**OMED 152**

**e-Poster Session for Project Proposals**

**Introduction to Medical Education**

**May 24, 2021 at 12:15 PM**

<https://zoom.us/j/95216411702?pwd=anZCSVdGMTFuUDhuQ0t0cVc5ek80Zz09>

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| **Poster** | **Time** | **Name** | **Title (See following page for abstracts.)** |
| 1 | 12:15 | Almond, Cassie | Burnout Rates and Study Time Among Virtual Medical Students Compared to In-person Medical Students and the Impact on USMLE Step 1 Performance |
| 2 | 12:24 | Hamm, Rachael | Resilience and ADHD Prevalence Among Medical Students |
| 3 | 12:33 | Sheth, Nisitha | Perceptions of Medical Students and Faculty Towards Virtual Learning During the Covid-19 |
| 4 | 12:42 | Sivashanmugam, Arvind | Going the Distance: Comparison of Examination Scores and Student/Professor Satisfaction between Large Remote and In-Person University Classes |
| 5 | 12:51 | Thel, Hannah | Student and Resident Perspectives on Virtual versus in Person Anatomy Dissections |
| 6 | 1:00 | Bernard, Adele | Establishing an Integrative Medicine Scholarly Concentration for the UNC SOM Curriculum |
| 7 | 1:09 | Thompson, Jillian | Implementation of a Clinical Scientist Scholarly Concentration Program within a Medical School Curriculum |
| 8 | 1:18 | Holdren, Sarah | Contextualizing American Childbirth: A Medical Humanities Approach to Teaching Birth Equity |
| 9 | 1:27 | Iwai, Yoshiko | Carceral Health: Learning to Care for Patients in the Criminal Justice System |
| 10 | 1:36 | Mathew, Maebelle | Evaluating the Need for Ageism Interventions in Family Medicine Education |
| 11 | 1:45 | Utin, Utin | Determining Factors That Contribute to Lack of Underrepresented Minority Applicants from UNC CH to Medical School in North Carolina |
| 12 | 1:54 | Sluder, Isaac | Patient Education Materials |
| 13 | 2:03 | Pellegrino, Kyle | The Effect of Virtual Repetition Training on Medical Student Confidence and Proficiency in Clinical Settings |
| 14 | 2:12 | Schmidt, Natalie | Serious Video Game Use in Educating Pediatric Oncology Patients |
| 15 | 2:21 | Smith, Charlotte | Learning Strategies of Undergraduate Medical Students During Surgical Clerkship |
| 16 | 2:30 | Fisher, Wilson | Using Microscopes at Home to Improve the Surgical Technique of Resident Physicians |

**ABSTRACTS IN ALPHABETICAL ORDER**

**Almond, Cassie**

**Burnout Rates and Study Time Among Virtual Medical Students Compared to In-person Medical Students and the Impact on USMLE Step 1 Performance**

The purpose of this study would be to evaluate burnout rates, study time, and Step 1 performance among virtual medical students compared to in-person medical students. A survey to examine burnout (potentially the Maslach Burnout Inventory) and average hours spent studying per day would be given to UNC current MS1s, who completed the majority of foundation phase virtually and MS3s, who completed all of foundation phase in-person. Additionally, Step 1 scores would be obtained from MS3 students and upon completion by MS1 students. *[One of the major limitations in this current study design is recall bias. MS3s are well into their application phase, which may make it more difficult to obtain accurate data from them compared to MS1s. However, I find this topic really interesting. I think that virtual students may experience higher levels of burnout; however, they may also spend more hours studying due to the altered schedule. Therefore, there could be a significant different in Step 1 performance.]*

**Bernard, Adele**

**Establishing an Integrative Medicine Scholarly Concentration for the UNC SOM Curriculum**

From chronic back pain and dysmenorrhea, to systemic lupus erythematosus and breast cancer, much of our role as physicians will not just be to cure diseases but to manage symptoms, act as lifestyle advisor, and place appropriate referrals for optimal health. While much of these skills can be learned through on-the-job experience, as medical students we are not directly prepared to meet the needs of patients who want to a holistic medicine approach to the care. The purpose of this project is to complete the administrative and course planning logistics to establish an Integrative Medicine Scholarly Concentration, so that students can supplement their medical education through projects, lectures, and experiential learning. To do this, I will assess interest amongst the study body, start a search for concentration director(s), and develop the program structure and requirements alongside faculty.

