

## **Managing Pain and Treating Musculoskeletal Conditions: A PCORI-Sponsored Conference on the Use of Patient-Centered Evidence and Best Practices at Worksite Health Centers**

(Lay Summary)

### **Background**

In 2020, the National Association of Worksite Health Centers ([NAWHC](#)) and the Center for Workforce Health and Performance ([CWHP](#)) received a Patient-Centered Outcomes Research Institute® (PCORI®) Eugene Washington Engagement Award (EAIN-00102) for a conference to disseminate and share information, evidence, and experiences on best practices to prevent, treat, and manage musculoskeletal (MSK) conditions and pain. NAWHC is a 501(c)(3) nonprofit organization composed of employer and union sponsors of on-site and near-site health centers, as well as their vendor partners. CWHP is a 501(c)(3) organization fostering the use of evidence and learning communities to promote to employers the value of healthy work and healthy workers.

MSK conditions were selected as a substantive area for several reasons. Surveys of the NAWHC members and vendor partners who manage their worksite health centers demonstrated unmet needs around the treatment of MSK conditions, which are highly prevalent in most working populations regardless of industry or location. MSK conditions are often among the top three cost areas for employers due to their high medical and prescription drug expenses and the resulting absenteeism and lost productivity. In discussions with employer-sponsors and vendors of worksite health centers, NAWHC and CWHP found that most employers were unaware of PCORI's sponsored MSK research and that there were pockets of innovative practices aimed at preventing MSK injuries and pain that could be replicated by others.

The conference was formatted as a symposium with three distinct sessions, each offering formal presentations followed by roundtables, with participants providing their experiences and perspectives on the topics covered. Although originally planned as an in-person meeting in Dallas, Texas, due to the COVID-19 limitations on travel and social distancing the program was moved to a virtual meeting environment.

NAWHC invited employers, unions, healthcare providers, third-party clinic vendor suppliers, payers, and others associated with or interested in MSK and worksite health centers to participate in the December 9 program. Speakers who could present evidence generated by PCORI-sponsored research and other sources were identified, as were case examples of successful approaches to prevent, manage, and treat MSK conditions and pain. We then asked the participants to gauge the extent to which the information and practices were useful and what else they would want from PCORI. The event drew 40 attendees, primarily from NAWHC's member organizations.

### **Opening Session**

The opening session introduced the two sponsoring organizations and outlined the problems surrounding the cost, lost productivity, and concerns about unnecessary surgery and the use of opioids to manage and treat MSK

injuries and other pain conditions. Attendees were introduced to the concept of patient-centered outcomes as “consideration of patient’s perspectives, values, and preferences when making treatment decisions.” This definition differentiates research on patient-centered outcomes from comparative effectiveness research and considers what patients want from treatments, whether they understand the implications of their options, and how they balance values against access and affordability. The program format was described, with participants encouraged to engage with the information presented, ask questions, share experiences, and make recommendations for further PCORI research.

## **Session 1: Preventing Pain and MSK Conditions**

Brian Gifford provided an overview of themes that emerged from PCORI-sponsored research on MSK conditions. Interventions included in PCORI-sponsored studies went beyond clinical and pharmaceutical areas and included therapeutic services, patient input and education, and provider integration. Pain management studies included physical functioning, quality of life, mental/emotional health, coping, and, when needed, opioid use management. And patients’ perspectives were represented in the study designs.

Kevin Schmidt described the importance of recognizing how workers of different generations viewed their need to prevent and address injuries and their preference for on-site physical therapy services. An effective prevention program is both personalized and convenient to access.

Daniel Lord and Okon Antia discussed back classes as a preventive approach, as well as helping workers recognize when and how injuries occur and how to address different tasks.

Penny Gilbert described how Textron, an airline manufacturer, was successful in preventing MSK injuries by matching workers of certain abilities to the physical and mental tasks most appropriate to the individual.

## **Session 2: The Research on Managing and Treating Pain**

Brian Gifford summarized the findings of PCORI-sponsored research showing effective pain management, including sharing with providers patients’ perspectives on their pain and impairment and the need to set realistic outcome expectations; the value of adding pain coping skills; and the success of collaborative care with integrating various providers, including chiropractors and physical therapists.

Sherry McAllister presented findings describing the effectiveness of a multiphased approach to pain management, including not only the delivery of care but also patient engagement, addressing patients’ functional ability and well-being. The value of non-pharmacological options to manage pain—including acupuncture, chiropractic, massage, physical therapy, and yoga—was also described, as were costs and structural barriers to pain management.

## **Session 3: Integrating Providers for Treatment and Management of Pain**

Brian Gifford summarized the findings of PCORI-sponsored studies in which interventions were directed at provider practices. Effective provider interventions included using survey information about patients’ needs and perspectives and establishing collaborative care models involving the patient, a designated care manager, and an interdisciplinary team of specialty and care providers. Phased opioid reduction showed the potential to reduce overdoses without increasing patients’ pain severity.

Katelyn Johnson and William Updyke focused on Cisco’s experience integrating physicians, chiropractors, physical therapists, and massage therapists in a collaborative practice. They described how the program resulted in improved health outcomes, higher productivity, lower costs, and increased patient satisfaction among employees with MSK conditions.

## **General Comments and Guidance for Future PCORI-Sponsored Studies**

The symposium sessions included moderated discussions with participants and attendees, with specific attention to how audience members could apply presented materials in their own workplaces or health centers and what other evidence they would be interested in seeing PCORI pursue.

Attendees’ comments indicated that they found the presented information helpful, and many believed that they could apply or would consider the best practices described. It was acknowledged that plan coverage influences patients’ treatment choices, emphasizing the need to develop an MSK and pain management evidence base directed toward insurance carriers and other third-party payers.

It was noted that while PCORI-sponsored studies touched on such issues as the prevention of disease progression and health crises, they had less to say about prevention of disease onset and injuries.

There was also a general sense among symposium presenters that future PCORI studies would be most useful if they focused specifically on outcomes relevant to employers. For example, outcomes such as employees’ ability to work, avoid illness-related absences and disability leaves, return to work after episodes of illness and injury, and function on the job could serve as indicators of an intervention’s effectiveness. At the same time, patient-centered considerations were deemed valuable and warrant continued inclusion. Future topics could include psychosocial issues related to MSK conditions, employee engagement in workplace interventions, and recognizing factors associated with preferences for different types of care.

It was also recommended that studies focus on specific work contexts. This could include different types of workplaces (for example, businesses such as utilities or hospitals that have less capacity for work-from-home as an accommodation or with safety-sensitive considerations) and examinations of worksite health centers as patient-centered “medical homes” relative to other types of provider arrangements.

Presenters also noted that several of the studies found evidence for the therapeutic value of integrative and complementary approaches, such as chiropractic and mind-body practices, but that employees’ health insurance benefits often do not cover these treatments and that their practitioners are often not included in provider networks. Patients’ low awareness of their uses and availability may also limit their impact on employees’ health and productivity. Presenters specifically mentioned examinations of interventions that help employees overcome such barriers to care.

Finally, symposium participants noted that the ongoing COVID-19 pandemic has disrupted the model of on-site health centers to the extent that workplaces closed or operate below pre-pandemic capacity. This raises the question of the effectiveness of telephonic delivery of physical therapy and pain management, as well as the long-term implications for patients who may have forgone or postponed care for painful conditions or comorbidities that complicate disease management strategies.

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