

on the self-efficacy item “I have a generally positive attitude toward writing” ($p=0.047$) using a 5-point Likert scale from “completely agree” to “completely disagree.” Most other items did not indicate significant change between pre- and post-survey. The mean of the question “How satisfied were you with this Shut Up & Write activity?” which appeared only on the post-survey ($n=10$) was 1.10 (1=extremely satisfied, 5=extremely dissatisfied). Anticipated result: We suspect that the benefits of SUAW are best actualized by ongoing attendance, and that benefits are cumulative. DISCUSSION/SIGNIFICANCE: We found that participation in SUAW promotes writing self-efficacy in early-career URB researchers. This is an exciting finding because publishing ones research is essential for academic advancement, and research supports a relationship between writing self-efficacy and writing production. This may curtail URB scientists’ rate of attrition.

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Training basic researchers in translational approaches to facilitate the application of laboratory discoveries

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OBJECTIVES/GOALS: To maximize health outcomes from their work, basic researchers must understand the process by which lab discoveries are translated into clinical care. We developed an academic course designed to provide students in our Clinical and Translational Sciences PhD program with an in-depth understanding of translational applications of basic research. METHODS/STUDY POPULATION: A preliminary needs assessment was done with students, educators, and clinicians to identify the course content. Based on these data, didactic modules including research question identification, research team development, participant recruitment, and research data collection were piloted in a synchronous, virtual course. Then, for 6 weeks, students shadowed clinical mentors who worked in the students research areas. Finally, with their mentors, students developed and presented clinical research protocols. Student pre- and post-course surveys gauged alignment of course objectives and learning outcomes. A post-course, focus group with students gathered feedback on course content, structure, and students confidence in implementing their experiences from the course into real-world settings. RESULTS/ANTICIPATED RESULTS: Six MD/PhD and PhD students participated in the pilot course. Pre/post-assessments ($n=4$) showed students were more confident in clinical question/research protocol formulation, development of patient recruitment/enrollment strategies, and integration of research methodologies into their research projects after completing the course. Students asked for additional content on budgeting and grant funding. Post-course focus group participants ($n=2$) appreciated the experience of writing a clinical protocol and the flipped classroom teaching style, which allowed them to network with clinical faculty leading didactic sessions. Students also noted course content was relevant and motivating, although they suggested adding content about clinical trials measures to enhance their shadowing experiences. DISCUSSION/SIGNIFICANCE: A course that combines didactic and clinical experiential training provides a robust, translational research foundation for basic scientists. This training is critical to help them contribute to the effective/efficient translation of lab discoveries to clinical practice. Future course development will include students from other PhD programs.

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The Climate is Changing, Why Cant We? Faculty Perspectives on Education for Sustainable Healthcare in Health Education*

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OBJECTIVES/GOALS: Despite calls for the integration of Education for Sustainable Healthcare (ESH) into health professional training programs, most curricula have yet to adapt accordingly. This qualitative study sought to understand faculty perspectives on ESH knowledge, interest, barriers, and facilitators. METHODS/STUDY POPULATION: From 2018 to 2020, 71 health professional education faculty from 6 University of California (UC) campuses participated in ESH integration workshops. Using purposeful sampling based on gender and campus, a subset of workshop faculty participants were selected to participate in individual interviews. Interviews were conducted via Zoom using a structured interview guide, eliciting participants experience integrating ESH, perceived barriers and facilitators, and perspectives on student, faculty, and health science leadership knowledge and interest. Transcripts were double coded with an inductive-deductive approach using Dedoose, reconciled, and analyzed to identify themes. RESULTS/ANTICIPATED RESULTS: Participants included 17 faculty at 6 UC campuses representing diverse health disciplines. Although participants noted high general awareness of and interest in climate change among students and faculty, they observed a lack of specific, health-relevant knowledge, resulting in discomfort communicating with others on climate and health. Perceived barriers to expansion of ESH included limited curricular space, competing topics, and lack of faculty expertise. Participants posited that framing climate change in health terms, establishing learning objectives and protected faculty time, identifying connections to ESH within existing research and curriculum, and obtaining commitments from campus leadership would facilitate successful ESH integration. DISCUSSION/SIGNIFICANCE: Our findings reinforce student and faculty interest in ESH curricular integration and identify important barriers and facilitators, lending context for educators planning ESH infusion. Training of faculty on climate health is urgently needed for ESH integration in health professional education.

