workers in the field of *Child and Youth Protection Services*

Length: 2 sessions of 90 minute duration, 1 week apart

Number of staff served: 20 participants for each session

Summary: Program focuses on observation and recording skills

Instructors: Ms. Frances Wild; Ingrid Anderson and Tess Horwitz

Nora Eccles Harrison Museum of Art, NEHMA

Logan, UT

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*Program on hold: Museum closed 2018 for renovation and expansion.

Medical Partner:

Utah State University, Logan, Utah

Length: The three fall workshops are 2 ½ hours in length.

Summary: We selected 5 works from the collection, divided the class into 5 groups of 6. They had to observe and describe as a group, then each group rotated, presenting to entire class.

Evaluation: Our workshops include nursing, physical therapy, medical and psychology graduate students. We have not done a formal assessment. However some of the faculty; medical began a blind study and physical therapy has done a written assessment with their students. The topic of assessment has been an ongoing discussion. Each discipline within the healthcare field seems to be looking at different areas of growth or awareness. And the museum has always done evaluations. The qualitative piece seems to be a lot easier to gather than the quantitative.

Resources: A professor in our Huntsman School of Business incorporated this model for his class on Human Capital Management. He referred to an article "Focus on Art: Can art make better doctors?" (www.timesfreepress.com September, 2012)

Oklahoma City Museum of Art

Oklahoma City, OK

Bryon Chambers

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Medical School Partner:

University of Oklahoma College of Medicine

Title: The Art of Observation: Learning to Look

Length: Eight-week course, 2 hour sessions, students receive credit

Number of students served: The course enrollment is capped at 13 students. Enrollment is now determined by lottery. This is our fifth semester to teach the course.

Summary:

Skillful observation is an essential component of the practice of medicine. In this course, students will enhance their observation skills by learning to carefully evaluate works of art. This will help, in turn, clinicians to carefully observe their patients. Several strategies to enhance and reflect upon observations will be used, including VTS (Visual Thinking Strategies) and inquiry-based methods.

Course objectives:

- Explain the importance of careful and accurate observation to the practice of medicine
- Distinguish between observation, description, and interpretation
- Identify observable physical characteristics of patients' appearance and relate them to the experience of disease
- Apply the skills of observing visual art to become more aware of context and experience of others to clinical practice

Evaluation: All courses in the College of Medicine are pass/fail. Evaluation is based on attendance, participation, and a term paper.

Additional notes: revising the program

Peabody Essex Museum

Salem, MA

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Medical partner

North Shore Medical Center

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Title: From Paint to Patient: Fostering Critical Thinking, Teamwork and Assessment in Newly Licensed Nurses

Summary: The Peabody Essex Museum in Salem, MA in conjunction with clinical nurse educators at North Shore Medical Center in Salem, MA have formalized a program that bring newly licensed nurses (NLNs) to the museum to analyze pre-selected pieces of art. The NLNs divide into small groups, analyze the piece of art, and then share their findings with the larger group. The museum guide shares the history of each piece of art while the clinical nurse educators help the NLNs link their findings to a piece of the nursing process.

Evaluation: To date, 91% found From Paint to Patient a valuable experience.

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Philadelphia, PA

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PROGRAMS

Title: 4th Year Anatomy Elective Rotation

Medical School Partner: Drexel University College of Medicine

Number of students served: 50 students each year

Length: Students participate in a two-week anatomy rotation in their fourth year of medical school and spend 2 hours in the first week and 2 hours in the second week at the museum; each rotation includes 3 to 6 students.

Summary: Students visit the museum during their first week of rotation to do a close looking exercise in the galleries and return the following week to do an observational drawing lesson of classical sculptures

Evaluation: Post program survey

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Title: Training the Physician's Eye

Medical School Partner: Drexel University College of Medicine

Length: 5 weekly sessions, two hours each

Number of students served: 15-20 students each year

Summary: This course helps students cultivate a special kind of seeing to improve clinical skills. Students visit the museum during their first session to do a close looking exercise, followed by three lectures on Visual Literacy, Composition and Patient Communication respectively, and visit the museum for their final session to do another close looking exercise focusing on patient care and empathy.

Evaluation: Feedback Form, Pre and post writing exercise; Post program survey

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Title: Art of Observation Selective

Medical School Partner: Cooper Medical School at Rowan University

Length: 4 weeks, 3 hours each class

Number of students served: 20 each year

Summary: Students receive a lecture overview of historic partnerships and collaborations between artists and medical professionals and how observational skills that are key to artistic production are also essential to medical training. Students then participate in a two hour close looking exercise in the galleries, a two hour exercise in which they learn to draw the human body from live models, and a two hour workshop on using art as a therapeutic methodology with patients.

Evaluation: Pre and post-writing exercises; post-survey; Budner's Tolerance for Ambiguity Scale; Santa Barbara Solids Test

...

Title: Art of Observation Faculty Development

Number of students served: 20 Residents, 20 Attending, 20 Faculty each year

Medical School Partner: Cooper Medical School at Rowan University

Length: 1 session, 2 hours, 3 times per year

Summary: CMSRU staff visit the museum for a close looking workshop in the galleries and follow up conversation on how observational skills can be better taught to medical students

Evaluation: Post program survey

...

Title: Art of Observation Humanities Elective

Medical School Partner: Sidney Kimmel Medical College at Thomas Jefferson University

Length: 1 90-minute lecture, 3 sessions at the museum

Number of students served: 100 students at the lecture; 60 students total over three workshops

Summary: 100 first year students receive an introductory lecture on historic partnerships and collaborations between artists and medical practitioners and medical conditions and anomalies that particularly benefit from heightened observational skills. Students then enter a lottery and are assigned to one of three museum visits for a close looking workshop.

Evaluation: Post-program survey

Philadelphia Museum of Art

Philadelphia, PA

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Title: Art, Observation, and Empathy (1st year medical students)

Length: Seven 1 ½ hour sessions at the Philadelphia Museum of Art

Number of Students Served: 25

Summary:

Observation is a key component of physical examination and clinical diagnosis, but it is a difficult skill to teach. Several studies have demonstrated inadequacies in the physical exam skills of medical students, residents, and physicians. A reason for this may be the fact that physical exam courses in medical schools tend to emphasize identification of memorized

clinical signs rather than formally teaching students how to observe and describe. In addition, the cognitive skills inherent in rigorous observation are also ones that are the basis for empathy. With this in mind the goals of the course are to:

- (i) Train students in art observation skills
- (ii) Develop clinical observation skills
- (iii) Foster cognitive skills that are the basis of empathy

Evaluation: Pre- and post- test

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Title: Art, Observation, and Mental Illness (4th year medical students)

Length: 2 week elective, 3 hours a day at the Philadelphia Museum of Art

Number of Students Served: 5 to 10

Summary:

Art Observation, and Mental Illness is a two-week elective course taught at the Philadelphia Museum of Art for 4th year medical students that uses art to develop clinical skills related to diagnosis and treatment of mental illness, foster empathy for patients with mental illnesses, and explore the intersections of mental illness and society.

Learning Goals

- Increase students' capacity for altruism, empathy, compassion, and observation through reflective, and interpretive activities at the PMA/
- Use selected domains of the mental status exam to observe artwork at the PMA and to appreciate how observational activities may translate to patient care.

- Observe representations of mental illness in art and explore some of the biopsychosocial aspects of mental illness throughout history.
- Explore art created by individuals with mental illness and understand the benefits of art as a therapeutic modality.

Learning Objectives:

- Demonstrate art observation skills (e.g., identify, describe, flexible thinking)
- Identify elements of the mental status exam in visual art
- Demonstrate empathy through decreased perceived stigma surrounding mental illness, increased flexibility of thinking, or increased ability to consider multiple perspectives
- Acknowledge personal bias/response and how it might influence the process of interpretation
- Describe the social, cultural and institutional intersections of art and mental illness

Evaluation: pre- and post-test, capstone presentation

Reynolda House Museum of American Art

Winston-Salem, NC

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Tanya Gregory, PhD

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Title: LAUNCH: Powers of Observation Program

Length: 4 sessions, 3 hours each

Summary: Using select artworks from the American Art collection of [Reynolda House Museum of American Art](#), an affiliate of Wake Forest University, museum educators will facilitate activities to promote medical students' skill development in observational acumen and diagnostic competency, communication, and self-reflection. Learning activities will include: individual close looking, writing and sketching, small group discussion, and full group presentation. Students will become familiar with Reynolda House Museum of American Art as their campus museum and as a resource for respite, inspiration and/or learning.

Evaluation: Students will complete an on-site evaluation of the museum session at the time of the visit. Session will also be evaluated as part of LAUNCH final course evaluation.

Resources: Contact museum professional for additional resources.