**Fisher, Wilson**

**Using Microscopes at Home to Improve the Surgical Technique of Resident Physicians**

The COVID-19 pandemic forced surgical residency programs to develop novel ways of continuing medical training while keeping physically distant, and as life starts to return to the way it was before the pandemic, questions remain about whether any of the changes made during the pandemic will have any staying-power. One potentially novel approach to continuing surgical residency training is providing residents a microscope for at-home use. Residents joined Zoom sessions where they worked on surgical training exercises while using the microscope. The purpose of this study is to assess whether or not providing at-home microscopes improved surgical technique in residents.

**Hamm, Rachael**

**Resilience and ADHD Prevalence Among Medical Students**

The NIH states that ADHD prevalence among adults in the general population is 4.4%. However, these are folks who have been diagnosed with ADHD at some point in their adult life, not those who are coping and have not sought testing or treatment. Medical school is a new world that demands more than most have done before, classes are often filled high achieving students. Many of these students may have ADHD (and now are struggling in a new way than ever before) but fully unaware the reason they are struggling, since up to this point their own coping mechanisms have allowed them to focus enough and excel. In my project we would take a survey of UNC SOM to understand their resilience. Like those with other life challenges, it's documented that those with ADHD build resilience overtime as they overcome daily challenges and create strategies to accomplish goals. The survey will also ask students if they have been diagnosed with ADHD before, and finally it will ask the questions below to see the prevalence of undiagnosed ADHD. From this data we will look between those who have a known diagnosis of ADHD vs those who may be undiagnosed and compare their resilience. We would also compare resilience to 'neurotypical' respondents. In a world where we FINALLY are starting to talk about mental health and the stigma associated with this study will highlight the importance of medical schools investing in their students and ensuring the support is in place for student to easily access testing among other resources.

*Questions included in survey to get sense of ADHD prevalence. All will have the answer options: Very often, often, sometimes, rarely, never*

*(1) How often do you have difficulty concentrating on what people say to you, even when they are speaking to you directly?*

*(2) How often do you leave your seat in meetings or other situations in which you are expected to remain seated?  
(3) When you’re in a conversation, how often do you find yourself finishing the sentence of the people you are talking to before they can finish it themselves?  
(4) How often do you put things off until the last minute?  
(5) How often do you depend on others to keep your life in order and attend to details?*

**Holdren, Sarah**

**Contextualizing American Childbirth: A Medical Humanities Approach to Teaching Birth Equity**

The purpose of this study is to design, implement, and evaluate a medical humanities medical education intervention for pre-clinical medical students on the topic of American childbirth, feminist reproductive literature, and birth equity. This intervention will take the form of a workshop to occur during the Reproduction Block of the Foundation Phase. Students will engage with the history of medicalized childbirth, key feminist reproductive theory scholars, and various birth narratives to help situate and contextualize American childbirth culture and their roles as future physicians. The workshop will be evaluated using surveys and semi-structured interviews, with the intention to understand if this is a useful method for engaging students in conversations regarding birth equity.

**Iwai, Yoshiko**

**Carceral Health: Learning to Care for Patients in the Criminal Justice System**

While incarcerated populations are the only population with a constitutional right to healthcare, they continue to carry a disproportionate burden of disease. Physicians in almost all specialties care for individuals interfacing with the criminal justice system at some point in their career, whether in medical school, residency, fellowship, or their teaching institution. This educational study is an interactive experience to encourage undergraduate medical students to learn about the barriers that individuals who are incarcerated face when seeking routine medical care. Medical students will participate in an interactive online module with unique elements of being in prison—including challenges to maintaining hygiene, daily sleep schedule, coordinating an appointment with a primary care doctor, leaving the prison to be transported to a community hospital—and then be invited to a focus group to discuss their experience with the module. The long-term goal of this project is to establish a curriculum that effectively introduces structural vulnerabilities for incarcerated populations to medical students (to be integrated into the SHS1 curriculum) and then tailor the module to different clinical services for enriching training of residents, fellows, and faculty.

