

# Improving pain psychology treatment initiation rates: an integrated evidence-informed framework

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## Abstract

Psychological interventions represent a core component of contemporary interdisciplinary chronic pain treatment, yet treatment initiation following referral to pain psychology services remains consistently low. Empirical studies across behavioral health and pain medicine demonstrate that referral alone is insufficient to ensure patient engagement with psychological care. This gap between referral and treatment initiation represents a major implementation barrier limiting the impact of evidence-based psychological pain interventions. The present article synthesizes contemporary literature on behavioral health treatment initiation and chronic pain psychology to propose a structured engagement framework designed to improve initiation rates following referral. Using a targeted narrative review methodology, empirical literature published between 2021 and 2025 was examined to identify key determinants of treatment initiation across pain medicine and integrated behavioral health settings. Findings indicate that treatment initiation is best conceptualized as a multistep process involving referral communication, structural and attitudinal barriers, patient readiness, psychoeducation, and system-level facilitation. Evidence from collaborative care models suggests that active engagement strategies embedded within medical workflows can substantially improve treatment initiation rates compared with passive referral approaches. The proposed Active Engagement Model of Pain Psychology Referral integrates individual-level and system-level interventions designed to address common barriers to treatment initiation. Improving initiation requires a shift from passive referral models toward proactive engagement strategies embedded within interdisciplinary pain care. Implementing structured engagement approaches may substantially improve access to evidence-based psychological interventions for chronic pain.

**Keywords:** Treatment, Initiation rates, Pain psychology, Chronic pain, Behavioral health

## Introduction

Chronic pain represents one of the most prevalent and costly health conditions worldwide. In the United States alone, chronic pain affects an estimated 100 million adults and contributes to more than \$600 billion annually in healthcare expenditures and lost productivity [1]. Chronic pain is associated with substantial functional impairment, reduced quality of life, and high rates of psychiatric comorbidity, including depression, anxiety disorders, and trauma-related conditions [2,3].

The biopsychosocial model of pain has become the dominant conceptual framework guiding contemporary pain treatment. Originally building upon gate control theory and behavioral models of pain, this framework emphasizes the complex interaction between biological, psychological, and social processes in the development and persistence of chronic pain [4,5]. Psychological factors such as catastrophizing, fear avoidance, emotional dysregulation, and attentional biases are now recognized as central contributors to pain-related disability and suffering.

Consequently, psychological interventions have emerged as essential components of interdisciplinary pain management. Cognitive behavioral therapy (CBT), acceptance and commitment therapy (ACT), mindfulness-based interventions, and behavioral activation have demonstrated effectiveness in improving pain-related functioning, disability, mood symptoms, and quality of life [6,7]. More recent work emphasizes process-based and personalized psychological approaches that target underlying mechanisms such as cognitive flexibility, emotional regulation, and avoidance behavior [8].

Despite strong empirical support for psychological pain interventions, treatment utilization remains suboptimal. Across healthcare settings, a substantial proportion of patients referred to behavioral health services never attend an initial appointment. In general medical settings, fewer than half of patients referred for mental health care initiate treatment [9]. Pain-specific data reveal similar patterns. In a study examining referrals from pain physicians to pain psychology services, less than half of referred patients successfully established care [10].

This gap between referral and treatment initiation represents a critical implementation challenge. The existence of effective psychological interventions is insufficient if patients never access these services. Improving treatment initiation is therefore essential for realizing the therapeutic potential of evidence-based psychological pain treatments. Multiple barriers contribute to low initiation rates. Structural barriers—including cost, transportation difficulties, insurance coverage limitations, and scheduling constraints—frequently impede access to behavioral health services. At the same time, attitudinal barriers such as stigma, treatment skepticism, and fears that psychological referral implies that pain is “not real” can discourage engagement [11,12].

Importantly, treatment initiation is not solely determined by patient motivation. Healthcare system design, referral communication practices, and service integration strongly influence whether patients establish care following referral. Integrated behavioral health models embedded within medical settings demonstrate significantly higher treatment initiation rates compared with traditional referral-based systems [13,14].

