# Personalized Feedback Interventions: Implications for Comorbid Pain and Substance Use

Presenter: Jafar Bakhshaie, MD PhD

December 2, 2024

**HEAL Pain Strategic Planning Workshop** 

## **Overview**

- What Are PFIs? Brief, tailored interventions delivering feedback on individual behaviors.
- ☐ Grounded in <u>motivational interviewing and</u> <u>cognitive-behavioral principles</u>.
- □ PFIs integrate insights from health behavior change theories such as the Transtheoretical Model and Health Belief Model to strengthen motivation.
- Effective for promoting behavior change across various health domains.

## **How PFIs Work**

#### **Key Components:**

- Personalization: Tailored health behavior profiles.
- Normative Feedback: Comparing behaviors to peer or population benchmarks.
- Psychoeducation: Informing patients about risks and benefits of behavior change.
- Address specific misconceptions about pain and substance use, such as the belief that smoking helps with pain relief, and provide corrective feedback.

#### **Evidence-Based Mechanisms:**

- ☐ Use of <u>discrepancy</u> to enhance motivation for change.
- Employing <u>self-efficacy</u> principles for sustainable action.

# Applications of PFIs for Comorbid Pain and Substance Use

#### **Domains:**

- Smoking cessation motivational enhancement in underserved populations, such as individuals living with HIV and smoking and chronic pain/opioid misuse.
- □ Tobacco use post-orthopedic trauma/surgery to reduce complications and improve recovery.
- Targeting pain-related anxiety for adults reporting hazardous drinking and chronic pain

### **Integration of Psychosocial Skill Elements:**

- Address coping strategies for pain and stress.
- Comorbid conditions: Anxiety and depression.

# Advantages of Web-Based PFIs

#### Why Digital Platforms?

- Overcomes barriers like provider availability, stigma.
- Cost-effective and scalable.
- Immediate intervention (e.g., post-surgery/trauma).
- Anonymity enhances patient comfort.
- Standardized, replicable delivery of care.

#### **Scalability:**

- Addresses both individual and public health needs.
- □ Suitable for integration into clinical settings with minimal disruption.

# Evidence and Impact in Comorbid Pain and Substance Use

#### **Clinical Outcomes:**

- Enhance knowledge of the interrelations between pain and substance use, such as smoking's impact on pain intensity and opioid efficacy.
- Improve pain outcomes and decrease problematic alcohol consumption.
- □ PFIs increase confidence and readiness/intention to quit smoking.

#### **Broader Impacts:**

- Reduction in healthcare costs.
- Improved quality of life and functionality for patients with pain and substance use comorbidities.

# Research Gaps

#### **Unanswered Questions:**

- How do PFIs impact longer-term outcomes in pain populations?
- What adaptations are needed for diverse demographic groups?

#### **Future Directions:**

- Combining PFIs with other interventions (e.g., physical therapy, mind-body treatments).
- Leveraging AI and data analytics for improved personalization.
- Investigating optimal timing and delivery formats for PFIs to maximize their impact on dual diagnoses.

## Conclusion

#### Why PFIs Matter:

■ Effective, scalable, and accessible intervention for pain and substance use.

#### **Call to Action:**

- Emphasize integration into standard care models for pain and substance use treatment.
- □ Advocate for the inclusion of PFI components addressing substance use-pain dynamics in multidisciplinary care teams.

## Thank You!

#### **Contact Information:**

- ▶ Jafar Bakhshaie, MD PhD
- jbakhshaie@mgh.harvard.edu
- Massachusetts General Hospital-Harvard Medical School