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The Impact of Therapeutic Alliance on AMA Rates

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ABSTRACT

The therapeutic alliance, long regarded as a cornerstone of effective behavioral health treatment, remains difficult to measure and operationalize across diverse levels of care. This study examines how provider attachment style and related interpersonal characteristics—assessed through the Care Predictor Index (CPI), a 234-item psychometric instrument—predict patient retention outcomes across five behavioral health organizations. Drawing upon attachment theory, alliance research, and data from over six months of clinical practice, the study evaluates how therapist CPI scores correlate with treatment completion and discharges against medical advice (AMA) within detoxification, residential, partial hospitalization, intensive outpatient, and outpatient settings. The CPI integrates elements from the Adult Attachment Questionnaire (AAQ), the Counselor Activity Self-Efficacy Scales (CASES), and the Analog to Multi-Broadband Inventories (AMBI) to generate multidimensional provider profiles that capture attachment, confidence, and personality traits empirically linked to alliance formation. Findings demonstrate that therapists with CPI scores above 70 achieved higher treatment completion and lower AMA rates, underscoring the predictive validity of attachment-informed provider assessment. Beyond identifying measurable therapist-level predictors, this analysis situates relational competence as a central determinant of program retention and proposes the CPI as a scalable mechanism for workforce development, quality improvement, and outcome optimization across the continuum of behavioral health care.

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Introduction

Patient retention remains a persistent challenge across the continuum of behavioral health care, from detoxification and crisis stabilization to partial hospitalization, residential, intensive outpatient, and outpatient services. High rates of treatment dropout or discharge against medical advice undermine recovery and increase costs for both patients and organizations. While these problems may be prevalent in today's clinical world, the therapeutic alliance has long been recognized as a predictor of outcomes [1,2]. Few tools like it exist to systematically assess and improve provider-level factors underlying alliance, such as attachment style and interpersonal behaviors. This performance improvement study evaluates the relationship between the scores from a specific assessment tool and patient treatment outcomes across five diverse behavioral health organizations.

The assessment tool used in this study, the Care Predictor Index, represents a novel approach to measuring provider characteristics that influence therapeutic alliance. It is a scientifically validated tool that integrates indicators of attachment security, relational consistency, and clinical performance. The tool has been validated to reduce rates of treatment dropout or discharge against medical advice while improving treatment completion rates and patient engagement.

Before presenting our analysis of this tool's administration across the study sites, we review the impact of attachment styles on treatment outcomes across levels of care in behavioral health.

Literature Review

The Significance of Provider Attachment Style in Behavioral Health

Attachment theory offers a robust framework for understanding provider-patient relationships in behavioral health care [3]. While communication between providers and patients is an essential component of care, emerging evidence suggests that provider attachment style is a foundational determinant of how effectively these relationships are built and sustained [4]. Secure attachment fosters empathy, flexibility, and reliability—traits that enable clinicians to establish trust and adaptively respond to patient needs. These traits are particularly critical in behavioral health contexts where patient vulnerability and ambivalence toward treatment are high [5].

Attachment Style and Treatment Outcomes

A strong therapeutic alliance—rooted in attachment-related behaviors—remains one of the most reliable predictors of treatment outcomes. Horvath and Symonds [6] established the predictive power of therapeutic alliance, while Martin et al. [7] and Del Re et al. [8] reinforced that therapeutic alliance accounts for approximately 8% of variance in outcomes across diverse modalities. Therapist characteristics, especially attachment style, significantly influence alliance development

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and subsequent outcomes. Baldwin et al. [9] reported that therapists account for 3-7% of the variance in patient outcomes, while Dinger et al. [10] and Slade [11] found that insecure attachment styles—fearful, anxious, or dismissive—were associated with weaker alliances and poorer patient progress. Satterfield and Lyddon [12] and Carvalho and Matos [13] further highlighted that therapists' relational security shapes their ability to tolerate client distress, manage countertransference, and maintain consistent engagement—all crucial components of effective care.

Attachment Style Across Levels of Care in Substance Use and Mental Health Treatment

The importance of provider attachment style may be amplified in substance use disorder (SUD) and primary mental health treatment, where patient engagement and retention are persistent challenges. These settings span a full continuum of care: detoxification and withdrawal management, crisis stabilization units (CSUs), partial hospitalization programs (PHPs), residential treatment centers (RTCs), intensive outpatient programs (IOPs), and standard outpatient services. Each level of care presents distinct relational demands.