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Title: Being a P.A.: Reynolda House Session

Length: Two back-to-back sessions

Summary: to produce more careful and perceptive observers by training PA students to carefully note and then fully describe the physical aspects of an artwork both verbally and in writing. Initial formal analysis leads to a facilitated discussion about the object's intended meaning(s) in order for the participants to identify pertinent and relevant information. This program is designed to further develop visual diagnostic skills in medical practitioners.

Resources: Contact museum professional for additional resources.

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Title: Love & Loss (gallery exhibition)

Summary: The concept of a focus gallery exhibition on the topic of survivor's grief (which eventually led to Love & Loss) was inspired by recent scholarship on the permanent collection in conjunction with a series of discussions between the Museum's Executive Director and a Senior Associate Dean of Faculty Affairs at the Wake Forest School of Medicine on enhancing the relevance of the humanities to medical education and practice. For the last several years, the director of education at RHMAA has been working with faculty from the Wake Forest School of Medicine and Physician Assistant's Program to design on-site workshops for their students, selecting specific artworks to initiate observational exercises and foster group discussion in order to enhance diagnostic skills and clearer communication with patients and their families as well as medical colleagues.

The exhibition was designed with the following target audiences in mind: health care professionals who could experience this art exhibition as relevant professional development, visitors from the greater Winston-Salem community who would be invited to attend any of several "Gallery Conversation" programs scheduled throughout the exhibition's run, and the general tourist who would encounter this gallery as part of their Museum experience.

Resources: Contact museum professional for additional resources.

RISD Museum

Providence, RI

Alexandra Poterack

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The RISD Museum has built a robust program in Clinical Arts through collaborations with The Warren Alpert Medical School of Brown University and other community partners. The multi-tiered Clinical Arts program provides professional development opportunities for premedical students, medical students, residents, and practicing attending physicians. In workshops and courses held at the Museum, current and future physicians build skills in nuanced observation, mindful attention to individual thought patterns, tolerance for ambiguity, effective communication and decision-making, and awareness of personal biases—skills that are directly applicable to clinical practice.

Led by interdisciplinary teams of museum educators and medical professionals, participants engage with works of art and design through close observation and discussion, as well as drawing and reflective writing exercises. Participants reflect upon their interpretations and thinking processes in observing works of art. Reflective, collegial conversation enables participants to draw parallels between the sessions and their clinical work, and in considering ways to apply what they have learned to their professional practice.

In collaboration with several different partners, the partnerships has included a seminar course for premedical undergraduates; annual workshops for medical students as part of The Alpert Medical School at Brown University's Integrated Clinical Arts day; and customized workshops for students, residents, and practicing clinicians, as described below. Each program is developed in collaboration with physicians or residents and has a unique set of goals. Generally, we use open-ended inquiry-based pedagogy to build skills of observation, creative thinking, and metacognition.

Evaluation: We have utilized a variety of evaluation models, including narrative responses, self-reporting surveys, Budner's ambiguity scale, and image-based evaluation.

Medical School Partner

The Warren Alpert Medical School of Brown University Emergency Medicine Program

Providence, RI

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Director, Medical Humanities and Bioethics Scholarly Concentration
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Title: Creative Dimensions of Clinical Decision-Making

Length: Semester

Number of Students Served: 15

Summary:

This class, specifically created for pre-medical students, was designed to prepare students for the unique challenges of clinical decision-making and aimed to train a new generation of physicians who are not only competent medical providers, but also innovative thinkers. Students engaged with clinical and arts literature and methods to gain insight into the critical ways creativity intersects with medical practice. Readings drew on clinical research, medical writing, and literature from the arts and humanities. Students shadowed clinicians, visited artists' studios and were expected to formulate creative responses each week.

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Title: Blame, Shame, and Mental Strain

Length: Three 2.5-hour sessions

Number of Students Served: 10 per session

Summary:

This group of sessions will focus on how our intrinsic bias affects how emergency physicians treat their patients. There is literature that supports the notion that difficult and disruptive patients receive worse care. Trauma patients often fall into this category, but doctors do not typically discuss how this impacts decision-making and judgment of patients. Through three sessions, emergency medicine residents and attending physicians engaged in group and individual experiences with works of art and design and discussed ways to recognize and reframe bias as a way to limit impact on patient care.

Medical School Partner

The Warren Alpert Medical School of Brown University Internal Medicine Program

Providence, RI

Dr. Fred Schiffman, MD, MACP

Sigal Family Professor of Humanistic Medicine

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Title: “Cops and Docs”: An Interdisciplinary Workshop for Cultivating Observation and Professionalism Between Police and Physicians.

Length: 3 hours

Number of Students Served: 15-25 per session

Summary:

Observation, critical thinking, tolerance for ambiguity, effective communication and decision making under pressure serve as critical skills within the professional realms of both medicine and law enforcement. The “Cops and Docs” workshop, which pairs resident physicians with police detectives in the exercise of mindful observation, represents a new form of professional development and collaborative approach between clinical arts pedagogy and law enforcement. Though both medicine and law enforcement professionals share the vision of public service, and the need for skills such as critical thinking, tolerating ambiguity and high-stakes decision making, these groups have existed as silos in terms of their professional development (Herman, 2007). As our healthcare system depends more upon team-based care, the ability to value diverse perspectives, collaborate, and cultivate inter-professional rapport, becomes central to the overarching goals of providing exceptional patient care. Exploration of the differences between police detectives and physicians seems to have brought forth unique observational skills and refined interpretive methods in an environment of amplified interdisciplinary sensitivity and heightened professional respect.

Evaluation:

We have developed pre-workshop and post-workshop evaluation surveys that incorporate Likert-rating scales and narrative responses. We also utilize feedback from post-workshop focus groups to refine the course further.

Medical Partner

Alpert Medical School of Brown University, Department of Psychiatry and Human Behavior

Jane Hesser, LICSW, MSW, MFA

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Titles:

Artful Awareness: Reflecting on Subjectivity in Clinical Decision-Making

Mindful Observation: The Art of Making Meaning from What We See

Cultures of Communication: Art in Clinical Conversation

Length: 3 hours

Number of Students Served: 5-15 per session

Summary:

This 3-session series of CME courses is accredited by Women & Infants Hospital and may be taken individually or in sequence. Practicing clinicians in all disciplines are encouraged to attend.

The first workshop focuses attention on the impact of physician subjectivity on patient care. Though the value of objective information is emphasized in the medical model, clinicians' personal experience – emotional reactions, assumptions and judgment – can also provide important information and impact patient care. Participants consider ways to translate rigorous reflective skills into clinical practice.

The second workshop encourages reflection on how we make meaning from what we see, or think we see, providing an opportunity to slow down the process of observation and build insight into the many factors that may influence perception. Participants consider factors that impact observation and interpretation in a clinical setting.

The third workshop enhances awareness of and mindful attention to how we say what we say, why we say or don't say it and the context surrounding clinical interactions with patients and amongst peers.

Evaluation: All participants complete CME evaluations; early participants were also invited to complete a three-month follow-up survey.

Medical School Partner

The Warren Alpert Medical School of Brown University Dermatology Program

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Medical School Partner

Primary Care-Population Medicine Program, The Warren Alpert Medical School of Brown University

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Artful Observation is an ambitious project (begun 2017) spearheaded by the Saint Louis University (SLU) Art History Program to make SLU a research and implementation center for critically attentive medical and professional training rooted in humanistic inquiry in the Jesuit tradition. To accomplish this goal, *Artful Observation* bridges several programs at SLU, including Pre-Health Undergraduate Studies, the School of Medicine (SoM), the Doisy College of Health Sciences, School of Education, and the School of Public Health and Social Justice to develop parallel curricular and research programs based on the proven idea that training with the visual arts can help medical and professional students by developing their attentiveness and descriptive abilities as well as their sense of individual and collective awareness. We aim to collaborate with colleagues in the above-mentioned disciplines to develop evidence-based curricular and research programs at undergraduate and graduate levels, thereby establishing SLU as a singular center for this approach. Moreover, the unique research program at the heart of this project will generate publications that will contribute to a growing body of existing scholarship on the positive outcomes of this training. This will define SLU as a Jesuit institution truly engaging with educating the whole person and cultivating the intellectual scope of our academic community by connecting practice and research in the arts with social and biological sciences.

Title: *Artful Clinical Observation*

Students: third-year medical students enrolled in the Pediatrics clerkship in groups of 28-33

Length: three and a half-hour workshop with each rotation of students every two months (8-week rotation cycles)

Summary:

SLU Art History and SLU medical faculty launched a pilot of this training based on Visual Thinking Strategies entitled *Artful Clinical Observation* with third-year medical students in the Pediatrics rotation at the SoM in January 2018. For this pilot, we developed learning objectives, teaching plans, session and facilities schedules as well as preliminary assessment tools to guide our teaching and a research program. The scope will be that all third-year medical students at SLU SoM (class size about 175 students) will have this training eventually. We have used the art collections of both the Saint Louis University Museum of Art and the St. Louis Art Museum. We are developing a research plan with the aid of our School of Education colleagues, with an IRB application in process. Our

primary research question is whether third year medical students increase their observational skills following completion of the workshop, with a secondary research outcome of student satisfaction with the program.

