

ABSTRACTS

Saturday April 29, 11AM – 12:30 PM: Research Presentation Session 1

Medicine on the Periphery

Location: Holmes Learning Studio, TMEC 306

Moderator: Jeremy Greene, MD, PhD, Elizabeth Treide and A. McGehee Harvey Chair in the History of Medicine, Johns Hopkins School of Medicine

Linda Magaña, PhD, MD candidate at Sidney Kimmel Medical College at Thomas Jefferson University

“Confronting the Parasite of Puerto Rico: Power, Politics, and Hookworm Disease, 1898-1917”

Puerto Rico: Is it a state? A country? A territory? Where does it stand in the realm of international governance? Where does it stand in relation to the United States? Such broad, fundamental questions concerning the status of this small island are as poignant in the twenty-first century as they were in 1898 when Puerto Rico entered the United States’ sphere of influence. Despite the passage of more than a century under American tutelage, Puerto Rico now has the infamous notoriety of possessing junk debt, the country’s highest unemployment rate, and a rising drug crisis rivaling that at the U.S.-Mexico border. Where do physicians and the health care system fit into this narrative?

The roots of the health disparities between the Puerto Rico and the mainland undoubtedly rest in the development of public health policy and infrastructure following the American occupation in 1898. Quite remarkably, Puerto Rican public health at the start of the twentieth century had the explicit attention of U.S. presidents, Congressional members, agricultural industry leaders, American labor unions, and the Rockefeller Foundation, an emerging titan of global philanthropy. Interests converged around the eradication of hookworm disease, a plague afflicting the vast majority of the laboring population and which severely inhibited productivity. An Army physician, educated in the rapidly innovating field of infectious disease at the end of the nineteenth century, identified the source of the disease in Puerto Rico and developed a systematic response program tailored to the needs of the local population. This paper examines the apparent paradox between the application of innovative public health practices and responses to epidemic disease and the failure to achieve long-term improvements in health outcomes. Responses to epidemics and the execution of disease campaigns became major sources of political conflict and subject to partisanship transcending the physical boundaries of the island and enmeshing one of the world’s first and largest biomedical philanthropies, the Rockefeller Foundation. The earliest decades of the U.S. involvement in Puerto Rico’s public health system has the potential to shed light on a situation that seems to embody the idea of a “failure to thrive.”

Angel Rodriguez, PhD candidate, Harvard University

“The United States and Republic of Guatemala: 20th-century perspectives on Inter-American science and medicine”

On August 3rd 1945, then president of the Institute of Inter-American Affairs (IAA) and U.S Army Major-General George C. Dunham published in *Science*, “Medicine plays an increasingly important role in international relations, and particularly in our interdependence with Latin America...Over one hundred centers and hospitals are being built and operated; malaria control, water supplies and

sewerage systems provided.” Dunham advanced science as both a curative medicine, diagnosis and treatment of disease, but also public health for the prevention of these “tropical” diseases with the overall objective to promote development and progress. He concluded that “Latin America furnishes a great market for U.S products. Economic progress is essential for the development of a profitable market.” The focus of this study is to investigate the social policies, economic negotiations, and political imperatives as an ensemble for the emergence and construction of the Roosevelt Hospital in the Latin American republic of Guatemala. By 1955, Guatemala City, professional and medical elites created an integrated system of state-run health care that revolved around the recently inaugurated Roosevelt Hospital. Hospitals are symbols, microcosms of society, built-environments of modernity rooted in the imagination and application of new forms of care. With significant funding from the IAA, the financial strategy and construction of the Roosevelt Hospital served to redefine the connections with science and social welfare: relationships between doctor-patient, state and the national population, and simultaneously reposition Guatemala within a system of international organizations. On the one hand, the Roosevelt Hospital symbolized a positive transformation for Guatemalan public health to include seven-hundred new patient beds and a biomedical teaching center. On the other hand, a more systematic critical perspective suggests this form of medical progress is absent of context and serves only to justify technological innovation as the motor of history. An investigation into the development ideology and sociopolitical context in this case of international relations will provide complex formulas to demonstrate the connections between disease problems in the American hemisphere and highlight true challenges in global health: the importance of integrating technoscientific developments with local sociopolitical improvements.

Darja Djordjevic, MD/PhD candidate, Harvard Medical School

“The ‘Natural’ History of Cancer in Africa: Tracking Malignancy, Oncology, and its Ideologies (1957-1984), with a Comparative View to the 21st Century in Rwanda”

While it is widely accepted that cancer incidence is on the rise in Africa, and global oncology has burgeoned, the history of cancer and cancer research on the continent is generally not discussed. This paper reviews data original research and policy statements on cancer in Africa from the 1950s until the early 1980s utilizing historical methods but also drawing on anthropological fieldwork in Rwanda. The analysis herein seeks to unpack the motivations for the etiological and epidemiological cancer surveys that seem to have risen to prominence beginning in the 1950s. It also charts the significance of racial difference as it was factored into the categorization, incidence, and outcomes of various cancers, and considers colonial perspectives on the difference between African and European cancer. Issues of treatment and therapeutics when they did arise in certain studies and at regional conferences are reviewed, revealing that certain proposals about developing oncology infrastructure bore striking similarity to those advanced in the 21st century in Rwanda. Overall, Africa was a living laboratory for understanding cancer in its ‘natural’ state—it was observable and describable in contexts where the various conditions of European civilized and industrialized life had not taken hold, so that it was easier to isolate environmental exposures related to local ecology and lifestyle. Thus, despite certain gestures toward the future of treatment, knowledge about cancerogenesis was largely extracted from African contexts for the purposes of advancing cancer epidemiology and geographic pathology.

