

Reduction of Pain and Opioid Use Through Integrative Care

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Conflict of Interest Disclosure

(over the past 24 months)

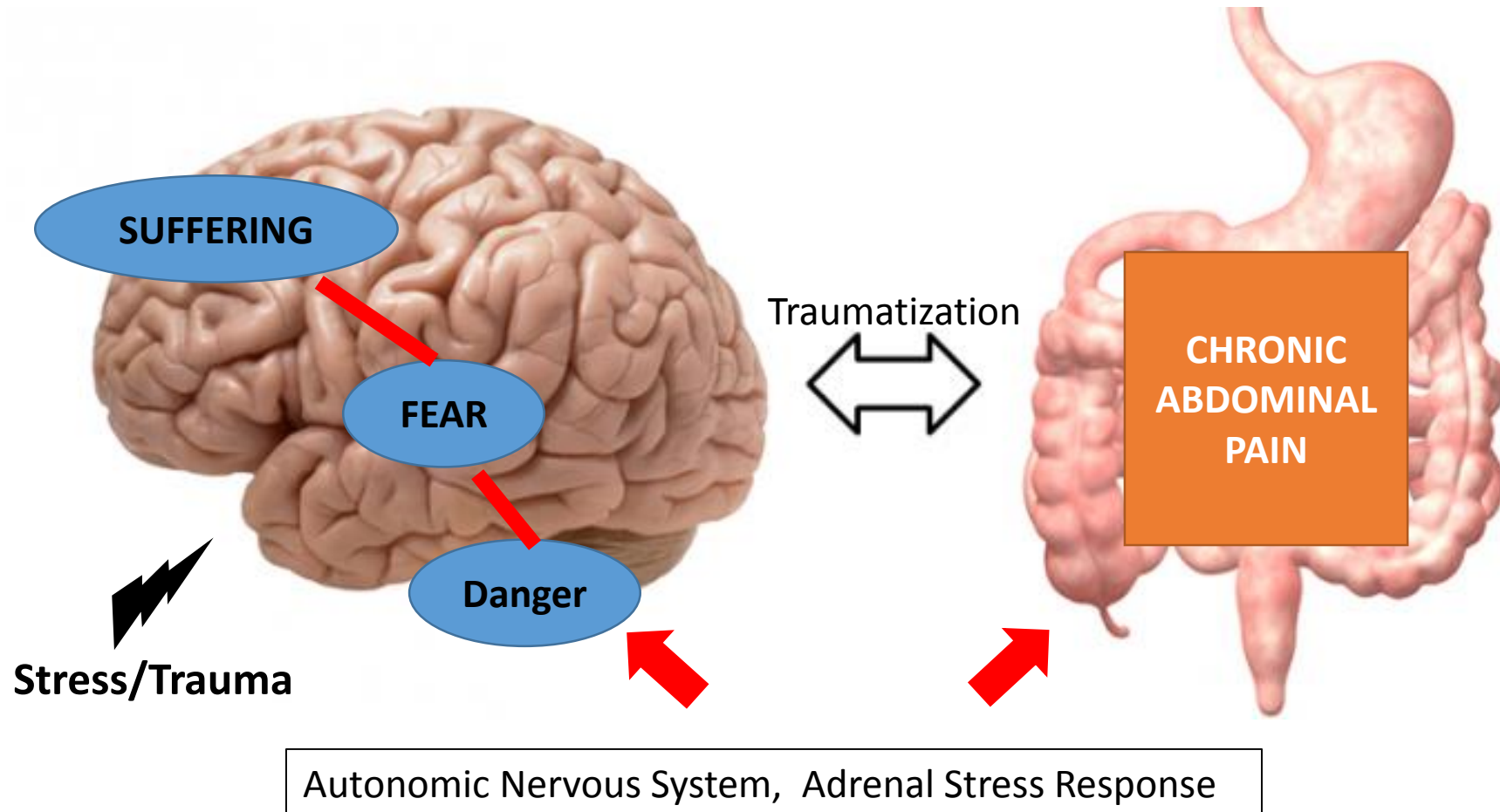
Commercial or Non-Profit Interest	Relationship
PCORI	Research Contract
APPI	Royalties as book editor
NIH	Research grant

