

Art Museum and Medical School Partnerships

Program Descriptions

October 2016

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

This listing includes descriptions of collaborative programs primarily from the participating art museums and medical schools who attended The Art of Examination: Art Museum and Medical School Partnerships Forum that took place on June 8 and 9, 2016 at the Museum of Modern Art, New York, and a few other programs that serve medical students but were not able to attend the Forum. It documents programs and practices that develop rigorous methods of observation to improve visual literacy, applying these methods to strengthen problem solving, critical thinking, and clinical and diagnostic skills among medical students.

The program descriptions include information on key personnel and brief descriptions of the programs in which art museums partner with medical schools to develop medical students' skills in observation, critical thinking, communication, team-building, empathy and relate these to their diagnostic practices with patients. Each art museum indicates its medical school partner, contacts for the program, a description of the program, and additional resources.

Syllabi and additional resources are available through direct communication with the art museum contact. There is also a TAB on The Edith O'Donnell Institute of Art History website's Art and Medicine Program page that includes syllabi that were available:

www.utdallas.edu/arhistory/medicine.

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

Bonnie Pitman
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The Edith O'Donnell Institute of Art History
The University of Texas at Dallas
October 2016

How to use this document

This is a self-reported, unedited collection of program descriptions compiled during the development for the Art of Examination: Art Museum and Medical School Partnerships Forum.

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 individual 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.

Ackland Art Museum

Chapel Hill, NC

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Medical School Partner:

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.

Art Institute of Chicago

Chicago, IL

Annie Morse

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Medical School Partner:

Rush Medical College

Jay M. Behel, Ph.D.

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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 of the Course: Humanities in Medicine

Length of the course: 18 sessions

Summary of the course: 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*.

Birmingham Museum of Art

Birmingham, AL

Horace D. Ballard, Jr.
Curator of Education
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Medical School Partner:

University of Alabama at Birmingham, School of Medicine

Dr. Stephen Russell, Internal Medicine and Pediatrics
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University of Alabama-Birmingham, School of Medicine

Department of Oncology
Department of Radiology

Title of the Course: "Art in Medicine"

Length of the course/class:

- 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 of the course:

- Monday: "Art of Observation": close-looking in the galleries at 2 works)
- Tuesday: "Art of Empathy": returning to those objects; thinking about cultural context, inference, and subjective vs objective reasoning)
- Wednesday: "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
- Thursday: "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
- Friday: "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

Number of students served: 10 (residents in the Internal Medicine rotation during these periods)

Evaluation: continuation of the partnership; 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

Title of the Course: "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.

Number of students served: 30 to-date

Blanton Museum of Art

Austin, TX

Ray Williams

Director of Education and Academic Affairs

University of Texas at Austin

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Medical School Partners:

Harvard Medical School

Ricardo Wellisch, MD

Internal Medicine residency director, Mount Auburn Hospital

2nd and 3rd year Internal Medicine Residents coming monthly to Museum of Fine Arts, Boston for 90-minute sessions around themes such as: Sharing Bad News; The Language of Empathy; Mindfulness and Self Care; End-of-Life Issues; Storytelling.

University of Texas at Austin, Dell Medical School

Swati Avashia, MD

Family Medicine residency director, professor

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Residents in Family Medicine, attending physicians and other professionals come to the Blanton Museum 3-4 times per year for experiences designed to build community and encourage professional reflection

Clarissa Johnston, MD

Alejandro Moreno, MD

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

Cantor Arts Center at Stanford

Stanford, CA

Issa Lampe, Ph.D.

Associate Director for Academic and Public Engagement, Cantor Arts Center

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Medical School Partner:

Stanford School of Medicine

Audrey Shafer, M.D.

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Genna Braverman

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

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

Length of the course/class: 4 sessions, each session 2.5 h

Summary of the course:

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

Number of students served: 12-15

Evaluation: course evaluation at end of quarter

Carnegie Museum of Art & Andy Warhol Museum

Pittsburgh, PA

Carnegie Museum of Art collaborates with the Andy Warhol Museum

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Curator of Education
Carnegie Museum of Art
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Danielle Linzer
Curator of Education and Interpretation
The Andy Warhol Museum
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Medical School Partner:

University of Pittsburgh School of Medicine

Lisa Barsom
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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 of the Course: *Art and Medicine*

Course Director: Marilyn M. Russell

Length of the course/class: April 9, 16, 23, 30 Times: 1-3pm

Summary of the course:

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.

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

Evaluation: not available for this specific course, for example see second attachment

Resources:

Article published in Carnegie Magazine in 2007 about pilot program for 2015 classes:
www.carnegiemuseums.org/cmp/cmag/article

Title of the Course: *Drawing for Seeing and Understanding: the Human Figure*

Length of the course/class: Thursdays - Jan 15, 22 and Feb 12, 19 Time: 1-3pm

Summary of the course: 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.

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

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

Emily Holtrop

Director of Learning & Interpretation

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Medical Partner:

University of Cincinnati Family Medicine Department

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

Cyra Levenson

Director of Education and Academic Affairs

Cleveland Museum of Art

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Alicia Hudson Garr

Director of Administrative Support

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Medical School Partner:

Cleveland Clinic Lerner College of Medicine of Case Western Reserve University

Martin Kohn, PhD

Director, Program in Medical Humanities

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Additional Medical School Partners:

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

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](#)

Columbus Museum of Art

Columbus, OH

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Jennifer Lehe

Manager for Strategic Partnerships

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Medical School Partner:

Ohio State University College of Medicine

Dr. Linda Stone

Special Assistant to the Dean for Humanism and Professionalism;

Founder of Medicine and the Arts Program

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The Art of Analysis partnership engages second year medical students and faculty advisors from The Ohio State University College of Medicine with the Columbus Museum of Art. Through facilitated gallery experiences, student and faculty participants practice critical and creative thinking habits, including careful looking, resisting assumptions, collaborative thinking, reasoning with evidence, and perspective-taking. By using art as a catalyst for conversation and collaborative interpretation, the students build a range of skills that are essential for empathetic and effective medical care, and 21st century success more broadly. Reflective facilitation by museum staff focuses on these key habits in order to deepen them and to encourage student meta-cognition.

The Art of Analysis is part of The Ohio State University College of Medicine Humanism in Medicine Initiative, which engages arts organizations across campus and across the community. Students participate in the College of Medicine Orchestra, Dance Group, Writer's Group, Visual Arts, Theatre/film arts, Ultrasound choir and photography. They also bring the performing arts into the medical school for 25+ performances a year.

Title of the Course: Art of Analysis

Length of the course/class: One session per Learning Community (advisement groups of Second Year Medical Students); 2-hour session, with 1 hour dinner provided beforehand

Summary of the course:

The Art of Analysis brings OSU College of Medicine students to the Columbus Museum of Art for an experience that encourages key dispositions of critical, creative, and empathetic thinking.

