Executive Summary: HEAL Pain Strategic Planning Workshop
Optimizing Interventions to Improve Pain Management
November 25, 2024, 11:00 AM - 3:00 PM ET

Subcommittee members: John Farrar, MD, PhD (co-lead), Claudia Campbell, PhD (co-lead), Joletta Belton, MSc, Dave White, Jeffery Dusek, PhD, Renee Manworren, PhD, RN-BC, Ausaf Bari, MD, PhD, Jennifer Gewandter, PhD, MPH, Benedict Alter, MD, PhD, Fenan Rassu, PhD, Meryl Alappattu, DPT, PhD, Jennifer Rabbitts, MD, Katie Butera, DPT, PhD, Adam Hirsh, PhD

Introductory remarks: Kathleen Sluka, HEAL Pain Strategic Planning Executive Committee Co-chair

Claudia Campbell: Defined “Optimization” as the process of making something as fully functional as possible; in healthcare, this means the right patient getting the right treatment at the right time.

Joletta Belton, person with lived experience of pain (PWLE), shared her decades-long journey of pain treatment. She described challenges and barriers in treatment delivery, loss of identity, stigma, disbelief, and depersonalization. Optimizing pain treatment is personal and specific.
Dave White, PWLE, shared his story of kidney dialysis and chronic pain. He completely changed his lifestyle to become healthier, and he currently works as an advocate and research partner, including on patient engagement panels and for the HEAL Hemodialysis Opioid Prescription Effort (HOPE) study.

Enhancing Care Delivery Models: Katie Butera, Meryl Alappattu
There is a critical need to deliver evidence-based pain management in real-world settings. Non-pharmacological interventions need rigorous study using Sequential Multiple Assignment Randomized Trial (SMART) trial designs to determine the best structure of delivery combination, sequence, dosing of interventions, and to explore predictors of success/responsiveness. This can be achieved by undertaking studies to determine best delivery strategy, e.g. sequenced care vs. stepped care and how to make treatments available to underserved populations. Researchers should also evaluate the use of telehealth, hybrid care, and AI-driven interventions to improve pain management and quality of life.

Personalized Pain Management: Fenan Rassu, Renee Manworren
Individual needs are broadly overlooked in clinical treatment due to numerous pressures and barriers, but advances in analytical capability allow for greater personalization using multiple modalities of data to improve treatment course. To optimize personalized treatments, integrate functional, psychological, social, biological inputs to make a personalized treatment model including genomics, biometrics, sensor data and patient-reported outcome (PROs). Include PWLE input in study designs and validate findings in diverse populations. Include metrics of life experience beyond pain level to include quality of life as well as pharmacological risk inputs. Create flexible, feasible and meaningful assessment frameworks. Support research aimed at transitioning from managed care to implementation of personalized strategies, including provider training and work-flow integration. Address the needs of underserved and vulnerable populations who may be turning to unregulated treatments due to lack of access. Expected outcome: reduced trial-and-error treatment approaches for patients; efficient resource utilization; improved outcomes. Transform pain management from one-size-fits-all approach to

personalized care.

Pain prevention across the lifespan: Jennifer Rabbitts, John Farrar
Prevention is part of the HEAL mission statement; researchers can aim to advance pain prevention by evaluating primary and secondary strategies to reduce pain and prevent the transition to chronic pain across the lifespan. Integrate lived experience to assess preventive approaches and implement safe and effective early treatments for novel cohorts, high-risk populations, and the whole population. Prevention cuts across many sub-groups; this discussion focuses on optimizing preventive interventions. There are key opportunities for prevention for pain in youth and childhood. Despite its unique vulnerabilities, adolescence needs special consideration. Pain prevention could be achieved by optimizing interventions such as patient education on pain management, procedural management, and post-surgical interventions, from drugs to peer support. Prevention can be delivered in many settings: primary care, education systems, sports programs, via parents, in community centers, and during maternal health care. The acute-to-chronic pain transition can be targeted at orthopedic and sports clinics, physical therapy practices and post-surgery settings. In adults, prevention of chronic pain can be achieved by avoiding disease, poor health, other risk factors; by building resilience with healthy diet, exercise, psychological treatment; and avoiding acute-to-chronic transition. Research priorities would be to evaluate preventive interventions at multiple levels across the lifespan, evaluate effectiveness of targeting risk factors for chronic pain, and to target sleep deficiency in particular.

Optimization & Adaptation: Benedict Alter, Jennifer Gewandter, David White
Evidence is limited for multimodal care, although it is recognized as optimal. Need to increase evidence, increase engagement in pain therapy combinations. Designs to test: SMART, factorial, and hybrid designs. Need for “deep phenotyping” of patients’ outcomes following specific interventions. Important to use patient-centered treatment planning. Argument for testing, re-purposing approved drugs *and* non-drug treatments for use in chronic pain. Non-pharmacological treatments can be introduced in the acute setting.

Cross-cutting Values: Jeffrey Dusek, Joletta Belton, Adam Hirsh
Optimizing interventions to improve pain management involves some themes across the treatment/research spectrum, with connections to the intersection of pain and substance use and health equity across the life course subcommittees, but also: lifespan, individualized care, adaptation to patient preference; and use of digital technology. Values and guiding principles should highlight the importance of centering care as a multidisciplinary undertaking with meaningful co-equals across the spectrum. Aim for synergistic integration of multiple treatments. Subtopics include long-term thinking for patients to create meaningful change that lasts years or decades with the understanding that treatments and outcomes can change over time. Collaborative research is important. Develop and sustain partnerships, from priority setting to study design, to analysis and interpretation, to implementation and evaluation. This should include scientists, clinicians, PWLE, and other community members with a focus on under-resourced areas. Integrative perspective: prioritize integration of self-management, medication-based and non-pharmacological treatments to improve PROs.