

# Compass Opioid Stewardship in Practice

## Microlearning Series



Sustainable Healthcare Transformation

### Module 19: The Placebo Effect

Welcome to Compass Opioid Stewardship in Practice. Each week, our Compass coaches will explore a real-world case, define a clinical goal, and walk through practical strategies to improve care. Whether you're tuning in via video, audio, or reading the summary, this session is built for busy clinicians like you.

This week's session is brought to you by Dr. Don Stader, MD, FACEP, FASAM; Clinical Coach in the Compass Opioid Stewardship Program.

### Case Presentation

This week's case is about a patient, Mary a 50 year old who presents with long standing knee pain for Xray proven moderate osteoarthritis. Mary is interested in trialing a steroid knee injection for her osteoarthritis and has trialed other interventions including OTC medications and lidocaine patches without significant relief. As her clinician you believe that prior to trialing knee injections, physical therapy, lifestyle changes and diclofenac cream may be important to trial, given her young age and potential harms.

### Goal

Our clinical goal is to discuss the power of patient expectation in defining patient pain relief and how to leverage placebo effect for the benefit of patients.

### Achieving our Goal

#### Historical Foundations

- The placebo effect has likely existed throughout the history of medicine, accompanying human efforts to treat illness and alleviate suffering.
- Across early healing traditions, patients frequently reported improvement following interventions, regardless of their direct physiological efficacy.
- John Haygarth was among the first to formally describe the role of belief and positive suggestion in therapeutic outcomes.
  - He investigated the widely used "Perkins Rods," developed by Elisha Perkins, which were purported to extract disease through specialized metallic properties.
  - Despite their popularity, including use by George Washington, Haygarth demonstrated that equivalent outcomes could be achieved using inert materials.
  - His findings highlighted that therapeutic benefit was driven by expectation and narrative rather than the intervention itself.

## Development of Modern Placebo Science

- Henry Beecher significantly advanced the scientific understanding of placebo effects during World War II.
  - He observed that wounded soldiers often required substantially less analgesia than civilians with comparable injuries.
  - These differences were attributed to contextual and psychological factors, particularly expectations surrounding injury and recovery.
- Beecher’s work contributed to the development of the double-blind, placebo-controlled trial, now the gold standard in clinical research.
  - This methodology ensures that therapeutic interventions demonstrate efficacy beyond placebo effects.
- Importantly, placebo effects are frequently misunderstood as synonymous with “ineffective” treatment.
  - In reality, they reflect measurable neurobiological and physiological processes and represent a clinically meaningful component of symptom modulation, particularly in pain management.

## The Nocebo Effect

- The nocebo effect represents the inverse phenomenon, wherein negative expectations contribute to worsened outcomes or diminished therapeutic efficacy.
- Experimental evidence illustrates the magnitude of this effect:
  - In a study examining the opioid remifentanyl, participants were assigned differing expectations regarding treatment:
    - Neutral expectation resulted in moderate analgesia
    - Positive expectation significantly enhanced analgesic response
    - Negative expectation abolished the therapeutic effect
- These findings underscore that expectation can both potentiate and negate pharmacologic interventions, emphasizing the importance of clinician communication.

## Clinical Implications

- The therapeutic context, including clinician language, framing, and patient expectations—plays a critical role in treatment outcomes.
- In the presented case:
  - A patient with knee pain was guided toward conservative management (physical therapy, topical diclofenac, and lidocaine patches).
  - Emphasis was placed on the evidence base, safety, and expected benefit of these interventions.
- At follow-up:
  - The patient reported improved pain and function
  - More invasive interventions were deferred
- This case illustrates that clear, confident communication of treatment efficacy can meaningfully enhance clinical outcomes, reflecting the practical application of placebo mechanisms in everyday care.

## Clinical Pearls

- The placebo effect does not denote inefficacy, it fact has significant benefits and when applied correctly little clinical down sides.
- Studies have shown that suggest can induce placebo or nocebo effect – which can either double the effectiveness or analgesia or completely remove it's effectiveness
- Clinicians can utilize positive psychology, and point out evidence of benefit to patients, making their clinical care more of a partnership with patients, and more effective.
- I often operationalize this by both speaking about positive effect with patients, but then sending them clinical studies or follow up for them to read.

## Thank You

This education has been brought to you through the generous support of the Centers of Medicare and Medicaid Services. Thanks for reading this week's Compass Opioid Stewardship in Practice Microlearning Series. Thank you for being part of the Compass Opioid Stewardship Program. And thank you for all you do caring for your patients.

## Article Mentioned in Podcast

- [The effect of treatment expectation on drug efficacy: imaging the analgesic benefit of the opioid remifentanyl](#)