Anita Chary, MD/PhD candidate, Washington University in St. Louis*

“Medical Students' Experiences of Mandatory Rural Service in Guatemala”

***(Co-author with Jessica Hawkins, Boris Martinez, Marcela Colom, David Flood, and Kirsten Austad of the Maya Health Alliance)**

This presentation examines Guatemalan medical students' experiences of mandatory rural service in Guatemala. In Guatemala, as in many low- and middle-income countries, medical students are required to rotate in rural government health posts as independent practitioners for four to six months prior to graduation. For many Guatemalan medical students, who are upper-middle class, of European or mixed descent, and live in the capital city, mandatory rural service represents their first significant exposure to and immersion in the social context of the nation's majority rural poor indigenous population. Our study focuses on how recently-graduated physicians conceptualize working across geographic and cultural divides as well as how their experience with rural service influences their career choices. Based on semi-structured interviews with 30 physicians and 5 medical educators, we present data about physicians' experiences of providing primary care as rotating students in resource-poor health facilities in marginalized indigenous communities. Against the backdrop of Guatemala's history of Spanish colonialism and recent state-sponsored genocide of Maya people (1960-1996), in national discourse, "culture," or indigeneity, is often conceptualized as a key barrier to national progress and development. Similarly, social scientific curricula and scholarship about barriers to health care in Guatemala center on indigenous cultural beliefs and nosologies. However, we find that physicians conceptualize barriers to providing care in rural indigenous areas largely in terms of socioeconomic class, particularly regarding themes of patient fatalism, refusals of referral care, and morbidity and mortality from preventable diseases. We draw from scholarly understandings of cultural competency, structural competency, and improvising medicine to critique and complement the current state of mandatory rural service in Guatemala. We also deploy these concepts to suggest strategies to improve physicians' experiences of rural service and understandings of social medicine.

Medicine, Food, and the Body

Location: Peabody Learning Studio, TMEC 106

Moderator: Lisa Haushofer, MD, MA, PhD (History of Science, Harvard University, expected 2018)

Colleen Walsh Lang, MD/PhD candidate, Washington University in St. Louis
"Technological Food: Extrapolation and Consumption"

Ready-to-use therapeutic food (RUTF) has been widely praised for its efficacy in treating childhood malnutrition. Though initial studies of RUTF focused on a particular age range and type of malnutrition, programs around the world are "extrapolating" the success of RUTF to ever wider populations. This phenomenon of "extrapolation" is hardly unique to RUTF, but commonly occurs with magic bullets, especially in global health settings. This paper explores the use of RUTF in older children (age 6-17) infected with HIV who were temporarily living at a residential rehabilitation center for children with HIV/AIDS in Uganda. Ethnographic fieldwork captured both the perspectives of children themselves and the staff caring for them, and revealed that while RUTF maintained its magic in this new setting and population, its meaning was (re)interpreted allowing for it to be used and consumed in multiple and varied ways.

Julie Barzilay, MD candidate, Stanford University School of Medicine
"The Allinsonian Way: Marketing, Medicine, and the Creation of an Interactive Health Empire at the Turn of the Twentieth Century"

After the 1858 creation of the United Kingdom's General Medical Council – vested with the power to award and rescind medical licenses – boundaries between “medical” and “popular” advice on healthy eating were in constant flux. When the Council de-licensed Edinburgh-trained physician Thomas Allinson, they made it quite clear how the profession felt about his naturopathic, diet-based approach to health. The story of Allinson, who lost his qualifications but gained a health food empire, illuminates the intersections of nutrition, health, and medical authority at the turn of the century.

Most studies of the effect of periodical and commercial culture on medicine in this era focus on the professionalization of medicine or the development of marketing techniques. Allinson did force the medical profession to clarify boundaries, and he has been portrayed as profit-driven entrepreneur—but there is more to the story than boundaries and the bottom line. Allinson transformed his program of healthy living into an interactive, immersive culture that his public extended, criticized, and literally bought into. Extolling the virtues of his wholemeal bread, he promoted his health philosophy through newspaper correspondence; bread-baking competitions and publicity stunts; a Hygienic Hospital created to test and promote his methods; and most importantly his Natural Living Company products. Taking the spotlight off of Allinson’s entrepreneurial intentions and shining it on how he established a particular relationship with his audience sheds new light on the spaces where the boundaries between commerce and medicine were negotiated in this era.

By re-locating the discussion of Allinson’s brand to the interactive spaces of exchange between him and his patient/consumers, we can better understand the complex and problematic relationship between the medical profession, nutrition, and the provision of health—and better evaluate the claims about natural living that bombard us each time we open the internet or turn on the television.

Kristen Ann Ehrenberger, MD, PhD, Resident Physician (PGY-1), UPMC/Children's Hospital of Pittsburgh, Internal Medicine/Pediatrics

“The Dainty and the Delicious: Where Historical Research and Personal Experience Overlap”

What is the value of personal experience, and can a liberal-arts education predicated on texts ever hope to approximate it? The inability to inhabit the lives of our subjects is a common dilemma for qualitative researchers, but the difficulty is particularly acute for historians, who strive to understand lived experiences across barriers of not just culture, place, and/or language but also time. Thoughtful clinicians, too, recognize the failure of any electronic note or 5-minute presentation to accurately convey the illness, much less biographical narrative of a patient. Nevertheless, just as I have to believe that conventional medical genres communicate enough of what is necessary to care for the patients on my service, so do I trust that historical sources convey useful knowledge about the past. Which is why I was surprised and a little disappointed to learn a poignant lesson about medical relativism and the emotional labor of caregiving neither in the library, nor on the wards, but in my own home.