Detoxification and crisis stabilization settings often involve high acuity and ambivalence, requiring providers who can deliver consistent empathy and structure amid rapid turnover and heightened distress. Partial hospitalization and residential programs depend on clinicians' ability to sustain daily therapeutic relationships, guide goal setting, and navigate group dynamics. Intensive outpatient and outpatient care rely heavily on continuity, boundary setting, and motivating patients through periods of fluctuating commitment and external stressors.

Providers with secure attachment styles tend to demonstrate stronger alliance behaviors across these levels of care—offering consistent empathy, clear boundaries, and flexible responsiveness. In contrast, providers with insecure styles may struggle to adapt to the relational intensity of crisis or residential settings or to maintain engagement in lower-intensity outpatient care. These difficulties can contribute to premature dropout or against medical advice (AMA) discharges, undermining treatment outcomes [14].

This pattern aligns with broader alliance research showing that patient-rated alliance quality—often influenced by provider attachment-related behaviors—predicts better outcomes even when therapist-rated alliance does not. In SUD treatment, where motivational interviewing and other relationally focused interventions are widely used [15], provider attachment security may underpin the very skills that keep patients engaged long enough to benefit from treatment.

Synthesis

Across psychotherapy, behavioral health, and SUD treatment, provider attachment style emerges as a key predictor of both treatment outcomes and program retention. While communication skills remain important, attachment-related characteristics may underlie the consistency, empathy, and responsiveness that make those skills effective. This is especially salient across the full continuum of care—from detox and crisis stabilization to partial hospitalization, residential, intensive outpatient, and outpatient services—where the relational demands and risk of dropout vary substantially.

Few studies directly measure provider attachment style alongside patient outcomes in SUD or primary mental health care, and fewer still have tested interventions to improve providers' attachment security or relational flexibility. The assessment tool used in this study integrates measures of attachment style, self-efficacy, and personality characteristics, representing a promising advance for identifying and improving provider-level factors that influence therapeutic alliance and retention across diverse care settings. Next, we describe the assessment tool before presenting our analysis of its application across five study sites.

Methods

Assessment Tool: The Care Predictor Index

The primary assessment tool used in this study was the Care Predictor Index (CPI), a 234-item instrument designed to measure 24 provider characteristics empirically linked to therapeutic alliance and patient outcomes. An abbreviated 192-item version of the CPI is also available for non-counseling roles. Together, these versions generate comprehensive profiles of care providers, offering insight into their interpersonal, cognitive, and relational tendencies.

The CPI integrates items from three established psychometric instruments to provide a holistic view of providers' relational and professional capacities:

- Adult Attachment Questionnaire (AAQ). This measure evaluates attachment style, a central determinant of relational security, empathy, and flexibility in therapeutic interactions. The questionnaire includes items such as:

I find it relatively easy to get close to others.

I find it difficult to trust others completely.

- Counselor Activity Self-Efficacy Scales (CASES). This scale assesses providers' self-efficacy across a broad range of counseling activities, reflecting their confidence and perceived competence in clinical practice. This instrument: 1) assesses provider skills, such as listening and asking open questions; 2) evaluates provider effectiveness on clinical tasks, such as keeping sessions focused and building a clear conceptualization of client issues; and 3) measures provider self-confidence in working effectively with different client types (for example, suicidal, sexually abused), client issues (such as those the provider might find personally difficult), and scenarios (such as where the provider or client might find the other sexually attractive).
- Analog to Multi-Broadband Inventories (AMBI). This instrument is a public domain, 181-item personality inventory designed to simultaneously capture the personality traits measured by eight different established broadband personality tests using a significantly shorter assessment length. It captures personality traits across hundreds of scales, identifying empirically derived predictors of alliance strength and treatment outcomes.

The combined use of these measures enables the CPI to generate a multidimensional profile of a provider's personality, self-efficacy, and attachment-related behaviors—factors shown to directly influence treatment engagement and retention.

Algorithm and Predictive Modeling

Responses to the 234-item assessment are scored across 24 domains. These domains are then integrated through a proprietary algorithm that evaluates provider characteristics known to predict alliance formation, rapport building, and patient retention. Importantly, the algorithm is dynamic: it incorporates ongoing data modeling using patient outcome data and feedback to identify additional traits influencing therapeutic

success, thereby refining predictive accuracy over time.