Chronic pain in GI Disorders

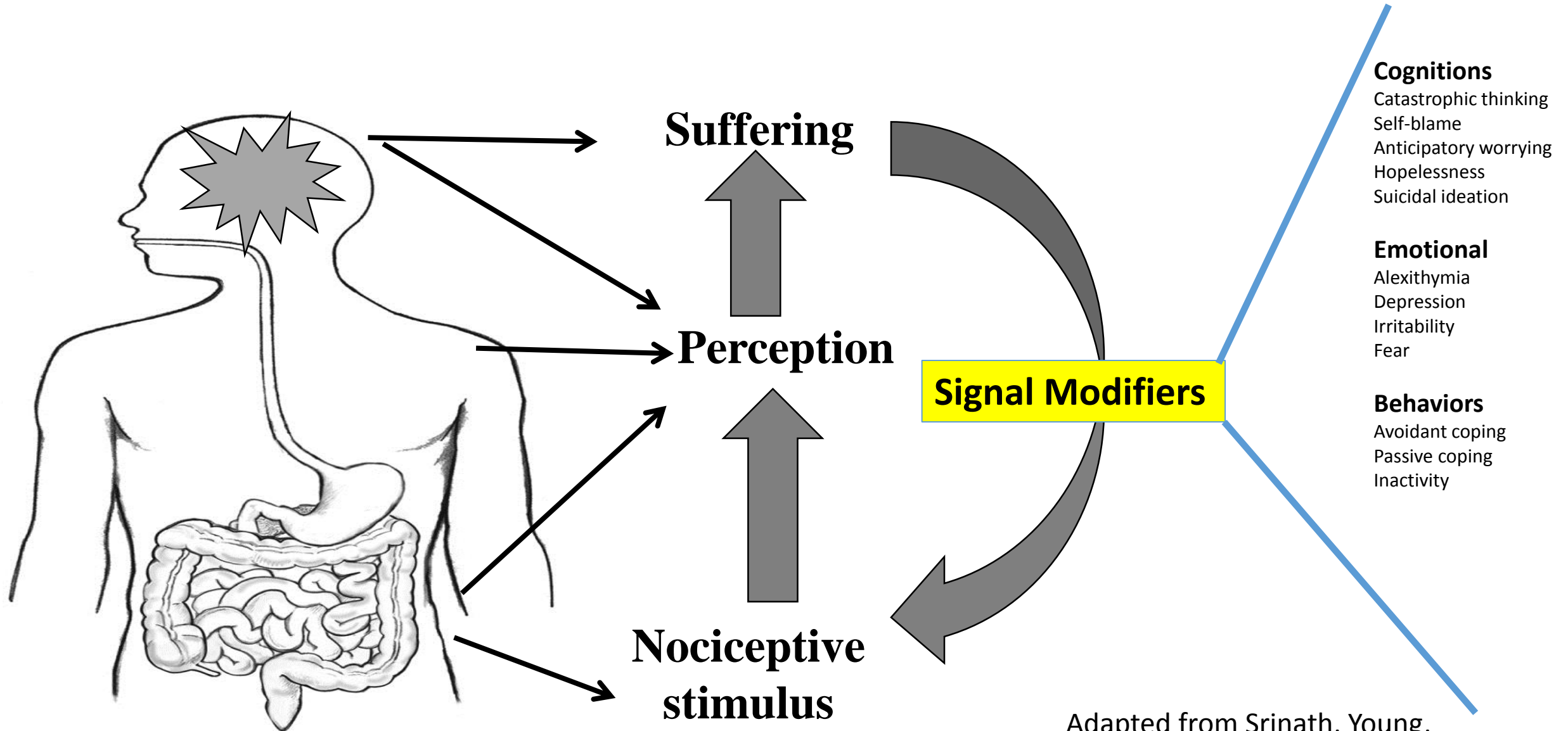
- Chronic pain is **common** in GI disorders
- High rates of **anxiety/depression**
- History of **early life adversity/trauma**

Minderhound et al., Dig Dis Sci 2004; Farrokhyar et al., Inflamm Bowel Dis 2006; Ansari et al., Eur J Gastro Hepatol 2008; Keohane, AJG 2010; Long, AJG 2010; Drossman AJG, 2011; Akbar 2012; Goulden, 2013; Drewes, 2017