This talk combines historical research in dietetics (the use of food in clinical contexts) with auto-ethnography, as I reflect on changing definitions of “good nutrition” from my triple perspectives as clinician, historian, and caregiver. The same month I matched into residency, my spouse of ten years was diagnosed with cancer. Chemotherapy and ED visits disrupted the last semester of medical school and the start of internship. My personal experiences nursing him back to health helped me understand my historical sources better than the mere reading and interpretation of them had. The heart of the presentation concerns recommendations for feeding the sick common in Germany in the late-nineteenth and early twentieth centuries, based on original research in cookbooks, medical texts,

and educational materials. Comparing the personal and professional judgment of nutritional experts a century ago with my own, I found that even daintiness can be scientific, if it keeps a patient nourished, hydrated, and out of the hospital.

Conceptualizations of Disease

Location: Cannon Learning Studio, TMEC 328

Moderator: Anne Becker, MD, PhD, SM, Maude and Lillian Presley Professor of Global Health and Social Medicine, Department of Global Health and Social Medicine, Harvard Medical School

Clare Cameron, MD/PhD candidate, University of California - San Francisco **“Uncertain Evidence: Tuberculosis and the Making of the Ordinary”**

In recent work, Das (2015) asks: “Can a disease be normal?” (22). This is a question I often returned to over the course of 14 months of ethnographic fieldwork in Timika, West Papua, where I worked primarily with the local implementing partner of USAID’s tuberculosis control program. In health centers throughout Timika, an anti-tuberculosis slogan warns, *Bukan batuk biasa!* [This is not a normal (or ordinary) cough!]. The (unintended) implication of this slogan is to suggest that there is something called a normal cough – tuberculosis just isn’t it. A confluence of factors – environmental, social, and economic – does produce something that might be called a common, even normal, cough in Timika. Yet, without consistent access to other screening technologies (e.g. chest x-ray or Gene Xpert) community health workers simply screen for suspected undiagnosed TB patients with the question: Have you had a cough that has lasted longer than two weeks? In this way, a sputum microscopy-screening event in a city with high TB prevalence can test two hundred “suspected” adults and yield zero positive results. The epistemic valence of evidence refracts through the ‘normal’ such that global paradigms for TB prevention and screening, which index a prolonged, productive cough as clinically suspicious for TB, fail to fully account for the situated meaning of what it might mean to have a cough. A shift in what constitutes the ‘normal,’ thus, also shifts the interpretation or signification of events, such that a chronic cough no longer indexes as pathology.

Stevenson (2014), writing on Canada’s indigenous Inuit population, describes uncertainty as her ethnographic mode of inquiry. Through this mode, she argues, fieldwork is “less about collecting facts than about paying attention to the moments when facts falter” (2). This paper is part of a larger ethnographic project situated both in those moments when facts falter, but also in the ruptures between certainty and fact. When is something that looks like evidence not evidence, or rather evidence of something else? The certainty with which one knows – and what one can know – is deeply situated and shapes how certain forms of evidence come to eclipse others.

Katherine van Schaik, MD/PhD candidate, Harvard Medical School **“Medical Decision Making: From the Hippocratic to the Modern”**

Modern narratives by physician-authors (Jerome Groopman, Atul Gawande, Arthur Kleinman) illustrate for a general audience the physician’s thought process during the various stages of an encounter with a patient, from the initial meeting to, in some cases, end-of-life care. These decision making processes increasingly involve diagnostic and therapeutic algorithms: heuristic tools that use meta-data to help physicians diagnose and treat, often by grouping patients into categories based on metrics (e.g., age, number of comorbidities, levels of various biomarkers), then leading the physician through a series of if/then questions to reach the recommended treatment. This process of what might

be termed, broadly, ‘algorithmic’ decision making relies upon 1) defined disease categories and 2) the establishment of an organized system of factors determined to affect the diagnosis, treatment, and prognosis of the disease. Applied to the patient-physician encounter, the algorithm shapes what a physician seeks to elicit from or observe in her patient.

In Greco-Roman antiquity, how a physician decided to classify and to treat a disease directly affected how he interacted with his patients. Today, as we move toward medical decision making that involves concepts such as ‘big data’, ‘crowd sourcing’ and ‘precision medicine’, a discerning view into past debates about the nature and organization of medical knowledge and training can shed light on how modern physicians choose to classify disease, and can ensure that the patient remains at the heart of the decision making process. This paper will address these issues by asking, “How did physicians in the past make decisions about disease diagnosis and treatment, and how does this compare with the ways physicians decide today?” To answer this question, this paper will analyze past and present methods of disease diagnosis and treatment, and the clinical decision making methods reliant upon them. Such exploration yields, among other insights, findings consistent with recent studies of diagnostic apps: even in Greco-Roman antiquity, physicians trained in both theory and practice were probably better at diagnosing high-acuity and/or rare conditions, while physicians whose training focused explicitly on practice and on generalized categories were likely more effective at diagnosing low-acuity, common conditions.

