

question SI guide with additional probing questions that can be tailored to the work environment. Questions fell into 4 key themes: likes/dislikes, motivations, workplace influence on work life, and professional development barriers and opportunities. Anecdotally, SI use in other industries suggests that wide adoption is likely to reduce CRP workforce turnover and improve job satisfaction. DISCUSSION/SIGNIFICANCE: SIs are designed to build trust and strengthen relationships, fostering positive change by acknowledging issues, understanding motivations, and increasing engagement. Leaders can make immediate actions: clearing obstacles, providing new resources, and increasing recognition. Our next step is implementing a pilot to gather workforce metrics.

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The Clinical Research Internship Portal (CRISP): Creating a mechanism for the onboarding and placement of clinical research interns in the Duke University School of Medicine

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OBJECTIVES/GOALS: To address investigator frustration and appropriate oversight for student interns performing clinical research activities, we created infrastructure to support matchmaking with clinical research teams and onboarding of student interns, thereby allowing for more meaningful internship experiences with access to clinical research systems. METHODS/STUDY POPULATION: Internship requests may be initiated by a student, an affiliated institution, or an investigator. Requests are triaged accordingly. Affiliation agreements define the parameters for these placements. Unaffiliated institutions may request an agreement by contacting CRISP; otherwise, unaffiliated interns will be classified as visiting scholars with restricted access. If a student is from an affiliated institution, the Clinical Research Internship Portal (CRISP) is used to collect and track information regarding the internship. CRISP provides: Matchmaking for student interns with placements Compilation of onboarding documentation Tools (e.g., learning agreements) for student intern supervisors Professional development workshop series for all student interns RESULTS/ANTICIPATED RESULTS: Launched in 2021, CRISP is a relative newcomer to the Duke research training landscape, but preliminary impact may be measured by the following metrics: Affiliated institutions: 8 agreements in place, 4 pending 25 student interns from 7 institutions placed across 11 departments/institutes 7-session professional development series garnering positive feedback from interns and supervisors Improved access to clinical and research systems aligned with clinical research activities Enhanced oversight and tracking of student interns across Duke enterprise Expansion of program to include internal and external student interns CRISP has engaged invested parties within and outside of Duke to ensure robust oversight of these valuable training opportunities and to create new pathways into our workforce. DISCUSSION/SIGNIFICANCE: Streamlining intern placements has lessened pain points related to including students in our research environment, both for investigators and institutional partners. Future plans include expanding the number

of affiliation agreements, creating an interface to quickly triage intern requests, and scaling up the professional development series.

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The long-term impact of a practice-oriented research training program for clinical and translational research staff and clinicians: Evaluating workforce development outcomes over time and professional careers.

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OBJECTIVES/GOALS: There are few training programs for health research staff and clinicians like The Practice-Oriented Research Training program, that include opportunities to conduct funded clinical and translational research. The goal of this study is to evaluate the long-term impact of this program on participants professional development and advancement. METHODS/STUDY POPULATION: The Practice-Oriented Research Training program for health research staff and clinicians was operated by the Michigan Institute for Clinical and Health Research from 2008 through 2018. Participants received training and formed teams that received financial support to conduct a clinical or translational study with a faculty mentor. Eleven cohorts comprising 111 individuals participated. The long-term impact of the program was evaluated using sequential mixed methods. All participants were invited to evaluate the program via an online survey in 2021. Respondents were invited to participate in interviews in 2022. Secondary records of the participants' publications, grants, and professional advancement were collected. RESULTS/ANTICIPATED RESULTS: 68 participants in the PORT program published 345 papers in peer-reviewed scientific journals following the program, averaging over 5 publications per participant. These publications have been cited over 4000 times with an average of over 13 citations per paper. Large proportion of program participants have continued contributing to health research; the vast majority of program participation chose to continue at the University of Michigan. Survey results indicate participants' belief that the program had wide-ranging and enduring impacts on key aspects of their careers, including their application of research to practice. Interviews confirmed that the program helped many participants make substantial advancement in their careers. DISCUSSION/SIGNIFICANCE: Training programs for health research staff and clinicians can have a substantial and enduring impact on their professional development and advancement. The need for programs like PORT will increase as the health research workforce grows. These results inform recommendations for translational scientists.