Trauma and the Brain-Gut Interaction with Chronic Abdominal Pain

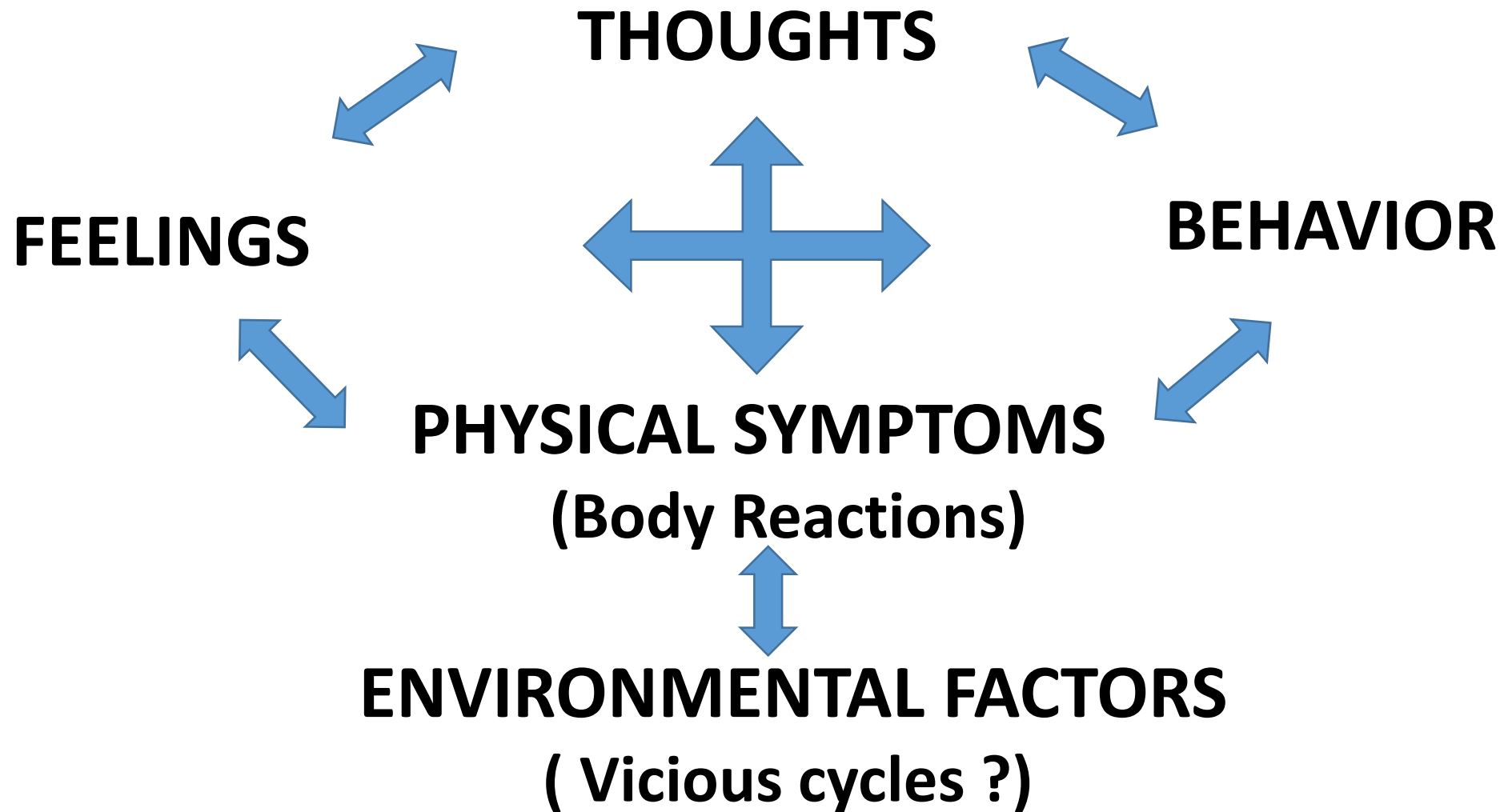


Neuropsychological Modifiers of Chronic Abdominal Pain Signals



Adapted from Srinath, Young,
Szigethy 2014

Chronic Pain Treatment Targets



How to Treat Chronic Pain in GI Disorders?

1. Brief, empirically supported behavioral intervention
(EFFICACY)
2. Integrated behavioral-medical care models
(CARE COORDINATION)
3. Digital behavioral solutions
(ACCESS)

Empirically-supported Behavioral Interventions for Chronic Pain

	Cognitive Behavioral Therapy	Hypnosis	Mindfulness/Meditation
Definition	Targets maladaptive thoughts and behaviors to change emotions and perceptions by teaching coping skills . Skills such as cognitive reframing, behavioral activation/distraction, exposure, relaxation .	Induction of a trance state =psychophysiological state where there is relative suspension of peripheral awareness and greater susceptibility to suggestions to alter relationships between emotions, thoughts, behaviors and perceptions	Learning to pay attention on purpose to present moment experience in non-judgmental way . Attending to pain adaptively- attention based coping and acceptance . To buffer against secondary evaluations of physical sensations (catastrophizing)
Differentiation	Time limited, conscious; didactic problem solving	Automatic/ unconscious; social expectancy theory	Conscious and unconscious components
Dosing	8-20 sessions ranging from 30-60 minutes; individual or group. Therapist guided	1-8 sessions ranging from 30-60 minutes; individual; therapist guided.	8-12 sessions; 5-30 min; Self or therapist guided.
Mechanism	All 3 modalities involve habit reversal with unlearning and new learning with practice. Changes in thoughts, behaviors, emotions associated with changes in underlying brain circuits .		
Access	Requires provider training to level of fidelity and proficiency. Requires reinforcement to maintain new skill set. Digital technology increasing access and reach of all three interventions.		