Evaluation: Students complete a several written exercises during the workshop that will be analyzed for aspects of change and complexity in description utilizing a pretest-posttest structure. A final survey is distributed at the completion of the session assessing student satisfaction utilizing an anchored Likert scale.

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Title: *Artful Observation*

Students: first-year pre-medical undergraduate students in Medical Scholars group; total of 60 students seen first in a large group discussion and then broken into smaller groups of 10-12 for a museum visit

Length: two one-hour workshops in the fall of their first year of undergraduate studies

Summary: Working with Eva Gonzales (Biology and Director of Pre-Professional studies), the Art History faculty have conducted two-part (two-hour total) pilot workshops using Visual Thinking Strategies with undergraduate Medical Scholars in Fall 2017. We used the collection of the Museum of Contemporary and Religious Art at Saint Louis University and the help our colleagues Fr. Terrence Dempsey and David Brinker.

Evaluation: Students complete a few worksheets during the workshop that will be analyzed for aspects of change and complexity in description.

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Title: *Artful Movement Observation*

Students: fourth-year Physical Therapy students in group of ~80 students

Length: one two-hour workshop

Summary: Working with Ann Hayes (Physical Therapy), we have conducted one two-hour pilot workshop using Visual Thinking Strategies with fourth-year Physical Therapy undergraduates, are planning a conference presentation together in January 2019, and are organizing future workshops.

Sapienza School of Medicine "C" – Sapienza University of Rome, Italy
Rome, Italy

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Museum Partner

**Museo di Roma, Galleria Comunale d'Arte Moderna e Contemporanea,
Galleria Nazionale, Museo Nazionale Etrusco di Villa Giulia,
Museo delle Civiltà**
Rome, Italy

Title: Art for the medical doctor training

Length: 8 sessions: 5 sessions in the lab, 3 sessions at the museums

Students Served: 100 third year medical students

Summary: pilot program with third-year medicine students. The course will be connected to Clinical Methodology and Semiotics Course. In the classroom and at the museum VTS method and other Practice art observation will be applied. In the classroom session the Teachers explain relation between Art and Medicine and (the) importance of observation. In the Museum and in Art and Medical Humanities Lab the students will be divided in small groups to work on observation and description followed VTS method the painting chosen by research group.

Goals: Improving Observation, collaborative work and empathy.

Evaluation: Quality Evaluation with rating questionnaire, anonymously, supplemented by useful questions in order to evaluate the approach proposed and to obtain feedback by students. Questionnaire to evaluate the improvement of observation and critical thinking skill will be administered. Pre-post questionnaire course which includes 3 artistic and 2 medical images. The students have to describe these images in an established time

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Title: Art and Medicine, introduction to icono-diagnosis

Length: 8 sessions, 6 sessions in the lab, 2 sessions at the museums

Students served: 40 fourth year medical students

Summary: Pilot program with fourth-year medicine students. The course will be connected to VTS practice of artworks and clinical images. In the classroom and at the museum VTS method and other Practice of art observation will be applied. In the lab session the Art and Medical Humanities Lab the students will be divided in small groups to work on observation and description followed VTS method the painting or clinical images chosen by research group to active diagnosis practice. The students will guide to make art.

Goals: Improving Observation, collaborative work, empathy and resilience

Evaluation: Quality Evaluation with rating questionnaire, anonymously, supplemented by useful questions in order to evaluate the approach proposed and to obtain feedback by students. Questionnaire to evaluate the improve of observation and critical thinking skill will be administered. Pre-post questionnaire course which includes 3 artistic and 2 medical images. The students have to describe these images in an established time. Pre-post questionnaires on empathy and stress will be administered.

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Title: The Art of Examination

Length: 8 sessions, 6 sessions in the lab, 2 sessions at the museums

Students served: 40 fifth year medical students

Summary: Pilot program with fifth-year medicine students. The course will be connected to VTS practice of artworks and clinical images. In the classroom and at the museum VTS method and drawing practice will be applied. In the lab session the Art and Medical Humanities Lab the students will be divided in small groups to work on observation and description followed VTS method clinical images chosen by research group to active diagnosis practice. The students will guide to make art.

Goals: Improving Observation, collaborative work, empathy and resilience

Evaluation: Quality Evaluation with rating questionnaire, anonymously, supplemented by useful questions in order to evaluate the approach proposed and to obtain feedback by students. Questionnaire to evaluate the improve of observation and critical thinking skill will be administered. Pre-post questionnaire course which includes 3 artistic and 2 medical images. The students have to describe these images in an established time. Pre-post questionnaires on empathy and stress will be administered.

Resources: <http://vtsitalia.it/>

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

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

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

Seattle Art Museum*

Seattle, WA

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Medical School Partner

Virginia Mason

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Title: Art and Medicine

Length: One session per year held during the Virginia Mason's annual retreat for the Internal Medicine residents. The session lasts four hours, includes an introduction, VTS focused close looking in the galleries, an art-making workshop, and a debrief.

Number of students per program: 30

Summary:

Art and Medicine is a collaborative program between the Seattle Art Museum and Virginia Mason Hospital, held during the annual retreat for Internal Medicine residents. First and Second Year residents, as well as attending physicians participate. The focus of the program is to enhance observational and critical thinking skills of residents through the lens of art. By spending time in close looking and discussion in front of original works of art, doctors improve their observational, analytical, and diagnostic skills.

Additionally, doctors and museum educators engage in further discussions touching on relevant issues in their medical training such as empathy, self-care, creative outlets that mitigate physician burnout, and the role of art and creativity in their personal lives.

The session has a hands-on component where doctors work with an artist to engage in mindful meditation and creative expression through a variety of methods including printmaking, collage, writing, and ritual mark making.

Program objectives:

- Develop visual literacy skills by analyzing works of art, and supporting analysis through detailed verbal descriptors.
- Build empathy and interpersonal connections with fellow residents through conversations on shared experiences such as medical training challenges, socio-emotional issues, patient care and connection, and implicit bias.
- Understand the connections between their observational and interpretive skills of artworks, and their diagnostic skills with patients.
- Utilize art and creativity as a conduit for self-care and empathy for themselves, their colleagues, and their patients.

Evaluation: End of session surveys administered to all participants, as well as a 6-month check-in and feedback from chief residents and attending physicians.

**New 2019*

School of the Art Institute of Chicago

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Medical School Partner

Northwestern University

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Obstetrics and Gynecology-Maternal Fetal Medicine

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To date our work with medical schools has fallen under the emerging Executive Education umbrella in Continuing Studies at SAIC. Our first foray was a pilot in July 2015 titled *Mindfulness: Constructing a Balance – Creative Strategy for Building Patient Empathy* with Northwestern Hospital's Obstetrics and Gynecology-Maternal Medicine residents.

We presented *Humanities in the Hospital: Art as an Instrument for Contemplation and Compassion* at the 2016 CREOG & APGO Annual Meeting in March 2016.

Title: *Mindfulness: Constructing a Balance – Creative Strategy for Building Patient Empathy*

Length: One session, two hours; part of a six-week Summer Series that also included writers, journalists, and yoga instructors, among others

Number of students served: Approximately 40+

INTRODUCTION: The facilitator, a studio artist and educator, will provide an introductory lecture and lead a discussion of the challenge of serving both the institutions of medical practice and the needs of patients. Residents will brainstorm to generate a list of institutional requirements that they feel obligated to satisfy. Next, they will be asked think about and list the needs and concerns of the patients they serve.

Residents will be introduced to the workshop exercise, in which they will use a strategy of assigning symbolic meaning to contrasting abstract forms, geometric and organic, in order to embody or represent the challenges of serving patients empathetically in a stressful and demanding environment. The facilitator may use a PowerPoint deck with images of abstract

compositions depicting the use of two contrasting forms, and will also provide a handout on formal elements to be utilized in the studio segment. The handout will address Line, Form, Composition and Value, and be accompanied by a cover sheet with an image or images from Robert Motherwell's *Elegy to the Spanish Republic* series.

Outcome: Introduce form(s) as a tool for mindfulness to demonstrate how a form can serve as an analogue or symbol, a mechanism for the organization of thought about complicated sets of ideas.

SEEING THE CHALLENGE: Individual residents will create compositions that reflect their thinking about the challenge to achieve 'balance' between institutional stresses and requirements and patient needs. They will draw geometric shape(s) and organic shape(s) to represent the two 'universes' they must manage each day in their care of patients.

