

UCLA

UCLA Electronic Theses and Dissertations

Title

Psychotherapy Engagement Across Phases of Care: Predictors of Disengagement and Preliminary Evaluation of a Pre-Treatment Intervention

Permalink

<https://escholarship.org/uc/item/0dd1f5p5>

ISBN

9798186332954

Author

Moodliar, Rddhi

Publication Date

2026-08-07

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA

Los Angeles

Psychotherapy Engagement Across Phases of Care: Predictors of Disengagement and
Preliminary Evaluation of a Pre-Treatment Intervention

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of
Philosophy in Psychology

by

Rddhi Moodliar

2026

© Copyright by

Rddhi Moodliar

2026

ABSTRACT OF THE DISSERTATION

Psychotherapy Engagement Across Phases of Care: Predictors of Disengagement and Preliminary Evaluation of a Pre-Treatment Intervention

by

Rddhi Moodliar

Doctor of Philosophy in Psychology

University of California, Los Angeles, 2026

Professor Lauren C. Ng, Chair

Despite the availability of effective psychotherapeutic interventions for mental health concerns, many individuals who seek mental health services experience substantial barriers to accessing and remaining engaged in care (Andrade et al., 2014; SAMHSA, 2023). Although psychotherapy engagement has often been examined through discrete indicators such as attendance, missed appointments, or premature termination, engagement can be conceptualized as a dynamic, multi-phase process unfolding across the transition from help-seeking to treatment access, initiation, ongoing participation, and termination (Dixon et al., 2016; Holdsworth et al., 2014). This dissertation examined psychotherapy engagement processes within a university-based training clinic providing evidence-based psychotherapy services to the general community.

Study 1 used archival electronic health record data from adult psychotherapy clients to examine associations among client demographic factors, wait times, psychotherapy attendance behaviors, and engagement outcomes. Results indicate that demographics and wait times were not associated with engagement following treatment initiation, while missed appointment rates during active treatment were associated with increased likelihood of premature treatment termination. Building upon these findings, Study 2 employed a mixed-methods quasi-experimental pilot design to develop and conduct a preliminary evaluation of the Pre-treatment Engagement Program adapted from the Unified Protocol (PREP-UP), a brief pre-treatment engagement preparation intervention designed to support psychotherapy engagement during the transition from waitlist to care. Preliminary findings supported the acceptability, appropriateness, and feasibility of PREP-UP. Qualitative findings further suggested that participants perceived PREP-UP as helpful for increasing readiness for therapy and clarifying treatment goals, while exploratory quantitative findings indicated promising trends in psychotherapy attendance outcomes among PREP-UP participants. Collectively, findings from this dissertation highlight the importance of conceptualizing psychotherapy engagement as a multi-phase process and suggest that the pre-treatment period may represent a clinically meaningful opportunity for engagement-focused intervention.

The dissertation of Rddhi Moodliar is approved.

Denise A. Chavira

Han Du

Anna S. Lau

Lauren C. Ng, Committee Chair

University of California, Los Angeles

2026

DEDICATION

I dedicate this dissertation to the individuals and communities still searching for care that feels reachable, responsive, and worthy of their trust. I am deeply grateful to the clients and clinicians who generously shared their time, perspectives, and experiences throughout this work. Your participation made this research possible.

I also want to extend my sincere gratitude to the five dedicated and talented undergraduate students who contributed to this project alongside me. Your curiosity, enthusiasm, and commitment to learning brought so much energy and meaning to this process, and it was truly a privilege to work with each of you.

To my dissertation committee – Dr. Denise Chavira, Dr. Han Du, and Dr. Anna Lau – thank you for your guidance, mentorship, and for continually encouraging me to stretch my thinking. To my graduate advisor and Committee Chair, Dr. Lauren Ng, thank you for your unwavering encouragement and support throughout this journey. I feel incredibly fortunate to have learned from someone who consistently challenged me to grow while also leading with kindness, balance, and perspective.

I also want to thank Dr. Richard LeBeau and Nimrat Brar for your spirited collaboration, openness to new ideas, and willingness to build this work together. Working alongside you made research feel exciting, creative, and genuinely possible. Thank you for creating an environment that encouraged curiosity, exploration, and growth. How lucky I am to have learned in this space.

Most importantly, I dedicate this dissertation to the people who carried me through every stage of this journey: my family, my friends, and my fiancé, Nihar. Ma and Daddy, your love, sacrifices, and unwavering belief in me made this possible. Samitr, thank you for being such a grounding and steady presence throughout these years. And to my fiancé, Nihar, I could never have done this without you. You care for me and for my dreams as though they are your own. Your love, patience, and belief in me shaped this accomplishment just as much as my own efforts did, and I will never stop being grateful for that.

Lastly, I dedicate this dissertation to my younger self, who set her sights on this path many years ago and continued moving toward it even when the road ahead appeared dimly lit. Pursuing this field has been tied to some of my earliest understandings of who I am, what matters to me, and the kind of work I hoped to dedicate my life to. Twelve years later, I feel even more certain of that calling now than I did then.

TABLE OF CONTENTS

I.	Abstract of the Dissertation	iii
II.	Dedication	vi
III.	List of Tables	ix
IV.	List of Figures	x
V.	Vita	xi
VI.	General Introduction	1
	a. Aims	7
	b. Setting	9
VII.	Study 1: Examining Client-Level and Structural Predictors of Behavioral Disengagement Outcomes Across the Mental Health Treatment Pathway in an Outpatient Psychology Training Clinic	12
	a. Background	12
	b. Method	16
	c. Results	29
	d. Discussion	39
VIII.	Study 2: Development and Preliminary Evaluation of an Engagement-Enhancing Intervention for Adults Awaiting Psychotherapy in an Outpatient Psychology Clinic ...	50
	a. Background	50
	i. PREP-UP Intervention	53
	b. Method	57
	c. Results	80
	d. Discussion	102

IX.	General Conclusion	110
X.	Appendices	113
	a. Appendix A	113
	b. Appendix B	114
	c. Appendix C	115
	d. Appendix D	116
	e. Appendix E	117
	f. Appendix F	118
	g. Appendix G	119
	h. Appendix H	121
XI.	References	123

LIST OF TABLES

Table 1. Behavioral Engagement Indicators Across Phases of Psychotherapy.....	3
Table 2. Sample Characteristics.....	32
Table 3. Primary Reasons for Seeking Services Collapsed into Five Domains.....	33
Table 4. Engagement Outcomes Among Those Who Completed Intake.....	35
Table 5. Logistic Regression Predicting Therapy Attended Among Intake Completers.....	35
Table 6. Linear Regression Predicting Missed Session Rate Among Psychotherapy Initiators...	37
Table 7. Logistic Regression Predicting Premature Termination Among Psychotherapy Initiators.....	38
Table 8. PREP-UP Intervention Elements.....	55
Table 9. Full sample characteristics.....	82
Table 10. Sample characteristics by cohort.....	83
Table 11. Implementation Outcomes Across Respondent Groups.....	86
Table 12. Client-reported themes related to PREP-UP Implementation Outcomes (n = 17).....	88
Table 13. Clinician-Reported Themes Related to PREP-UP Implementation Outcomes (n = 9).....	91
Table 14. Licensed Supervisor-Reported Themes Related to PREP-UP Implementation Outcomes (n = 6).....	94
Table 15. Preliminary Treatment Engagement & Termination Outcomes by Cohort.....	97
Table 16. Exploratory Negative Binomial Regression Models Predicting Treatment Sessions Attended.....	97
Table 17. Descriptive Statistics for Treatment Motivation by Group.....	98
Table 18. Phone Screen Treatment Motivation Score Differences Between Groups.....	98
Table 19. Changes in Treatment Motivation Scores Among Clients Offered PREP-UP.....	100
Table 20. Linear Regression Model Predicting Treatment Motivation at Intake.....	100
Table 21. Exploratory Associations Between PREP-UP Participation, Intake Treatment Motivation Scores, and Subsequent Treatment Termination Status.....	101

LIST OF FIGURES

Figure 1. Timeline of Clinic Procedures from Client's Initial Contact to Treatment Termination.....	18
Figure 2. Flow Diagram of Patient Progression Through the UCLA Psychology Clinic.....	31
Figure 3. The Integral Model of Treatment Motivation.....	53
Figure 4. Flow of Client Data Collection.....	60
Figure 5. Flow diagram of 2024 cohort patient progression through the UCLA Psychology Clinic.....	81

Vita

Education and Training

West Los Angeles Veterans Affairs Medical Center Predoctoral Internship in Clinical Psychology General Track	2026
University of California, Los Angeles Master of Arts in Psychology	2021
University of Washington, Seattle Bachelor of Arts in Psychology	2018