The present article synthesizes recent empirical literature on treatment initiation and behavioral health engagement to propose a structured framework designed to improve initiation of pain psychology treatment following referral. Specifically, this article aims to:

1. Review recent empirical literature on treatment initiation in psychological pain treatment
2. Identify structural and attitudinal determinants of engagement
3. Propose an evidence-informed framework for improving treatment initiation following referral to pain psychology services.

## Methods

### Study design

This study employed a targeted narrative review methodology to synthesize research examining treatment initiation and engagement with psychological interventions in chronic pain populations. Narrative review approaches are particularly appropriate for

integrating heterogeneous evidence across clinical disciplines and generating practice-oriented frameworks.

### Literature search

A targeted search was conducted using PubMed, PsycINFO, and Google Scholar databases to identify relevant studies with emphasis on recent literature (particularly 2021–2025). Search terms included:

- Chronic pain psychology
- Behavioral health treatment initiation
- Psychological interventions chronic pain
- Patient engagement behavioral health
- Barriers to pain psychology treatment

Additional studies were identified through citation tracking of key systematic reviews and clinical guidelines.

### Inclusion criteria

Studies were prioritized based on relevance to:

- Examined psychological interventions for chronic pain
- Investigated patient engagement or treatment initiation
- Evaluated barriers to behavioral health treatment uptake
- Were published in peer-reviewed journals

Greater weight was given to systematic reviews, meta-analyses, and empirical studies published within the past five years. Given the narrative review design, the search was not intended to be exhaustive or fully systematic.

### Evidence synthesis

Findings were synthesized to identify recurring determinants influencing treatment initiation. These determinants were then organized into a multistep engagement framework representing key stages between referral and treatment initiation.

## Results

### Treatment initiation rates in behavioral health and pain psychology

Across healthcare settings, treatment initiation following referral to behavioral health services remains consistently low. Observational studies suggest that fewer than 50% of patients referred to mental health services from primary care successfully initiate treatment [9].

Pain-specific studies reveal similar challenges. Lyon and Schuster (2023) reported that fewer than half of patients referred from pain physicians to pain psychology services established care following referral.

In contrast, integrated behavioral health models embedded within medical settings demonstrate substantially higher engagement rates. Collaborative care models report initiation rates exceeding 80–90%, suggesting that system-level design strongly influences treatment uptake [13,14].

These findings indicate that treatment initiation should not be viewed solely as a patient behavior but rather as a function of healthcare system structure and engagement processes.

## Determinants of engagement with psychological pain treatment

### Structural barriers

Structural barriers represent major determinants of treatment initiation. Common obstacles include:

- Scheduling constraints
- Transportation difficulties
- Insurance coverage limitations
- Childcare responsibilities
- Limited availability of behavioral health providers

These factors can substantially reduce the likelihood that patients attend initial appointments following referral.

### Attitudinal barriers

Attitudinal barriers also play a significant role. Research indicates that patients often express uncertainty regarding the relevance of psychological treatment for pain management. Some individuals interpret referral to psychological services as implying that their pain is not legitimate or is “psychological” rather than physical [12].

A recent study examining factors associated with interest in psychological pain treatment found that patient beliefs about treatment effectiveness, prior mental health experiences, and perceived stigma significantly influenced willingness to engage in treatment [11].

### Psychiatric comorbidity

Psychiatric comorbidity may also influence treatment engagement. A systematic review examining interventions for chronic pain among individuals with mental illness highlighted the importance of integrated treatment approaches addressing both pain and psychiatric symptoms [15].

### Multi-step engagement framework for treatment initiation

Synthesized findings suggest that treatment initiation is best conceptualized as a multistep process involving several potential points of attrition.

#### Step 1: Engagement-Focused Referral Communication

The referral encounter represents a critical opportunity to influence patient perceptions of psychological pain treatment. Clinicians who frame pain psychology as a routine component of interdisciplinary pain care are more likely to encourage patient engagement.

#### Step 2: Identification of Structural and Attitudinal Barriers

Assessing potential barriers at the time of referral allows clinicians to address logistical and psychological obstacles before they prevent treatment initiation.

