characterize the broader range of physician-scientist students and trainees at Duke. DISCUSSION/SIGNIFICANCE OF IMPACT: Our planning study revealed specific steps forward toward developing a robust community of physician-scientists at Duke. As a first step, the Dean of the School of Medicine has appointed an Associate Dean of Physician-Scientist Development to oversee a new Office of Physician-Scientist Development (OPSD) being launched in December of 2018. The OPSD will offer four primary programs. 1) A concierge mentoring program will assist new trainees in identifying research areas of interest and mentors. Trainees will receive periodic contact to provide additional support as needed and promote success. 2) A physician-scientist training program is being created to provide training specific to laboratory research skills as well as career and professional development training to complement existing clinical and translational research programs. 3) Integrated training pathways will provide additional mentored research training for those pursuing research careers. Pathways will capitalize on existing resources from R38 programs, while pursuing additional R38 and R25 support. 4) An MD-Scientist funding program has been developed to provide additional research funding and protected time for students pursuing a second research year. Through the support and programming offered by the OPSD, we anticipate decreased perceptions of barriers to pursuing a physician-scientist career and increased satisfaction with training opportunities. Over time, we expect such support to increase the number of MD students pursuing research as a career and the number of residents, fellows, and MD junior faculty remaining in research careers.

3568

Education

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OBJECTIVES/SPECIFIC AIMS: The Duke Multidisciplinary Education and Research in Translational Science (MERITS) program was introduced with the goal of providing education and resources to faculty and trainees who are involved in translational research. However, the definition of what translational science is and entails can be widely variable, even within a single institution or department, which creates difficulties in appropriate dissemination of information regarding translational resources and assistance. This objective of this study was thus to obtain baseline information and views of translational science from a pilot population of Duke faculty. Based on data collected in a previous focus group, we expected to observe a lack of consensus regarding the definition and inclusion principles of translational science. METHODS/STUDY POPULATION: A digital survey was distributed to Duke Department of Surgery faculty regarding translational science, including opinions on definition, impacts, experienced barriers, known resources, and future training preferences. RESULTS/ANTICIPATED RESULTS: Ninety-five total responses were obtained, with 79.3% of respondents identifying their work as translational. There was no consensus on the precise definition of translational science, although the majority of respondents reported similar essential elements including multidisciplinary science and transitioning between investigative stages. Respondents noted that translational science increased their job satisfaction and recognition in their field, but also stated that they had experienced barriers to translational science. These barriers were primarily funding (56.4%) or lack of training (38.2%) related. DISCUSSION/SIGNIFICANCE OF IMPACT: The results of our pilot survey suggest that the MERITS program should focus on training investigators on the resources available for translational investigations and expound upon how it fits into and enhances their current and future research endeavors.

3146

Effect of a Junior Faculty Mentoring Program on Confidence in Targeted Academic Skills

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OBJECTIVES/SPECIFIC AIMS: The goal of this study was to evaluate the effect of a junior faculty mentoring program on change in confidence in key academic skills. METHODS/STUDY POPULATION: The Department of Medicine at the Albert Einstein College of Medicine/Montefiore Medical Center enrolled 33 mentees over three years (2015-2018) in a mentoring program that consisted of monthly interactive seminars focused on topics related to building academic careers, works-in-progress, and pairing of each mentee with a mentor. Mentees were asked about their confidence in key academic skills prior to and after completing the program. Confidence levels were assessed on a seven point scale, ranging from 1 (weak) to 7 (strong). Mean confidence levels were compared between pre and post surveys using independent samples t-test. Matching was not accounted for because not all individuals who completed the pre survey also completed the post survey and vice-versa. Of those mentees who completed both pre and post surveys, confidence scores were analyzed using Wilcoxon matched pairs signed rank test, with similar results to those reported here. Each mentoring session was evaluated by those in attendance at the end of each particular session with possible scores of 1 (unsatisfactory) to 5 (excellent). RESULTS/ANTICIPATED RESULTS: On average the mentees had a fair level of confidence in all nine areas assessed at baseline, with the exception of how to get funding (2.4 ± 1.7). Confidence increased in all areas assessed, and except for how to write a paper ($p=.05$) all represented a significant increase in confidence (Table 1). Evaluations of each of the mentoring sessions were high, with mean values ranging from 4.3 to 4.9 on the five point scale. DISCUSSION/SIGNIFICANCE OF IMPACT: This mentoring program significantly improved mentees' confidence in identifying their own professional values and goals, as well as knowing how to turn education into scholarship, work with a mentor, integrate work and life, and give a presentation.