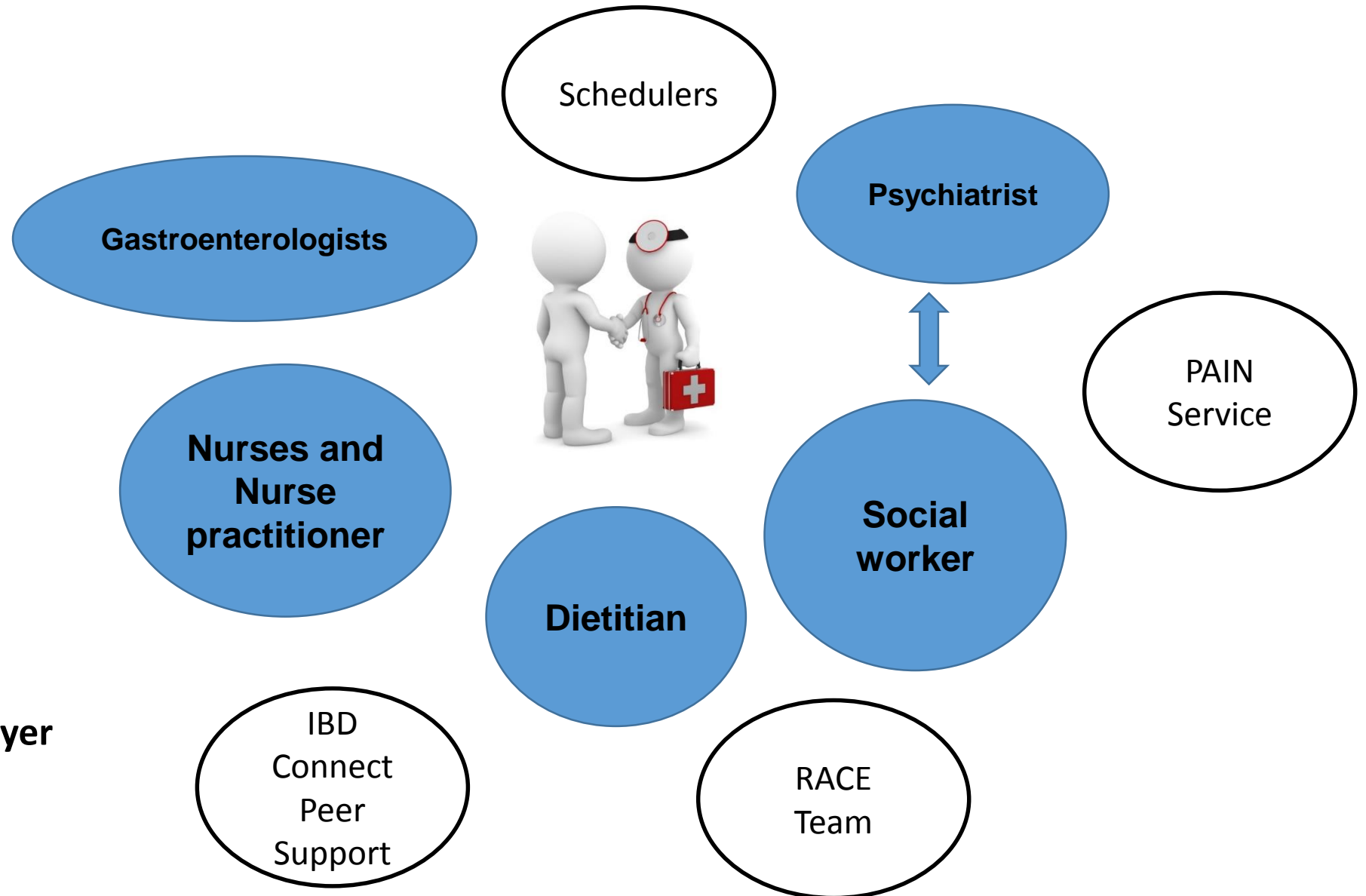
Why Integrated Behavioral-Medical Care?

- Reduced stigma associated with psychological care
- Improved communication, collaboration, and coordination among providers
- Increased patient satisfaction
- Improved quality with reduced healthcare costs

IBD Total Care Medical Home: Team-based, GI-point of care, patient-centered, coordinated care