Program goals:

1. To encourage broad, adventurous, critical looking and thinking
2. To foster dialogue that values all perspectives and ideas
3. To nurture greater self-awareness and risk-taking

Program outcomes:

1. Students will advance their observation skills
2. Students will have a greater appreciation for the perspectives of others
3. Students will have a greater awareness of their own biases/opinions
4. Students will make connections between the arts and medicine

Evaluation: Contact museum professional for evaluation

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

Cummer Museum and Gardens

Jacksonville, FL

Lynn Norris

Director of Education

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Medical School Partner:

Mayo Clinic Center for Humanities in Medicine

Robert P. Shannon, MD, FAAHPM

Assistant Professor of Family Medicine and Assistant Professor of Palliative Medicine, Mayo Clinic College of Medicine; Program Director: Hospice and Palliative Medicine Fellowship, Mayo Clinic FL
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Dr. Shannon is engaged in Medical Humanities Subcommittee and along with the Cummer we have created curriculum for PGY1-3 learners meeting ACGME educational milestones in professionalism & communication using variety of the arts & humanities.

Chrys Yates

Program Coordinator

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Title of the Course: Physicians In Training and Mayo Staff Retreats

Length of the course/class: daylong program done once a year

Summary: New residents at Mayo Clinic come to the Cummer to experience stress-reducing activities such as mindfulness, yoga and watercolor painting, practice observational skills with artwork, and identify how people see the same artwork differently playing a game called Token Response where participants leave emoticons underneath paintings and gather to talk about the multiple views. The Cummer has a long history of Arts & Healing Programs for more than 20 years. Currently we are working with Mayo Clinic and their residency and staff programs through their Center for Humanities in Medicine. We use as part of these programs the Feldman Method of Art Criticism institution-wide, an observational and critical thinking tool that is used in our arts & healing programs. Staff retreats concentrate on healing the healer, and art making, yoga and time in our historic gardens.

Number of students served: 20 per class Physicians in Training; up to 50 per class in Staff Training.

Evaluation: Evaluation is done through the Mayo Clinic Arts in Medicine Program

Resources: Mayo Arizona has some very innovative performing arts programming as well.

Dallas Museum of Art

Dallas, TX

Bonnie Pitman

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The Edith O'Donnell Institute of Art History

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Amanda Blake

Dallas Museum of Art

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Medical School Partner:

University of Texas Southwestern Medical School

Dr. Heather Wickless, M.D., M.P.H.

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Courtney Crothers

Art Curator

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Title of the Course: *The Art of Examination*

Length of the course: 7 sessions x 2 hours each

Number of students served: 30 UT Southwestern Medical Students

Summary of the course:

The Art of Examination is a preclinical elective focusing on developing skills for clinical diagnosis through looking at works of art. Through experiences with artwork, students in the course will improve visual literacy skills, which is the ability to observe, analyze, interpret, and make meaning from information presented in the form of an image and relates to both examining patients as well as artworks. The course uses the power of art to promote the analysis and communication necessary in addressing ambiguity in the physical exam and patient interaction.

- For first and second year medical students.
- Small group discussions and lectures.
- Drawing, writing, and journaling activities each week.
- The course is primarily taught at the Dallas Museum of Art. Classes are also held at the Nasher Sculpture Garden, The Warehouse, The Crow Collection and UT Southwestern Campus

Syllabi and student evaluations are available at www.utdallas.edu/arthistory/medicine.

Denver Art Museum

Denver, CO

Molly Medakovich

Master Teacher for Western American, American & European Art

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Medical School Partner:

University of Colorado (CU) School of Medicine

Todd Guth, M.D.

Director of Clinical Skills for Foundations of Doctoring Course, University of Colorado

todd.guth@ucdenver.edu

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

Length of the course/class: 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.

Fairfield University Thomas J. Walsh Art Gallery

Fairfield, CT

Linda Wolk-Simon

Director and Chief Curator of University Museums

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Kathleen Leitao

Program Facilitator

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Medical School Partners:

Columbia University College of Physicians and Surgeons

Beth K. Scharfman, M.D.

Assistant Clinical Professor of Psychiatry

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Fairfield University Nurse Practitioners Program

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

Professor & FNP Track Coordinator. Director, Faculty Scholarship, School of Nursing.

Coordinator of Family Nurse Practitioner Program

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Title of the Course: NS 642 Adult Health I

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

Summary of the course: 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

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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.

Title of the Course:

'SEEING WITH A BETTER EYE': DRAWING AS A WAY TO FOSTER MEDICAL STUDENTS' OBSERVATIONAL SKILLS

Length of the course/class:

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 of the course:

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:

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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 of the Course: *Clinician's Eye*

Length of the course: 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.

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

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.

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 of the Course: *Why Art Matters*

Length of the course/class: 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

Grand Rapids, MI

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Title of the Course: *Art Saves Lives*

Length of the course/class: 7-week elective course

Summary of the course: *Art Saves Lives* is an elective for Michigan State University's College of Human Medicine medical students that take place in our museum and focuses on observation, communication, and how to deal with ambiguity and have had wonderful responses in the first year.

It places students in a "non-medicine" environment as a way to explore and expand the S.C.R.I.P.T. competencies of service, care of patients, rationality, integration, professionalism, and transformation, through discussions and interactive activities using the collection at the Grand Rapids Art Museum or the Eli and Edythe Broad Museum. Through participation in this class students build observation skills using diverse works of art, develop strong communication skills through active listening and discussion of works of art, and become comfortable with ambiguity.

Evaluation: Students are given an observation assessment at the first class to measure their observation skills, and then one on the last class to measure the difference. The results were pretty great; all but one participant improved their observation skills during our course.

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, College of Nursing, Center for Arts in Medicine University of Florida

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 of the Course: Geriatric Physical Therapy

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

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.

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

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.

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

Length of the course/class – One class session per term.

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.

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

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.

Title of the Course: 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>

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

Length of the course/class –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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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 (we re-opened last November).

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

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Isabella Stewart Gardner Museum

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Museum of Fine Arts, Boston

Boston, MA

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Boston Programs:

1. January ARTS Term

Harvard Art Museums and Harvard Medical School (HMS) are the site for a yearly 1-week medical humanities course called the “January Term,” with missions 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. Offerings include artmaking, writing, musical performances, theater and an artist-in-residence program. Contacts: Drs. Wong and Wellisch; Ms. Martinez and Mr. Odo.

2. Training the Eye: Improving the art of physical diagnosis

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. Contacts: Drs. Katz and Khoshbin; Ms. Murray.

3. 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
- Contacts: Arts educators: Corinne Zimmermann, Akiko Yamagata and Judy Murray; Medical educators: Erin Kelleher, R.N., Nada Ali, M.D., M.Ed.

4. Humanistic Curriculum at BWH

- Single 2 hour retreat at the MFA, as part of a series of 7 retreats required for all BWH interns (pgy1) in internal medicine
- Focus: Building empathy, emotional balance, and resilience
- Affiliation: MFA, Boston
- Contacts: Arts educators: Brooke DiGiovanni-Evans, Barbara Martin; Medical educators: Holly Gooding, MD, Mariah Quinn, MD (founder)

Hofstra University Museum

Hempstead, NY

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The Museum has worked with the new school of medicine on a number of humanities programs, including collaborating on the development of an elective course for 4th year students which will incorporate at least one session at the Museum in a conversation-based experience with small teams engaged in close looking and inquiry. We are working on a pilot project with urology residents and fellows in a 4-part humanities program this spring. The Museum has been involved in a narrative medicine group that began as the school was forming and subsequently became the Osler Society. Sessions with the Museum/Museum staff are one-time experiences at the moment.