**Mathew, Maebelle**

**Evaluating the Need for Ageism Interventions in Family Medicine Education**

Background: Ageism, or the prejudice and discrimination towards individuals due to their age, is one of the most socially acceptable forms of bias in the United States. It can be found in healthcare through the implicit biases of physicians and internalized beliefs by older patients themselves, and can ultimately lead to health disparities in older adults. Current research on ageism is focused on attitudes towards older adults, how it impacts health, and interventions to address ageism for the general public. However, research about attitudes towards aging among medical students has revealed mixed results. The aim of this presentation is to describe the attitudes that Family Medicine residents in North Carolina hold towards aging and older adults and present findings on the need for ageism curricula in NC Family Medicine residencies. Methods: Surveys including the Facts on Aging Quiz12 and the Aging Semantics Differential13 will be distributed to Family Medicine residents across North Carolina. Data will be analyzed and summarized using descriptive statistics. It will be stratified by resident year (PGY1, 2, 3 or 4), race/ethnicity, gender, previous experience working with older adults, and desire to work specifically with older adults in the future.

**Pellegrino, Kyle**

**The Effect of Virtual Repetition Training on Medical Student Confidence and Proficiency in Clinical Settings**

The use of video games and virtual simulation to supplement education and training is not a novel concept. Reaching a certain number of hours on flight simulation is a requirement in the training of airline pilots and has been shown to reduce the stress of these pilots during high intensity situations (1). It can be reasoned, then, that this same strategy of repetitive simulation can be used to aid medical students in their training. By allowing students the opportunity to practice in role playing scenarios on ("insert video game name here"), they would have the opportunity to follow a patient from the time of admission to the hospital, to discharge, making decisions of patient care in a 'choose your own adventure' format. With this additional training, we believe that medical students will become more comfortable interacting with patients, have multiple opportunities to reinforce their medical knowledge, and understand why physicians make particular clinical decisions. (McClernon CK, McCauley ME, O'Connor PE, Warm JS. Stress training improves performance during a stressful flight. Hum Factors. 2011 Jun;53(3):207-18. doi: 10.1177/0018720811405317. PMID: 21830508)

**Schmidt, Natalie**

**Serious Video Game Use in Educating Pediatric Oncology Patients**

Purpose: to improve education of pediatric oncology patients on their disease.

Methods: Conduct a randomized control study on current pediatric hematologic oncology patients (lymphoma and leukemia) ranging from ages 8 to 12. An opening assessment of cancer knowledge would be done on all patients. Those randomly assigned to group one would partake in a serious video game learning experience on cancer. Those put in group two would not receive the video game and would serve as the control. A closing assessment two weeks later would assess the cancer knowledge again of all patients.

**Sheth, Nisitha**

**Perceptions of Medical Students and Faculty Towards Virtual Learning During the Covid-19 Pandemic**

During the Covid-19 pandemic, virtual learning has become the main avenue for medical education across the country. While this may have been challenging to adapt to, there may have been some added benefits associated with virtual learning such as ease of meeting virtually with faculty, saved transit time between classes, greater accessibility for students who live further from campus, and ability to easily ask questions and receive answers over chat in live lectures. This study would aim to survey current second year medical students to assess their perceptions on how their education has differed between their first in-person year and second virtual year to examine if virtual learning has provided any unexpected benefits. As a second aim, this study would survey lecturers to examine if they have perceived virtual teaching to be beneficial to their students both in terms of educational outcomes and connection to the class.