#### Step 3: Brief Patient-Centered Engagement

Brief motivational engagement strategies may help address ambivalence regarding psychological treatment. Techniques derived from motivational interviewing can support collaborative decision-making and enhance readiness for treatment.

#### Step 4: Targeted Psychoeducation

Providing clear explanations regarding the role of psychological processes in pain can reduce stigma and increase perceived relevance of psychological interventions.

#### Step 5: System-Level Facilitation

System-level interventions—including rapid scheduling, reminder systems, and telehealth options—can significantly improve treatment initiation rates.

## Discussion

This review highlights the persistent gap between referral and treatment initiation in psychological pain treatment. Although psychological interventions are strongly supported by empirical evidence, many patients never access these services due to structural and attitudinal barriers. Behavioral interventions—including CBT, ACT, and mindfulness-based approaches—are widely recommended within interdisciplinary pain care yet remain underutilized in routine clinical practice [6,7].

The Active Engagement Model of Pain Psychology Referral proposed in this article emphasizes the importance of proactive engagement strategies embedded within clinical workflows. Evidence from collaborative care and integrated behavioral health models suggests that embedding psychological services within medical settings substantially improves treatment initiation and continuity of care compared with traditional referral-based systems [13,14].

Recent developments in process-based therapy further support personalized approaches to psychological pain treatment targeting mechanisms such as avoidance behavior, emotional dysregulation, and cognitive flexibility [8]. These approaches may enhance engagement by increasing perceived relevance of psychological interventions for patients with diverse pain experiences. Emerging patient-centered engagement research also highlights the value of involving patients in the design of pain treatment programs. Studies examining patient engagement initiatives have demonstrated that patient advisory input can improve accessibility and uptake of behavioral interventions by addressing perceived barriers and improving communication strategies [16].

Qualitative studies examining barriers to chronic pain behavioral treatment programs further emphasize the importance of cultural factors, language access, and perceptions of legitimacy in shaping patient engagement [17]. These findings underscore that improving treatment initiation requires attention not only to logistical barriers but also to patient beliefs, expectations, and experiences with healthcare systems.

Collectively, these findings suggest that improving treatment initiation requires both system-level redesign and clinician-level engagement strategies. Addressing structural barriers such as scheduling delays, referral fragmentation, and provider shortages may significantly improve treatment uptake. At the same time, clinician communication strategies, patient education, and barrier identification remain essential for addressing attitudinal barriers that influence treatment acceptance.

## Limitations

Several limitations should be acknowledged. First, the narrative review methodology does not provide the same methodological rigor as systematic reviews or meta-analyses and may therefore

be susceptible to selection bias. Second, the literature specifically examining pain psychology treatment initiation remains limited, requiring extrapolation from broader behavioral health research. Third, healthcare system differences may influence the generalizability of the proposed framework. Future empirical research is needed to evaluate the effectiveness of multicomponent engagement strategies in improving pain psychology treatment initiation across diverse healthcare settings.

## Conclusion

Psychological interventions represent a cornerstone of evidence-based chronic pain treatment, yet many patients referred to pain psychology services never initiate care. This gap between referral and treatment engagement represents a major implementation challenge in interdisciplinary pain management. The framework proposed in this review emphasizes that treatment initiation should be conceptualized as a multistep engagement process influenced by referral communication, patient beliefs, structural barriers, and healthcare system design. Active engagement strategies—including barrier assessment, patient-centered referral communication, targeted psychoeducation, and rapid scheduling—represent pragmatic approaches that may substantially improve treatment initiation rates.

Future research should examine the effectiveness of multicomponent interventions designed to improve both treatment initiation and sustained engagement with psychological pain treatment. These interventions may include clinician training programs, integrated behavioral health models, and patient-informed engagement strategies grounded in implementation science.

More broadly, improving access to psychological pain treatments represents an important opportunity to strengthen interdisciplinary pain care. As healthcare systems increasingly emphasize non-pharmacologic approaches to pain management, optimizing referral processes and treatment engagement will be essential for translating evidence-based psychological interventions into real-world clinical practice.

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