

reported benefits (64% across all categories) that were unable to be confirmed as realized using the provided text, which either described activities not relevant to the selected benefit, or lacked critical details needed to verify that the benefit was realized. **DISCUSSION/SIGNIFICANCE:** This project demonstrates that the TSBM can be utilized to collect group-level data and to compare cohorts' real-world benefits. It also illuminates the need to improve the process for verifying self-reported benefits. Sharing data on these real-world impacts has the potential to convey the strengths of translational science to the public.

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### Evaluating the Role of Service Centers in Overcoming TS Barriers: Protocol Development and Pilot Implementation

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**OBJECTIVES/GOALS:** Evaluation of the contributions of the CTSI core services to the science of translational science requires focused protocols that are rigorous developed and piloted. The goal of this presentation is to report on the process of protocol development and present the results of protocol pilot implementation. **METHODS/STUDY POPULATION:** Translational science' (TS) is the field of investigation focused on understanding the scientific and operational principles underlying each step of the translational process (Austin, Clin Trans Sci. 2021; 14:1629-1647). A key tenet of translational science is to understand common causes of inefficiency and failure in translational research projects (e.g., incorrect predictions of the toxicity or efficacy of new drugs, lack of data interoperability, ineffective clinical trial recruitment). The navigation steps and mapping to resources for translational researchers provides an opportunity to develop effective navigation tools and study the barriers to effective translation. **RESULTS/ANTICIPATED RESULTS:** The UF-FSU Evaluation Committee has developed and piloted an evaluation protocol that aims to assess the role of CTSI service centers in addressing specific TS barriers. The protocol is informed by interviews with CTSI service users, and is grounded in the Donabedian Framework of Quality Assessment and Lean principles. The pilot implementation of the protocol showed its relevance and applicability across multiple UF-FSU core service centers. **DISCUSSION/SIGNIFICANCE:** The barriers to translational science are not unique but addressing them is rarely within the scope of individual translational research projects. Conversely, service centers within the CTSA institutions are uniquely positioned to address TS barriers thus enhancing to the operational efficiency of the CTS enterprise and promoting the science of TS.

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### Evaluating the ten-year progression of the Miami CTSI Mentored Translational Research Scholars (KL2) Program Awards

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**OBJECTIVES/GOALS:** The goal of Miami CTSI's Mentored Translational Research Scholars (KL2) Program is to identify outstanding early-stage investigators and prepare them to become the next generation of highly skilled independent researchers who translate fundamental knowledge and new technologies from the

laboratory to the clinic and to the community. **METHODS/STUDY POPULATION:** Evaluation of the KL2 program focused on assessing progress in the following areas: 1) scholar productivity during and after graduating from the program; 2) continued engagement of KL2 program graduates in clinical and translational research; scholar productivity during and after graduating from the program; 3) outcomes such as establishing independent research careers, obtaining research funding, and establishing collaborations; and 4) research impact. We used a developmental evaluation approach and benefits-framework model to conduct program evaluation, incorporating both in a program-specific logic model. Bi-annual surveys were used to measure scholar feedback and progress, and utilization of CTSI services. **RESULTS/ANTICIPATED RESULTS:** Since 2013, the KL2 program has trained 21 scholars, 17 of whom have completed training, and four are still in the program. Of the 21 scholars, 52% are female and 38% are underrepresented minorities (URM)—significantly higher than the 12% URM for overall CTSA KL2 scholars. Scholars have 176 total publications related to their KL2 projects and have received \$52.4m in total research funding. In addition, 50% of the projects focused on health disparities. Overall, 48% of KL2 scholars have received large subsequent federal awards including three NIH K awards and six NIH R awards. Scholars actively utilized CTSI services during and after graduation. Programmatic enhancements such as adding institutional scholars and using scholar feedback to improve program resources were also implemented. **DISCUSSION/SIGNIFICANCE:** Miami CTSI's KL2 program has demonstrated success in fulfilling its program goals. The process and outcome evaluation has provided a better understanding of program performance and progress and has demonstrated alignment with CTSI's overall goals on addressing health disparities and its commitment to diversity and equity.

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### Patient perceptions of nonpharmacological pain treatment in the emergency department setting

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**OBJECTIVES/GOALS:** This study examined patient perceptions on the benefits, barriers, and facilitators of conventional and complementary/behavioral pain strategies that can be offered in the ED setting including physical therapy, mindfulness, acupuncture, and yoga. **METHODS/STUDY POPULATION:** We conducted and recorded semi-structured interviews with 30 patients who presented to the ED with musculoskeletal pain. Interviews focused on patients' perceptions of NP pain treatments, barriers/facilitators to utilization, and recommendations that would promote engagement. A hierarchical coding system was developed and refined using the interview guide, the Theory of Planned Behavior, and preliminary review of the transcripts. The iterative process of developing the coding system allowed us to identify preliminary themes. **RESULTS/ANTICIPATED RESULTS:** Patients believe education on pain and the mind-body connection would give a sense of pain control. Likely barriers to engaging at the ED include lights, noise, interruptions, and uncertainty of their medical status. Post-discharge NP treatment barriers are financial and logistical. Engagement can be facilitated by a desire to avoid opioids, familiarity with meditation practices, and consistent positive communication with the health care team. Patients desire evidence on effectiveness, including testimonials, and suggested NP techniques should be introduced