**Sivashanmugam, Arvind**

**Going the Distance: Comparison of Examination Scores and Student/Professor Satisfaction between Large Remote and In-Person University Classes**

I hypothesize that the flexible communication of distance learning can provide a similar educational experience to that of large in-person classes assuming equal preparation and can provide additional accessibility and convenience for students in the future. This would be a prospective cohort study comparing UNC undergraduates' experiences in remote versions of classes versus in-person counterparts through professor and student satisfaction surveys (qualitative outcome) as well as course grades (quantitative outcome). Depending on modes of instruction available this may be retrospective if looking at Fall 2020 or Spring 2021 or prospective if looking at future semesters. Principal aims would be to see if students are able to show comparative levels of academic achievement and ancillary aims would be to analyze teaching methods to refine classes of each type and inspect the possibility of hybrid instruction.

**Sluder, Isaac**

**Patient Education Materials**

The National Institutes of Health (NIH) and the American Medical Association (AMA) have recommended that patient education materials be at, or below, a 6th grade reading level. However, even with these recommendations, numerous studies have shown that patient education materials are still being provided to patients that are above 6th grade reading level. There has been little research conducted to determine if there is a difference in patients’ understanding of their illness based on the reading level of the educational material provided to them. For my project, I plan to obtain current patient education materials, to modify them to create 3 new documents - one at a 6th grade reading level, one at a 9th grade reading level, and one at a 12th grade reading level - and to survey patients to see which version of the document they understand best.

**Smith, Charlotte**

**Learning Strategies of Undergraduate Medical Students During Surgical Clerkship**

To improve interest in careers in surgery, peer communication and recommendations are needed to transparently support the undergraduate surgical clinical curriculum. Through surveying third and fourth-year medical students’ post-surgical clerkship, this proposal hopes to elucidate learning resources and feedback strategies used by medical students during their surgical rotations to improve performance. Additionally, by comparing responses from third and fourth-year students, this proposal hopes to evaluate how learning behavior evolves from third to fourth year and what value this imparts on the effectiveness of their learning strategies. While this study is aimed to increase interest in surgery, we hope the data from this survey will improve the learning environment experienced by all students during their surgical clerkship.

**Thel, Hannah**

**Student and Resident Perspectives on Virtual versus in Person Anatomy Dissections**

The proposed study is aimed at gathering more data and insight into both student and practicing physicians perspectives on in person versus virtual anatomy dissections. This information is designed to aid schools in deciding how they want to shape their anatomy curriculum. From the student perspective, fourth year medical students (who have already chosen residency specialty) will be surveyed. Residents or attendings from a range of fields will be surveyed to gain insight into the practicing physician perspective. Data collection will involve assessing how anatomy dissections affected their decision of specialty and gathering qualitative data on how they view the ethics of anatomy dissections. This will be done via surveys and focus groups. Focus groups will be conducted in person, and surveys will be conducted virtually. Data collection is expected to take place over a month long period.

**Thompson, Jillian**

**Implementation of a Clinical Scientist Scholarly Concentration Program within a Medical School** **Curriculum**

While a multitude of opportunities exists for medical students to become involved in clinical research during medical school, these experiences vary widely depending on the specific lab and length of time allotted for research endeavors. Thus, there is a need for a structured curriculum in clinical research that will provide medical students with longitudinal training in clinical research, providing them with exemplary preparation to become physician scientists in their future careers. A four-year curriculum will be designed and implemented that will not only provide students with in-depth learning in topics such as study design and data analysis, but students will also be required to develop a clinical research project to present at a conference or to submit for manuscript publication. The curriculum will be evaluated through questionnaires from participants, and this data will be analyzed to assess the effectiveness of the program, as well as identify areas of improvement.

**Utin, Utin**

**Determining Factors That Contribute to Lack of Underrepresented Minority Applicants from UNC CH to Medical School in North Carolina**

Purpose: To investigate reasons within UNC undergraduate experience for 3rd and 4th years that may play a role in any lack of minority students applying to medical school from the institution. Method: Will utilize any supporting data gathered by Office of Scholastic Enrichment and Equity (OSEE). Will also potentially use survey distributions to targeted minority students (3rd and 4th year premed students) to help better assess current factors.