Eugene Richardson, MD, PhD (Anthropology, Stanford University, expected 2017); Instructor at Brigham and Women’s Hospital
“On the Genealogy of Superspreading”

This paper, based on participant observation during the 2013-16 Ebola outbreak in West Africa as well as an exploration of public health discourse, traces the genealogy of the term superspreaders. The term has recently been defined as “the minority of people who are responsible for infecting many others during epidemics of infectious diseases.” Perniciously, such terminology diverts us from the structural determinants of Ebola virus transmission by positing bounded individuals and their unconstrained, calculating agency as the engines of transmission, and potentially engenders stigmatization towards patients with Ebola virus disease, including posthumously. We propose the descriptor, personal protective equipment (PPE)-bereft care-nexus, as more appropriate, both anthropologically and philosophically. It highlights the fact that Ebola virus disease is a caregivers’ disease that thrives in underdeveloped and historically plundered regions, and that the use of terms such as superspreaders factitiously implicates marginalized individuals as sources of outbreaks, instead of lending analytical weight to how social forces (i.e., the complex fields of power in which we are all nodes) become embodied as pathology.

Matthew Adamson, MD/PhD candidate, University of Illinois at Urbana-Champaign
“Cancer Prognosis Communication: The Experience of Communicating, Understanding, and Negotiating Meaning”

How do communication events outside of patient-physician communication affect how individuals with cancer interpret their prognosis?

Methodology: We conducted 10 semi-structured qualitative interviews with individuals diagnosed with four types of cancer at different stages. We analyzed the interviews using theories in health communications, sociology, and critical cultural studies.

Background: Studies of patient-physician communication in cancer seek to understand what types of information are being conveyed by physicians and how well this information is transmitted. These studies highlight several areas where misunderstanding occurs: understanding the disease and consequences of treatment, likelihood of treatment success, probability of cure, status (progression) of illness, and prognosis (including side-effects). Significantly, scholars have found that misunderstanding can occur even when doctors provide adequate information, suggesting other mechanisms involved in creating patient misunderstanding besides physician communication. Some mechanisms proposed to underlie this information discrepancy include incomplete or unclear disclosure, the use of euphemisms to communicate “bad” prognosis, and compromised patient understanding due to the stress of receiving unexpected bad news. However, these theories cannot account for all instances of misunderstanding, including instances where complete and direct disclosure has been observed. Prognosis communication research has focused heavily on actual patient-physician communication event(s), as well as immediate antecedents and consequences. However, less research has been conducted examining what happens to this information once it has been communicated. Additionally, little work has been done to evaluate how the processes that patients undergo to interpret the meaning of their experience affect their understanding of it. This includes communication with individuals other than the communicating physician. Our project seeks to explore this question.

Conclusions: We found that individuals with cancer turned to a variety of different sources to give context and understanding to their communicated prognosis. These sources were important contributors to how they understood their prognosis, shifts in understanding, and subsequent decision-making. They included: significant others, friends/acquaintances, cancer survivors, support/survivor groups, support staff in the healthcare setting, religious affiliations, as well as relevant informational materials. Participants expressed a link between how they interpreted their prognosis and the variety of outside sources to which they turned for input and support.

Social Sciences in the Classroom and Clinic

Location: Castle Learning Studio, TMEC 128

Moderator: David S. Jones, MD, PhD, A. Bernard Ackerman Professor of the Culture of Medicine, Faculty of Arts and Sciences and the Faculty of Medicine, Harvard University

Jennifer Tsai, MD candidate, The Warren Alpert Medical School of Brown University “Integrating Critical Theory into a Student-Led Elective to Advance Structural Empathy in Medical Students”

Background: Health disparities curricula in medical education often provide only content on the existence of inequities without incorporating Critical Race Theory (CRT) principles that explicitly analyze and advocate against discourses and practices that maintain injustice. In response, students at Alpert Medical School (AMS) designed a CRT elective for first-year medical students, and examined its effects on learners’ knowledge, attitudes, and commitment regarding health justice.

Methods: A peer-led CRT elective was designed to promote four objectives: 1) increase knowledge on sources and magnitudes of health inequities; 2) recognize effects of interpersonal and structural racism on patient care; 3) translate structural competency framework into individual practice; and 4) increase commitment to health justice. Modules drew from interdisciplinary scholarship to robustly contextualize biomedical practice and authority within notions of power and privilege. Teaching

strategies emphasized debate, active confrontation, and personal narratives in order to decrease reliance on didactic learning. A mixed-methods approach consisting of pre-post-elective surveys and qualitative focus groups was employed to evaluate the course.

Results: Survey data showed an increase in perceived skills. For example, whereas in pre-surveys 40% of students agreed with the statement “I feel equipped to critically analyze issues of health justice and to develop action plans to address these issues,” in post-surveys this proportion increased to 100%. Student answers asserting commitment to social justice also increased from 53.3% to 88.9%. These results, as well as statements endorsing increased recognition of humility, accountability, and empowerment pervaded qualitative interviews.

Conclusion: A peer-led CRT elective on health justice improved perceived capabilities and commitment towards eliminating health inequities in first-year medical students at AMS. The course increased ability to practice Structural Empathy, a principle course-leaders seek to frame as not only the compassionate understanding that disease, risk, wellbeing, and safety are constructed within larger socio-medic-historical contexts, but the further mobilization of this knowledge in clinical interactions to humanize patient narratives. Altogether, the notion of structural empathy, through its incorporation of structural competency and narrative humility principles into clinical practice, seeks to equip learners with the ability to comprehend the apparatus of inequity, accommodate individual practice to lessen its consequences, and advocate against its continued existence.