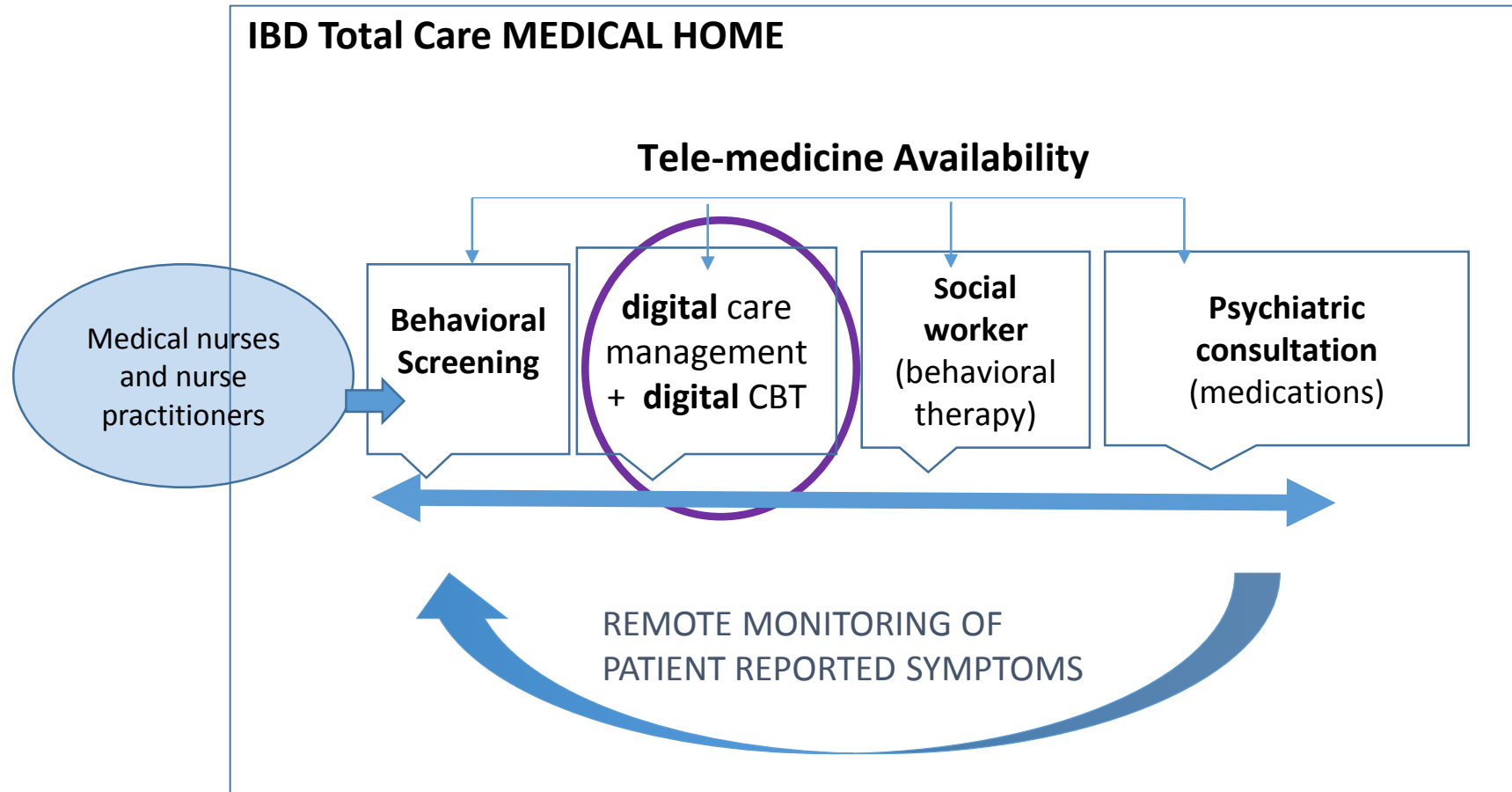
Medical home attributes:

- ✓ **Accessibility**
- ✓ **Comprehensive coordinated care**
- ✓ **Compassionate, culturally sensitive, patient- and family centered.**
- ✓ **Age 17- 65 with IBD**
- ✓ **Partnership with Payer (HP)**



How to make behavioral interventions
accessible?