Patient Feedback Integration

To validate and refine its predictive capacity, the CPI is linked with patient-reported outcomes collected through clinically validated instruments, including:

- Generalized Anxiety Disorder scale (GAD-7)
- Patient Health Questionnaire (PHQ-9)
- Brief Revised Working Alliance Inventory (BR-WAI)
- Personal Wellbeing Index (PWI)
- Life Satisfaction Survey

Additionally, the CPI incorporates feedback from client satisfaction surveys, ensuring the representation of both clinical and experiential perspectives in the evaluation of provider effectiveness. These data sources allow for robust outcome modeling, linking provider characteristics to both symptom reduction and patient-perceived quality of care.

Based on the integration of validated instruments, multiple sources of data, and a proprietary algorithm to evaluate provider characteristics, the CPI identifies the top five areas of strength and top five areas of growth for providers. Examples of these areas include creativity, patience, friendliness, and non-anxious attachment.

Study Sites

Data for this study were collected from five addiction and mental health treatment organizations across the United States. The study sites described below (also see Table 1) represent a range of program types, geographic regions, and treatment philosophies. The diversity across these sites allowed the study to capture provider profiles and patient outcomes across varied organizational models, treatment philosophies, and client populations.

Site 1 (Pennsylvania) provides a full continuum of care—including detoxification, residential, and outpatient programs—integrating evidence-based therapies with holistic and creative interventions.

Site 2 (Arkansas, Kansas, Oklahoma) operates a regionally distributed network offering detox, residential, and outpatient care, distinguished by trauma-informed practices, specialized programs for veterans, and technology-based interventions.

Site 3 is a nationally accredited provider offering upscale, non-hospital detox and outpatient services, emphasizing high-touch care and strong clinical staffing ratios.

Site 4 (Southern California) is a luxury behavioral health provider specializing in residential and crisis care, with programs spanning intensive residential treatment (IRT), residential treatment centers (RTC), partial hospitalization (PHP), intensive outpatient (IOP), and crisis stabilization units (CSUs).

Site 5 (Oregon) delivers trauma-informed addiction and mental health care through ambulatory detox, PHP, IOP, outpatient, and structured sober living programs, blending evidence-based modalities with yoga, outdoor activities, and community service.

Table 1: Study Sites.

Client	# Therapists in Analysis	# Locations in Analysis
Client #1	13	1
Client #2	26	4
Client #3	6	7
Client #4	8	5
Client #5	15	1

Participants and Data Collection

The dataset included 6-12 months of treatment records for patients served by therapists across the five organizations. CPI scores were linked to patient-level outcomes (treatment completion, AMA discharges). A CPI score of 70 or higher was considered "ideal."

Results

Treatment Completion and AMA Rates by CPI Score

Patients whose therapists had a CPI score of 70 or higher demonstrated substantially better treatment outcomes compared with those whose therapists scored below 70. Across all levels of care excluding Site 4, the treatment completion rate for patients served by high-scoring therapists was 66.37%, compared with 53.56% for those served by lower-scoring therapists. Likewise, the AMA rate was markedly lower among high-scoring therapists (16.06%) than low-scoring therapists (28.11%) (see Table 2; Figure 1).

Table 2: Completion and AMA Rates by CPI Score (Excluding Site 4).

CPI Group	Completion Rate (%)	AMA Rate (%)
CPI ≥ 70	66.37	16.06
CPI < 70	53.56	28.11

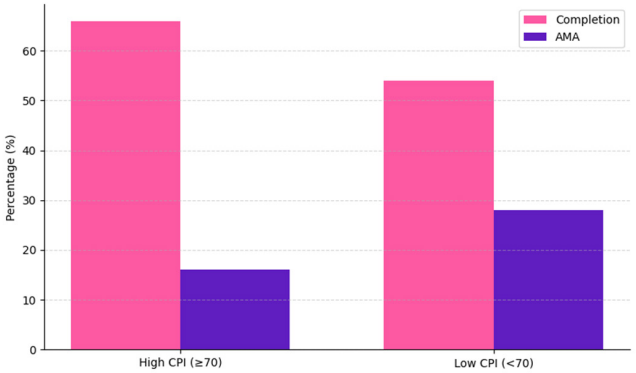

Figure 1: Completion and AMA Rates by CPI Score (Excluding Sites 4).

When including Site 4, a similar pattern was observed. Patients treated by high-scoring therapists (CPI ≥ 70) completed treatment 8.57 percentage points more often (64.41% vs. 55.84%) and had AMA rates nearly 12 percentage points lower (11.72% vs. 23.70%) than those treated by low-scoring therapists (see Table 3; Figure 2).