Linda C. Magaña, PhD, and Kevin J. Gutierrez, MS; MD candidates at Sidney Kimmel Medical College at Thomas Jefferson University

“Cracking the Curriculum: The Need for a Critical Examination of Race and Medicine in Undergraduate Medical Education”

With the tumultuous state of racial inequality within the United States and the growing concern over medicine’s role within racial and social justice, many have begun to consider the place of medical education as a potential site of intervention. Although many institutions have incorporated cultural competency and gestures towards care of the marginalized, there is infrequently course material or acknowledgement of physicians’ potential role in racial and social justice. In particular, there is little examination of the concept of racism itself, its history, and most importantly, its presence in our present institutions and policies.

The two authors of this paper are medical students (MS2s) who have designed and implemented a course titled “Race and Medicine in the United States: A Primer” within their medical school’s curriculum. It is taught by the two authors whose unique educational backgrounds, for one, a Masters in narrative medicine with an emphasis on critical race theory; and the other, a PhD in the history of medicine.

In this paper, we will present the structure of our course, which is heavily based on the examination of medicine’s historical trajectory as a tool of the dominant classes and critical race theory/social theory to examine its psychic and structural persistence into the present. More importantly, the paper will reflect on the long process of implementing the course within our institution - a process marked by political strategy and “codeswitching” as people of color in tertiary education. Ultimately, we will demonstrate that one of the potential strategies for incorporating racial justice into medical education is to intellectualize and “academize” the concepts of race, oppression, and justice.

Josh Neff, MS, MD candidate, UC Berkeley-UCSF Joint Medical Program

“Teaching Structural Competency: Lessons Learned from the Bay Area's Structural Competency Working Group ("Rad Med")”

Since MD-PhDs Metzl and Hansen proposed structural competency just a few years ago, it has rapidly gained recognition as a framework for introducing critical thought from the social sciences and humanities into medical training. There is much yet to learn, however, about how best to incorporate structural competency into medical curricula. This talk describes an effort to build pedagogic tools for structural competency through developing, implementing, and evaluating a structural competency training for medical trainees.

Developed by members of the “Rad Med” Structural Competency Working Group — an interdisciplinary group of clinicians, scholars, health activists, and graduate students in the Bay Area — the three-hour training included three sections: how structures affect patient health, how structures affect the clinical encounter, and strategies to address structures both in and beyond the clinic. All sections included interactive, reflective, and didactic elements.

The first iteration of the training was implemented with residents and faculty at a Northern California family medicine residency program. Evaluation of this training included post-training surveys and a follow-up focus group with residents one month after the training. Two key themes emerged from our evaluation. First, residents reported that the training had a large influence on their collective attitudes and clinical practice in the weeks after the training. Second, residents reported feeling distress as a result of more frequently recognizing harmful structural influences. These findings have since been used to inform further development and reiteration of the training in a variety of settings, including several trainings for non-physician healthcare professions.

Our findings and experience conducting multiple iterations of structural competency trainings suggest that, by providing trainees with shared frameworks and vocabulary for recognizing and intervening upon social structures, structural competency has potential to influence the teaching and practice of medicine. Our findings and experience have also raised several questions central to the theme of this year’s conference. For example, to which audiences is such material best addressed, in terms of stage of training, political orientation, and voluntary vs. required participation? And, when considering matters of societal injustice, under which circumstances is distress productive and motivating vs. overwhelming and disempowering for trainees?

Caroline Hodge, MD/PhD candidate, University of California - San Francisco School of Medicine; Raphael Frankfurter, MD/PhD candidate, University of California - San Francisco/Berkeley

“Elective Social Science: A Case Study in Curricular Reform at UCSF”

This case study examines a for-credit elective in medical anthropology we coordinated for first-year medical students at the University of California San Francisco School of Medicine. We found that the elective created, by virtue of its place on the margins, a vital space in which to critique and engage our nascent identities as physicians in the crucible of medical school.

Like many American medical schools, UCSF uses an organs-based block system to teach fundamentals in anatomy, physiology, pathology, histology, and pharmacology. The social sciences are incorporated into the pre-clinical coursework as a curricular thread, “Social and Behavioral Sciences” (SBS), which aims to equip students with tools to address health-related behaviors and understand the social determinants of health. The SBS curricular content, which places great

emphasis on individual behavior, is constrained by limited time and its superficial treatment of the complex ways in which social experience patterns and instantiates health.

Through weekly discussions with medical anthropologists in the field, our course challenged and reframed the “problem patients” and behaviors presented in SBS lectures. We deliberately envisioned this space as one where our enculturation into medicine could be questioned and unpacked. Nearly 1/3 of the first year medical student body attended, and the place of the elective on the margins of our curriculum proved crucial, not only providing important counter-narratives of addiction and race, among other things, but giving students the tools to interrogate the construction and culture of medicine itself. This case study opens up considerations not only about the role of the social sciences in medical education, but where such content can be localized. Though many advocate for further integration of humanities and social sciences into pre-clinical curricula, we found that embracing this exterior, liminal format enabled students to better strip off the positivist tendencies foisted upon us in our curriculum (NB Good 1994, Scheper-Hughes and Lock 1987), and engage the “fractured habitus” that critically-inclined clinician-social scientists inevitably confront in their training and practice.