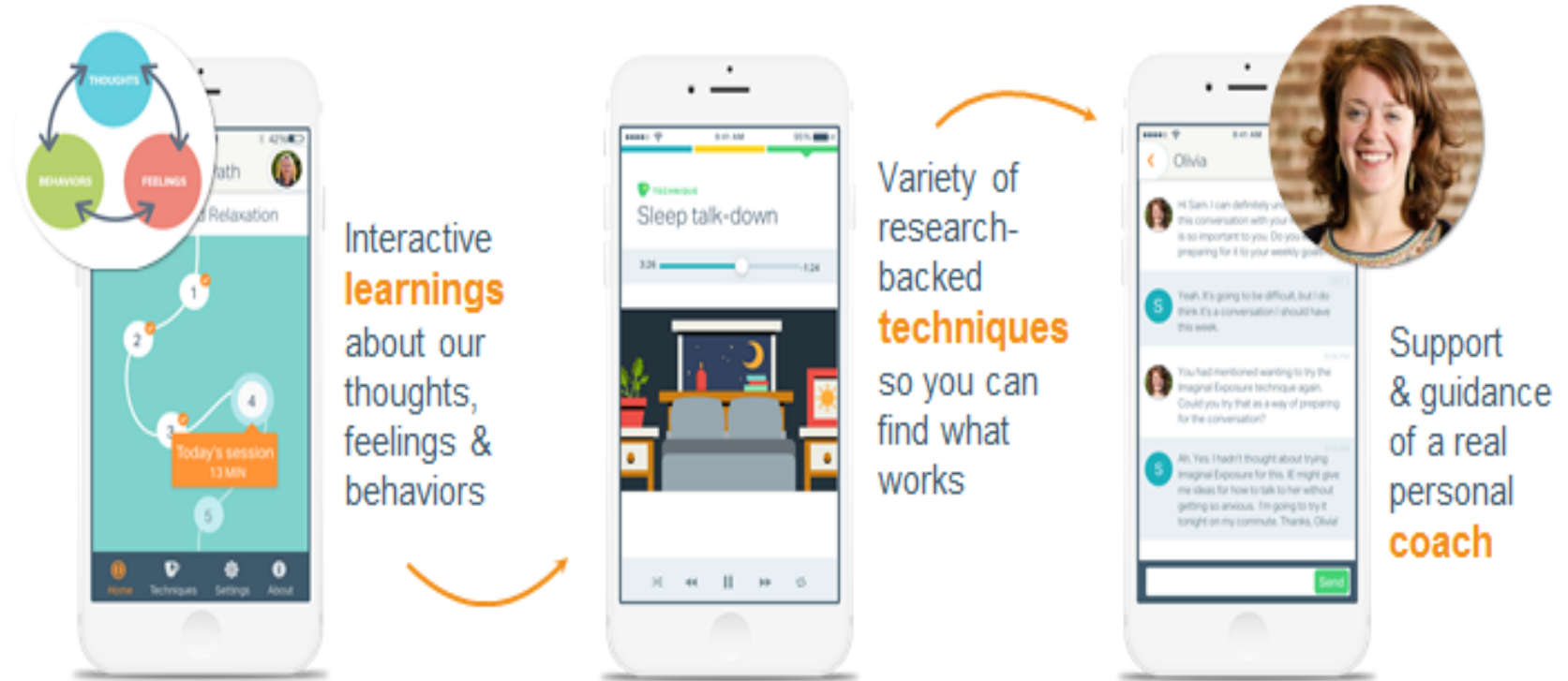
Stepped Digital Behavioral Care



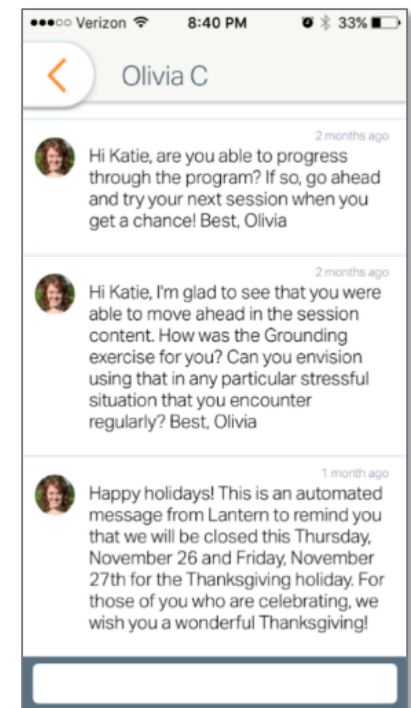
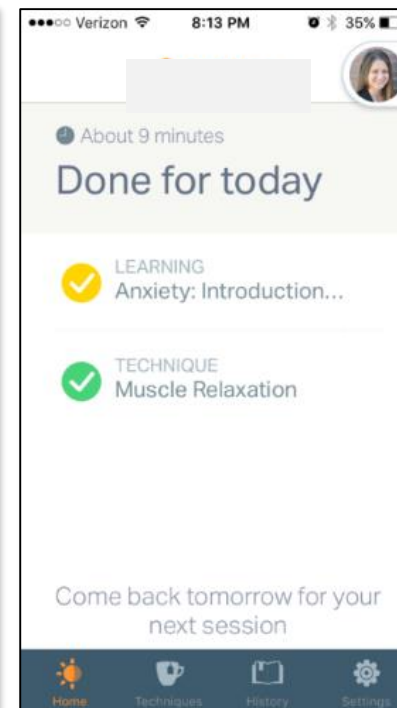
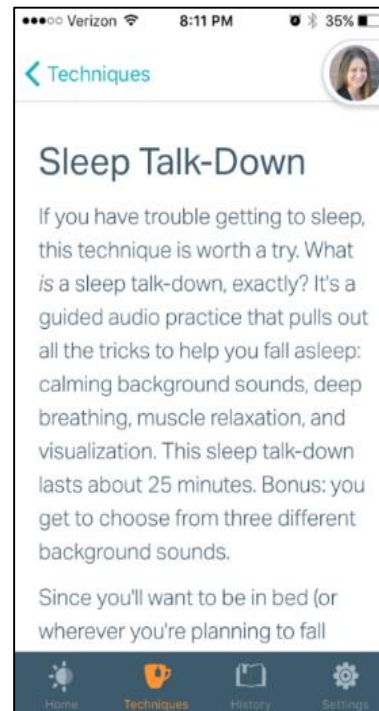
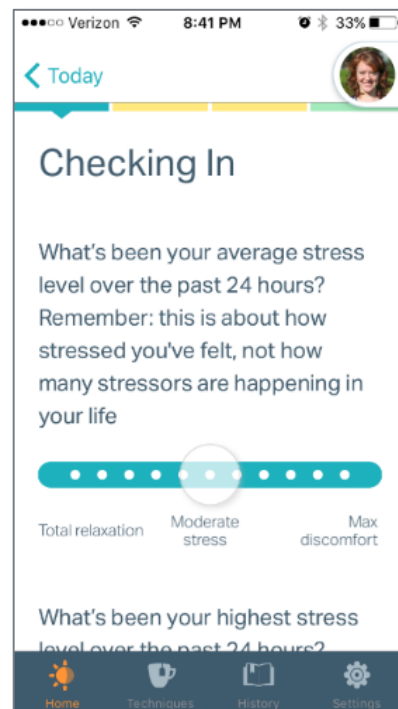
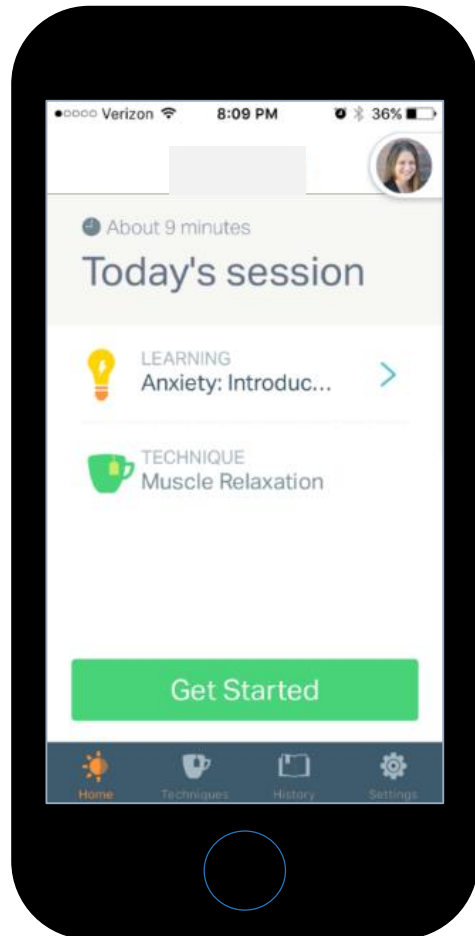
UPMC Digital CBT

- ✓ Interactive CBT and mindfulness program
 - Relaxation/mindfulness
 - Cognitive skills
 - Behavioral skills
 - Exposures
 - Distress tolerance
- ✓ Guided by non-clinical coaches
- ✓ Care coordination
- ✓ Tracks outcomes and risk escalations