Honors and Awards

Psychology Quarter Dissertation Award	2024
Shepherd Ivory Franz Distinguished Teaching Award	2024
UCLA Graduate Summer Research Mentorship Program	2021
UCLA Department of Psychology Fellowship	2020

Publications

- Chodzen, G., Bowers, G., **Moodliar, R.**, & Ng, L. C. (2026). Feasibility and Acceptability of the Primary Care Intervention for PTSD-Youth. *Journal of Primary Care & Community Health*, 17, 21501319261434719.
- Birk, N., Russo, J., Heagerty, P., Parker, L., Moloney, K., Bulger, E., Whiteside, L., **Moodliar, R.**, ... & Zatzick, D. (2024). Can Baseline Patient Clinical and Demographic Characteristics Predict Response to Early Posttraumatic Stress Disorder Interventions After Physical Injury? *Psychiatry*, 1-15.
- Abu, K., Bedard-Gilligan, M., **Moodliar, R.**, Bulger, E., Hernandez, A., Knutzen, T., ... & Zatzick, D. (2024). Can Stepped Collaborative Care Interventions Improve Posttraumatic Stress Disorder Symptoms for Racial and Ethnic Minority Injury Survivors? *Trauma Surgery & Acute Care Open*, 9(1), e001232.
- Engstrom, A., Moloney, K., Nguyen, J., Parker, L., Roberts, M., **Moodliar, R.**, Russo, J., Wang, J., Scheuer, H., Zatzick, D. (2022). A Pragmatic Clinical Trial Approach to Assessing and Monitoring Suicidal Ideation: Results from a National US Trauma Care System Study. *Psychiatry*, 85(1), 13-29.
- Zatzick, D., Jurkovich, G., Heagerty, P., Russo, J., Darnell, D., Parker, L., Roberts, M., **Moodliar, R.**, Engstrom, A., Wang, J., Bulger, E., Whiteside, L., Nehra, D., Palinkas, L., Moloney, K., Maier, R. (2021). Stepped Collaborative Care Targeting Posttraumatic

Stress Disorder Symptoms and Comorbidity for US Trauma Care Systems: A Pragmatic Randomized Clinical Trial. *JAMA Surgery*, 156(5), 430-474.

Collins, S., Goldstein, S., Bow, S., Doerr, S., Gliane, J., Song, C., Orfaly, V., **Moodliar, R.**, Taylor, E., Hoffmann, G. (2020). Jail and Emergency Department Utilization in the Context of Harm Reduction Treatment for People Experiencing Homelessness and Alcohol Use Disorder. *Journal of Urban Health*, 98(1), 83-90.

Moodliar, R., Russo, J., Bedard-Gilligan, M., Moloney, K., Johnson, P., Seo, S., Vaziri, N., Zatzick, D. (2020). A Pragmatic Approach to Psychometric Comparisons between the DSM-IV and DSM-5 Posttraumatic Stress Disorder (PTSD) Checklist. *Psychiatry*, 1-12.

Scheuer, H., Engstrom, A., Thomas, P., **Moodliar, R.**, ... & Zatzick, D. (2020). A Comparative Effectiveness Trial of an Information Technology Enhanced Peer-Integrated Collaborative Care Intervention for US Trauma Care Systems: Clinical Study Protocol. *Contemporary Clinical Trials*, 91 (105970).

Selected Presentations

Moodliar, R. (2025, November). *Development and Preliminary Findings of PREP-UP, a Pretreatment Engagement Program in a Training Clinic*. Oral paper presented at the 59th Annual Association for Behavioral and Cognitive Therapies conference, New Orleans, LA.

Moodliar, R., Bowers, G., Ng, L. (2025, May). *Rethinking Race in Clinical Psychological Science Research: Uncovering Methodological Practices That Mask Systemic Racism*. Poster presented at the 2025 Annual Association for Psychological Science conference, Washington, D.C.

Moodliar, R., Sumner, J., Scoglio, A., Ng, L. (2023, August). *Childhood Abuse as a Predictor of Exposure to Interpersonal vs. Non-Interpersonal Traumas*. Poster presented at the 2023 Annual American Psychological Association conference, Washington, D.C.

Moodliar, R., Sumner, J., Scoglio, A., Ng, L. (2023, May). *Prior traumatic experiences and related psychopathology from across the life course increases risk of new trauma exposures in later life*. Poster presented at the 35th Annual Association for Psychological Science conference, Washington, D.C.

Moodliar, R. (2020, November). *A Pragmatic Approach to Psychometric Comparisons between the DSM-IV and DSM-5 Posttraumatic Stress Disorder (PTSD) Checklist*. Poster presented at the 36th Annual Meeting of the International Society for Traumatic Stress Studies. Held virtually due to the COVID-19 pandemic.

General Introduction

Psychotherapy engagement has most commonly been studied through discrete behavioral outcomes such as treatment initiation, session attendance, and premature termination (i.e., dropout). Each of these outcomes has generated substantial empirical literature identifying rates, predictors, and intervention approaches, yet these literatures have often developed relatively independently from one another. As a result, engagement-related difficulties occurring before treatment begins, during active participation in care, and at treatment termination are frequently conceptualized as separate clinical phenomena rather than as potentially related processes unfolding across the broader course of care. Increasingly, however, theoretical and empirical perspectives within psychotherapy and mental health services research suggest that engagement may be more usefully understood as a longitudinal process extending across multiple phases of treatment participation rather than as a single isolated event.

Conceptual Frameworks for Understanding Psychotherapy Engagement

Several theoretical frameworks are broadly consistent with this perspective and provide conceptual context for examining engagement across phases of care. Howard and colleagues' (1993) phase model of psychotherapeutic change proposed that therapeutic progress unfolds sequentially across multiple phases characterized by differing clinical tasks and processes over time. Although originally developed to describe symptom change rather than engagement specifically, the model highlights the broader principle that therapeutic processes may not remain uniform across the course of treatment. Similarly, Prochaska and DiClemente's (1983) transtheoretical model conceptualized behavior change as progressing across stages characterized by differing levels of readiness and motivation. Applied to psychotherapy engagement, this framework suggests that the factors relevant to entering treatment may not fully

overlap with those associated with sustaining participation once treatment has begun. Empirical work applying the transtheoretical model to psychotherapy has further demonstrated that stage of change predicts treatment participation, alliance, and premature termination (Derisley & Reynolds, 2000; Krebs et al., 2018).

Broader health services theories likewise conceptualize treatment utilization as a dynamic process unfolding over time. Andersen's (1995) Behavioral Model of Health Services Use proposes that treatment utilization reflects interactions among predisposing, enabling, and need-related factors across the course of care. This model has been widely applied within mental health services research and consistently demonstrates that structural and enabling factors play an important role in determining whether perceived need translates into actual treatment access (Graham et al., 2017; Simo et al., 2018). Pescosolido's (1991) network episode model similarly conceptualizes help-seeking as an evolving social process shaped by social networks, community resources, and health care systems rather than as a single discrete decision point (Green & Pescosolido, 2024). These frameworks support the broader conceptualization of psychotherapy engagement as a dynamic and evolving process rather than a static treatment outcome.

Empirical Research on Engagement and Disengagement Across Phases of Care

Empirical research on psychotherapy engagement has nevertheless remained largely segmented by engagement indicator. Studies examining pre-treatment attrition, treatment initiation, attendance patterns, and premature termination have often developed as separate literatures, each with distinct operationalizations, predictors, and intervention targets (Krendl & Lorenzo-Luaces, 2022; Rancher et al., 2025; Swift & Greenberg, 2012). More broadly, psychotherapy engagement itself has been described as relatively under-theorized, with attendance frequently treated as a proxy for engagement despite concerns that attendance alone

may inadequately capture clients' broader involvement in treatment (Holdsworth et al., 2014). Holdsworth and colleagues (2014) argued for more comprehensive conceptualizations of engagement that consider clients' participation and involvement across the course of psychotherapy rather than relying exclusively on isolated attendance indicators. Still, relatively little work has examined multiple engagement indicators within the same clinical context or considered how engagement-related behaviors occurring at different points in care may relate to one another across the treatment pathway. This fragmentation has practical implications. If engagement-related difficulties emerge differently across phases of care, interventions focused narrowly on one engagement outcome may fail to address vulnerabilities arising elsewhere in the treatment process. Conversely, examining engagement across multiple phases may help clarify where intervention opportunities are most clinically meaningful. Consistent with this perspective, the present dissertation conceptualizes psychotherapy engagement as unfolding across multiple phases of care characterized by distinct engagement-related indicators (Table 1).

Table 1

Behavioral Engagement Indicators Across Phases of Psychotherapy

Phase of Care	Example Engagement Indicators
Pre-treatment	Initial intake completion
Treatment initiation	Attended at least one therapy session
Active treatment	Number of sessions attended; rate of missed appointments
Termination	Treatment completion vs. premature termination

Note. This table presents the organizing framework used in the present dissertation for conceptualizing psychotherapy engagement across phases of care.