Envisioning the Physician

Location: TMEC 250

Moderator: Adam Baim, MD/PhD candidate, University of Chicago

Adam Baim, MD/PhD candidate, University of Chicago

“Eye Contact: Envisioning Surgery in Ophthalmology”

Vision is a central concern in ophthalmology: in addition to evaluating the vision of patients, ophthalmologists rely on their own trained vision to examine the eye and perform delicate surgeries through microscopes. My dissertation, an anthropological and historical study of ophthalmology in the United States, investigates the unique visual cultures that ophthalmologists create as they work on vision and with vision. In this paper, I discuss ophthalmic surgery and analyze two areas where the senses of the surgeon are at stake. I first consider surgical training for ophthalmology residents, particularly “wet labs” where trainees practice skills on disembodied animal eyes, as well as newer simulation technologies that prepare residents to perform cataract surgery. I argue that these training exercises not only provide opportunities for visual and haptic refinement, but also inculcate the expected dispositions of a surgeon. I then discuss the circulation of surgery videos in ophthalmology, both as pedagogical devices and as objects of spectacle. After reviewing the history of surgical filmmaking within and beyond ophthalmology, I explore more contemporary genres of surgery videos that are disseminated online by ophthalmologists, and analyze the narrative conventions and aesthetics that are found therein. The surgery video, I claim, encapsulates expectations about the ideal surgeon-subject within its depictions of normative surgical technique. I conclude with a critical review of the ethnographic literature on surgery, and suggest how studying ophthalmology adds to our understanding of visuality, embodiment, and subjectivity in surgical practice.

Jasmine Fernandez, Doctoral Research Scholar (English) School of Humanities & Social Sciences, Indian Institute of Technology Indore, Indore, India*

“Doctors in organ heist thrillers: Representations of medical-encounter in *Donation* (2008), *The Organ Harvesters: A dystopian medical thriller* (2015) and *The Dismantling: A novel* (2015)”

***(Co-author with Dr. Amarjeet Nayak, Assistant Professor of English, Indian Institute of Technology Indore, and Dr. C. Upendra, Associate Professor of Philosophy, Indian Institute of Technology Indore)**

Doctors have always occupied the story world and real everyday life from the ancient times. This probably speaks abundantly about the role, influence, association, cultural embeddedness and proximity of the doctor figure with the populace. Various studies have been conducted to analyse this character in literature, television series and other popular mediums of entertainment. However, little attention has been directed towards exploring the doctor figure in organ heist medical thrillers. This discussion attempts a close reading of a few popular organ heist texts such as *Donation* by Miles Edwin Lee (2008), *The Organ Harvesters: A Dystopian Medical thriller* (2015) by Bette Golden Lamb and *The Dismantling: A novel* (2015) by Brian DeLeeuw to understand this prolifically expressed character. Building upon debates within cultural studies and grotesque aesthetics, this paper argues that the doctor figure is positioned as a 'fluid being' to ramp up the shock value and uncertainty of the imagined medical space. For example, here the doctor functions as an uncertain and unpredictable being holding the reins of both 'a savior' and a 'murderer'. This study questions our representations of doctors in this manner and tries to extend it to the contemporary culture where medicine has been commercialised. Grotesque aesthetics have contained the unsettling tensions and dis-junctions of the transition periods from the medieval times and have been able to sprout those creatures imaginable only in fantasies and dreams through the materiality of literature, art and entertainment. In a fast moving technologized medical world this study argues that the materiality of medical thrillers disseminates friction and contests as the expressive conduit of techno- capital- socio phobia. Expressed as entertainment, these representations are not founded on the necessity of making readers see but strategies of demonstrating the isolation, segregation and dis-empowerment of various structures within a capitalistic society. The analysis would reveal that such ambiguous role play by the doctors are political articulations and highly informing of their entanglement with tissue economies and commodity fetishism that get circulated as extreme horror or distorted narratives.

Cynthia Avila, BA, The University of Chicago

"Operating Room or Operating Theater? Examining an evolution of spectacle on the surgeon's stage"

Prior to the 1900's, surgeons operated on patients in amphitheaters known as operating theaters. Although few operating theaters exist today, what aspects of these structures remain in the aseptic operating rooms of the 21st century? The great American realist painter, Thomas Eakins, foreshadows this question in his painting, *The Agnew Clinic*, which illustrates a surgeon standing at a distance from his colleagues who perform a mastectomy at the operating table. Eakins contrasts these characters with a dark background, saturated with trainees who appear entirely uninterested in the patient. At first it may appear that the realm of surgery has changed drastically during the past century, but in fact several key characteristics of the operating theater remain. First, distinct roles established by early clinicians have defined hierarchies in today's medical establishment. Second, as with any theatrical performance, there are unseen character's present during an operation (such as the patient's underlining disease, and the overarching uncertainty in which surgeons operate). Third, a fourth wall continues to separate surgical audiences (i.e. medical trainees) from hands-on training and direct patient contact. This teaching method has shaped surgical pedagogy, emphasizing observation rather than participation, and has inadvertently maintained the surgeon's stage as a place of prestige.

Victoria Koski-Karell, MD/PhD candidate, University of Michigan
“Of Magic and Medicine: Modernity’s disenchanting march through the hospital”

How might identifying within the clinical setting Durkheim, Marx, and Weber’s notions of anomie, alienation, and disenchantment, respectively, help to improve patient care?

This paper opens with a vignette from my medical school clerkship in the vascular surgery service. I encountered Mr. J’s gangrenous heel before I met the rest of him. The attending surgeon made the call between a wound debridement or below-the-knee amputation in the OR. Little did I know at the time how desperately Mr. J didn’t want to lose his limb. Lying supine in his hospital bed the next morning, he beamed at his foot: wrapped in gauze, oozing, septic, but still attached to his body.