Sharper geometric forms will be assigned to represent various institutional needs and irregular demands. Softer, organic shapes will be used to represent the patient and his or her needs. Each resident will then make a composition using these contrasting hard and soft shapes repeatedly to create an abstract arrangement with visual resonance (not an illustration) of their challenge. The compositions will represent their thinking about their experience in anticipation of the practice of patient care. Their abstract compositions will suggest a spectrum of dispositions. They may reflect a resident overwhelmed and out of balance, struggling with their responsibilities. Or they may choose to create a picture that represents the ideal of attaining a balance between their resident responsibilities to the hospital program and the requirements of excellent patient care.

Outcome: Introduction to the use of the creative to considerations of the practical world.

CRITIQUE: The facilitator will lead residents in a critique and discussion of the individual compositions as reflective of the effort to be aware of the competing responsibilities and maintain balance. This will be followed by a visualization exercise as strategy for mindfulness in the practice of patient care.

Outcome: To build and strengthen mindfulness for patient empathy through the use of visualization as a tool for establishing and maintaining balance between the competing demands of the residency and patient care.

CONCLUSION/SUMMARY: Questions for consideration and discussion:

- What learning occurred for you in this experience? How will the visual language of art contribute to your ability to reflect on and envision your work?
- What ideas resonated? What three new ideas did you take away from today's session?
- What did you like/dislike about the experience? What, if any, suggestions do you have for similar training sessions in the future?
- What did you learn about the other participants?

Sidney Kimmel Medical College at Thomas Jefferson University*

Philadelphia, PA

Megan Voeller

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Museum Partners

Pennsylvania Academy of the Fine Arts

Summary: The JeffMD Humanities Selectives are courses that provide opportunities to strengthen key skills of doctoring through engagement in the arts and humanities. In these courses, students will cultivate skills that include:

- close observation
- emotional awareness and empathy
- team and interpersonal communication (including listening)
- understanding the perspectives of patients and colleagues
- comfort with ambiguity and making mistakes
- understanding social and historical dimensions of health
- self-care and burnout prevention

The Humanities Selectives are immersive, arts-based experiences and participation-oriented seminars that promote support and bonding between classmates and offer creative respite within medical school. In many cases, these courses are developed by professional artists in collaboration with medical educators and reflect unique syntheses of medicine and the arts and humanities.

Students are required to take two Humanities Selectives as part of Phase One of the JeffMD Curriculum, although certain single courses that necessitate greater time commitments will fulfill this requirement. During an academic year, more than 400 first and second year medical students are enrolled in one or more humanities selectives.

Courses:

- Art of Observation at the Pennsylvania Academy of Fine Arts: Taking place at the historic Pennsylvania Academy of the Fine Arts, students interact with artworks from a variety of time periods in exercises that address implicit bias, emotional intelligence, observational skills,

tolerance for ambiguity, and avoiding faulty heuristics through close looking and talking about art.

- Introduction to Creative Writing: Offered in both fiction and poetry, Introduction to Creative Writing focuses on the narratives found in medicine.
- Visualizing Anatomy: Visualizing Anatomy expands and improves anatomy education with the help of creative inquiry-based, hands-on exercises in drawing, painting, and sculpture that are tightly coordinated with the anatomy curriculum, directly supplementing both dissection and case-based lessons.
- Cultural Humility and Cultural Competence in Healthcare Delivery: This course explores cultural competency as it applies to health and human service practitioners. Students read and reflect on diversity and cultural competence as they relate to disparities in health status and access to quality care.
- Dance and Wellness: Dance and Wellness is a collaboration between Koresh Dance Company and Sidney Kimmel Medical College. Through concept exploration, observation, and the viewing of and participation in performance, students are guided to develop greater internal and external physical awareness and understanding of self and others. The course combines modern dance instruction with reflection, class discussion and movement analysis.
- The Empathy Project with Lantern Theater Company: The Empathy Project, a collaboration between Jefferson and Philadelphia's Lantern Theater Company, seeks to foster empathy and tolerance for ambiguity in medical students by using playwriting, improvisation, and other tools and techniques of the theatrical form.
- Frontiers of Medical Ethics: Frontiers of Medical Ethics uses a case-based approach to help students gain a deeper understanding of medical ethics and provide a philosophical framework for discussing complex ethical issues.
- Graphic Medicine: This course provides students with hands-on experience and conceptual insights related to the many facets of graphic storytelling. Students are exposed to the varied approaches to creativity in graphic medicine, such as comics, cartoons, and graphic novels, and will create original works.
- HeART stories: HeART Stories connects Jefferson students with members of the Philadelphia community living with dementia and their care partners. The program consists of facilitated

conversations between participants that start with shared experiences in front of works of art at local museums.

- Healer's Art: The course addresses topics not usually discussed in the medical curriculum: maintaining wholeness; dealing with grief and learning from loss; embracing mystery and awe in medicine and in life; and the concept of medicine as service and how that can give meaning to the experiences of medical students and future physicians.
- History of Medicine: This course explores a series of biographies linked to the development of Western Medicine from its Greco-Roman roots to its foundational disciplines: anatomy, physiology, pathology, clinico-pathological correlation and physical diagnosis.
- The Language of Music: Improvisation in Sound: Led by professional percussionist Josh Robinson, participants explore the power of musical expression, build community, gain tools for coping with stress and are granted permission to improvise and succeed without the pressure of being perfect in a fun and safe space.
- Medical Cineforum: This course explores key themes in the portrayal of doctors in cinema, and by doing so, engages students in critical thinking and discussion of the physician's persona within the public imagination.
- Mindfulness and Compassion for Self and Others: This course offers an introduction to key mindfulness and compassion practices to support personal and professional growth. Students will work through experiential practices to develop self-awareness and learn effective intra- and inter-personal communication skills.
- Race and Medicine: Why it Matters: This course challenges learners to reframe their perspective on the concepts of race and racism by considering race, racial bias, and structural racism and the role they play in perpetuating the persistence of health inequities.
- Theater of Witness: This course is an experiential storytelling course that explores the power of autobiographical narrative to become a tool for healing and transformation. Students will share their own stories and, in dyads, help develop, shape and direct their partner in performing a significant story of their own.
- Patience with Patients: Autoethnographies of Healing: This course uses memoirs, autobiographies, and autoethnographies to study individuals' experiences of being patients and

medical professionals. Students will also draw on their own experience to write autoethnographies.

- **Medical Spanish:** The course uses *Canopy*, a web-based application that allows students to learn medical Spanish. It is an online course with 40 hours of formal instruction in medical Spanish terminology, and is intended for the first-year medical student who is fluent in Spanish.

of sessions: Various; most Humanities Selectives consist of 12-16 hours of in-class time over the course of 4-8 meetings, plus variable out-of-class assignments. Some classes require a greater time commitment, and these will usually fulfill the JeffMD Humanities requirement with a single course.

Location taught: Most classes are held on Jefferson's main campus in Center City Philadelphia; a small number of classes are held off campus at various local cultural institutions, as indicated in the above descriptions.

Type of students (i.e. first year medical students): First and second year medical students; most students will complete two Humanities Selectives over their first 18 months as medical students.

Number of students served in each course: Each course presents its own capacity depending on its structure and design; some classes are best suited for 10-15 students while others can accommodate around 60.

**New 2019*

Smart Museum of Art

Chicago, IL

Michael Christiano

Director of Education

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John Harness

Programs Coordinator

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Medical School Partner

University of Chicago

Title: Partnership with Pediatric Clerkship Program

Length: 90-minute workshops

Summary:

In partnership with University of Chicago Medical's Pediatric Clerkship program, we facilitate one-session workshops for their third year students. (There are approximately seven sessions scheduled each year, each with a distinct group of students.) During these sessions, students participate in guided discussion of artworks, sketching exercises, and reflection. The session centers on cultivating visual literacy and confidence in visual description utilizing Visual Thinking Strategies-inspired techniques. The sessions end with a debrief with an experienced pediatrician to discuss the connections between the workshop and students' medical practice.

Number of students served: 10 students per session, seven sessions per year.

Evaluation: Currently we do not evaluate these programs. We have recently renewed meetings with Pediatric Clerkship staff to discuss improvements to the program including the possibility of a medical professional accompanying the workshops in the future to strengthen our ability to tie the art learning into the professional lives of the students.

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Title: Visual Art and Medicine: Using Art to Explore the Practice of Medicine

Length: Eight 3-hour seminar sessions.

Number of students served: 8-15

Summary:

This course brings together Smart Museum educators and medical professionals to present an 8-session seminar on the intersection of art and medical practice. It includes the development of observational skill, best communication practices, and art as a tool to build empathy and discuss medical ethics. Central to the course are guest lectures from medical professionals from across the field.

Evaluation: Credit is issued to students for successful completion of the program. Students also complete a questionnaire form, which is designed by the Smart so that we may better understand the impact the program has had for them.