Digital Cognitive Behavioral Therapy (CBT) Program for improving anxiety and depression.



Snapshots of UPMC Behavioral APP...



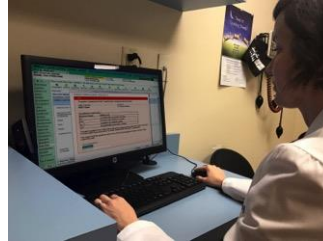
Integration of digital CBT into GI Outpatient Clinic as part of routine care

1



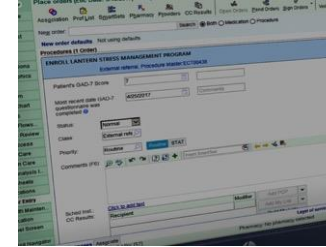
Patient is screened at visit for anxiety/depression

2



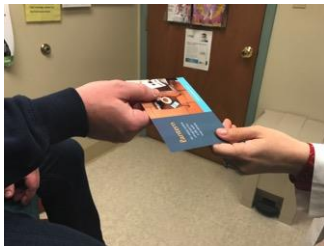
Team receives a BPA, alerting to BH needs

3



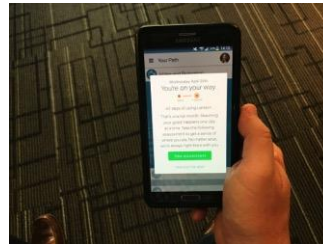
Team orders digital behavioral app directly in Epic