After unpacking and contrasting anomie, alienation, and disenchantment, I relate these back to their authors, briefly contextualizing them and illuminating why they emerged at a particular historical moment. To conclude, I return to the vignette to demonstrate how these concepts not only emerge through human, bodily experience (including my own) in the realm of Western biomedicine, but also might shed critical light on the ever-advancing medical imaginary and biotechnical embrace.

Throughout its existence, biomedicine conjures a space conducive to exemplifying the moral impact of capitalism. The influence of rapid industrialization and modernization over the past several centuries have led to the progressive division of labor, rationalization, and bureaucratization within the field of health care. At the same time, the ‘art’ of medicine rests on intuition, humanism, hope, and holistic healing. Central to this tension and implicated throughout are human bodies: those of both patients and caregivers.

The hospital is often cast as an aseptic inner world of cold rationality. But Mr. J’s story demonstrates how the realm of biomedicine is still an enchantedly entangled one. The enchantment inherent in human sociality resists medicine’s (potential) iron cage: a cage that risks sabotaging its capacity to serve humanity. Ethnographic tools and anthropological interdisciplinary analysis—drawing upon, for instance, the social theories of Durkheim, Marx, and Weber—have the potential to interrogate, expose, and complicate normative conceptions of ‘biomedical care’ while unmasking the links among interests, be they material or idealistic. In this way might medicine’s healing magic be preserved.

Social Epidemiology

Location: TMEC 227

Moderator: Andrea Knittel, MD, PhD, Resident Physician (PGY-4) at UCSF Obstetrics, Gynecology, and Reproductive Sciences

Emily Unger, MD/PhD candidate, Harvard Medical School
“Protective Misperception? Weight Self-Perception and Blood Pressure in Adolescents with Overweight and Obesity”

Purpose: Underestimating one’s weight is often seen as a barrier to weight loss. However, recent research has shown that weight under-perception may be beneficial, with lower future weight gain and fewer depressive symptoms. Here, we examine the relationship between adolescent weight under-perception and future blood pressure.

Methods: Using data from the National Longitudinal Study of Adolescent to Adult Health, we obtained a nationally representative sample of 2463 adolescents with overweight and obesity (students in grades 8-12 in 1996). We used multivariable linear regression to prospectively examine the relationship between weight self-perception in adolescence and blood pressure in adulthood (year 2008; follow-up rate 80.3%), controlling for age, gender, race/ethnicity, smoking, alcohol consumption, education level, household income, and BMI. Additional analyses were stratified by gender and race/ethnicity.

Results: Youth with overweight/obesity who under-perceived their weight had lower blood pressure in adulthood than those who perceived themselves to be overweight. The decrease in systolic blood pressure was -2.5 mmHg (95% CI:0.7,4.3; $p=0.006$). Although the interaction by gender was statistically insignificant ($p=0.289$), important differences appeared upon stratification by gender. Young men showed no significant difference in adult blood pressure related to weight self-perception. Conversely, in young women, weight under-perception was associated with an average decrease in systolic blood pressure of -4.3 mmHg (95% CI:1.7,7.0; $p=0.002$).

Conclusions: Contrary to conventional wisdom, weight under-perception is associated with improved health markers in young women. The observed differences in blood pressure are clinically relevant in magnitude, and interventions to correct weight under-perception should be re-examined for unintended consequences.

Yihe Gao, MD/PhD candidate, University of Chicago
“Functional Assessments in Mental Health: An Example from Public Housing”

While studies of health impacts of public housing have been a topic of study for many years, results have been mixed. Some studies have detected limited housing effects on mental health including the Johns Hopkins Longitudinal Effects of Housing on Health and Social Adjustment and the Moving To Opportunity studies. Measures of mental health in such studies have hitherto concentrated on emotional state as well as questions regarding sleep, concentration and appetite. Although such measures are validated for specificity for individual psychiatric diagnoses, their relative importance within clinical criteria is often secondary to functional status within clinical psychiatric evaluations.

In my ongoing work, I construct an index of measures of functional mental health variables widely considered to be clinically significant such as history of unstable relationships via marriage status, cumulative unemployment, incarceration, temporary housing, and history of problematic substance use. I seek to explore the possibility of long-term mental health sequelae of public housing exposures for youth using the National Longitudinal Survey of Youth 1979. Because public housing participants may be self-selected and, therefore, may not be comparable to non-participants, I make use of a sibling sex instrument in combination with a Department of Housing and Urban Development (HUD) rule. In accordance with HUD rules, child room allocations were made such that a maximum of two children could be housed in a room, and no siblings of different sexes could be forced to share a room. The result of this policy was that for a family with two children, housing allocations differed by child sex composition. Currie and Yelowitz (2000) demonstrate that families who received larger housing allocations as a result of child sex composition were more likely to apply for public housing. Thus, I exploit variation in sibling sex composition as an exogenous shock to predisposition toward public housing. Subsequently, I employ a two-stage least squares approach and examine corresponding mental health outcomes up to 35 years following housing intervention comparing functional and affective measures.