Table 3: Completion and AMA Rates by CPI Score (Including Site 4).

CPI Group	Completion Rate (%)	AMA Rate (%)
CPI ≥ 70	64.41	11.72
CPI < 70	55.84	23.70

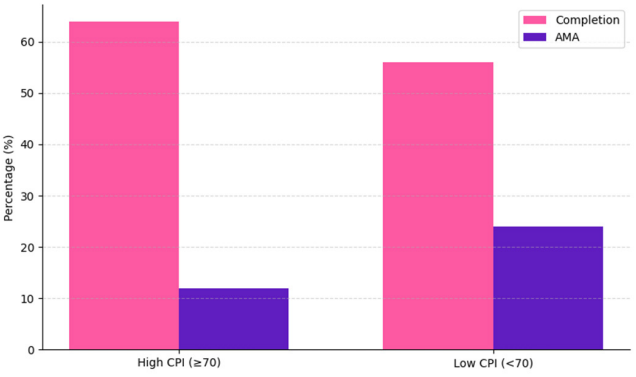

Figure 2: Completion and AMA Rates by CPI Score (Including Site 4).

Outcomes by CPI Score Band

Further stratification of CPI scores revealed a clear trend. The highest completion rates were observed among patients treated by therapists with CPI scores between 75-80 (72.47%), whereas AMA rates were lowest among therapists scoring above 80 (10.07%) (see Table 4; Figure 3). This pattern suggests that incremental improvements in CPI scores may yield measurable benefits for patient outcomes.

Table 4: Outcomes by CPI Score Band.

CPI Band	Completion Rate (%)	AMA Rate (%)
< 70	53.56	28.11
70–74	61.12	19.45
75–80	72.47	12.22
> 80	71.03	10.07

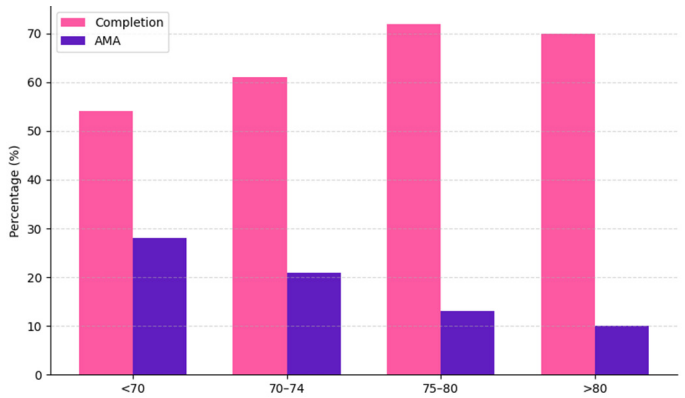

Figure 3: Outcomes by CPI Score Band.

These findings demonstrate a consistent association between higher CPI scores and improved patient outcomes across diverse treatment organizations and levels of care.

Discussion

This study examined the relationship between therapists' CPI scores and patient treatment outcomes—specifically treatment completion and AMA discharges—across five diverse behavioral health organizations. Consistent with decades of research on therapeutic alliance [6,8,16], our findings demonstrate that therapists' interpersonal and clinical profiles, as measured by the CPI, are significantly associated with improved patient outcomes.

Alignment with Existing Literature

Higher CPI scores were associated with both increased treatment completion and reduced AMA discharges. These findings align with prior evidence that therapist characteristics and attachment styles are central to building and sustaining therapeutic alliance [9,11]. In SUD treatment, where dropout rates remain a critical barrier to recovery [14,17], these findings highlight the tangible impact of provider relational qualities on patient retention.

Contributions to Research

This study contributes to the behavioral health literature by demonstrating a scalable, empirically grounded method for assessing provider-level predictors of patient outcomes. While much alliance research has focused on patient-reported perceptions, the CPI provides an organizationally actionable measure of therapist traits and competencies.

Implications for Practice

This analysis suggests several actionable strategies for behavioral health organizations to hire and develop people who deliver better care to improve treatment outcomes and retention:

- Prioritize strengthening therapeutic alliance: Organizations should emphasize consistent, high-quality patient-provider relationships as a key driver of retention. Training staff in empathy, alliance-building, and reflective practice can help standardize best practices across teams.
- Integrate CPI into workforce development: CPI scores can be used to identify staff members' strengths and areas for growth (e.g., engagement, reliability). Targeted coaching and professional development initiatives can help clinicians enhance their CPI profiles.
- Focus on attachment and interpersonal skills: Given the CPI's incorporation of attachment-related measures, organizations may benefit from interventions that increase providers' attachment security, flexibility, and confidence.
- Embed CPI into organizational quality improvement: Tracking CPI scores alongside AMA and completion rates can help align staffing, training, and supervision strategies with patient outcomes.
- Tailor strategies for higher-acuity settings: Differences between high- and low-scoring providers were less pronounced at Site 4 (a high-acuity, luxury residential setting). This suggests that the CPI alone may not drive outcomes as strongly in complex populations or intensive treatment environments.