Resources: Please contact museum professional for the syllabus proposed for the 2015 course, including the following readings:

- The Body in Contemporary Art by Sally O'Reilly
- Medicine and art by Alan E.H. Emery and Marcia L.H. Emery
- Medicine in art by Giorgio Bordin, Laura Polo D'Ambrosio
- The Man Who Mistook his Wife for a Hat by Oliver Sacks
- The Whole New Mind (Empathy) by Daniel Pink

Solomon R. Guggenheim Museum

New York, NY

Sharon Vatsky

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Medical Partner

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Title: Art in Dermatology

Summary: Immersive course in fine art to enhance dermatology residents' descriptive skills.

Length: 1 classroom didactic session at NYU School of Medicine plus 2-3 experiential sessions at the Guggenheim

Number of students served in each course: 24 dermatology resident physicians

Program goals and outcomes: enhanced skills of observation and descriptive abilities, increased tolerance for ambiguity

Evaluation: TBD

Medical Partner

Icahn School of Medicine at Mount Sinai

Bobbi Coller, Ph. D.

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Program administrator:

Dr. Suzanne Garfinkle

Founding director of the Academy of Medicine and the Humanities at the Icahn School of
Medicine at Mount Sinai

Assistant Professor of Medical Education and Psychiatry

See Icahn School of Medicine at Mount Sinai for "Pulse of Art" program description

UCLA David Geffen School of Medicine

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Dr. Sheila Naghshineh teaches 3rd year medical students the art of observation using formal observation of art.

University at Buffalo Art Galleries

Buffalo, NY

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Albright Knox Art Gallery

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Medical School Partner

University at Buffalo Jacobs School of Medicine and Biomedical Sciences

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Life Drawing for first and second year medical students as part of Humanities Day, was added to the medical school curriculum and added to the offerings organized by The UB Center for Medical Humanities directed by Dr. Pessar. For several years now Dr. Linda Pessar has been facilitating Art for Observation exercises for UB medical students held at the Albright-Knox Art Gallery and the Burchfield Penney Art Center, both located in Buffalo, New York.

Jacobs UB School of Medicine and Biomedical Sciences has a three-year arts curriculum. In the first year, life drawing is taught by Ginny O'Brien to reinforce learning in Gross Anatomy lab. In the second year, as a required component of The Clinical Practice of Medicine, students in groups attend The Albright Knox Art Gallery for an exercise to enhance skills of observation, visual analysis and description. During the third year psychiatry clerkship, students attend The Burchfield Penney Art Center and are assigned to artworks in the collection as part of an exercise in interviewing technique. During the first three years, slides of art work are used as prompts during interactive sessions to encourage discussion on topics including portraits of

physicians, images of illness and aging, and representations of the body. The Center is sponsors JArVIS, (Jacobs Arts and Visual Interest Society) a medical student visual arts and medicine society established in 2015. Ginny serves as faculty advisor for JArVIS and the annual Jacobs Arts Festival which is a pop-up exhibition event featuring the visual art, sculptures, fine craft, prose, poetry, musical scores, and live performances of medical students, medical school faculty and alumni.

Title: Enhancing Your Medical Gaze

Length: 6 sessions at 2 hours each

Summary: Vision is more than just a physical process. It is also an emotional, psychological process. Better understanding and enhancing ones visual literacy, which incorporates both the physical and psychological processes, can be extraordinarily helpful. Honing this skill is most acutely desirable for people preparing for the medical profession. To this end, the Albright-Knox Art Gallery partnered with Dr. Linda Pessar, Director of the Center for Medical Humanities, Jacobs UB School of Medicine and Biomedical Sciences, to develop a program for medical students.

Second year UB medical students visited the Albright Knox Art Gallery for a specialized tour to help enhance their "Medical Gaze" through visual literacy. Students in groups were accompanied by Dr. Pessar and docents throughout the gallery for one of six visits. The groups studied works by artists such as Jean Metzinger, Marc Chagall, Joan Mitchell, James Rosenquist, and Dan Colen.

Dr. Pessar and the docents introduced each work, and the students were encouraged to discuss their own interpretations. These works represented a variety of time periods, styles, and media, which were essential to not only assist the students with the act of looking but more importantly to promote critical thinking, empathy, and understanding, all key skills for medical students to develop and enhance. Art proved to be a perfect tool to use for enhancing these key aspects of visual literacy.

The docents were selected for this program for their ability to get groups of people to talk about the works themselves, and they underwent specialized training from the gallery's Education Program Coordinator. The artworks were then chosen in collaboration with Dr. Pessar. While the docents received in-depth training regarding each of the works, they were more focused on facilitating a conversation than relaying specific information about the art being viewed.

University of Alabama at Birmingham, School of Medicine

Birmingham, AL

Dr. Stephen Russell
Internal Medicine and Pediatrics
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Museum Partner

Birmingham Museum of Art

Title: "Art in Medicine"

Length: Five sessions, four hours each, over a five-day week from Monday-Friday. Since 2009 (twice a year; in late-autumn and late-spring).

Summary:

- "Art of Observation": close-looking in the galleries at 2 works
- "Art of Empathy": returning to those objects; thinking about cultural context, inference, and subjective vs objective reasoning
- "Art of Diagnosis" trip to the Alabama Health Sciences Library and Museum for close-looking; making connections across the past two days with realities of providing care and the need for clinical vision and rigorous scholarship
- "Art of Form": training in the ways in which artists are trained; life-drawing in the galleries; copying in the galleries, a visit to the studios and materials' lab of the museum
- "Art of Evaluation": students report on what experience means to them; return to favorite works; round-table discussion of issues covered and not covered; lingering questions

Students served: 10 (residents in the Internal Medicine rotation during these periods)

Evaluation: student feedback in evaluations that question both effective application to their field and their personal sense of usefulness

Resources: article about the program: uab.edu/uabmagazine/2012/april/artofdiagnosis

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Title: "Art of Meditation" – begun in late spring of 2015

Summary - Not a course, per se, but rather a partnership where we share prints and original works of art in the waiting rooms of the Oncology clinic. The museum also provides a SmartGuide app that can be accessed through the patient's smartphone so they can listen and learn about works of art during their treatments. In return, the School of Medicine pays for individual memberships for their patients each year as well as pays the printing and shipping fee for the images and works of art.

University of California, Irvine School of Medicine

Irvine, CA

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Johanna Shapiro, PhD

Director, Program in Medical Humanities & Arts, Family Medicine

School of Medicine, Professor, Family Medicine

UC Irvine School of Medicine

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Title: Examine the Painting/Examine the Patient

Students served: Classes are elective for first and second year med students and required for fourth year students in their ER clerkship.

Summary: In addition to showing famous works of art (power point images) and discussing how this improves observational skills and empathy, we also take the students to the ER and ask them to tell us the patient's story beyond the pathophysiology.

University of Kansas Medical Center

Kansas City, KS

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Art Partner

Panacea Arts

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Title: ArtSpeaks

Summary: Initiated as a collaboration between Dr. Karen Schell and Kristy Peterson, the pilot program ArtSpeaks was planned in the fall of 2015 and executed with Dr. Schell's first year respiratory therapy students in the spring of 2016 as a three-week curricular segment of a semester long respiratory therapy course.

Using the permanent collection of select works of art in the Nelson- Atkins Museum of Art in Kansas City, Missouri, Kristy Peterson led students through three three-hour observation and discussion sessions at the museum with a topical focus of memory and perception; emotion and empathy; and personal bias and judgment. Each three-hour "deep looking" gallery session was also tied to a clinical case study inspired by the weeks' theme, developed by Dr. Schell, discussed in the museum setting.

The University of Kansas Medical Center is offering ArtSpeaks as an interprofessional program in the fall of 2016 and spring of 2017 to fifteen first and second year students (five students each from the School of Nursing, School of Medicine, and Respiratory Therapy programs).

Evaluation: ArtSpeaks is formally evaluated using a pre and post session Mindful Attentive Awareness scale and through administering a written SBAR exercise. Pre and post writing activities with a work of art in the museum are also conducted.

Study results of the ArtSpeaks sessions will be published in the near future.

University of Michigan Museum of Art Ann Arbor, MI

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Medical School Partner

University of Michigan Medical Arts

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Title: The U-M Medical Arts Program

Program description: Some 8-10 times each year the Medical Arts Program at the University of Michigan gives medical students and residents an opportunity to explore how the arts can help them become better physicians. We interpret the “arts” broadly - our events range from attending performances of music, theatre, or dance, to experiencing visual art, to creating dance, paintings or sculptures, to discussing literature, or to performances by the students.

For each session we engage either with the performer(s) or the artist(s), or with a content expert drawn from the art museum or the university. Whenever possible, we arrange for artists to spend time in a clinical setting.