The Humanities in Medicine Program at the School of Medicine offers a number of events featuring artwork, including an annual Celebration of Visual Art Exhibit (showcasing art created by students and faculty). We incorporate art into multidimensional programming designed for medical audiences, often working with the Hofstra University Museum. We are presently developing a pilot to bring this programming to residents and fellows at Northwell Health hospitals.

- Co-curricular forums to share art and discuss.
- Medical Humanities MS4 elective with art as an integrated topic and strategy.
- Resident education sessions with a medical humanities lens.

Hood Museum of Art, Dartmouth College

Hanover, NH

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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 of the Course: The Art of Clinical Observation

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

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

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.

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.

Title of the Course: Team Building Workshops

Length of the course/class – One session, 90-120 minutes

Summary of the course:

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

Number of students served: 12 -24 participants/workshop

Title of the Course: Programs that Encourage Personal Reflection

Length of the course/class: One session, 60 minutes

Summary of the course: 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.

Number of students served: 12 -24 participants/workshop

Title of the Course: Medical Program Sampler

Length of the course/class –One session, 90 minutes

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.

Number of students served: 12 -24 participants/workshop

Title of the Course: Elective Courses

Length of the course/class –2-3 sessions for two hours

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.

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

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.

Icahn School of Medicine at Mount Sinai

Academy for Medicine and the Humanities

New York, New York

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Christina Yang

Director of Education, Public Programs

Title of the course: *The Pulse of Art*

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

Course 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.

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

Evaluation: 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.

Isabella Stewart Gardner Museum

Boston, MA

Corinne Zimmermann

Director of Visitor Learning

617-278-5109

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The Isabella Stewart Gardner Museum offers a wide array of programs focusing on a range of goals: honing observation and critical thinking skills, addressing burnout and self-care, providing opportunities for professional reflection and team building, and nurturing compassion and creative expression. Current medical partners include Boston University, Cambridge Health Alliance, and Harvard University.

Medical School Partners:

Goldman School of Dentistry at Boston University

Neal Fleisher, DMD

Clinical Professor

Director, Predoctoral Periodontics

Department of General Dentistry

Henry M. Goldman School of Dental Medicine

neefly@bu.edu

This program teaches dental students art appreciation skills as a means to improve patient care. We serve first year DMD students and a class of Advanced Standing students. As part of their required training, students visit the Isabella Stewart Gardner Museum, where they examine and discuss works of art using the Visual Thinking Strategies (VTS). Through VTS, students cultivate a willingness and ability to present their own ideas, while respecting and learning from the perspectives of their peers. 75 minute workshop.

Boston University Sargent College

Anne Escher

Department of Occupational Therapy

Boston University

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The Gardner Museum serves all incoming graduate students in the Occupational Therapy Program, as part of the orientation program. Using VTS and Personal Response, the focus is on establishing key habits of mind and team building. Two hour workshop.

Cambridge Health Alliance

Elizabeth Gaufberg M.D. MPH

Associate Professor of Medicine and Psychiatry at Harvard Medical School; Jean and Harvey Picker
Director of the Arnold P. Gold Foundation Research Institute

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Four hour workshops for health care teams focused on self-care (burnout), team dynamics and personal/professional values. Workshops include hands on art making, personal response tours to encourage personal stories, and close looking at works of art using VTS to promote awareness of group dynamics. Each activity is interspersed with a "mediation moment", including mindful sketching in our courtyard and gardens. The final activity is a facilitated discussion about personal and professional values, and the characteristics of successful teams.

Participants complete an evaluation form on site, and are given a follow up questionnaire two weeks later. They also filled out pre and post Maslach burnout inventories (widely used in field of medicine).

Surveys show that the Gardner is a positive environment for this kind of work. When asked to provide "1-2 words capturing "how you felt before coming to the Gardner Museum/1-2 words capturing how you feel now", over 90% of participants provided comments that indicated a significant shift (e.g. Stressed/togetherness; STRESSED OUT!!!!/inspired, re-energized)

Harvard Medical School, Harvard University

Joel Katz, MD

Director, Internal Medicine Residency

Marshall A. Wolf Distinguished Chair in Medical Education

Harvard Medical School

Brigham and Women's Hospital

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Lisa Wong, MD,

Assistant Co-Director, Arts and Humanities Initiative

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The Gardner Museum is a partner for *Training the Eye: Improving the Art of Physical Diagnosis at HMS*. The course teaches core physical examination skills by integrating observation of art and patients. At the Gardner, students look closely at works of art using the Visual Thinking Strategies. Sketching activities designed to promote close looking are also incorporated. The Gardner Museum is working with the Arts and Humanities Initiative at Harvard Medical School to develop a series of two-hour art based workshops for students designed to promote creative expression, self-care, reflection, and team building.

Resources: http://www.mass-creative.org/gardner_museum

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

(402) 661-3862

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Title of the Course: Clinical Moral Perception, Art, and Medicine

Length of the course/class: 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."

Lowe Art Museum, University of Miami

Miami, FL

Hope Torrents

School Programs Coordinator

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Medical School Partner:

University of Miami

Miller School of Medicine, School of Nursing, Department of Psychology

Valerie M. Bell, DNP, CRNA

Adjunct Faculty, School of Nursing & Health Sciences

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Title of the Course: Fine Art of Health Care Workshops

Length of the course: We have isolated workshops which 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 ½ hours.

Summary of the course: 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 Science and the School of Education at the University of Miami.

Graduate students 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.

We 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.

Evaluation: No formal evaluation has been done to date.

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>

McNay Art Museum

San Antonio, TX

Kate Carey

Director of Education

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Medical School Partner:

UT Health Science Center, Center for Medical Ethics and Humanities

Adam V. Ratner, MD

Stewart & Marianne Reuter Endowed Professor of Medical Humanities; Deputy Chair for Strategic Development and Socioeconomics, Department of Radiology

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UT Nursing School

Clarice Golightly-Jenkins, PhD, RN, MSN, CNS

Assistant Professor – Clinical, Department of Health Restoration & Care Systems Management

UT School of Health Professions

Mary Kay Hart, MS, BS, AAS, Assistant Professor/Clinical, Respiratory Care

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.

Memorial Art Gallery, University of Rochester

Rochester, NY

Susan Dodge-Peters Daiss

Senior Associate

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Medical School Partner:

University of Rochester School of Medicine and Dentistry U of Rochester Division of Medical Humanities and Bioethics

Stephanie Brown Clark, M.D., Ph.D.

Associate Professor, Medical Humanities, School of Medicine and Dentistry, and Director, Division of Medical Humanities and Bioethics, University of Rochester

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Title of Course: *Anatomy in Art*

Length of course: 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.

Summary of the course: 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.

Number of students served: Participation capped at 15 students.

Evaluation: No formal evaluation for this single session elective.

Title of Course: Art, Literature, and Medicine

Length of Course: 10-session class offered over 2 weeks

Summary of Course: 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.

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

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 of Course: *Art, Observation, and Mental Illness*

Length of course: 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.

Course 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.