4



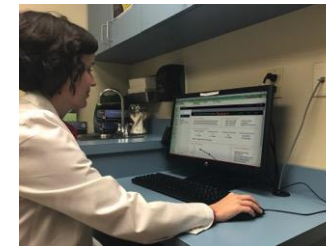
Patient leaves visit with sign-up materials

5



Patient uses the program and takes ongoing assessments

6

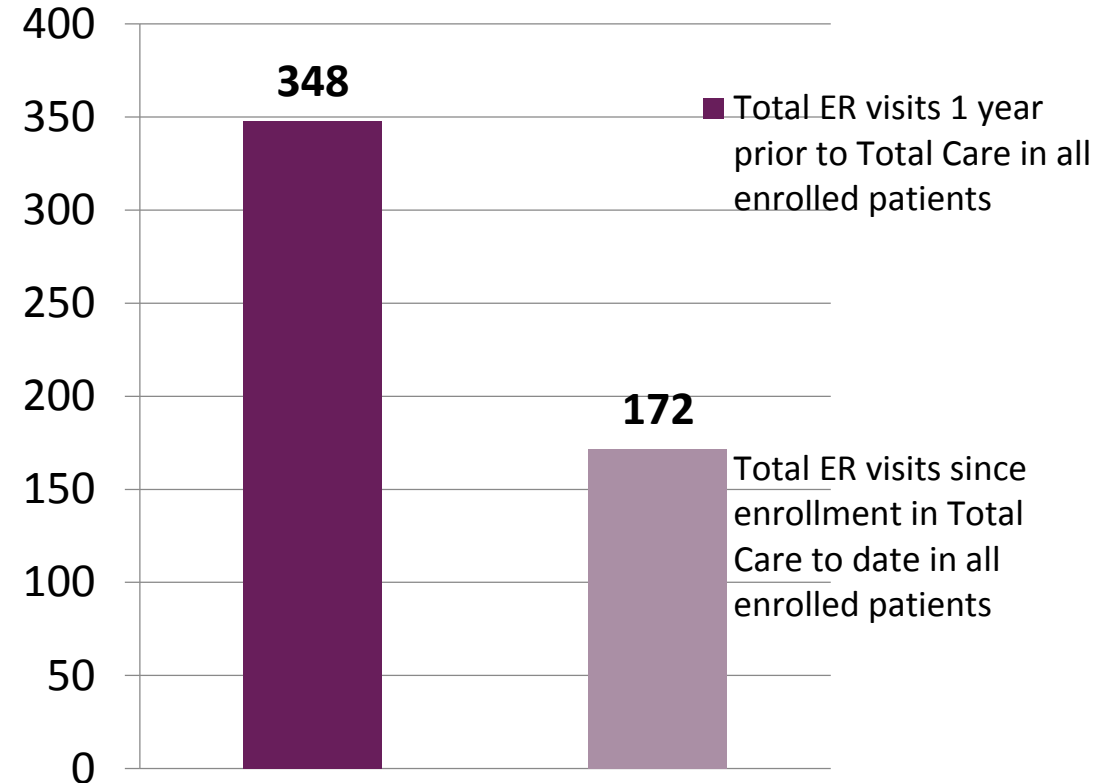


Team is kept updated of progress in Epic

Total Care IBD Medical Home: Outcomes

- High patient engagement
- High patient satisfaction
- Reduced provider team burnout
- Reduced medical utilization
- Reduced anxiety and depression
- Reduced opioid use

**50.5 % decrease in ER visits
total cohort***



*Based on clinical team analysis of EHR data.
Regueiro et al., 2017, 2018

What about our GI patients on opioids?

- Chronic opioid use is associated with increased morbidity, mortality, and health care costs in patients with inflammatory bowel disease (IBD)
- Despite the known magnitude of the opioid problem, alternative treatment options have remained limited

Methods

- Identified patients who were prescribed opioids for at least 2 months prior to the time of enrollment into the IBD MH from 2015-2018
- All patients received opioid treatment agreements and comprehensive behavioral care
- Depression (PHQ9), IBD quality of life (QoL; SIBDQ), and IBD severity (HBI/UCAI) recorded at baseline and 12 mo, compared using paired T-tests

Results

- Of the 72 patients who discontinued opioids, 64% utilized integrated behavioral services
- There was improvement in depression scores (PHQ-9, $p=.002$) and IBD QoL scores (SIBDQ, $p=.016$) but not IBD severity over 12 months
- At 12 months, 30.8% (32) of patients continued opioid use
- Patients who remained on opioids at 12 months were more likely to be female, be minorities, have higher depression scores, be less engaged in behavioral services and more likely using benzodiazepines

Conclusions

- **Participation in an integrated team-based IBD MH was associated with reduction in opioid use and improvement in pain-related QoL and depression over a 12-month period**
- **Future studies will focus on better predicting and targeting chronic opioid users who are at risk for poor clinical outcomes**