Faculty: Joel Howell, Director, MD, PHD; Sanjay Saint, Co-director, MD, MPH; James Stanley, Senior Director, MD

Arts Partners: University of Michigan Museum of Art, University Musical Society, University of Michigan School of Music, Theater and Dance, Gifts of Art, Michigan Medicine

Length: Approximately 10 3-5 hour sessions, including an arts experience along with dinner and discussion. Each event is attended by 25-45 people with approximately 100 learners participating annually.

Number of Students Served: 100

Summary: The U-M Medical Arts Program aims to enhance medical students' and house officers' ability to provide high-quality, humanistic clinical care through experiences and analysis of the musical, theatrical, literary and visual arts that focus on essential skills that are difficult to teach, such as empathy, awareness of social context, and comfort with the ambiguity and uncertainty that are a pervasive part of medical care

Evaluation: Please see the Medical Arts website for annual reports and descriptions of each year's programming.

<http://themedicalarts.med.umich.edu/2016-2017-events.html>

Resources: <http://themedicalarts.med.umich.edu/>

...

Title: U-M Medical School Path of Excellence in the Medical Humanities

The new medical student curriculum at the University of Michigan School of Medicine includes a Paths of Excellence program that gives students the opportunity to pursue scholarly concentrations following their specific interests and areas of passion. The Medical Humanities Path of Excellence encompasses the interface between the science of the health professions and disciplines in the Humanities, including history, literature, creative writing, narrative medicine, performing arts, visual arts and journalism. Students with extensive backgrounds in the arts or humanities, as well as students without previous experience participate in a learning community in a safe environment that supports self-actualization leading to improved patient care.

The Medical Humanities Path of Excellence exposes students to diverse creative fields that require distinctive skillsets and habits of mind. For example, medical historians apply academic rigor to explore and analyze primary and secondary historical artifacts, culminating in a scholarly paper that examines how historical events can shape contemporary issues. Poets employ symbolism, metaphor, imagery and other literary devices to elicit deep and complex emotions in their readers. The visual and performing arts engage students in art forms that deploy subtle and complex artistic languages. During the Path we invite students to grapple with the complexity of meaningful observation and interpretation, especially as those skills may help them in dealing with the ambiguity that is an inherent feature of both art and medicine.

Path Director: Mary Blazek, MD, MEHP (Masters of Education for Medical Professionals)
Medical faculty: Nan Barbas, MD (Narrative Medicine); Janet Gilsdorf, MD (Creative Writing, Non-fiction); Laura Hirshbein, MD, PhD (History of Medicine); Joel Howell, MD, PhD (History of Medicine, Medical Arts Director, Creative and Performing Arts); Howard Markel, MD, PhD (Journalism, History of Medicine); Mary Blazek, MD, MEHP

Length: Paths of Excellence, including the Medical Humanities path, are 4-year co-curricular programs with varied expectations of contact hours and experience that vary from year to year. All students, guided by a content expert advisor, propose and complete a capstone project by graduation.

Number of Students Served: Cohort 1, entering as first year medical students in 2016: 23 students and Cohort 2, entering a first year medical students in 2017: 12 students.

Mission: "To actively engage students at the interface between medicine and the humanities through exploration, scholarship, interpretation, creative pursuits and critical reflection to enrich understanding of the human experience of health and illness and enhance clinical, education and research endeavors."

Learning Objectives:

Through this Path, students learn to:

- Describe the diversity of the various disciplines of the medical humanities
- Elaborate on the relationship of two of these areas to the practice of medicine
- Recognize the power of the humanities to connect with patients individually and within a community of practice
- Identify and explore stereotypes related to physicians, patients, illness, aging and other aspects of the physician-patient relationship

Students in the path have a project advisor, engage in specialized experiences, develop substantive skills and knowledge in the field, network with other professionals, refine leadership talents and propose and complete a capstone project that reflects their personal interest in the field.

Evaluation: Each session is evaluated by students for interest, effectiveness and relevance, using a written, scaled evaluation tool. Please contact Path Director, Mary Blazek for evaluation tool. The first cohort participated in a focus group to provide input into further development of the program. The Path team meets regularly to plan and evaluate the progress of curriculum development and student learning experiences in this pilot program.

University of South Florida Contemporary Art Museum

Tampa, FL

Dolores Coe

Curator, Art in Health

USF Contemporary Art Museum | USF Institute for Research in Art

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Medical School Partner

Morsani College of Medicine, USF Health, University of Florida

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Courses:

- *The Art of Attending*: a six session, arts-based series of interprofessional training workshops for health graduate students and practitioners
- *Arts at the Clinic*: a weekly studio art-making program for clients with Aphasia or TBI and caregivers led by an artist and art student interns
- *Art in Medicine & Health: Theory & Practice* - a course for School of Art & Art History advanced undergraduates & graduate students with weekly lecture/seminar and field work components
- *Art in Health Studio Lab* – hosts accepted student research, internships and project development with Art in Health focus

http://www.usfcam.usf.edu/AIH/aih_about.html

Title: *The Art of Attending* – Inter-professional Arts-based training for Health students

Workshop Series Overview:

The Art of Attending is a series of arts based, experiential workshops for graduate and professional students in health disciplines developed in partnership with USF CAM and USF Health. The workshop series is facilitated by an interdisciplinary faculty of artist/educators with participation of USF Health faculty.

Practice in close observation and multi-modal *attending*, inter-professional communication, critical thinking skills, empathy and reflection are designed into a series six three-hour workshops conducted at the USF Contemporary Art Museum and in campus arts, dance, music and theater studios. Each three-hour workshop includes arts-based activities and processes focused to engage inter-professional groups in key concepts. The series includes: Studio Art Workshop, Museum Workshop, Movement Workshop, Listening Workshop, Improv Workshop and a culminating Interactive Simulation Workshop. Workshops conclude in end-cap discussion facilitated by a USF Health faculty member.

Students enrolled may fulfill Inter-professional requirements within the respective colleges of Medicine, Nursing, Public Health, Pharmacy and Physical Therapy, or enroll without credit.

Program Goals:

- Improve observation, communication and critical thinking skills
- Increase tolerance of ambiguity, mindfulness and openness to new experience
- Stimulate interprofessional and communication and collaboration

Evaluation: The *Art of Attending* was the subject of a three-year pilot study assessing student outcomes and learning and a fourth year assessment of additional format impact. Ongoing assessment via participant survey tool.

Resources

1. https://www.academia.edu/8882502/The_Art_of_Attending_Training_Interprofessional_Health_Professions_Students_at_the_University_of_South_Florida_Contemporary_Art_Museum
2. https://www.academia.edu/36261293/The_Art_of_Critical_Thinking_in_Nursing_a_Novel_Multi-modal_Humanities_Curriculum

University of Washington School of Medicine

Seattle, WA

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Museum Partner

Henry Art Gallery, University of Washington

Tamara Moats
Adjunct professor and former Curator of Education
Henry Art Gallery
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Title: Visual Thinking: How to Observe in Depth

Length: One quarter, 10 weeks, 1 1/2 hours per week

Number of Students Served: about 20 per year (180 so far)

Summary: The course is an elective taken by first- and second-year medical students. It uses Visual Thinking Strategies to look at art and enhance diagnostic acumen. The VTS process of looking at and critically thinking about art expands observational and critical thinking skills, and encourages open-ended observations to problematic situations. It teaches students to apply this knowledge and skill in assessing patients with a broad range of disorders. These skills are directly applicable in many medical disciplines that rely heavily on visual input. The course is a combination of didactic slide sessions and observation of original artworks at the Henry Art Gallery, Seattle Art Museum, and Frye Art Museum. The focus is on museum visits and working with original objects which are key to the experience of the course.

The introductory and museum gallery sessions are led by Tamara Moats, who guides the students in the detailed process of observing and thinking collaboratively. These sessions are interwoven with three sessions with Dr. Andrea Kalus, who explores medical slides with the students using the art observation methods learned with Ms. Moats. Students are also asked to read and discuss the course readings; to contribute weekly journal reflections based on a theme for the week; to write a detailed observation of two artworks of their choice; and in the final session, to present an artwork as a team of two. There is also a session in the galleries devoted to drawing at artwork. These varied approaches--verbal, written and drawn--with original objects and medical slides are designed to help the student absorb and improve their diagnostic abilities. The course began in 2008.

Homework:

- Read course readings for discussion
- Weekly journal of course observations, changes in diagnostic abilities
- Visit a museum to write a detailed observation of two objects
- Final team presentation (two students) of chosen artwork

Schedule includes sessions at the Henry Art Gallery, Seattle Art Museum, Frye Art Museum.