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

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 of Course: *Human Development in Art*

Length of course: 8 week seminar —offered as an elective for 2nd year medical students. Course was offered from 2007-2012.

Course 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.

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

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

Title of the Course: *Visual Arts and Healthcare: Framing the Field*

Length of course: Semester-long course—14 weeks. Class is offered once a week and 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 Summary: 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.

A visual object will be posted electronically weekly. Students are required to write a weekly reflection (500) words, which is due at the start of each class. A grading rubric for these reflections will be distributed and discussed at the first class. The weekly reflections constitute 40% of the grade. Students are required to complete a major project for this class. The subject matter and format will be determined in consultation with the instructor. Students will be asked to give a brief presentation about their progress on this project to the class. Class members will give their classmates feed-back on their presentations to help with the final version. The final project constitutes 40% of the grade, 5% of which comes from the presentation.

Additional notes: Susan Dodge-Peters Daiss is working on assembling a complete history of our efforts and co-authoring an article tracing this with Dr. Clark.

The Metropolitan Museum of Art

New York, NY

Rebecca McGinnis

Museum Access and Community Programs

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Anna Willieme

Instructor

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Columbia University Medical Center

Columbia University College of Physicians and Surgeons

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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. For more info: www.artmedinsight.org

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

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

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>.

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

Michael C. Carlos Museum

Atlanta, GA

Elizabeth Hornor

Ingram Director of Education

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Medical School Partner:

Emory University Medical School

Leigh Partington, PhD

Writer, Division of General Medicine and Geriatrics, Department of Medicine

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Working with Dr. Partington, who is involved in the Medicine and Compassion course, to forge stronger links between the Carlos and the Medical School.

Emory's *Medicine and Compassion* course, part of our Italian Studies Summer Abroad program; six weeks each summer; undergraduates interested in medicine and public health. Students examine historical and modern writings from the medical humanities and renditions of compassion in Italian art and culture, attempting to understand what various artists sought to communicate about compassion, suffering, and healing. Emory medical students act as TAs, faculty includes rotating guests from Emory University, CDC, Institute of Medicine, and other medical schools.

<http://www.conversationsinitaly.com/communicating-through-the-arts-lessons-for-medicine-and-health/>

PREVIOUS COURSE: First year anatomy students in the Emory School of Medicine worked with resident and artist Dr. Patrick Nguyen (now moved) in the galleries of the Carlos Museum

Title of the Course: Learning to Look

Length of the course/class – 2 3-hour sessions

Summary: Activities were: close observation of works of art, drawing works of art, discussion of works of art to enhance the observation skills of medical students.

Number of students served: 16 students and medical school faculty participated in pilot program.

Evaluation: Both students and faculty found the sessions extremely helpful and we are hoping to continue the program as initial medical school partner has left.

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

St. Louis, MO

Rochelle Caruthers

University Academic Programs Coordinator

rochelle.caruthers@wustl.edu

Medical School Partner:

Washington University School of Medicine in St. Louis

Title of the Course: Art of Observation

Length of the course: One 90 minute Session

Summary of the course: 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>

Number of students served:

In the spring of 2016 six classes/48 students participated in the program.

Evaluation:

Medical school educators and students are asked to complete a survey at the end of the program.

Resources:

- Alvarez, Sarah E. "A Beautiful Friendship: Art Museums and Medical Schools." *Journal of Museum Education* 36. 1 (2011):57-68. Print.
- Elder, Nancy C., et al. "The Art of Observation: Impact of a Family medicine and Art Museum Partnership on Student Education." *Medical Student Education* 38.6 (2006): 393-398. Print.
- Wellbery, Caroline. "Art - Science Collaborations – Avenues toward Medical Innovation." *The New England Journal of Medicine* 373.26 (2015): 2495-2497. Print.
- <http://medicine.yale.edu/humanities/resources/featured.aspx>

- http://www.boston.com/ae/theater_arts/articles/2008/07/20/monet_gauguin_using_art_to_make_better_doctors/?page=full
- <http://cbsnews.com/news/boston-brigham-and-womens-hospital-museum-of-fine-arts-improve-medical-practice-patient-relationship>
- <http://news.uchicago.edu/article/2011/07/15/collaborative-projects-probe-intersection-between-arts-science>
- <http://post-gazette.com/news/healthscience/2007/07/30/art-course-fine-tunes-medical-students-observation-skills-talents>
- <http://rochester.edu/pr/Review/V70N3/feature1.html>
- <http://britishart.yale.edu/multimedia-video/26/3179>

Montreal Museum of Fine Arts

Montreal, Quebec

Marilyn Lajeunesse

Educational Programmes Officer- Adults and Community Groups

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Jean-Luc Murray

Director, Education and Community Programmes

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Medical School Partner:

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Initial program stages. Projects with hospitals and other health agencies:

Our Work with Hospitals and Other Health Agencies: The Montreal Museum of Fine Arts (MMFA), Its Collection and Social Mission

Faithful to its vocation to acquire and promote works by artists of yesterday and today, local and international, the Montreal Museum of Fine Arts also has a mission to reach out to the widest and most diverse public possible and to provide full access to the world's artistic heritage.

Resources:

[1]

http://passthrough.fwnotify.net/download/455695/http://www.crawfordartgallery.ie/Beyond%20Diagnosis_medium%20res.pdf

[2] Lois H. Silverman. The Social Work of Museums, Routledge Taylor and Francis Group, 2010

[3] Daniel Fujiwara. Museums and Happiness: The Value of Participating in Museums and the Arts, The Arts Council of England, 2013

[4] Helen Chaterjee and Guy Noble. Museums, Health and Well-Being, Dorset Press, 2013

[5] Health Development Agency of the National Health Service. Art for Health London, England: 2000, p4

[6] See the World Health Organization Web Site at www.who.int

Museum of Fine Arts, Boston

Boston, MA

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Barbara Martin
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Medical School Partner:

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Joel Katz, MD

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Marshall A. Wolf Distinguish Chair in Medical Education
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Elizabeth Gaufberg M.D. MPH

Cambridge Health Alliance
Associate Professor of Medicine and Psychiatry at Harvard Medical School
Jean and Harvey Picker Director of the Arnold P. Gold Foundation Research Institute
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Holly Gooding, M.D., M.S.

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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 medical specialists. Workshops are co-taught with museum educators and medical educators. Most are 2-hour single session workshops that include 3-5 activities in the museum's galleries.

<http://www.mfa.org/programs/community-programs/art-and-medicine-workshops>

Title of the Course: Training the Eye: the Art of Physical Diagnosis

Summary of the course: Harvard Medical School faculty in collaboration museum educators and MFA staff developed This Harvard Medical School (HMS) course approximately ten years ago. 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, but takes place at the MFA, using galleries and a classroom space.

Additional notes: This program is managed and funded by HMS and hosted by the MFA.

Title of the Course: Visual Arts and Dermatology

Length of the course/class: four-session workshop

Summary of the course: Workshop with 1-3 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, 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 as a doctor. 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 art educators, Brooke DiGiovanni Evans and Corinne Zimmerman and dermatology faculty, Jennifer Huang and Elizabeth Buzney.