Disengagement from psychotherapy is both prevalent and clinically consequential across multiple points in care. Between approximately 20% and 57% of individuals who schedule or

complete an intake appointment never attend a psychotherapy session (Garfield, 1994; Sherman et al., 2008), and longer wait times are consistently associated with increased risk of pre-treatment attrition (Carpenter et al., 1981; Reitzel et al., 2006; Sherman et al., 2008, 2009). Meta-analytic evidence further suggests that approximately one in five adult psychotherapy clients prematurely discontinues treatment across outpatient settings broadly (Swift & Greenberg, 2012), though rates are substantially higher in some service contexts, including university-affiliated psychology training clinics (Al-Jabari et al., 2019; Callahan et al., 2014; Swift & Callahan, 2011). Premature termination is clinically important because clients who discontinue treatment early are less likely to receive an adequate therapeutic dose or achieve intended treatment gains. Research further suggests that many clients require approximately 11 to 13 psychotherapy sessions to demonstrate reliable clinical improvement (Hansen et al., 2002; Lambert, 2007). Importantly, dropout risk is concentrated early in treatment, with most premature termination occurring after the first several sessions (Olfson et al., 2009; Wells et al., 2013).

A broad range of client-level, structural, and treatment-process factors have been associated with psychotherapy disengagement, though findings have varied considerably across studies and engagement outcomes. Structural and logistical barriers represent some of the most consistently identified obstacles to mental health treatment engagement, including financial burden, inadequate insurance coverage, transportation difficulties, scheduling constraints, and provider shortages (Gao et al., 2024; Walker et al., 2015). These barriers disproportionately affect individuals from low-income, rural, and racially minoritized communities and contribute substantially to unmet mental health treatment need (Cummings et al., 2017; Reininghaus et al., 2024; Walker et al., 2015). Within psychotherapy specifically, longer wait times and insurance-

related barriers are associated with reduced treatment initiation and increased dropout risk (Benjet et al., 2022; Edlund et al., 2002; Sherman et al., 2008, 2009). Demographic characteristics including younger age, racial and ethnic minority status, and lower socioeconomic position have also been associated with disengagement across at least some phases of care (Barrett et al., 2008; Swift & Greenberg, 2012), though findings are not fully consistent across studies.

Research examining presenting concerns and symptom severity has similarly produced mixed findings. Diagnostic category appears to moderate dropout risk, with higher premature termination rates observed among clients with personality disorders, eating disorders, and substance use disorders (De Salve et al., 2025; Fernandez et al., 2015; Swift & Greenberg, 2012). However, the relationship between baseline symptom severity and disengagement has been notably inconsistent, with some studies finding that higher symptom severity predicts greater dropout risk and others finding the opposite or no association at all (da Silva Machado et al., 2022; Gmeinwieser et al., 2020; van Dijk et al., 2023). Increasingly, process-level variables such as therapeutic alliance, treatment expectations, and perceived therapist cultural competence appear to demonstrate more reliable associations with treatment retention than symptom severity alone (Anderson et al., 2019; Roos & Werbart, 2013). Collectively, these findings highlight the potential importance of examining more proximal behavioral and relational processes alongside static pre-treatment characteristics when studying psychotherapy engagement following treatment initiation.

The Pre-Treatment Period as an Opportunity for Engagement Intervention

A related line of research has focused on treatment readiness, including client motivation, outcome expectancy, and perceived barriers to psychotherapy participation. Clients who hold

negative expectations regarding psychotherapy, perceive treatment as burdensome, or doubt the credibility or relevance of treatment are more likely to disengage prematurely (Callahan et al., 2014; Constantino et al., 2018; Nock & Kazdin, 2001). More positive treatment expectations are likewise associated with increased likelihood of treatment initiation and continuation (Bowker et al., 2022). These findings are clinically important because such factors are potentially modifiable and may be particularly salient before psychotherapy formally begins, when clients are anticipating treatment but have not yet had direct therapeutic experiences shaping expectations regarding care. Consequently, several researchers have proposed that the pre-treatment period may represent a clinically meaningful opportunity for engagement-focused intervention (Cooper et al., 2023; Hurlocker et al., 2023; Snell-Johns et al., 2004). Meta-analytic evidence suggests that preparatory interventions involving motivational enhancement, role induction, expectation clarification, and appointment support produce improvements in psychotherapy attendance and retention (Oldham et al., 2012).

The Present Dissertation

The present dissertation examines psychotherapy engagement across multiple points in the treatment pathway within a university-affiliated outpatient psychology training clinic. Rather than treating treatment initiation, attendance patterns, and premature termination as entirely independent outcomes, the dissertation applies a phase-based conceptualization in which these engagement-related behaviors are examined as related indicators occurring across different stages of treatment participation. Study 1 uses archival electronic health record (EHR) data to characterize engagement across multiple phases of care and to examine whether client-level and structural characteristics are associated with treatment initiation, active treatment participation, and premature termination within the same clinical sample. This study builds upon prior work

conducted within the same clinic examining predictors of pre-intake attrition (Brar et al., in preparation). Whereas this earlier work focused on disengagement behaviors prior to treatment access, Study 1 extends the engagement pathway beyond intake by examining engagement outcomes following treatment access, beginning with psychotherapy initiation (i.e., attending at least one therapy session post-intake) through treatment termination. Study 2 examines the preliminary evaluation of PREP-UP, a brief pre-treatment engagement intervention adapted from the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders (Barlow et al., 2004, 2017) and designed to support clients during the transition from waitlist to care by targeting treatment expectations, motivation, and readiness for participation. Together, these studies approach psychotherapy engagement from complementary perspectives – one descriptive and predictive, the other intervention-focused – with the shared goal of examining how engagement-related difficulties emerge across the treatment pathway and where clinically meaningful opportunities for intervention may exist.

Aims

Study 1 used archival longitudinal data from adult clients who completed an initial intake appointment and accessed individual psychotherapy at the UCLA Psychology Clinic between 2016 and 2023 to examine patterns and predictors of psychotherapy engagement following treatment initiation (IRB #23-001312).

Study 1, Aim 1: To characterize patterns of psychotherapy engagement among adult clients who completed intake and accessed psychotherapy services at the UCLA Psychology Clinic. Descriptive analyses examined frequency of attendance in at least one therapy session in the treatment initiation phase, mean sessions attended and missed, as well as the rate of missed

appointments during active treatment, and rates of planned versus premature treatment termination.

Study 1, Aim 2: To examine whether structural and client-level factors predict psychotherapy engagement across multiple phases of care following treatment access. Specifically, analyses examined whether age, sex, race/ethnicity, annual income, prior psychotherapy history, reason for seeking treatment, and wait time predicted: (a) therapy attended (treatment initiation phase), (b) missed appointment rate (a treatment phase), and (c) premature termination versus planned treatment completion (termination phase). Analyses predicting treatment termination additionally examined whether missed appointment rate during active treatment was associated with premature termination.

Study 2 examined the development and preliminary evaluation of PREP-UP (Pre-treatment Engagement Preparation adapted from the Unified Protocol), a motivation-enhancing pre-treatment intervention designed to support treatment readiness and improve psychotherapy engagement among adults seeking services at the UCLA Psychology Clinic (IRB #24-000868).

Study 2, Aim 1: To examine the implementation outcomes associated with PREP-UP from client and clinic personnel perspectives. Quantitative and qualitative methods were used to evaluate intervention reach, acceptability, appropriateness, feasibility, and fidelity.

Study 2, Aim 2: To examine preliminary differences in psychotherapy engagement outcomes across cohorts of clients. Engagement outcomes were compared across three client cohorts: (1) adult clients who initiated services during the 2023–2024 academic year prior to PREP-UP implementation (i.e., 2023 service-as-usual (SAU) cohort), (2) adult clients during the 2024–2025 academic year who were offered but did not participate in PREP-UP (i.e., 2024 SAU cohort), and (3) adult clients during the 2024–2025 academic year who participated in PREP-UP

(2024 PREP-UP cohort). Engagement outcomes included attendance of at least one therapy session post-intake in the treatment initiation phase, missed appointment rates during active treatment, and premature versus planned treatment termination in the final phase of care.

Study 2, Aim 3: To examine differences in treatment motivation and changes in motivation from phone screen to intake between clients in the 2024 SAU and 2024 PREP-UP cohorts, as well as within the PREP-UP cohort over time.