Evaluation:

- Student participates fully and extensively in class discussions.
- Student demonstrates a progression of new skill development evidenced during classroom/museum visit participation, final presentation, and in journal entries.
- Student develops an expanded vocabulary useful in visual description.
- Student increases skill for detailed observation of objects.
- Student organizes their analysis through evidence and pays attention to particular details in individual artworks.
- Student learns to paraphrase for understanding.
- Student deals effectively with open-ended observations to puzzling artworks.
- Student develops the ability to look at situations from multiple perspectives in discussion and journal entries.
- Student increases ability to make these observations in the presence of and in collaboration with classmates and colleagues.
- Student develops greater critical and heuristic thinking skills.
- Student submits thoughtful and complete weekly journal observations.
- Student submits detailed and insightful written comparison of two original objects at an area museum.
- Student team presents an insightful verbal comparison of an artwork as the final.

Additional Information:

[Seattle Times "UW Uses Artwork to Help Sharpen Visual Skills of Future Doctors"](#)

[The Stranger "Seeing-eye Doctors"](#)

[KUOW "Ways of Seeing in Art and Medicine"](#)

Syllabus available at <https://www.utdallas.edu/arthistory/medicine/syllabi/index.html>

University of Wisconsin Chazen Museum of Art

Madison, WI

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Dr. Quinn's current work at the museum involves two 3-hour sessions as part of a 9-session class called the Empathy Course, which is required for all first-year residents. The art museum based sessions focus on:

- 1) observational skills broadly and specifically related to emotional states-that these are learn-able, hone-able skills that relate closely to the care of patients pertaining to both diagnosis and relational/emotional care
- 2) emotional reasoning, self-awareness, and responding to emotion.

In the first session they utilize VTS and a modified VTS approach as well as paired looking coupled with narrative writing and group reflection in addition to didactic material. In the second session, they use a personal response tour, do more looking as a group, narrative writing, sketching, and reflective activities.

In the past, they have also utilized the museum to approach the topics of caring for dying patients, professional identity development, coping and isolation during training, and racial bias.

Utah Museum of Fine Arts

Salt Lake City, UT

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Gretchen Dietrich

Executive Director, Utah Museum of Fine Arts

Chair of Education Committee, Association for Art Museum Directors

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Medical School Partner

University of Utah School of Medicine

Gretchen Case, MA, PhD

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The Utah Museum of Fine Arts and the University of Utah School of Medicine have partnered to implement Visual Thinking Strategies-based techniques to enhance observational and empathic skills for current medical students. Led by Iris Moulton from the Utah Museum of Fine Arts and Dr. Gretchen Case from the School of Medicine, students implement close-looking techniques while in the galleries of the Museum to engage in conversation about what they are seeing. Objects from the Museum's teaching collection may also be brought up to the School of Medicine for more tactile interactions involving gentle touch. These encounters are bookended by work with medical imagery that offers a clinical correlate to the theme of the artwork presented. Guided by physicians and medical scientists, students practice the same skills used to look at the artwork. Ms. Moulton and Dr. Case are interested in implementing an art-making component to this practice in the future.

Title: MD ID 7100 Layers of Medicine

Length: Four semesters

Number of Students Served: 124 per semester

Summary:

The Layers of Medicine course intends to be an ongoing dialogue about the interdisciplinary complexities and challenges of the health care. It is rooted in both the very large and the very small, attending to the 'big picture' conceptualization of what medical care means and the

broader socio-cultural factors that shape its delivery while at the same time paying close attention to the unique particularities of the patient-doctor relationship and analysis of ethically and practically challenging scenarios.

Evaluation: Student evaluations

Resources:

Naghshineh, Sheila, et al. "Formal Art Observation Training Improves Medical Students' Visual Diagnostic Skills." *Journal of General Internal Medicine*, vol. 23, no. 7, 2008, pp. 991–997., doi:10.1007/s11606-008-0667-0.

Baruch, Jay M. "Doctors as Makers." *Academic Medicine*, vol. 92, no. 1, 2017, pp. 40–44., doi:10.1097/acm.0000000000001312.

Kirmayer, Laurence J. "Toward a Medicine of the Imagination." *New Literary History*, vol. 37, no. 3, 2006, pp. 583–601., doi:10.1353/nlh.2006.0046.

Virginia Museum of Fine Arts

Richmond, VA

Celeste Fetta

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Medical School Partner

Virginia Commonwealth University

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Title: The Art of Nursing

Length: Fall, Spring, Summer semesters; Three-Four 2-hour sessions each semester

Number of students served: Since 2012, approximately 600-700 (estimate 20 students per semester x 4 sessions/semester)

Summary:

VMFA serves as a site for this interdisciplinary course at VCU in with Art Education faculty and students work with Nursing faculty and students to apply observation skills and discussion of art to nursing practice. In the summer, VMFA Education staff members rotate in serving as facilitators. For a full description, copy and paste in your browser the following links:

<https://arts.vcu.edu/art-educators-team-up-with-nurses-in-research-project/>

<https://arts.vcu.edu/blog/the-art-nursing/>

The program uses similar activities and methodologies that we encourage docents to use for student and adult tours.

Evaluation: Evaluation is completed through VCU.

Resources: Contact museum professional for an article highlighting a similar practice in Sweden

Weatherspoon Art Museum

Greensboro, NC

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Title: The Art of Seeing

Length: Tailored to support faculty objectives—typically 90-minute to 3-hour sessions, once or twice per semester. Taught at the Weatherspoon Art Museum.

Students served: School of Nursing: second year undergraduate students in Nursing Care of Individuals with Neurobehavioral Problems; graduate students in Qualitative Research Methods. Department of Kinesiology: Undergraduate and graduate students in required Observation & Analysis of Fundamental Movement, Motor Development and Learning, and Instructional Methods in Physical Activity. Department of Nutrition: Graduate students in Clinical Dietetics Practicum. Additional undergraduate and graduate students in the School of Health & Human Sciences, Social Work and Communication Sciences & Disorders programs.

Avg 25 per course; Approximately 250 students per semester since 2010.

Summary: “The Art of Seeing” utilizes the Weatherspoon Art Museum’s modern and contemporary art exhibitions to help undergraduate and graduate students enhance their observation, visual diagnostic, and communication skills while promoting awareness of the critical role observation plays in professional practice. Each “Art of Seeing” session is tailored to the faculty member’s course goals and is facilitated by the curator of education.

Modern and contemporary art present unique opportunities for students to manage ambiguity and to seek meaning by weighing multiple interpretations and sources of contextual information.

Artworks and assignments are selected to meet specific course goals and clinical/lab experience. For instance, kinesiology students focus on the subtle ways in which movement can be observed, illustrated, or implied while nursing students more closely investigate visual bias and cultural objectivity. Students conclude each session with a self-reflective activity and discussion on the application of observation to their professional practice. Feedback from nursing faculty and students indicate that “Art of Seeing” sessions also afford students an opportunity to “slow down” and gain an awareness for health and wellness as it applies to their personal and professional lives.

Evaluation: Faculty complete an Art of Seeing post-visit evaluation. When appropriate, written student reflections are shared.

Resources: <http://weatherspoon.uncg.edu/learn/university-students-faculty/>

Weisman Art Museum, University of Minnesota

Minneapolis, MN

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Medical School Partner

University of Minnesota Medical School

Title of Workshop: Perceive Workshop

Summary:

WAM's Perceive Workshop is hands-on. We use works of art to build visual perception and interpretive skills. Works of art are complex visual objects that invite multiple interpretations.

Thinking about art and through the practice of inquiry-based art viewing we engage students in high-level thinking practices, such as reasoning, perspective taking, problem-finding, and making metaphors. These thinking skills cross disciplines.

The Perceive Workshop provides students with a tool to help develop focus and other ways of thinking by teaching thinking routines and creating thinking habits. Learning to reach beyond one's supposed limitations, to explore playfully without a preconceived plan and to embrace the opportunity to learn from mistakes and accidents. It encourages students to review continuously and define thinking routines in their practice.

Worcester Art Museum

Worcester, MA

Medical School Partner

University of Massachusetts Medical School/UMass Memorial Medical Center

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University of Massachusetts Medical School/UMass Memorial Medical Center

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Title: Museum Nights: Art Observation Improves Radiology Residents' Visual Perceptive, Descriptive and Analytic Skills

Number of Residents Served: We are including all radiology residents and interested fellows.

Summary:

We have developed an Art Observation Program for our 4 year radiology residency curriculum in conjunction with the educational staff at the Worcester Art Museum.

As published studies related to errors in diagnosis of radiology imaging studies have shown that 71% of errors are related to visual perception, we felt this to be a crucial issue to address in our residency curriculum. The goal of the course is to ameliorate deficits in this region in an enjoyable and rewarding way.

We employ techniques of close observation commonly used in evaluation of Fine Arts to expand the residents' observational, communication and analytic skills, all crucial for a radiologist.