Additional notes: 25 residents participated in 4 sessions, began in 2014

Title of the Course: Workshop for Brigham and Women's First Year Residents

Length of the course/class: 2-hour workshop

Summary of the course: Since the fall of 2009, the MFA has presented this workshop as part of the Humanistic Curriculum, an aspect of training for first-year residents at Brigham and Women's focusing on some of the challenging human aspects and issues of medical practice. The MFA workshop, co-taught by Museum educators with the doctor coordinating the Humanistic Curriculum, uses objects from the Contemporary, Ancient, Asian, American, and European collections as springboards for exercises and discussions that connect to such issues as dealing with death, sharing different perspectives, professionalism, and self care. Beyond the experience of the evening, our goal is to make the residents aware of the MFA as a resource, a place to visit for reflection and fresh perspectives. Developed by Ray Williams, Barbara Martin, Dr. Joel Katz and Dr. Mariah Quinn.

Title of the Course: Teambuilding workshops for the Integrated Teaching Unit at Brigham and Women's Hospital

Summary of the course: 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.

Additional notes: Started at HAM in 2008 by Ray Williams and Mary Thorndike. Moved to MFA in 2011, formalized partnership with MFA in 2013. Currently organized and taught by Corinne Zimmerman and Judy Murray.

Additional partnerships and new workshops are continually being developed for local hospitals and medical programs. This includes a yearly session for fourth year medical students entering Beth Israel Deaconess Medical Center OBGYN in a residency preparation course, and a separate session for OBGYN residents. The MFA workshop is part of a wellness/ self-care curriculum that also includes a yoga class and written self-reflection exercises. Other MFA partners are Tufts Medical Center and Northeastern University.

Resources:

- Dr. Joshua Liao, "Eulogy" *The Lancet*, Volume 382, Issue 9907, Pages 1775 - 1776, November 2013
- Part of "MFA in the Community" exhibition, 2014
- *Boston Magazine*, December 2014 "The Art of Medicine"
- *Journal of Museum Education* "Health and Wellness in Museums" Guest Edited by Brooke DiGiovann Evans, Spring 2016

Museum of Fine Arts, Houston

Houston, TX

Caroline Goeser

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University of Texas Health Science Center at Houston (UT Health) Baylor College of Medicine

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Chief Medical Resident and Instructor of Medicine

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McGovern Medical School

Rebecca Lunstroth, JD, MA

Assistant Professor & Assistant Director, McGovern Medical School, UT Health

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Two Courses:

Title of the First Course: *The Art of Observation* with the University of Texas Health Science Center at Houston (UT Health)

Length of the course/class: 3 sessions; 2 hours per session; total of 6 class hours

Summary:

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
- 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 and the Museum of Fine Arts, Houston

The course is co-taught by Museum staff who specialize in Object Based Learning and Rebecca Lunstroth, JD, MA (Assistant Director & Assistant Professor, McGovern Center for Humanities and Ethics). In the first class session, staff from the MFAH and the McGovern Center engage students in a discussion about the role of visual analysis in clinical practice, and students learn questioning strategies that they use to practice close observation and accurate description in the museum galleries. The second session addresses topics of cultural ideal and biases as students continue to develop methods of close observation. The third session focuses on narrative and empathy as students explore the emotional impact of narrative images.

Number of students served: 32 students (12 dental students and 20 medical students)

Evaluation: Students complete a self-assessment survey and reflection questions following each class session. The reflection questions prompt 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 have been 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 completed surveys soliciting feedback on the course and suggestions for improvement.

Resources:

For the third class on narrative and empathy, students read the following [article](#): Howard Brody and Mark Clark, "Narrative Ethics: A Narrative," Hasting Center Report January-February 2014, S7-S11.

Title of the Second Course: *Art of the Human Body* with Baylor College of Medicine

Length of the course/class: Five sessions (2 hours per session; total 10 hours)

Summary of the course:

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 aesthetic development through written and oral communication
- Demonstrate empathetic communication in the discussion of ideal vs. real images of the human body
- Increase student engagement with the arts and the Museum of Fine Arts, Houston

The course is co-taught by Museum staff who specialize in Object Based Learning and Dr. Ashok Balasubramanyam (Department of Medicine, Diabetes, Endocrinology and Metabolism, Baylor College of Medicine) and Dr. Bhavika Kaul (Chief Medical Resident and Instructor of Medicine, Baylor College of Medicine). This course provides systematic training in the elements of visual art and the principles of design in order to help medical students make detailed observations, overcome emotional biases that affect their observations, and communicate those observations effectively. The course consists of five sessions; each session includes both classroom-based introductions on methods and questioning strategies for close observation of art followed by gallery activities during which students discussed assigned works of art in small groups. All artwork was preselected by Object Based Learning staff and focused on pieces that emphasized the human body. During the fall of 2014, the session topics include: (1) The Human Body in Art: Antiquity to the Present; (2) Close Observation: Using Elements of Art for Systematic Inspection in Clinical Medicine; (3) Images of Health vs. Disease as Ideal vs. Real; (4) Gathering Evidence: Drawing on the Right Side of the Brain; (5) Communication: Clarity and Empathy.

Number of students served: 35 students (primarily first year medical students)

Evaluation: To evaluate the students' progress, all participants have been given a pre-test and post-test that consisted of a writing and drawing exercise. Students were shown the same piece of art at the beginning and end of the course and asked to list their observations and interpretations. After the final class, students also completed surveys soliciting feedback on the course and suggestions for improvement. Responses were analyzed using the aesthetic development theory of Abigail Housen and Karin DeSantis. Analysis of post-test revealed that most students (88%) had progressed by at least one stage with many students averaging stage 3. The advancement from stage 1 to stages 2 or 3 in the pre-test and post-test demonstrates that the students developed a framework for making detailed observations.

Moving forward, Object Based Learning staff at the MFAH plan to test different methods of analyzing student learning for the elective.

Contact Caroline Goeser for sample responses to reflection questions and post-tests.

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 of the Course: *The Art of Paying Attention*

Length of the course/class: Six sessions. Two hours per session. All sessions at the Museum

Summary of the course:

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>

Nora Eccles Harrison Museum of Art, NEHMA

Logan, UT

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Medical School Partner:

Utah State University

Length of the course/class: The three fall workshops are 2 ½ hours in length.

Summary of the course: 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

Assistant Curator of Education

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Medical School Partner:

University of Oklahoma College of Medicine

Title of the Course: The Art of Observation: Learning to Look

Length of the course/class: Eight-week course, 2 hour sessions, students receive credit

Summary of the course:

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

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.

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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Guide Program Manager

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Medical partner:

North Shore Medical Center

Megan Corbett RN, MSN

Clinical Nurse Educator

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

Summary of the course: 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.

Pennsylvania Academy of the Fine Arts (PAFA)

Philadelphia, PA

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Sidney Kimmel Medical College at Thomas Jefferson University

Salvatore Mangione

Associate Professor, Director, Physical Diagnosis Course, Director, History of Medicine Course

Coordinator of Foundations of Clinical Medicine

Title of the Course: 4th Year Anatomy Elective Rotation

Medical School Partner: Drexel University College of Medicine

Length of the course/class: 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 of the course: 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

Number of students served: 50 students each year

Evaluation: Post program survey

Title of the Course: Training the Physician's Eye

Medical School Partner: Drexel University College of Medicine

Length of the course: 5 weekly sessions, two hours each

Summary of the course: 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.