Implications for Future Research

Although the CPI showed robust associations with outcomes across multiple sites, this study is observational. Additional research to establish causality, such as randomized training interventions, could further test the relationship between improving CPI scores and measurable improvements in patient retention.

Conclusion

Across five diverse treatment organizations, therapists with higher CPI scores achieved significantly higher treatment completion rates and lower AMA discharges than their lower-scoring peers. These findings reinforce the centrality of therapeutic alliance and provider attachment style in behavioral health outcomes, particularly in substance use disorder treatment.

By integrating this clinically validated assessment tool into workforce development, supervision, and quality improvement processes, organizations can identify provider strengths and growth areas to tailor provider training. In doing so, they will enhance patient retention and recovery outcomes and create measurable impact for a wide range of behavioral healthcare clients.

References

1. Bartholomew K, Horowitz LM. Attachment styles among young adults: A test of a four-category model. J Pers Soc Psychol. 1991; 61(2): 226-244.
2. Baier AL, Kline AC, Feeny NC. Therapeutic alliance as a mediator of change: A systematic review and evaluation of research. Clin Psychol Rev. 2020; 82.
3. Meier PS, Barrowclough C, Donmall MC. The role of the therapeutic alliance in the treatment of substance misuse: A critical review of the literature. Addiction. 2005; 100(3): 304-316.

4. Norcross JC, Lambert MJ. Psychotherapy relationships that work volume 1: Evidence-based therapist contributions. Oxford University Press. 2019.
5. Farber BA, Lippert RA, Nevas DB. The therapist as secure base. Psychotherapy. 2009; 46(1): 24-34.
6. Horvath AO, Symonds BD. Relation between working alliance and outcome in psychotherapy: A meta-analysis. J Couns Psychol. 1991; 38(2): 139-149.
7. Martin DJ, Garske JP, Davis MK. Relation of the therapeutic alliance with outcome and other variables: A meta-analytic review. J Consult Clin Psychol. 2000; 68(3): 438-450.
8. Del Re AC, Flückiger C, Horvath AO, Wampold BE. Examining therapist effects in the alliance-outcome relationship: A multilevel meta-analysis. J Consult Clin Psychol. 2021; 89(5): 371-378.
9. Baldwin SA, Wampold BE, Imel ZE. Untangling the alliance-outcome correlation: Exploring the relative importance of therapist and patient variability in the alliance. J Consult Clin Psychol. 2007; 75(6): 842-852.
10. Dinger U, Strack M, Sachsse T, Schauenburg H. Therapists' attachment, patients' interpersonal problems and alliance development over time in inpatient psychotherapy. Psychotherapy (Chic). 2009; 46(3): 277-290.
11. Slade A, Holmes J. Attachment and psychotherapy. Curr Opin Psychol. 2019; 25: 152-156.
12. Satterfield WA, Lyddon WJ. Client attachment and perceptions of the working alliance with counselor trainees. J Couns Psychol. 1995; 42(2): 187-189.
13. Carvalho HM, Matos PM. Psychotherapist as a secure base figure: Validation of the Secure Base Questionnaire (SBQ). Prof Psychol Res Pr. 2021; 52(4): 396-405.
14. Miller WR, Benefield RG, Tonigan JS. Enhancing motivation for change in problem drinking: A controlled comparison of two therapist styles. J Consult Clin Psychol. 1993; 61(3): 455-461.
15. Schwenker R, Dietrich CE, Hirpa S, Nothacker M, Smedslund G, et al. Motivational interviewing for substance use reduction. Cochrane Database Syst Rev. 2023; 12(12).
16. Bordin ES. The generalizability of the psychoanalytic concept of the working alliance. Psychotherapy. 1979; 16(3): 252-260.
17. Gertner AK, Clare HM, Powell BJ, Gilbert AR, Jones HE, et al. A mixed methods study of provider factors in buprenorphine treatment retention. Int J Drug Policy. 2022; 105.