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You liked it, but did you learn anything? A process for redesigning follow-up surveys in attempts to measure success beyond satisfaction

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OBJECTIVES/GOALS: Project objectives: Collect, analyze, redesign, and redeploy the follow-up surveys sent after services rendered or educational offerings attended to improve outcome measurement. Presentation objectives: Provide a process for others to optimize their assessment surveys. METHODS/STUDY POPULATION: A team of interdisciplinary experts from Evaluation and Improvement, Workforce Development, and Administration took a systematic and collaborative approach to optimizing service and educational offering assessment. The team collected all 35 existing surveys currently in use at the CTSA, developed a matrix table to organize findings, cross-analyzed/normed to recognize and reduce bias, engaged other staff and faculty at specific intervals to encourage buy-in, and

responded to feedback. The team then updated both surveys and format, programmed revised surveys into a centralized platform, and provided instructions and training for implementation. RESULTS/ANTICIPATED RESULTS: This effort resulted in streamlining both the assessment process and the surveys used by the Southern California Clinical and Translational Science Institute (SC CTSI). Instead of using different versions of surveys or none at all, now SC CTSI commits to using the same follow-up survey for events and for educational offerings institute-wide, and agrees to store and access that data via a single platform, REDCap, allowing any member to see data in real time. This will allow SC CTSI to monitor and evaluate its short-term outcomes at an institutional level, and determine areas for improvement or best practices. Future plans include training on survey data interpretation for decision making. DISCUSSION/SIGNIFICANCE: Presenters will share lessons learned and considerations when embarking on streamlining assessment practices institute-wide, highlighting the importance of leveraging educational methodology to go beyond measuring satisfaction and into measuring learning. Presenters will share revised surveys.

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Mentor experience with the transition to remote learning in a summer research program

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OBJECTIVES/GOALS: This study examines faculty mentor experiences in a summer research program for students traditionally underrepresented in translational research. The objectives are to understand mentor perspectives of the program and how their views were impacted by the pandemic-related pivot to a remote format. METHODS/STUDY POPULATION: During the summer research program, students work with a faculty mentor on an ongoing research project. Program staff pair students with diverse faculty members who share their research interests. Our program has traditionally been offered as a residential in-person program but in 2020 we moved swiftly to a fully remote learning format. Students continued to work on research projects remotely and interacted virtually with their faculty mentors. For the past five cohort years, we have collected comparable data about faculty perspectives of their program experience, which allows us to evaluate the impact of the remote format on the faculty experience compared to that of the in-person format. RESULTS/ANTICIPATED RESULTS: For this study, we will examine data from five cohort years (2017-2021). A survey questionnaire was administered to mentors each year at the end of the summer research program. Data were collected on faculty satisfaction with the quality and amount of student work, the amount of time students spent on their projects, and how mentors communicated with students. In 2020 and 2021, three questions were added regarding satisfaction with the remote format. Quantitative data collected from both the in-person and remote cohorts will be compared using independent samples t-tests. Select quotes from open-ended qualitative questions will be used to illustrate mentors attitudes toward the program. DISCUSSION/SIGNIFICANCE: This study addresses a gap in the literature about summer research programs, as previous work has primarily focused on trainees. As many training programs continue to remain remote or adopt hybrid

models, these results have implications for the design of similar mentored research programs.

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Evaluating the Effects and Contributing Factors to the “Hidden Curriculum” in Medical School

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OBJECTIVES/GOALS: The “hidden curriculum” is a set of unofficial rules outside of the formal curriculum that allows medical students to succeed. It is often not accessible to those who are first-generation in medicine. This study created a novel survey tool to directly evaluate the hidden curriculum, its contributing factors, and its effects on students. METHODS/STUDY POPULATION: Using available literature as a guide, a novel survey tool to evaluate different aspects of the hidden curriculum was created. This survey consists of 17 Likert scale questions on topics varying from sense of belongingness to dress code, self-guided studying, mentorship, and confidence in knowing how to succeed. This survey tool was embedded into a larger survey evaluating health disparities and diversity, inclusion, accessibility, and justice (DEIAJ) in the curricular and extracurricular spaces. This survey packet was administered to all medical students at a large U.S. medical school. RESULTS/ANTICIPATED RESULTS: 166 medical students from all years responded to this survey. 70% were female, 27% male, and 3% non-binary or prefer not to say. 67% of respondents agreed or strongly agreed that there is a hidden curriculum accessible to only those who have family members in medicine. 57% agreed or strongly agreed that the medical school gave them the adequate training and resources to succeed. 48% agreed or strongly agreed that they would perform better academically if they had more money with 11% stating they often feel embarrassed in a professional setting due to lack of money. Fellow classmates, faculty members, and upperclassmen were identified as the most useful resources to learn how to succeed in medical school. Students on average reported feeling like they knew what to do to succeed in medical school half of the time. DISCUSSION/SIGNIFICANCE: This data strongly supports the existence of a hidden curriculum and gives insight into the importance of financial support for low-income students and peer support groups for those who do not have family members in medicine. This data will be used to inform future interventions to address the hidden curriculum.

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Research 101: Building the Research Skills of Practicing Clinicians

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OBJECTIVES/GOALS: The goal was to develop foundational research knowledge and skills for clinicians interested in conducting clinical research. Emphasis was on the development of a research question and the iterative process necessary to transform a research question into a well-designed study and well-articulated research proposal for pilot grant funding. METHODS/STUDY POPULATION: The course took place over 10 sessions, May -