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:

118

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

Andrea Stevens[1], Neila Raveen[1], Jim Pawelczyk[2]
[1]Pennsylvania State University at Greater Allegheny [2]Pennsylvania State University

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.

119

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

Elsa M. Orellano-Colón[1], Wency L. Bonilla Daz[2], Radamas Revilla Orellano[1], Jesus Mejas Castro[3], Joan M. Adorno Mercado[4], Joshua Berros[4], Angely Cruz[4], Dana Montenegro[4], Abiel Roche Lima[1]
[1]University of Puerto Rico Medical Sciences Campus [2]Huertas College, Puerto Rico [3]University of Puerto Rico Humacao [4]Wovenware, Puerto Rico

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.

120

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

Denise H. Daudelin[1], Alyssa Cabrera[1], Anna L. Thompson[1], Thomas W. Concannon[2], Robert Sege[1], Elizabeth Leary[1], Angie Mae Rodday[1]
[1]Tufts CTSI [2]The RAND Corporation

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).

https://doi.org/10.1017/cts.2023.203

University of Washington's Dissemination and Implementation (D&I) Science Toolkit for TL1 Programs into the Tufts CTS Graduate Program, we used the Consolidated Framework for Implementation Research (CFIR). We developed an interview guide based on CFIR constructs or categories of factors that might influence implementation of the D&I Toolkit and interviewed 8 stakeholders including leadership, trainees and faculty. We compared D&I Toolkit content to the current curriculum on stakeholder engagement (SE) and research study quality improvement (QI) to identify how the D&I Toolkit could be adapted to fit trainee and program needs. RESULTS/ANTICIPATED RESULTS: Stakeholder interviews and review of the current curriculum identified facilitators and barriers to implementing the D&I Toolkit in the Tufts CTS Graduate Program. The program has a strong SE focus and fosters the use of research study QI methods. Interviews identified student and faculty desire to implement the D&I content yet time constraints and overlap with the current curriculum were identified. The following plan to adapt the D&I Toolkit content to fit contextual factors was developed and executed: 1. Adapt didactic content to fit into a 90-min session. 2. Highlight the synergy between the current SE curriculum and the role of stakeholders in D&I science. 3. Modify course materials to highlight examples of disseminating local research results. 4. Limit the experiential learning component to a SE plan. DISCUSSION/SIGNIFICANCE: TL1 training programs must balance competing demands in selecting curriculum content. The CFIR framework was used to systematically assess implementation barriers by engaging program faculty, students and leaders to identify implementation strategies. This process could be useful when evaluating the addition of other educational content.

122

DIAMOND 2.0: Updating a Pioneering Digital Platform for Study Team Workforce Development

Brenda Eakin, Elias Samuels, Vicki L. Ellingrod
University of Michigan

OBJECTIVES/GOALS: There is a critical need to provide quality training for study teams. Materials need to be flexible and available at the learner's preferred time and format. DIAMOND was developed to provide nimble education offerings that respond to the changing landscape of clinical and translational research. METHODS/STUDY POPULATION: In 2018 four CTSA institutions (the University of Michigan, the Ohio State University, Rochester University, and Tufts University) collaborated to launch the DIAMOND portal. Developed as a CTSA-wide web-based platform, DIAMOND allows members of clinical and translational research teams to widely share and access training and education resources. In 2022 a MICHR-led update of DIAMOND used principles of user centered design to improve the platform. New features include updated search functions to quickly find and sort training materials, tagging training materials to the characteristics of a translational scientist, and development of user controlled customized playlists. RESULTS/ANTICIPATED RESULTS: DIAMOND currently includes 217 training resources developed by 30 CTSA hubs and private industry. The platform has over 600 page views per day from users across the U.S. and internationally. DIAMOND includes an easy-to-use form to upload new materials to the platform. Contributors are asked to include key words and select competency domains and characteristics of a translational scientist that apply to their materials. Other new features include tagging materials to streamline and improve search results, the ability to sort materials by competency domain or characteristics of a translational scientist, and the ability for users to create and share customized, personalized playlists. DISCUSSION/SIGNIFICANCE: DIAMOND is an important tool to support workforce development for study teams. Updates to the flexible digital platform meet the needs and preferences of adult learners and busy health professionals. Lessons learned from the design process and future plans for the platform will be explored.

123

Introducing trainees to research using an online, asynchronous course

Jason T. Blackard[1,2], Jacqueline M. Knapke[2,3], Stephanie Schuckman[2], Jennifer Veevers[2], William D. Hardie[4], Patrick H. Ryan[2,4,5]
[1]Division of Digestive Diseases, Department of Internal Medicine, University of Cincinnati College of Medicine, Cincinnati, OH [2]Center for Clinical and Translational Science and Training, University of Cincinnati, OH [3]Department of Family and Community Medicine, University of Cincinnati College of Medicine, Cincinnati, OH [4]Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati, OH [5]Division of Biostatistics and Epidemiology, Cincinnati Children's Hospital, Cincinnati, OH

OBJECTIVES/GOALS: Research is an important aspect of many students' training. However, most trainees do not complete a scholarly project, and formal research training is rarely included in a degree program's curriculum. Thus, we developed an online, asynchronous series of modules to introduce trainees to multiple topics that are relevant to the conduct of research. METHODS/STUDY POPULATION: Research 101 was utilized by first year medical students and undergraduate students conducting mentored research projects at the University of Cincinnati College of Medicine. Students' knowledge, confidence, and satisfaction were assessed using pre- and post-module surveys with 5-point Likert scaled questions, open-ended text responses, and a final quiz. RESULTS/ANTICIPATED RESULTS: Pre-module survey results showed that learners were most confident with the Conducting a literature search and Race and racism in medicine modules and least confident with the Submitting an Institutional Review Board (IRB) protocol at UC module. Post-module survey responses were significantly increased compared to pre-module results for all modules and questions ($p < 0.0001$). The response to The content of this module met my needs was endorsed across all modules (84.9% yes responses). A final quiz of 25 multiple choice questions covering content from all required modules was completed by 92 students who had a median score of 21 (range: 15 to 25). DISCUSSION/SIGNIFICANCE: These data demonstrate significant learning resulting from completion of Research 101, as post-module survey scores were significantly higher than pre-module survey scores for all modules and questions. Final quiz scores were positive but also highlighted opportunity for additional student learning and will guide evolution of future modules.

https://doi.org/10.1017/cts.2023.203