Study 2, Aim 4 (Exploratory): To examine exploratory descriptive associations among PREP-UP participation, treatment motivation at intake, and treatment termination status among clients offered PREP-UP. Exploratory analyses examined whether PREP-UP participation and treatment motivation scores were associated with planned versus premature treatment termination. Given the exploratory nature and limited sample size, these analyses are intended to generate preliminary effect size estimates and inform future research.

Setting

This dissertation was conducted within the UCLA Psychology Clinic, a university-affiliated outpatient psychology training clinic that provides low-cost psychotherapy services to primarily nonstudent adults, children, couples, and families from the broader Los Angeles community. The clinic serves as both a clinical training setting for doctoral students in clinical psychology and a site for psychotherapy research. Individual and group psychotherapy services are provided under the supervision of UCLA faculty and licensed community psychologists. Referrals originate from multiple sources, including community mental health centers, private practitioners, and self-referrals. Adult clients seeking individual psychotherapy services are placed on a waitlist following initial contact with the clinic and subsequently complete a phone screening and initial intake evaluation prior to beginning treatment. Due to the academic

calendar and annual clinician transitions, the clinic typically experiences its highest volume of adult individual psychotherapy intakes during Summer Intake Team meetings held from July through September.

Psychology training clinics represent important settings for examining psychotherapy engagement because they share many characteristics with real-world outpatient mental health settings while also supporting systematic clinical research (Borkovec, 2004; Dyason et al., 2019). Compared to randomized controlled trials, training clinics typically serve clients with a broad range of presenting concerns, involve multiple therapists with varying levels of experience, and exhibit substantial variability in treatment duration and therapeutic approach (McNeil & Repetti, 2021). These features may introduce methodological complexity, but they also provide an opportunity to examine psychotherapy engagement within a naturalistic outpatient treatment setting.

Research conducted within psychology training clinics has consistently documented elevated rates of premature termination. Early studies reported premature termination rates exceeding 75% among adult psychotherapy clients in training clinic settings (Callahan et al., 2009; Swift & Callahan, 2011; Swift et al., 2009), whereas subsequent larger-scale research reported rates closer to 70% (Callahan et al., 2014). These estimates substantially exceed the overall premature termination rate of approximately 20% reported across broader outpatient psychotherapy settings in a meta-analysis conducted by Swift & Greenberg (2012). In addition, many premature terminations within university training clinics occur without prior notification to the clinician or clinic, often referred to as dropout (Renk & Dinger, 2002). Several factors may contribute to the elevated rates of disengagement observed within these settings. Meta-analytic findings suggest that younger client age and lower therapist experience are both associated with

increased risk of premature termination (Swift & Greenberg, 2012), characteristics commonly present within university-based training clinics that frequently serve younger adult populations and rely on trainee clinicians. In addition, training clinics often contend with extended waitlists, multiple transitions in care, and therapist turnover associated with training cycles, all of which may increase logistical and relational barriers to sustained engagement (Callahan et al., 2014; Swift et al., 2009). In turn, training clinic processes may delay perceived therapeutic benefit while increasing the practical and emotional demands associated with entering care, potentially contributing to disengagement (Swift et al., 2012). Although these factors may contribute to particularly elevated rates of premature termination within training clinics, the underlying processes associated with disengagement, including treatment expectations, attendance behaviors, therapeutic alliance development, and barriers to care, are likely relevant across outpatient psychotherapy settings more broadly (Swift & Greenberg, 2012; Wierzbicki & Pekarik, 1993). As such, university-affiliated training clinics represent particularly informative settings for understanding factors associated with psychotherapy disengagement.

Study 1: Examining Client-Level and Structural Predictors of Behavioral Disengagement Outcomes Across the Mental Health Treatment Pathway in an Outpatient Psychology Training Clinic

Premature termination, defined as the unilateral discontinuation of psychotherapy by clients after initiating treatment, remains a prevalent and persistent issue in clinical practice. Meta-analytic evidence indicates that approximately 20% of adult clients terminate treatment prematurely across a range of mental health care settings, treatment modalities, and formats (Swift & Greenberg, 2012). Rates may be substantially higher in university-affiliated training clinics, with studies reporting premature termination rates ranging from 70% to 75% in this setting (Al-Jabari et al., 2019; Callahan et al., 2014; Swift & Callahan, 2011).

Premature termination has significant clinical and systemic implications. Clients who terminate early are less likely to receive an adequate dose of therapy to achieve meaningful symptom improvement or attain treatment goals (Simon et al., 2012). This is clinically significant, as research indicates that 50-60% of clients require approximately 11 to 13 sessions of evidence-based treatment to achieve reliable improvement (Hansen et al., 2002; Lambert, 2007). At the systems level, premature termination contributes to inefficiencies in service delivery, including underutilized appointment availability, financial strain on the clinic, and may negatively impact training opportunities for clinicians, particularly with respect to developing competencies in later stages of treatment (Pekarik, 1985; Spruill et al., 2004; Swift & Greenberg, 2012).

Although premature termination represents a particularly severe form of disengagement as it reflects complete withdrawal from psychotherapy, disengagement may emerge earlier in treatment through missed appointments during ongoing care. Missed appointments are common

in outpatient settings and are associated with disruptions in treatment continuity, reduced efficiency in service delivery, and poorer clinical outcomes (Berrigan and Garfield, 1981; Edlund et al., 2002; Holdsworth et al., 2014; LaGanga and Lawrence, 2007; Miller & Ambrose, 2019). Although research on psychotherapy-specific attendance patterns remains limited, existing evidence suggests substantial variability in missed appointment rates and highlights the need to better understand factors contributing to these behaviors (DeFife et al., 2010). Emerging evidence further suggests that missed appointments during active treatment may signal elevated risk for later treatment dropout (Krendl & Lorenzo-Luaces, 2022). Collectively, these findings suggest that psychotherapy disengagement may unfold progressively across the course of care and underscore the importance of identifying factors associated with engagement following treatment initiation.

One challenge in the psychotherapy disengagement literature has been substantial variability in how engagement outcomes are conceptualized, defined, and operationalized. Premature termination alone has been defined using a range of approaches, including therapist judgment, session count thresholds, missed termination appointments, and symptom-based criteria (Hatchett & Park, 2003; Levy et al., 2018). Each approach carries methodological limitations. Session thresholds may fail to account for variability in the number of sessions required for clinically meaningful improvement (Robinson et al., 2020), whereas therapist judgment may be influenced by bias and low interrater reliability (Hannan et al., 2005; Lilienfeld et al., 2014; Walfish et al., 2012). Although symptom-based approaches have been proposed as more objective alternatives (Dunn et al., 2023; Lambert et al., 1996), these methods are not always feasible within routine outpatient treatment settings due to inconsistent implementation of longitudinal symptom monitoring, substantial variability in treatment duration, and incomplete

outcome data. Beyond definitional variability, prior research has also tended to examine psychotherapy disengagement through isolated outcomes, with comparatively less attention given to how behavioral indicators of engagement may unfold across treatment following initiation of care. Attendance behaviors during active treatment, including missed appointments and inconsistent participation, may represent observable indicators of disengagement that precede later treatment dropout. However, considerably less is known regarding how these attendance behaviors relate to broader patterns of psychotherapy engagement over the course of treatment. Although some studies suggest that missed appointments may signal elevated risk for premature termination (Krendl & Lorenzo-Luaces, 2022), findings have remained inconsistent (McGovern et al., 2024). Collectively, these methodological inconsistencies and fragmented approaches to studying psychotherapy engagement limit understanding of how disengagement develops across the course of care.

Several client-level and structural factors have been associated with psychotherapy disengagement, although findings have varied across engagement outcomes and treatment settings (Al-Jabari et al., 2019; Barrett et al., 2008; Swift & Greenberg, 2012). Younger age has consistently been associated with increased likelihood of premature termination (Swift & Greenberg, 2012), whereas findings regarding sex have been more mixed (Barrett et al., 2008; Swift & Greenberg, 2012). Structural barriers may also influence treatment engagement. Longer wait times prior to treatment have repeatedly been associated with increased likelihood of pre-treatment attrition (Brar et al., in prep.; Carpenter et al., 1981; Reitzel et al., 2006; Sherman et al., 2008; Sherman et al., 2009). Prior psychotherapy experience may likewise shape engagement by influencing familiarity with treatment expectations and willingness to remain in care following treatment challenges (Nock & Kazdin, 2001; Swift & Callahan, 2011). Critically,

disengagement is not uniformly distributed across the population. Research consistently documents that racial and ethnic minority individuals, those from lower socioeconomic backgrounds, and individuals with limited social support are disproportionately likely to disengage from treatment across multiple phases of care (Fortuna et al., 2010; Kalibatseva & Leong, 2011; Organista et al., 1994). These patterns underscore that improving engagement is not only a clinical imperative but also a matter of equity in the distribution of effective psychological care. However, it remains unclear whether these factors consistently predict engagement across psychotherapy treatment.