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The Research Coordinator Support Services (RCSS) and Coordinator Apprentice Program (CAP) at Johns Hopkins University (JHU)

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OBJECTIVES/GOALS: METHODS/STUDY POPULATION: The duration of the apprenticeship program is 2 years, with

promotability to: -Research Program Coordinators -Senior Coordinators. CRCs learn essential clinical research foundations through courses and instructor led training, mentoring, and shadowing of other CRCs, such as: -Good Clinical Practices (GCP) - International Committee on Harmonization guidelines (ICH) - Institutional Review Board (IRB) -Office for Human Research Protections (OHRP) -Shipping Dangerous Goods (DOT/IATA) - REDCap data entry -Clinical Research Management System (CRMS) -Clinical Skills (i.e., vital signs, ECG, and phlebotomy) - CPR (etc.) -EPIC training RESULTS/ANTICIPATED RESULTS: -Over 100 CRCs have been trained since 2012 -Currently more than 40 active studies assigned between 16 CRCs -Over 10,000 hours of clinical trial activity in the past 15 months -The program is moving towards cost neutrality CRCs have gained access to begin DISCUSSION/SIGNIFICANCE:

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The Undergrad Experience: Insights of a clinical research training program aimed at undergraduate students

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OBJECTIVES/GOALS: Establishing a career trajectory geared towards undergraduates interested in a biomedical career has led to the development of a Clinical Research Training (CRT) Program. The purpose of this study is to evaluate the student experience of the program. It is our hopes to train the next generation of clinical researchers straight out of undergrad. METHODS/STUDY POPULATION: Establishing the success of the recently established Clinical Research Training Program and creating quality improvement measures has been analyzed with a focus on 5 domains. Outcome quality measurements and evaluation of the following domains have been completed from a student's experience. These domains include: 1) the capstone course, 2) the internship experience, 3) career development opportunities, 4) hands-on training opportunities, and 5) post-baccalaureate career plans or career attainment. Each of these outcomes have been collected from students who have completed the program as well as students currently enrolled. Data will be obtained via qualitative measures such as course surveys, Likert scale ratings, and evaluation of data-based outcomes. RESULTS/ANTICIPATED RESULTS: In this ongoing study, results will demonstrate there is a percentage of students who were directed into clinical research positions due to their exposure to the clinical research world during their undergraduate training. Transferable skills such as CITI training, knowledge of good clinical practice, and familiarity of current research topics are associated with a higher likelihood to pursue a career in clinical research. Students placed within an associated internship slot with the community partners has also led to an increase in career placement in clinical research. Other factors provided by the course such as establishment of an extensive network, exposure to career pathways related to clinical research, and an increase in cross-trainings that lead to increased advancement in the scientific domain. DISCUSSION/SIGNIFICANCE: To address clinical research workforce gaps by training students during their undergraduate education. Also, by addressing this gap, we can begin to strengthen the career trajectory and goals of students interested in a career in the life sciences. By targeting this workforce, it can lead to an increase in diversity and retention in the workforce.

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Usability and acceptability of an assistive technology WebAPP for the management of older adults' functional disabilities in activities of daily living: Primary care physicians' perspective

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OBJECTIVES/GOALS: Assistive technology (AT) can improve older adults' function in daily activities. However, Latinos are among the least likely to use AT. Given that primary health care physicians (PCPs) have low awareness about AT, this study aims to evaluate the usability and acceptability of an AT WebAPP among PCPs to increase older Latinos' access to AT. METHODS/STUDY POPULATION: A team of an established researcher, a sub-graduate faculty and student, and a graduate student will recruit ten PCPs in Puerto Rico and will interview them to explore their current practice in addressing the functional needs of older Spanish-speaking Latinos. The researchers will then train PCPs in the use of a Spanish evidence-based AT WebAPP developed in one of our earlier studies. PCP participants will use the APP with their older patients for 30 days. At the end of the usage period, the analysis will include a mixed method design, consisting of the simultaneous collection of quantitative data using a validated scale followed by qualitative data through individual interviews. Quantitative data will be analyzed with descriptive statistics and qualitative data with thematic content analysis. RESULTS/ANTICIPATED RESULTS: We expect that the AT WebAPP will be rated as particularly useful and acceptable by the PCPs to increase older Latinos' access to information about AT that could compensate for their physical function disabilities. We also expect that PCPs will offer recommendations for enhancing the design and usability of the AT WebAPP. DISCUSSION/SIGNIFICANCE: Studying the usability and acceptability of this AT WebAPP among PCPs will advance our understanding of its feasibility in enhancing PCPs AT knowledge and recommendations of AT devices for older adults with disabilities in Puerto Rico and in Latino communities in the continental United States.

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Using Implementation Science to Develop a TL1 D&I Science Training Implementation Plan[#]

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OBJECTIVES/GOALS: The training needs of clinical & translational scientists are evolving. Implementation of new curriculum content requires assessment of need, fit with current curriculum, incentives and barriers to implementation. We used implementation science methods to plan the implementation of a dissemination and implementation science training toolkit. METHODS/STUDY POPULATION: The Tufts Clinical & Translational Science (CTS) Graduate Program is the training core of the Tufts CTSI and its associated TL1. To assess barriers and facilitators to implementing the

[#]Denise H. Daudelin has been added as an author. An addendum detailing this update has also been published (doi:10.1017/cts.2023.570).