Chelsea Messinger, MD/PhD candidate, Harvard Medical School

“Flu Vaccination in Pregnancy: Knowledge, Attitudes, and Practices of Ob/Gyns and Nurses in Malaysia”

Although pregnant women are one of the highest-risk groups for flu-related complications and Malaysia has year-round flu burden, the Malaysian Ministry of Health does not recommend seasonal flu vaccinations for pregnant women. Furthermore, healthcare providers (HCP) primarily responsible for the treatment of pregnant women are not provided the vaccine free of cost through the public sector. Because HCP recommendation is an important factor in whether pregnant women obtain the flu vaccine, we sought to investigate the knowledge, attitudes, and practices of Malaysian antenatal HCP regarding seasonal flu vaccination and the risks of influenza during pregnancy. A cross-sectional survey was administered to obstetrician/gynecologists and antenatal nurses practicing in public and private hospitals in Malaysia. Of 264 respondents, 27% reported receiving an influenza vaccine within the past 12 months, and 34% reported receiving the pandemic H1N1 flu vaccine in 2009. Those who reported getting vaccinated were 4.0 times more likely to report having obtained the pandemic H1N1 flu vaccination in 2009 ($p < 0.001$). Most respondents were unaware of national and international guidelines for seasonal flu vaccination, and only 24% reported regularly recommending the flu vaccine to pregnant patients. 84% of respondents stated that they would recommend flu vaccination to pregnant women if it were indicated by national guidelines. While the majority of HCP were uncertain about the safety of administering the flu vaccine in pregnancy, those who believed it is safe (40%) were more likely to report regular recommendation of the flu vaccine to pregnant patients. These preliminary results demonstrate that flu vaccine uptake rates and awareness of vaccination guidelines are low among Malaysian antenatal HCP, and that the vast majority do not recommend the flu vaccine to pregnant women. Because establishing a seasonal flu vaccination infrastructure is an important pandemic influenza preparedness measure, these results suggest the need for educational efforts to increase HCP awareness of vaccination guidelines and the importance of yearly flu vaccination for both HCP and for pregnant patients. Including pregnant women in national flu vaccination recommendations may encourage more HCP to recommend the flu vaccine to pregnant women in Malaysia and other Southeast Asian countries with similar existing flu vaccine guidelines.

Jennifer Sun, MD/PhD candidate, University of Michigan Ann Arbor

“Self-Perceptions of Aging and Care-Seeking Behavior: A Closer Look at Reasons for Health Care Delay Among US Older Adults”

According to Levy’s stereotype embodiment theory (Levy, 2009), individuals are exposed to age stereotypes across the lifespan, and the internalization of these stereotypes as self-perceptions of aging (SPA) has been shown to impact health and well-being through a variety of physiological, psychological, and behavioral pathways. Few studies, however, have investigated if older adults’ self-perceptions of aging, or attitudes towards one’s own aging experience, influence care-seeking behaviors and the likelihood of delaying medical care. Using two independent subsamples from the Health and Retirement Study (2011 Health Care Mail Survey: $N = 2,866$; 2013 Health Care and Nutrition Study: $N = 2,474$), logistic regression and negative binomial regression were used to examine the association between SPA and health care delay over the next 12 months. Subsequently, we used latent class analysis to identify subgroups reporting different reasons for delay. With multinomial logistic regression, we then examined if, compared to the no delay group, SPA differentiated membership in the delay subgroups. In both samples, more negative aging self-perceptions were associated with a higher likelihood of health care delay and more perceived barriers

to care, after adjusting for predisposing, enabling, and need factors. Latent class analysis revealed three subgroups characterized by different reasons for delay: 1) limited health care access, 2) too busy to go to the doctor, and 3) dislike going to the doctor. In fully adjusted models, individuals with more negative SPA were more likely to belong to “limited-access” and “dislike” subgroups compared to the no delay group. Self-perceptions of aging may affect decision-making processes regarding whether to seek care for worrisome symptoms. Efforts to promote more positive SPA may encourage older adults to be more proactive in addressing their health care needs. Future studies should also consider how clinicians’ views on aging and ageism within the health care system interact with older adults’ self-views to influence the delivery of high quality health care.

Kent Simmonds, DO/PhD candidate, Michigan State University
“Sheltered Homeless Individuals Attitudes and Beliefs Towards Physical Activity”

Introduction: Approximately 1.59 million people in the United States are homeless. Homelessness is associated with poor physical health, and decreased quality of life. Physical activity can improve general physical and mental health among diverse populations. The attitudes and beliefs of homeless individuals towards physical activity remains understudied. The objective of this study was to explore the attitudes and beliefs of homeless individuals towards physical activity.

Methods: Data was collected at a homeless shelter in San Antonio, Texas which had a volunteer Street 2 Feet (S2F) running program. Participants included 33 sheltered homeless individuals. The S2F program consisted of one hour of running/walking at a park three times per week. Participants were assigned to four focus groups based on their level of involvement in S2F. A one hour semi-structured group (5-10 participants) interview took place. Participants were asked questions about their attitudes and beliefs towards physical activity, and the S2F program. Data was analyzed using grounded theory, in which common themes are extracted from the interview transcripts. Two research assistants evaluated transcript themes and had a final reliability of 70.7%.

Results: All groups had prerequisite knowledge of physical benefits of physical activity and favorable attitudes towards it. However, improved mental health was emphasized as a key reason for S2F engagement. Mental health improvements were cited as decreased depression, stress, and anxiety. Replacement of “drug high” for “runner’s high” was cited frequently. Perceived barriers were emphasized by the no S2F engagement group, and these were primarily environmental. The groups with highest S2F participation, discussed improved social relationships and developed support structures with S2F peers. The provision of incentives was cited as key reasons to initially join the S2F program, but program enjoyment was significant for retention. Participants of all groups believed that physical activity improved quality of life. Only S2F affiliated participants believed physical activity would help secure a job or housing.

Conclusion: Public health researchers and practitioners should be sure to engage with and obtain insights from the target populations when designing health promotion interventions.