Examining multiple behavioral indicators across the course of treatment may help clarify whether client-level and structural factors represent general risk factors for disengagement or are differentially associated with specific stages of care. Accordingly, the present study examined psychotherapy engagement among adult clients receiving services within a university-affiliated outpatient psychology training clinic. Specifically, the study descriptively characterized engagement across multiple phases of care following treatment access (i.e., intake completion), including attending at least one therapy session post-intake during treatment initiation, missed appointments during active treatment, and premature termination during the termination phase of care. In addition, the study examined whether client-level and structural factors previously associated with psychotherapy disengagement, including age, sex, race/ethnicity, prior psychotherapy history, reason for seeking treatment, annual income, and wait time, were consistently associated with engagement across these treatment phases. Consistent with the study's aim of examining engagement as a dynamic process unfolding over the course of care, missed appointment rate during active treatment was examined as a potential behavioral indicator of subsequent premature termination.

Method

Study Sample and Procedure

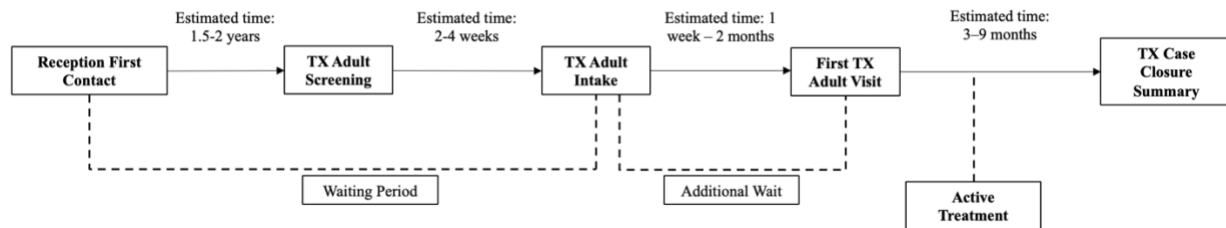
Archival data were available for clients in the UCLA Psychology Clinic from 2016–2025; analyses were restricted to those who contacted the clinic between 2016 and 2023 to allow sufficient follow-up ($N = 972$). This includes any individual over the age of 18 who made contact with the clinic in search of adult individual psychotherapy services and was added to the clinic waitlist. The full sample for this study is restricted to those that completed intake between 2016–2023 ($n = 273$). Clients seen at the psychology training clinic were part of the general community population and primarily self-referred. Exclusion criteria for clients seeking therapy at the training clinic included suicidality requiring a higher level of care than weekly outpatient therapy, psychiatric hospitalization within the past 6 months, anorexia, a primary substance use disorder, unmedicated bipolar or psychotic illness, or active positive psychotic symptoms. The Clinic is an American Psychological Association (APA) and Psychological Clinical Science Accreditation System (PCSAS) accredited university training clinic. Mental health services are provided by graduate students in the university's clinical psychology PhD program. All trainees and their individual cases were closely supervised by licensed clinical psychologists recruited from the training program and the local community. The study was approved by the UCLA Institutional Review Board (IRB #23-001312).

When interested clients initially contacted the Clinic, they were asked to provide information about the type of service requested, impetus for requesting the service, whether they had previously received psychotherapy, preferred language, and contact information. Interested clients were also provided an income-based fee estimate and an estimated wait time for services. After this initial contact, clients were placed on a waitlist. When nearing the top of the waitlist,

interested clients underwent a standard phone screening by clinic staff, where they were asked about their primary reasons for seeking therapy, briefly assessed for mood and other symptoms (e.g., depression, anxiety, posttraumatic stress disorder, obsessive-compulsive and related disorders, substance use, personality disorders, general life stress, etc.), current suicidal and homicidal ideation, and treatment history. According to clinic procedures, therapy intake appointments were ideally scheduled within 2-4 weeks following the phone screen. The intake appointment was conducted by a clinician trainee who gathered in-depth information on the presenting concerns, history of the presenting problem, coping strategies, diagnostic information, psychotherapy history, relevant family and medical history, suicide and homicide risk, and client goals for treatment. Diagnoses and treatment plans were made in consultation with the licensed supervisor. After this, the clinic director assigned clients to trainee clinicians for active treatment based on caseload availability and fit. Once treatment began, clients were offered weekly treatment sessions. All treatment sessions were either live observed or video recorded, and supervision occurred on a weekly basis. Beginning with the intake, the number of sessions attended, cancellations, and no-shows were recorded for all clients. For all clients, termination was determined in conjunction with the client (when possible), the clinician trainee, and the licensed supervisor. Fig. 1 outlines the sequence of Clinic procedures and services delivered.

Figure 1

Timeline of Clinic Procedures from Client's Initial Contact to Treatment Termination



Note. Each event on the timeline corresponds to a note type by the same title used to document each client encounter in the electronic health record system. TX Adult Screening refers to the standard phone screening conducted by clinic staff. Estimated time intervals reflect approximate durations based on clinic staff report and standard clinic procedures.

Measures

Outcomes

Therapy Attended

Whether therapy was attended post-intake was used as an indicator of engagement during the treatment initiation phase of care. This variable captured whether clients attended at least one individual psychotherapy session following completion of their initial intake evaluation at the UCLA Psychology Clinic. Per routine clinic procedures, attendance behaviors were recorded in the EHR management system for all clients beginning with intake. Clients were coded as having attended a therapy session if documentation indicated completion of at least one scheduled individual psychotherapy appointment following intake. Clients who completed intake but did not attend any subsequent psychotherapy sessions were coded as not attending therapy. The variable was operationalized dichotomously (0 = did not attend therapy; 1 = attended therapy).

Missed Appointments

Missed appointments were used as a behavioral indicator of engagement during the active treatment phase of care. Attendance data were obtained from the EHR. Missed appointments

were initially conceptualized using two indicators: session cancellations and session no-shows. These were defined as the number of sessions cancelled by the client and the number of sessions missed without prior notice to the provider or clinic, respectively, following intake.

However, due to a low frequency of recorded no-show appointments in the dataset, separate analyses of cancellations and no-shows were not feasible. The low number of documented no-shows likely reflects limitations in how attendance was recorded in the EHR rather than true absence of no-show behavior. Although attendance behaviors were routinely recorded, variability in documentation practices may affect the precision with which different types of missed appointments are captured. Accordingly, these indicators were combined to create a single measure of missed appointments, operationalized as the total number of missed sessions (i.e., sum of cancellations and no-shows) post-intake. Higher values reflected larger counts of missed appointments during active treatment.

To provide a clearer representation of attendance patterns during active treatment, a missed appointment rate was also calculated. This variable was operationalized as the proportion of missed psychotherapy appointments (cancellations and no shows) relative to the total number of scheduled psychotherapy appointments following treatment initiation. Higher values reflected greater rates of missed appointments during active treatment.

Premature Termination

Premature termination was used as an indicator of engagement during the termination phase of care. Considering the range of approaches available to measure this outcome, premature termination was initially conceptualized using two operationalizations: 1) Symptom outcome-based client termination prior to achieving reliable change (RC) or clinically significant change (CSC), and 2) Clinician-reported termination status.

1. Symptom Outcome-Based Termination Status (Planned but Not Implemented)

The Outcome Questionnaire–45.2 (OQ-45.2; Lambert et al., 1996) was initially intended to serve as the measurement tool for RC and CSC. Comprising 45 items, the OQ-45.2 is a self-report instrument designed to assess client functioning across subjective distress, interpersonal interactions, and social role performance domains. Scores on the OQ-45.2 range from 0 to 180, with values of 64 or higher indicating clinically significant distress levels. Lambert et al. (1996) reported robust psychometric properties for the OQ-45.2, including strong test-retest reliability ($\alpha = .84$) and internal consistency ($\alpha = .93$). Clients in the UCLA Psychology Clinic were asked to complete the OQ-45.2 at intake, during the fourth treatment session post-intake, every fifth treatment session thereafter, and at termination, when possible (i.e., if the final session was identified as a termination session). In line with the approach of a recent study on premature termination in training clinics (Dunn et al., 2023), the markers of change for RC and CSC were to be defined using Jacobson and Truax's (1991) criteria for meaningful change:

RC: A client achieved RC if their final OQ-45.2 score was at least 14 points less than their OQ-45.2 score at intake.

CSC: A client achieved CSC if (1) their OQ-45.2 score at intake was in the clinical range (i.e., a score of 64 or higher), (2) RC was achieved at some point in therapy, *and* (3) they transitioned from the clinical range to the functional range on the OQ-45.2 (i.e., a score of 63 or lower).

Clients with intake OQ-45.2 scores in the functional range were excluded from analyses examining CSC.