Number of students served: 15-20 students each year

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

Title of the Course: Art of Observation Selective

Medical School Partner: Cooper Medical School at Rowan University

Length of the course/class : 4 weeks, 3 hours each class

Summary of the course:

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.

Number of students served: 20 each year

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

Title of the Course: Art of Observation Faculty Development

Medical School Partner: Cooper Medical School at Rowan University

Length of the course/class: 1 session, 2 hours, 3 times per year

Summary of the course: 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

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

Evaluation: Post program survey

Title of the Course: Art of Observation Humanities Elective

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

Length of the course/class: 1 90-minute lecture, 3 sessions at the museum

Summary of the course: 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.

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

Evaluation: Post-program survey

Philadelphia Museum of Art

Philadelphia, PA

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Perelman School of Medicine at University of Pennsylvania

Horace M. DeLisser, M.D.

Associate Dean for Diversity and Inclusion

Academic Programs Office

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Title of the Course: Building Observation and Empathy through Art

Length of the course/class: Seven 1 1/2 hour sessions

Summary of the course:

The Division of Education is collaborating with the Perelman School of Medicine at the University of Pennsylvania on an elective course that teaches medical students to engage critically and interpersonally with works of art in order to improve their empathy and observation skills. The goal is that students will transfer these skills into their medical professions, such as making more accurate observations, recognizing and evaluating emotional cues in patients, responding to patients in an empathetic way, and becoming more comfortable with situations that have no immediate correct answer or multiple answers.

Six gallery sessions are structured around the Artful Thinking approach, developed by Project Zero at Harvard University and focused on six thinking dispositions: Observing and describing, questioning and investigating, reasoning, comparing and connecting and perspective taking. These thinking dispositions, or intellectual character traits, represent forms of thinking that are powerful in terms of exploring and appreciating works of art and building understanding in other disciplines. A seventh session invites students to reflect on art as it relates to them as individuals, in order to foster emotional awareness and empathy. Practicing these dispositions in the museum context will be ideal for the medical students, who can apply the processes of observing, investigating, reasoning, comparing, and perceiving in their practice. Each week, after our gallery session, students are invited to further practice the skills presented at the Museum by engaging in an Optional Reflective Practice activity.

Number of students served: 20 first year medical students

Evaluation: The medical students are given a pre-test before the start of the program that assesses their observation, empathy and critical thinking skills with works of art, clinical images and photographs of eyes that express different emotions. Students take a similar test at the end of the program to evaluate the changes in their abilities. The study also includes a control group of medical students who will not participate in the sessions during the fall but will be invited to visit the Museum next semester. The University has purchased memberships for all the students in the study.

Resources: There is an article on the way, but not published yet

Reynolda House Museum of American Art

Winston-Salem, NC

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Title of the Course: LAUNCH: Powers of Observation Program

Length of the course/class: 4 sessions, 3 hours each

Summary of the course: 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.

Title of the Course: Being a P.A.: Reynolda House Session

Length of the course/class: Two back-to-back sessions

Summary of the course: 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.

Title of the Course: *Love & Loss* (gallery exhibition)

Summary of the course: 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.

Rhode Island School of Design (RISD) Museum

Providence, RI

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Medical School Partner:

Brown University Alpert School of Medicine

Jay Baruch, MD
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The RISD Museum has built a robust program in Clinical Arts through collaborations with Brown University Alpert Medical School 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, 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 looking and discussion, as well as drawing and creative writing exercises. Reflective, collegial conversation engages participants in actively connecting the sessions with their clinical work, and in considering ways to apply what they have learned to their professional practice.

In collaboration with several different physicians, the partnership has included a seminar course for premedical undergraduates; workshops for first- and second- year medical students; workshops for Emergency Medicine residents and attending physicians; curricular workshop series for Dermatology residents and students in the Primary Care—Population Medicine Program; and a joint session bringing together police detectives and practicing physicians.

The Museum has also developed a series of accredited Continuing Medical Education workshops, which provide CME hours for practicing physicians. These are co-facilitated by Jane Hesser, MFA, MSW, LCSW.

Evaluation: 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. We have utilized a variety of evaluation models, including Budner's ambiguity scale, narrative responses, self-reporting surveys, and, in the case of the Dermatology sessions, image-based evaluation (number of observations).

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Medical School Partner:

Sapienza School of Medicine in S. Andrea

Museum Partner:

Galleria Borghese

Title of course: *Art of observation: from artwork to diagnosis*

Length of the course/class: Four session: two in the classroom and two at the museum

Summary of the course: pilot program with third-year medical students voluntarily recruited. In the classroom and at the museum VTS method was applied. In the classroom session the Teachers explain relation between Art and Medicine and (the) importance of observation. In the Museum the students divided in small groups to work on observation and description followed VTS method the painting chosen by research group and iconodiagnosis practice.

Number of students served: In 2015, 40 students

Evaluation: Quality Evaluation with rating questionnaire, anonymously, supplemented by useful questions in order to evaluate the approach proposed and to obtain feedback by students

Medical School Partner:

Tor Vergata School of Nursing

Museum Partner

Museo di Roma, Galleria Nazionale d'Arte Moderna (GNAM)

Title of course: *Art of observation and nursing*

Length of the course/class: Four session: two in the classroom and two at the museum

Summary of the course: pilot program with First-year students of Master of Science in Nursing. All students were involved. In the classroom session the Teachers explain relation between Art and the health and importance of observation. In the Museum the students (were) divided in small group to work on observation and description followed VTS method the painting chose by research group.

Number of students served: In 2016, 50 students

Evaluation: Quality Evaluation with rating questionnaire, anonymously, supplemented by useful questions in order to evaluate the approach proposed and to obtain feedback by students.

During the last year an introductory seminar on art and medicine was held at Campus Biomedico in Rome School of Medicine and at School of Specialization in General Practice. For next year, we are planning a course in School of Medicine of Sapienza University. The course allows students to frequent at least seven sessions to practice the art of observation and other lectures to dissemination art observation in the health training sector.

Resources:

http://vtsitalia.it/vtsitalia/?page_id=7

<https://issuu.com/culturalheritageecomputer/docs/volume ferrara>

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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 of the course

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

Length of the course/class

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

Summary of the course

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?

Number of students served: Approximately 40+

Smart Museum of Art

Chicago, IL

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Medical School Partner:

University of Chicago

Title of the Course: Partnership with Pediatric Clerkship Program

Length of the course/class: 90-minute workshops

Summary of the course:

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.

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

Length of the course/class: Eight 3-hour seminar sessions.

Summary of the course:

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.

Number of students served: 8-15

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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Christina Yang

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Barry Coller, M.D.

Vice President for Medical Affairs at the Rockefeller University in New York

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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

Los Angeles, CA

Sheila Naghshineh, MD

Assistant Clinical Professor, Chair of Doctoring 1

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

Currently there is not a program that incorporates resident or physician teaching using arts, but there are some folks who are starting to incorporate arts into the medical school.