3149

Embedding Implementation Science Within a Translational Health Sciences PhD: Educating Future Scientists to Bridge the Gap Between Research, Practice and Policy

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OBJECTIVES/SPECIFIC AIMS: Determine the effectiveness of a curriculum designed to teach doctoral students to use implementation science theories, models and frameworks in optimizing scientific, social, political, cultural and organizational impact METHODS/STUDY POPULATION: Analysis of Integrated Final Projects across

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three cohorts of doctoral students (N=30) to identify sub-disciplinary knowledge integration and application. RESULTS/ANTICIPATED RESULTS: Integrated Final Projects indicate that the integration of IS, Program Theory and Research design within semester two yields application of integrated, sub-disciplinary knowledge to research design, identification of mechanisms of action and the address of barriers and facilitators to implementation of findings. Future analysis will be conducted to determine the degree to which dissertations reflect a similar level of sub-disciplinary integration and focus on implementation within the appropriate service setting. DISCUSSION/SIGNIFICANCE OF IMPACT: Training future translational researchers to understand and use implementation science theories, models and frameworks can potentially result in narrowing the science-to-service gap.

3440

Emergency Dispatch Research Workshop: Engaging a Forgotten Professional Population in Research

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OBJECTIVES/SPECIFIC AIMS: Emergency (911) dispatchers are the first link in the chain of care for the estimated 240 million emergency calls made each year. Yet even as emergency medicine, public safety, and public health have seen increasing study, emergency dispatch has very seldom been included in that research. Part of the reason is that, while emergency medicine is connected with hospital physicians and public health with university departments, emergency dispatch is largely invisible, not represented in university programs, and staffed by professionals without research training–and often without higher education or academic degrees. The purpose of our Dispatch Research Workshop is to engage these professionals in guided research projects of their own design, with the ultimate aims of both engaging more emergency dispatchers in research and increasing the field's overall capacity to generate evidence-based practice. METHODS/STUDY POPULATION: The workshop is help in tandem with a national Emergency Dispatch conference. Participants are recruited through advertisements in professional journals and relevant social media sites. The workshop is co-led by members of a partnership between the nonprofit organizations the International Academies of Emergency Dispatch and the UCLA Prehospital Care Research Forum, along with the dispatch data aggregation company FirstWatch. The Workshop occurs over two eight-hour days, and participants generally have no research experience or background. By the end of the second day, groups have developed research questions and methods, begun to write IRB proposals, and created data collection and analysis plans. Throughout the remainder of the year, research mentors support the completion of the project, and completed projects are presented at the following year's conference and submitted (if desired) for publication. RESULTS/ANTICIPATED RESULTS: During the first two years of the workshop, 36 attendees participated (17 the first year and 19 the second). Three successful attendees of the first workshop helped lead the second as research mentors. Three research projects were completed from the first year; all three were presented as posters and are now being prepared for publication as manuscripts. Four projects have emerged from the second year's workshop. Assessments and one-on-one interviews with participants at the end of each workshop have led to continuous change and improvement in the delivery of the material, as well as the outline of a year's worth of support materials, which is currently in development. DISCUSSION/SIGNIFICANCE OF IMPACT: Developing a true evidence base for practice in emergency dispatch will serve all of our communities, and feedback from our participants (as well as significant existing research in practitioner-engaged research) indicates that those who participate in research have a better understanding of the value of evidence-based practice, are more likely to adopt it, and are more likely to raise questions and test theories in their own professional life. Also, providing these practitioners the opportunity to conduct and publish research raises their stature and the stature of their profession, helping it achieve its rightful place alongside other professions in public safety and health.

3457

Engaging American Indian Students in Oncology Research and Health Professions Education: A Review of the Literature

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OBJECTIVES/SPECIFIC AIMS: The primary goal of the project was to conduct a narrative review of the published literature to identify and summarize best practices for developing oncology-focused research and training experiences for AI/AN undergraduate, graduate and professional students. A secondary goal was to identify methodological limitations and areas for future research related to rigorous educational program evaluation. METHODS/STUDY POPULATION:. Published literature was searched using databases relevant to oncology (PubMed, Web of Science) and sociology (PsychINFO, SocIndex). The bibliographies of identified relevant papers were searched for additional references by title. Search terms included synonyms and commonly used terms for three general areas: (1) target population (e.g., American Indian), (2) training area (e.g., oncology), and (3) educational program (e.g., undergraduate). RESULTS/ANTICIPATED RESULTS:. A current total of 107 original publications and 33 review papers that are relevant to the project goals have been identified. Key areas of program development and implementation relate to advertising and recruitment; didactic curriculum in research methods, cancer health disparities, and professional development and career planning; research immersion experiences through shadowing, networking, application of research skills, and opportunities to develop oral and written communication skills; ongoing career development support; mentoring by faculty, advanced trainees, and peers; and culture-specific enrichment. Important areas for program evaluation relate to measures of reaction, knowledge, practice and long-term outcomes. Evaluation design approaches include observational and experimental designs with recommendations for identifying relevant control groups. Strategies to ensure complete long-term follow-up are also summarized. DISCUSSION/SIGNIFICANCE OF IMPACT:.Successful programs address barriers related to perceived lack of abilities, lack of AI role models, limited culture-specific enrichment, and limited mentoring and ongoing career development support. Program directors should work with local tribal and community leaders when creating a new program. A high degree of coordination is needed to create a bicultural program to interest students in a research career and avoid the creation of barriers hidden to the program director. There are opportunities to improve the rigor of educational program evaluation in this setting by including measures beyond self-reported reaction and knowledge to focus on educational program enrollment and completion and long-term career outcomes. Methodologic

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