Following these criteria, I planned to construct two binary variables to indicate premature termination based on RC or CSC. Each variable would be assigned codes wherein 0 = successful, planned treatment completion and 1 = premature termination. Clients who attended three or

fewer treatment sessions post-intake and consequently did not have at least two OQ-45.2 scores, were to be categorized as premature terminators within the RC and CSC groups (Dunn et al., 2023). However, due to limitations in the EHR system, OQ-45.2 data could not be reliably linked to individual client records using unique patient identifiers. As a result, it was not possible to determine RC or CSC at the individual level, and this operationalization of premature termination was not feasible at the time of writing this dissertation.

2. Clinician's report of client's termination status.

Premature termination was therefore operationalized using clinician's reports of clients' termination status documented in the EHR. For all clients, clinicians were required to indicate the reason for termination in the 'TX Case Closure Summary' note before the case file could be closed in the EHR system. Reasons include (1) Therapy goals attained, (2) Client no longer wishes to continue therapy, (3) Therapist leaving the clinic, (4) Client logistical barriers (e.g., cost, location, scheduling), (5) Client found services elsewhere, (6) Unknown (unable to contact client), and (7) Other. Though 'Other' was available in the EHR as a response category, no cases in the present sample were classified under this category, and it was therefore not included in analyses. 'Therapist leaving the Clinic' was used to denote cases in which treatment was discontinued due to clinician-initiated factors, most commonly the end of a trainee's rotation, and involved transfer of care to another provider within the clinic. Cases coded as 'Therapist leaving the Clinic' were manually reviewed to confirm whether they reflected transfer of care. The majority of these cases represented transfers; however, a small subset ($n = 2$) reflected mutually agreed-upon termination at the end of the clinician's rotation rather than continuation of care. These cases were recoded as "Therapy goals attained." Transfer cases were conceptually distinguished from both planned treatment completion and premature termination, as they reflect

administrative or structural transitions in care rather than client-driven disengagement or attainment of treatment goals. For analyses using premature termination as the outcome, transfer cases were excluded¹, as these transitions were largely driven by clinician rotation changes within the clinic and did not constitute a definitive treatment endpoint within the study's focus on individuals' first episode of care in the study period.

Clients will be considered premature terminators (binary variable = 1) if the reason for termination on their case closure report is indicated as 'Client no longer wishes to continue therapy,' 'Client logistical barriers (e.g., cost, location, scheduling),' 'Client found services elsewhere,' or 'Unknown (unable to contact).' Although obtaining services elsewhere may reflect continued engagement in mental health care, these cases were classified as premature termination in the present study, as treatment was not completed within the clinic during the defined episode of care. Clients will be considered to have planned treatment completion (binary variable = 0) if the reason for termination on their case closure report is indicated as 'Therapy goals attained.'

Predictors

Predictor variables were selected based on theoretical and prior literature identifying client-level and structural factors associated with psychotherapy engagement and disengagement. Primary predictors included age, sex, race/ethnicity (White non-Hispanic versus racially/ethnically minoritized), annual income, prior psychotherapy experience, primary reason

¹ Clients who transferred to another provider were excluded from analyses examining premature termination because transfer of care does not necessarily reflect disengagement or noncompletion of treatment. Rather, transfers often occurred for reasons related to clinic operations (e.g., trainee graduation or therapist availability) and therefore represent a conceptually distinct outcome from premature termination. At the same time, transferred clients may reasonably be considered engaged in care because they continued treatment with another provider. Accordingly, a sensitivity analysis was conducted using the broader Engaged in Care outcome, which classified transferred clients as engaged. The pattern of results and substantive conclusions remained unchanged, indicating that the findings were robust to the treatment of transferred clients.

for seeking services, and wait time prior to treatment. Initial analytic plans also included intake symptom severity measures, including the Patient Health Questionnaire–9, Generalized Anxiety Disorder–7, and Outcome Questionnaire–45.2, as well as therapeutic process variables assessed via the Working Alliance Inventory–Short Revised, Client Version, as potential predictors of treatment engagement outcomes. However, as of the writing of this dissertation, these assessment data could not be reliably linked to individual client EHR data across the study period and therefore were not included in the present analyses. Future research would benefit from integrating routinely collected symptom and therapeutic process measures with longitudinal clinical records to more comprehensively examine predictors of psychotherapy engagement and disengagement.

Age: Age was calculated as the difference, in years, between the client’s date of birth and the date of the First Contact Note in the EHR, representing age at the time of addition onto the clinic waitlist.

Sex: The clinic’s EHR included multiple sex-related variables. “Legal Sex” was used as the primary variable due to its completeness. For cases with missing data, values were supplemented using “Sex Assigned at Birth,” which clinic staff began recording consistently around 2020. Sex was coded dichotomously (0 = female, 1 = male).

Race/Ethnicity: Race and ethnicity data were derived from information routinely collected in the EHR. Eight initial categories were identified: American Indian, Asian/Pacific Islander, Black, Hispanic, Multi-Racial, White, Declined to Answer, and Unknown. Due to small cell sizes across several racial groups, race was dichotomized for analytic purposes as White non-Hispanic versus racially/ethnically minoritized (0 = racially/ethnically minoritized; 1 =

White non-Hispanic). Participants with responses coded as “Unknown” or “Declined to Answer” were treated as missing.

History of Psychotherapy: History of psychotherapy was assessed using the question, “Have you been in therapy before?” from the First Contact Note in the EHR. Responses were initially recorded as open-ended and subsequently recoded into a dichotomous variable where yes = 1 and no = 0. For cases with missing data at first contact ($n = 125$), responses to the same question from the phone screening or intake notes were used. The First Contact Note served as the primary reference point, with supplemental data incorporated to maximize completeness.

Primary Reason for Seeking Services: At the time of first contact, clients were asked to describe their “reason or impetus for requesting services.” The research team (comprising this author, a Clinic Associate, and an undergraduate research assistant) conducted a content analysis of these free-text responses from the First Contact Note to identify overarching categories. All team members independently coded an initial subset of responses. Through iterative discussions, discrepancies were resolved and the coding scheme was refined. Once consensus on coding definitions was achieved, interrater reliability was assessed on a subset of responses ($\kappa = .80$). The finalized coding scheme was applied to the full dataset. The research assistant then coded the full dataset, with ambiguous cases reviewed in weekly consensus meetings. Dependability and confirmability were supported by a codebook and iterative refinement of coding categories.

Each response could be assigned multiple codes (maximum of seven per case). Individual concerns were organized into six overarching domains: (1) internalizing symptoms (e.g., anxiety, depression, trauma-related concerns); (2) high-acuity or complex clinical presentations (e.g., psychosis, bipolar disorder, suicidal ideation, personality pathology); (3) psychosocial and contextual stressors (e.g., relationship difficulties, academic or occupational stress, grief,

identity-related stress); (4) clinic-specific service needs (e.g., desire for specific treatments or providers); (5) neuropsychological concerns; and (6) other (e.g., insomnia, cult-related experiences, paraphilic concerns). These domains were designed to group conceptually related presenting concerns while distinguishing between clinical symptom presentations and service-related factors influencing help-seeking.

Income: Annual income was derived from free-text responses in the Adult Therapy Screening Note and First Contact Note, prioritizing phone screening data as it reflected more recent self-report. Reported monthly and weekly incomes were converted to annual estimates by multiplying by 12 or 52, respectively. For clients with missing income data, the service fee quoted during the phone screen was used to estimate annual income based on the clinic's sliding-scale fee structure. Because fees vary by number of dependents (up to three), an average of two dependents was assumed, and the midpoint of the corresponding income range was used as the estimate. When phone screening data were unavailable, the same procedure was applied to First Contact Note data.

Waiting Time: The waiting period was calculated as the time elapsed, in days, between the date of the client's initial contact with the clinic (date of 'Reception First Contact' note in the EHR) and the date of their intake appointment (date of 'TX Adult Intake' note in the EHR). Given clinic procedures, which often involve additional delay between the intake appointment and the first treatment session (Fig. 1), a second variable reflecting the total wait time was computed as the number of days between the client's initial contact and their first treatment session (date of 'First TX Adult Visit' note in the EHR). Since this variable is only defined for clients who initiated treatment, it was used descriptively to characterize the full duration of the pre-treatment period and to quantify delays between intake and treatment initiation.

Analytic Plan

All analyses were conducted in R Version 2025.09.0 (R Core Team, 2025). Aim 1 utilized the full sample of clients who completed intake ($n = 273$). For Aim 2, analyses predicting psychotherapy initiation following intake also utilized the full sample. In contrast, analyses examining missed appointment rate and premature termination were restricted to clients who attended at least one therapy session following intake ($n = 218$), thereby initiating an episode of treatment.