University at Buffalo Art Galleries

Buffalo, NY

Ginny O'Brien
Curator of Education
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Medical School Partner:

Jacobs UB School of Medicine and Biomedical Sciences

Dr. Linda Pessar
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Past Projects (prior to the establishment of the UB Art Galleries/The Center for Medical Humanities partnership) 2005, 2006, 2007:

The Artist's Remedy to the Physician's Perspective, an eight-session pilot course was developed and implemented in 2007 by Ginny O'Brien in partnership with the UB Department of Family Medicine in response to and inspired by *Learning to Look*, an Art for Observation module 130 first year medical students were required to participate in, working with Ginny and in small groups to observe and discuss selected portraits from UB Anderson Gallery's permanent collection. The module sessions were held at the gallery throughout the month of January for 3 consecutive years. The *Learning to Look* project is summarized in the article *Is It Impressionism or Is It Medicine?* accessible in print in the April 2009 issue of *Family Medicine, Journal of the Society for Teachers in Family Medicine*.

Recent Projects:

Clinical Humanities: The Intersection of Healthcare and the Visual Arts was a course developed and taught during the 2014 Fall Semester by Ginny O'Brien, offered as a 1-credit hour Discovery Seminar for UB undergraduates studying in the visual arts and/or health-related professions including pre-med students, Occupational Therapy students, Speech Pathology students, and Art History students. This undergraduate course was developed and taught just prior to the establishment of the UB Art Galleries/The Center for Medical Humanities partnership, however the topics covered complemented and currently informs visual arts for medical education projects and modules now being developed or currently available through The Center for Medical Humanities under the direction of Dr. Linda Pessar.

Title of the Course: *Clinical Humanities: The Intersection of Healthcare and the Visual Arts*

Course Objectives: By actively participating in each class session and upon completion of this course, students will :

- Demonstrate a working knowledge of general clinical applications using the visual arts in a wide range of healthcare settings serving patients with diverse needs
- Identify rationales that warrant the use of specific visual arts methods and art making techniques unique to a particular healthcare professions field
- Apply basic research skills when developing a visual arts program model designed for a specific healthcare setting
- Identify methods and techniques that can be integrated into the clinical practice and focused expertise of the healthcare professional
- Recognize contributions being made to the community by museums and other cultural institutions serving as academic and community partners to improve the delivery of healthcare services

Resources: available by contacting museum professional

Current Projects:

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.

**Jacobs UB School of Medicine and Biomedical Sciences in collaboration with:
Albright Knox Art Gallery**

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Russell Davidson

Innovation Lab & Special Projects Manager
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Title of the Course: *Enhancing Your Medical Gaze*

Length of the course/class: 6 sessions at 2 hours each

Summary of the course: 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 Kansas Medical Center

Kansas City, KS

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Medical School Partners:

University of Kansas Medical Center School of Medicine, Department of Family Medicine

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Title of the Course: ArtSpeaks

Summary of the course:

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

Ruth Slavin

Deputy Director for Education

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Medical School Partner:

University of Michigan Medical Arts

Joel Howell, M.D.

Professor of Internal Medicine, History, and Health Management & Policy

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Some 8-10 times each year the Medical Arts Program at the University of Michigan gives over 100 learners the opportunity to learn how the arts can help them become better physicians. We interpret the "arts" broadly - our events range from attending performances to experiencing visual art to creating paintings or sculptures.

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. Learners range from medical students through senior residents.

Visit our website: <http://themedicalarts.med.umich.edu/>

- 1) Current: Piloting Visual Arts component in Medical Humanities Path of Excellence with Dr. Joel Howell, all first year Medical students (160 students in small groups)
- 2) Mini-course, 3 (2 hour sessions) Art and Medicine: Reflective Seeing (5 years, 2nd year medical students) (Teams, Complexity, Empathy)
- 3) Partner with UM Medical Arts (attending, residents, medical students participate in arts events, dinner and discussion). Various approaches and topics 1-2 visits/year for 45 students. Worked with 3rd and 4th year Medical student on redefining goals and practices, writing a paper with her on our experiences (she worked at UMMA 10 hours a week for a year.)

Courses:

Title of the Course: Art and Medicine: Art and Reflective Seeing

Medical Partner: UMMA's official partnership with Medical Arts (a Medical Humanities Program at UM), since 2009.

Length: three session (two hours each) mini-elective for credit for second years for the Medical School.

Evaluation: please contact museum professional for additional resources

Title of the Course: UM Medical Arts experiences

Length of the course/class: Workshop one – three times a year

Students served: 45 people

Course Summary: this program unites medical students, residents and attending or senior physicians for evenings of exploration of art, music, writing or performance. Is not about observation improvement. Activities are interactive gallery teaching, token response with them, make your own tour activity based on the gallery, relating to work of art. Physician partner bring up issues re working with patients, interpretive problems. Conduct at University museum and the Detroit Institute of the Arts.

Course Summary: University of Michigan Nursing Program workshop for respite from studies

Med School: UM Health System

Course Summary: self-guided tour for Grief Week that could be on the UMHS website for folks that couldn't get away or wanted to self guide whenever they wanted, and gave a Saturday tour and a Sunday tour for staff and physicians who wanted to participate. The draft of the Self-guide is attached.

Also their Medical School is revamping its curriculum in a fairly major way and is considering a Medical Humanities and Arts "thread" that would be like a minor concentration for which students would receive credit. It isn't clear at this point whether that will happen and what it would mean--but Joel Howell, of Medical Arts reached out to talk about it and whether UMMA would be up for a bigger role (answer: yes!).

University of South Florida Contemporary Art Museum

Tampa, FL

Megan Voeller

Associate Curator, Program Director of Art in Health

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Medical School Partner:

USF Morsani College of Medicine

David Ecker, M.D.

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The program consists of two ongoing projects: *The Art of Attending*, a series of observation training workshops for health students, and *Arts at the Clinic*, a weekly art-making group for aphasia patients and caregivers led by an artist and art student interns. The Art of Attending consists of four three-hour workshops using methods from museum education, studio art, movement/dance and music/listening, taught by arts faculty and open to students in medicine, public health, nursing, pharmacy and social work.

http://www.ira.usf.edu/CAM/cam_artinhealth.html

Title of the Course: *The Art of Attending* –a series of voluntary workshops

Medical School Partner: USF Health / USF Morsani College of Medicine

Length of the course/class – Twelve hours – four, three-hour workshops over four weeks.

Summary of the course: In partnership with USF Health, the USF Contemporary Art Museum offers a series of workshops designed to improve the observation skills of USF graduate and professional students in health disciplines. Join other USF students for intensive, inter-professional arts-based training in observation, critical thinking and communication. Research shows that training health practitioners in art skills improves visual awareness. Each workshop includes a series of arts activities and a concluding discussion led by a USF Health faculty member, when available. Visiting faculty members include Dr. David Ecker, Morsani College of Medicine (Studio Art workshop) and Dr. Aurora Sanchez-Anguiano, College of Public Health (Museum workshop).

Studio Art Workshop

Collage, drawing and visual observation exercises

Museum Workshop

Facilitated discussions of visual artworks

Listening Workshop

Sound-based listening and electronic composition exercises

Movement Workshop

Body awareness, movement observation and practice

The workshops are free to attend. Additional participation in a research study on learning outcomes from the workshops is optional and entails the completion of two online surveys. The purpose of the research is to assess the impact of the workshops on students' observation skills.