Unlike the majority of the programs described for medical students that involve static images, the course discussion includes the analysis of dynamic imaging, for example the way in which we review cross-sectional imaging studies as a stack of images much like the frames of a movie viewed in slow motion. For example the stunning catch of the New England Patriot's Julian Edelman in Super Bowl 51, was shown to the residents who were then asked: "How many

players touched the ball during the catch? The analogy of scrolling through the video “frames” and scrolling through an imaging stack in search of a novel finding was well received.

The structure of the first phase of the program includes:

1. A pre-museum visit evaluation of 3 imaging studies and 2 art works;
2. A lecture discussing art observation and its relationship to radiology presented jointly by a member of the Radiology faculty and a Worcester Art Museum docent;
3. Museum visits led by a staff radiologist and museum docent in groupings of 4-6 residents, followed by a post visit discussion;
4. A post-visit evaluation of 3 imaging studies and 2 art works to compare with pre-intervention results.

The residents’ responses were compared with a control group of residents who answered the pre- and post-visit evaluation but did not attend the museum sessions. Our findings showed that the residents who had participated in the program had greater detail in their description of findings and a more meaningful summary of the artist’s story depicted in the paintings and in the impression of the radiographic imaging study.

Resident feedback included increased comfort in closely analyzing imaging studies and a deeper understanding of looking at “the big picture”/interconnectedness of the image elements. They also reported that looking closely and discussing art at the museum was a relaxed and non-judgmental way to express their thoughts of what they were observing.

In the next phase of the program we are developing:

1. Additional exercises related to improving detection of novel findings in individual images (static), cross-sectional imaging studies (dynamic) and 3D reconstructions.
2. We hope to take advantage of the art studios at the Museum for drawing and sculpture sessions in conjunction with 3D anatomy software to enhance spatial understanding of normal anatomy and pathologic processes.
3. Other plans include a collaborative Museum visit of radiology and primary care residents to explore the facilitation of interdisciplinary communication with discussion of the emotional aspect of bias and empathy.

Yale Center for British Art

New Haven, CT

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Medical School Partners

Yale University School of Medicine

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Yale School of Nursing and Yale Physician Assistants Program

Participate in this teaching exercise with their own instructors.

Dr. Irwin Braverman at the Yale Medical School and Linda Friedlaender at the Yale Center for British Art conducted a 2-year controlled study on the effectiveness of using original works of art as a way to enhance observational skills of first-year medical students in 1999-2001. The results, confirmed by rigorous statistical analysis, were published in the Journal of the American Medical Association in 2001. This teaching exercise has been a curricular requirement for all first year students at Yale Medical School since 2002.

Linda also teaches international executives at the Wharton Business School using this same methodology to heighten cultural awareness and differences.

Required annual Spring course for first year medical students. Four afternoons of 26 students (1/4 class) divided into 5 groups plus facilitator. Narrative painting assigned to each student who after 15 minutes of examination objectively describes details in painting to group and offers hypotheses to explain its meaning. Open ended questions used by facilitator to assist student if necessary. 2 hours of gallery time followed by 1 hour in which students examine images of medical disorders with Dr. Braverman.

Details of program - statistics, examples of paintings, pre and post tests - may be viewed at: medicine.yale.edu/dermatology (Click on menu, faculty, Braverman and then observational skills)

Single museum intervention + classroom follow-up = 3 hours, all first year medical students (110), 9-10 dermatology residents and fellows, and selective faculty. All participants are first year nursing students. The music component: The Yale School of Nursing collaborates with the Yale Music Department to increase proficiency in detecting body sounds by using musical rhythms.

See Yale University Art Gallery for *"Making the Invisible Visible: Art, Identities, and Hierarchies of Power"*

Yale University Art Gallery

New Haven, CT

Pamela Franks

Deputy Director for Exhibitions, Programming, and Education
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Medical School Partner

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Dr. Nancy Angoff

Dean of Student Affairs for the Medical School

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Title: "Making the Invisible Visible: Art, Identities, and Hierarchies of Power" as part of Yale School of Medicine curriculum known as Introduction to the Profession (iPro).

Number of students served: 104

Length: One time educational intervention for all first year students placed within the first two weeks of Yale School of Medicine curriculum known as Introduction to the Profession (iPro). Class of 104 students is divided equally into four groups to take part in afternoon session. Afternoon sessions last 2 hours divided equally in the gallery and in facilitated reflection session afterward. Sessions consisted of 26 students (1/4 class) divided into two art-viewing groups of 13 that are led by medical student gallery guides. Clinical psychology faculty with expertise in community psychology and diversity training facilitated reflection sessions for group of 26 after each gallery tour.

Summary: Making the Invisible Visible: Art, Identities, and Hierarchies of Power is a guided art tour for health professions students. The tour aims to study the expression of bias in western

culture in an effort to help future health care providers recognize and begin to work toward correcting the inherent societal assumptions we carry. The tour uses the art gallery as a safe space and the interpretation of selected works as a means to examine stereotypes as they relate to race, gender, class, and sexual orientation and discuss their influence on patient provider interaction. The Yale School of Medicine has incorporated the session into the Introduction to the Profession (iPro) component of the new curriculum. Through collaboration with faculty from Yale University, the Yale School of Medicine, the Yale Center for British Art, and the Yale University Art Gallery, all 104 first year students participated in the tour and accompanying reflection session.

Summary of iPro: Introduction to the Profession, or “iPro,” is a two-week intensive for all entering students in the School of Medicine in which students have the opportunity to participate in an immersive hospital experience and introduction to New Haven as well as introduction to bioethics and professional responsibility.

Beginning first year students for two weeks engage in this course to confront stories of the profession of medicine, stories of patients and stories of themselves as emerging physicians. To start, they must confront their own implicit biases and the identities they bring to the practice of medicine as informed by their culture, ethnicity, race, religion, gender, sexual identity, etc. It is hoped that the outcome is a deeper understanding of oneself and future patients leading to stronger more meaningful doctor-patient relationships.

Sessions led by master gallery teachers and advanced medical students use close looking at specially chosen works from the collection of the Yale University Art Gallery to spark important formative discussions about observation, interpretation and human communication among the incoming medical students. Clinical psychologists with expertise in community psychology and diversity training facilitate reflection sessions at the end of the tour. A third year medical student, Robert Rock developed the art component of iPro with the support of gallery educator Cyra Levenson and clinical psychologist Cindy Crusto, PhD. The session for all medical students was made possible by Associate Dean of Student Affairs, Nancy Angoff, MD, MPH, M.Ed., in conjunction with Yale University Art Gallery deputy director and curator Pamela Franks and Yale Center for British Art senior curator Linda Friedlaender.

Evaluation: The collaboration is successful in fostering deep discussion of micro aggression and racial/gender/socio-economic biases, with the goal of beginning a process of developing cross-cultural understanding, empathy, and communication from the very start of the medical students’ education at Yale. It also introduces them to the Gallery and Yale’s art collections from their first days on campus. The integration of the museum sessions, which have in previous years taken place throughout the year in the context of different courses, into the initial inaugural course required of all students attests to the value the study and discussion of art adds to the med school program. We have a good basis for developing the structure of the sessions next year based on student and staff evaluations of this year’s program.

Zimmerli Art Museum

New Brunswick, NJ

Donna Gustafson, PhD

Curator of American Art and Mellon Director for Academic Programs

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Medical School Partner

Rutgers Robert Wood Johnson Medical School

Norma Saks

Assistant Dean for Educational Programs

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One is a 4 session class (one hour each) that focuses on teaching visual analysis skills and visual literacy to second year medical students who come to the museum once a month for 4 months. This is a joint program of the Zimmerli and the Medical School. It is administered by an advanced student who measures the improvements of the student's observational abilities through tests given at the beginning and at the end of the class. These research projects have included around 40 students in each of the 3 years that it has been running.

The second class is a credit elective for 4th year medical students that was offered for the first time this year. The students are required to attend 6 sessions (these can be tours, lectures, Q and A with artists, musical events) at the museum. In addition, they need to complete one written response to the four readings, a written visual analysis about a work of art, and a brief response (one page) about your experiences at the museum and its meaning to future learning and medical practice.

Training Medical Students in Clinical Observation: A Collaborative Effort Among Artists and Clinicians, Fall of 2015

Four third and fourth year medical students have registered for this credit elective. Much of the class is self-directed learning; however, they will begin with 4 sessions in the museum learning visual analysis and practicing close observation from paintings and sculpture in the museum. In addition, they will attend 2 or more additional lectures, tours, or artist's presentations at the museum; write an essay on selected readings; and hand in a visual analysis of a work of art of their choice.

Evaluation: For the past three years, I have been working with Dr. Norma Saks and several students that she supervises on research projects that aim to quantify the improvements of young medical students who learn visual analysis in the art museum. So far, their research has shown a measurable improvement in these students' observations skills.

Resources: Bibliography and course descriptions available from museum professional.