Preliminary Analyses

Prior to primary analyses, study variables were examined for accuracy, missingness, and distributional characteristics. Attendance and case disposition variables were reviewed to operationalize psychotherapy engagement outcomes. Missingness patterns were examined prior to inferential analyses.

For inferential analyses in Aim 2, primary reason for seeking services was initially coded into six categories. However, several categories contained small cell sizes within the psychotherapy initiator sample, including high-acuity or complex clinical presentations, service-seeking and treatment factors, and “other” categories, which raised concerns regarding sparse data and model stability in regression analyses. Accordingly, categories were collapsed into three broader domains reflecting (a) internalizing symptoms, (b) psychosocial and contextual stressors, and (c) other or complex presentations. This approach was used to improve interpretability and support more stable parameter estimation. The original categories were retained for descriptive analyses in Aim 1.

Aim 1: Descriptive Characterization of Psychotherapy Engagement

For Aim 1, descriptive statistics were used to characterize the full study sample ($N = 273$) and patterns of treatment engagement. Sample characteristics included age, sex, race/ethnicity, history of prior psychotherapy, primary reason for seeking services, income, wait time from first contact to intake, and wait time from first contact to first therapy session. Descriptive analyses were conducted to characterize engagement across phases of care, including rates of treatment initiation, mean number of psychotherapy sessions attended, mean number of missed appointments, mean missed appointment rate, and rates of premature termination, planned treatment completion, and transfer of care.

Aim 2: Predictors of Psychotherapy Engagement Outcomes Across Phases of Care

For Aim 2, regression models were used to examine client-level and structural predictors of engagement outcomes. Specifically, three outcomes were examined to capture distinct manifestations of engagement: therapy attended, missed appointment rate, and premature termination. Missingness on predictor variables ranged from 0% to 8.92%, with the greatest proportion of missing data observed for the annual income variable. Missing data were addressed using multiple imputation by chained equations (MICE; van Buuren & Groothuis-Oudshoorn, 2011) using the *mice* package in R. Twenty imputed datasets ($m = 20$) were generated under the assumption that data were missing at random (MAR). The imputation model included the engagement outcome and all predictor variables included in the corresponding regression model. Missing values were imputed only for predictor variables; engagement outcome variables were retained as observed and were not imputed. Regression models were fit separately within each imputed dataset, and parameter estimates and standard errors were pooled using Rubin's rules

(Rubin, 1987). Multiple imputation was used to reduce bias and preserve statistical power relative to complete-case analysis (Enders, 2010).

Therapy attended was examined using logistic regression, with clients coded as 1 if they attended at least one psychotherapy session following intake and 0 if they did not initiate psychotherapy following intake. In Aim 2, missed appointment rate and premature termination were examined among clients who initiated psychotherapy ($n = 218$). Missed appointment rate was analyzed using linear regression. Premature termination was examined using logistic regression, with premature termination coded as 1 and planned treatment completion coded as 0. In the premature termination model, missed appointment rate was additionally included as a predictor to examine whether in-treatment attendance behaviors were associated with premature termination.

Predictor variables included client-level characteristics (age, sex, race/ethnicity, history of psychotherapy, primary reason for seeking services), structural factors (annual income, wait time prior to intake), and in-treatment engagement behavior (missed appointment rate). All predictors were entered simultaneously into each model, as the aim was to identify individual factors associated with different engagement outcomes rather than to test domain-level effects. Categorical predictors were dummy coded prior to inclusion in regression models. Reference groups were female sex, racially/ethnically minoritized identity, and internalizing symptoms for primary reason for seeking services.

Statistical Equations:

Model 1: Therapy Attended (Logistic Regression)

$$Y_{1i} = \begin{cases} 1, & \text{attended at least one therapy session} \\ 0, & \text{did not attend any therapy sessions} \end{cases}$$

$$\begin{aligned}
\text{logit}[P(Y_{1i} = 1)] \\
&= \beta_0 + \beta_1(\text{Age}_i) + \beta_2(\text{Sex}_i) + \beta_3(\text{Race/Ethnicity}_i) \\
&+ \beta_4(\text{Prior Psychotherapy Experience}_i) \\
&+ \beta_5(\text{Primary Reason for Services}_i) + \beta_6(\text{Income}_i) + \beta_7(\text{Wait Time}_i)
\end{aligned}$$

Model 2: Missed Appointments (Linear Regression)

$$Y_{2i} = \text{proportion of missed appointments}$$

$$\begin{aligned}
Y_{2i} = & \beta_0 + \beta_1(\text{Age}_i) + \beta_2(\text{Sex}_i) + \beta_3(\text{Race/Ethnicity}_i) \\
& + \beta_4(\text{Prior Psychotherapy Experience}_i) \\
& + \beta_5(\text{Primary Reason for Services}_i) + \beta_6(\text{Income}_i) + \beta_7(\text{Wait Time}_i) \\
& + \varepsilon_i
\end{aligned}$$

Model 3: Premature Termination (Logistic Regression)

$$Y_{3i} = \begin{cases} 1, & \text{premature termination} \\ 0, & \text{planned treatment completion} \end{cases}$$

$$\begin{aligned}
\text{logit}[P(Y_{3i} = 1)] \\
&= \beta_0 + \beta_1(\text{Age}_i) + \beta_2(\text{Sex}_i) + \beta_3(\text{Race/Ethnicity}_i) \\
&+ \beta_4(\text{Prior Psychotherapy Experience}_i) \\
&+ \beta_5(\text{Primary Reason for Services}_i) + \beta_6(\text{Income}_i) + \beta_7(\text{Wait Time}_i) \\
&+ \beta_8(\text{Missed Appointment Rate}_i)
\end{aligned}$$

Definitions:

- Y_i = The dependent variable for participant i
- β_0 = Intercept
- $\beta_1 - \beta_8$ = Regression coefficients
- ε_i = Residual error term
- Age (continuous) = Client age at first contact
- Sex (binary): 0 = female; 1 = male
- Race/Ethnicity (categorical): 0 = racially/ethnically minoritized; 1 = White non-Hispanic
- Prior Psychotherapy Experience (binary): 0 = no, 1 = yes
- Primary Reason for Services (categorical): 1 = internalizing symptoms, 2 = psychosocial and contextual stressors, and 3 = other or complex presentations, where internalizing symptoms was the reference group
- Income (continuous) = Annual income
- Wait Time (continuous) = Number of days between first contact and intake appointment
- Missed Appointment Rate (continuous) = Proportion of scheduled psychotherapy sessions missed following treatment initiation

Results

Client Flow Through the Clinic

Figure 2 illustrates the flow of participants through the UCLA Psychology Clinic from initial contact to treatment outcomes. A total of 970 individuals contacted the clinic seeking adult individual psychotherapy services during the study period. Of these, 912 individuals (94.0%) were added to the adult therapy waitlist, while 58 individuals were not added due to factors such as staffing limitations, declining services at initial contact, or referral to alternative services. Among those added to the waitlist, a substantial proportion ($n = 547$) did not complete the phone screening process. The most common reason for non-completion was failure to respond to scheduling attempts ($n = 263$), followed by declining services due to lack of interest ($n = 92$) or having secured services elsewhere ($n = 79$). Other reasons included financial concerns, procedural barriers, relocation, and logistical constraints, with a smaller number of cases categorized as deceased or unknown.

Of the 365 individuals who completed a phone screen, 273 (74.8%) subsequently completed an intake assessment, thereby establishing access to care, whereas 92 individuals did not complete intake. Reasons for not completing intake reflected a combination of failure to respond to scheduling attempts, cancellations without rescheduling, referral to alternative services, and structural barriers such as financial or logistical constraints.

Following intake, 218 individuals (79.9% of those completing intake) attended at least one therapy session, thereby initiating an episode of treatment. The remaining 55 individuals did not initiate psychotherapy following intake and were considered as having prematurely terminated treatment based on the study's operational definition. Among those who initiated treatment, outcomes were variable.

There were 59 individuals who were transferred to another clinician for continued care

Flow Diagram of Patient Progression Through the UCLA Psychology Clinic



within the clinic system. Of the remaining cases, 115 (52.8%) prematurely terminated treatment and 44 (20.2%) completed treatment. Including individuals who did not initiate psychotherapy following intake, 170 of 273 clients (62.3%) did not complete the planned course of treatment within the clinic.

Sample Characteristics

Table 2 presents the demographic and clinical characteristics of the full study sample, participants who completed an intake evaluation ($N = 273$). Participants were, on average, 35.4 years old ($SD = 13.6$). The sample was predominantly female (63.4%), with 35.9% identifying as male and a small proportion of missing data (0.7%).

With respect to race/ethnicity, 51.3% of participants identified as White non-Hispanic, 40.7% were categorized as racially/ethnically minoritized, and 8.1% had missing data. The majority of participants reported a history of prior psychotherapy (67.8%), whereas 22.7% reported no prior treatment and 9.5% had missing data.