Number of students served: Approximately 150; 20-25 per semester.

Evaluation: Survey tool.

Resources:

http://www.academia.edu/8882502/The_Art_of_Attending_Training_Interdisciplinary_Healthcare_Graduate_Students_at_the_University_of_South_Florida_Contemporary_Art_Museum

University of Wisconsin Chazen Museum of Art

Madison, WI

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Maria Saffioti-Dale

Academic Curator

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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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Iris Moulton

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Medical School Partner:

University of Utah School of Medicine

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The University of Utah School of Medicine (SOM) and the Utah Museum of Fine Arts Education department have collaborated since 2011, bringing medical students to the museum to practice processing visual evidence using Visual Thinking Strategies. Required sessions were included in the curriculum of the 2012-13 Internal Medicine 3rd year clerkship, in the 2015-2017 2nd year Layers of Medicine course, and in the 4th year elective course Art In Medicine. Extracurricular workshops for medical students, residents, and faculty have been offered each year. In the extracurricular sessions and the elective Art in Medicine course, Dr. Case and museum staff lead learners through discussion of artworks from the UMFA collection, followed by conversations about medical images, on a coordinated theme, led by a clinician from the SOM. In the Layers of Medicine course, visits to the UMFA are not possible, so artwork or images are brought to the SOM.

Title of the Course: VTS With Medical School

Layers of Medicine: one session per year, 50 min session, max 120 students. Required for course, not graded.

Internal Medicine (2012-13 only): one session each rotation (6 rotations per year), 2 hours per session, 20-30 students per session. Required for course, not graded.

Art in Medicine: one session each year, 2 hours per session, max 12 students. Required for course, not graded.

Extracurricular sessions: Max one session per semester, 2-3 hours per session. No course credit. CME offered for some faculty sessions.

Summary of the course:

In the sessions able to meet at the UMFA, learners break into groups of no more than 10 and join Dr. Case and the staff of the Education and Engagement Department to practice VTS strategies with 3-4 preselected artworks. Each small group engages in slow looking, open-ended discussion, and often sketches their responses using drawing materials provided by the UMFA. All small groups see the same artworks, and rotate between them. Next, the students gather again as a large group, led by a clinician, to look at and discuss medical images that have been preselected to highlight elements of the artwork. For example, a dermatologist may show images of skin rashes that have distinctive borders, and draw upon the language used to describe borders in the artwork viewed earlier in the session; a radiologist may show an X-ray of the heart and lungs and discuss contrast or shading. Students are guided by the clinician, who participates in the whole session, in recognizing how the skills they primed in the galleries can be used to make new, subtle discoveries in the clinic. In the elective course and the extracurricular sessions, participants are invited to a meal before or after the session to discuss what they learned or hope to learn.

Evaluation:

Our limited assessment of the program shows that many medical students and other learners, especially those participating in extracurricular and elective sessions, find this program incredibly useful. Participants often remark on how much more they notice after practicing these strategies, and on their improved understanding of visual evidence. A pleasant side effect reported by almost every participant is the chance to interact with artwork and have a different kind of conversation than those that permeate their daily work and studies. We hope to grow the program to work at all levels of learners, beginning with those first entering their medical studies and continuing to support and develop skills through their advanced training and eventual practice as physicians. We would further like to develop the program to meet the needs of other health professionals and students, including Nursing, Pharmacy, Physician Assistant, and pre-med programs.

Virginia Museum of Fine Arts

Richmond, VA

Celeste Fetta
Chief Educator

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Medical School Partner:

Virginia Commonwealth University

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Chair & Associate Professor of Art Education

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Jeanne M. Walter, PhD, RN, FAAMA

Director Undergraduate Programs, School of Nursing

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Title of the Course: *The Art of Nursing*

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

Summary of the course:

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.

Number of students served:

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

Evaluation: Evaluation is completed through VCU.

Resources:

There will be the occasional request for a tour for students from medical programs- VMFA books these with docents who have a background in the medical field and are open to using techniques and activities that encourage observation and discussion. Those range in frequency, estimated 2-3 per year serving about 16-20 students/tour.

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

Weatherspoon Art Museum

Greensboro, NC

Ann Grimaldi
Curator of Education
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ann_grimaldi@uncg.edu

Medical School Partner:

The University of North Carolina at Greensboro School of Nursing and School of Health and Human Sciences

Title of the Course: *The Art of Seeing*

Length of the course/class: One to two sessions, 90 minutes to 3 hours each semester

Summary of the course: *The Art of Seeing* is a museum-based class that uses contemporary art to help undergraduate and graduate students in required nursing, kinesiology, nutrition, and social work courses enhance their observation, visual diagnostic, and communication skills while promoting awareness of the critical role observation plays in clinical practice.

Classes are tailored to each faculty member's course goals and are facilitated by the curator of education. For instance, a Kinesiology course on the Observation & Analysis of Fundamental Movement will focus on the subtle ways in which artists illustrate or imply movement while students in a Nursing Care of Individuals with Psychosocial Problems course will more closely investigate visual bias and cultural perspective. Self-reflection, through writing and group discussion, and clinical application are emphasized in each class.

Currently all nursing students at UNCG participate in *The Art of Seeing* in their sophomore year. One possible direction for the program is the development of an advanced class for nursing students in their final year of clinical rotations.

In 2016-17, WAM will pilot a mindful awareness exercise within *The Art of Seeing*. Feedback from nursing faculty and student indicated that the museum classes afford students an opportunity to "slow down," and to practice some of the self-care and wellness activities that are integral to their training.

Number of students served: Since 2010, approximately 700 students

Evaluation: Faculty complete a post-visit evaluation and share student reflections or other written assignments with museum staff.

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

Weisman Art Museum, University of Minnesota

Minneapolis, MN

Jamee Yung

jtyung@umn.edu

Medical School Partner:

University of Minnesota Medical School

The Weisman Art Museum on University of Minnesota campus does not offer a specific course but collaborates with the Med School in a variety of ways.

Title of Course: 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.

Key Verbal and Visual Literacy Strategies addressed:

- | | |
|---------------------------------------|------------------------------|
| 1. Describe through all the senses | 9. Make inferences |
| 2. Connect to prior knowledge | 10. Summarize and synthesize |
| 3. Raise questions | 11. Compare and contrast |
| 4. Expand vocabulary | 12. Create metaphors |
| 5. Determine detail and focus support | 13. Shift perspectives |
| 6. Generate ideas | 14. Connect to emotions |
| 7. Visualize meaning | 15. Reflect and respond |
| 8. Predict and prove | |

Yale Center for British Art

New Haven, CT

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Senior Curator of Education

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Medical School Partner:

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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

Seymour H. Knox, Jr., Curator of Modern and Contemporary Art

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Cyra Levenson

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Dr. Nancy Angoff

Dean of Student Affairs for the Medical School

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Title of the Program: *Making the Invisible Visible: Art, Identities, and Hierarchies of Power*

Length of the course/class: 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.

Title of the Intervention: *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 the course: *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.

Number of students served: 104

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

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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.