Participants reported a mean annual income of \$33,143 ($SD = \$35,177$). The average wait time from first contact to intake was 210 days ($SD = 198.7$). Among those who attended at least one treatment session ($n = 218$), the mean total wait time from first contact to the first follow-up treatment session was 239.1 days ($SD = 201.9$).

Table 2

Sample Characteristics

	Full Sample ($N = 273$)
Age, M (SD)	35.4 (13.6)
Sex, n (%)	
Female	173 (63.4%)
Male	98 (35.9%)
Missing	2 (0.7%)
Race/ethnicity, n (%)	

	Full Sample (<i>N</i> = 273)
Racially/Ethnically Minoritized	111 (40.7%)
White Non-Hispanic	140 (51.3%)
Missing	22 (8.1%)
Prior psychotherapy, <i>n</i> (%)	
Yes	185 (67.8%)
No	62 (22.7%)
Missing	26 (9.5%)
Annual income, <i>M</i> (<i>SD</i>)	\$33,143 (\$35,177)
Wait to intake (days), <i>M</i> (<i>SD</i>)	210 (198.7)
Total wait to first therapy session (days), <i>M</i> (<i>SD</i>)	239. 1 (201.9)

Note. *ns* reflect available data for each variable due to missingness. Wait to first therapy session is calculated for *n* = 218.

Clients who initiated psychotherapy did not significantly differ from those who did not initiate treatment following intake across demographic, clinical, or structural characteristics examined (see Appendix A).

As shown in Table 3, the majority of participants reported internalizing symptoms as their primary reason for seeking services (57.9%), most commonly anxiety, depression, and trauma-related concerns. Psychosocial or contextual concerns were the next most frequently endorsed domain (27.8%), with relationship concerns and general life stress most prominent. Less commonly, participants reported clinic-specific service needs (8.1%), primarily seeking a specific evidence-based treatment. High-acuity or complex clinical presentations (4.4%) and neuropsychological concerns (1.8%) were relatively infrequent.

Table 3

Primary Reasons for Seeking Services Collapsed into Five Domains

Domain	Specific Concern	<i>n</i> (%)
Internalizing symptoms		158 (57.9%)
	Anxiety	65 (41.1%)
	Depression	49 (31.0%)
	Trauma	30 (18.9%)
	OCD and related disorders	5 (3.2%)
	Unspecified mental health concern	4 (2.5%)

Panic disorder	3 (1.9%)
Specific Phobia	2 (1.3%)
Psychosocial or contextual concerns	76 (27.8%)
Relationship/family/interpersonal issues	27 (35.5%)
General life stress	16 (21.1%)
Academic or work stress	5 (6.6%)
Self-improvement	14 (18.4%)
Physical health	4 (5.3%)
Grief	5 (6.6%)
Self-concept	1 (1.3%)
Current events	2 (2.6%)
Other (e.g., sexual identity-based stress, race-based stress, cult experiences)	2 (2.6%)
Clinic-specific service needs	22 (8.1%)
Seeking specific evidence-based treatment	18 (81.8%)
Continuing treatment or referred by another provider	4 (1.8%)
High-acuity or complex clinical presentations	12 (4.4%)
Emotion dysregulation	6 (50%)
Personality Disorder	3 (25%)
Psychosis	2 (16.7%)
Bipolar disorder	1 (8.3%)
Neuropsychological disorders	5 (1.8%)

Note. The sample includes clients who completed intake ($N = 273$).

Engagement patterns

Among participants who completed intake ($N = 273$), engagement in treatment varied (Table 4). A majority of participants (79.9%) effectively initiated treatment by attending at least one therapy session after intake. Among those with available attendance data ($n = 218$), individuals attended a mean of 17.92 ($SD = 16.52$) sessions and missed a mean of 19.5 ($SD = 30.83$). The mean missed appointment rate was 43.3% ($SD = 18.4\%$), indicating that clients missed, on average, nearly half of scheduled psychotherapy appointments following treatment initiation. With respect to treatment outcomes, the majority of participants prematurely terminated treatment (62.3%), whereas 27.1% were transferred to another clinician for continued care and 20.1% completed treatment. Among clients classified as prematurely terminating

treatment, the median number of psychotherapy sessions attended was 7 ($M = 12.02$, $SD = 13.37$; range = 1–76).

Table 4

Engagement Outcomes Among Those Who Completed Intake

	Full Sample ($N = 273$)
Attended Therapy, n (%)	218 (79.9%)
Attendance, M (SD)	
Sessions Attended	17.92 (16.52)
Sessions Missed	19.50 (30.83)
Missed Appointment Rate, Mean % (SD)	43.3% (18.4)
Treatment Termination Status, n (%)	
Prematurely Terminated	115 (52.8%)
Completed Treatment	44 (20.1%)
Transferred Care	59 (27.1%)

Note. The sample includes clients who completed intake ($N = 273$). Missed appointment rate was calculated as the proportion of missed psychotherapy appointments (cancellations and no-shows) relative to total scheduled psychotherapy appointments following treatment initiation. Percentages for treatment termination status are based on those who initiated treatment ($n = 218$).

Factors predicting treatment initiation

A logistic regression model examined whether demographic, clinical, and treatment-related factors predicted attendance at a minimum of one therapy session post-intake (Table 5). None of the predictors were significantly associated with psychotherapy initiation following intake. Specifically, age ($OR = 0.99$, $p = .596$), sex ($OR = 0.66$, $p = .185$), race/ethnicity ($OR = 1.28$, $p = .458$), prior psychotherapy experience ($OR = 1.12$, $p = .759$), primary presenting concern category ($ps = .525$ – $.557$), annual income ($OR = 1.00$, $p = .933$), and wait time prior to intake ($OR = 1.00$, $p = .510$) were not significant predictors of therapy attendance. Overall, findings suggest that the pre-treatment client-level and structural factors examined in the present study were not strongly associated with treatment initiation following intake.

Table 5

Logistic Regression Predicting Therapy Attended Among Intake Completers

Predictor	B	SE	OR	95% CI	<i>p</i>
Intercept	1.69	0.53	5.45	[1.93, 15.34]	< .001
Age	-0.01	0.01	0.99	[0.97, 1.02]	.596
Male	-0.42	0.32	0.66	[0.35, 1.22]	.185
White non-Hispanic	0.25	0.33	1.28	[0.67, 2.46]	.458
Prior therapy	0.11	0.37	1.12	[0.54, 2.33]	.759
Psychosocial/contextual concerns	-0.23	0.36	0.80	[0.40, 1.60]	.525
Other/complex presentations	0.27	0.46	1.31	[0.53, 3.25]	.557
Income	<0.001	0.001	1.00	[1.00, 1.00]	.933
Wait time	-0.001	0.001	1.00	[1.00, 1.00]	.510

Note. Outcome coded as 1 = attended at least one psychotherapy session following intake. Reference groups were female sex, non-White/minoritized race/ethnicity, and internalizing symptoms for primary reason for seeking services. Estimates reflect pooled multiple imputation results ($m = 20$). OR = odds ratio; CI = confidence interval.

Factors predicting missed session rate

A linear regression model was conducted to examine predictors of missed session rate among clients who initiated treatment (Table 6). None of the examined predictors were significantly associated with missed session rate. Specifically, age ($B = -0.002, p = .336$), sex ($B = -0.006, p = .906$), race/ethnicity ($B = -0.02, p = .669$), prior psychotherapy experience ($B = 0.03, p = .584$), primary presenting concern ($ps = .161-.912$), annual income ($B < 0.001, p = .735$), and wait time prior to intake ($B < -0.001, p = .101$) were not significant predictors of missed session rate. Overall, findings suggest that the pre-treatment client-level and structural factors examined in the present study were not strongly associated with attendance consistency following psychotherapy initiation.

Table 6*Linear Regression Predicting Missed Session Rate Among Psychotherapy Initiators*

Predictor	B	SE	95% CI	<i>p</i>
Intercept	0.49	0.08	[0.34, 0.64]	< .001
Age	-0.002	0.002	[-0.005, 0.002]	.336
Male	-0.006	0.049	[-0.101, 0.089]	.906
White non-Hispanic	-0.02	0.05	[-0.12, 0.08]	.669
Prior therapy	0.03	0.06	[-0.09, 0.16]	.584
Psychosocial/contextual concerns	0.01	0.06	[-0.10, 0.12]	.912
Other/complex presentations	-0.09	0.06	[-0.22, 0.04]	.161
Income	<0.001	<0.001	[-0.000001, 0.000002]	.735
Wait time	<-0.001	0.001	[-0.0004, 0.00004]	.101

Note. Outcome variable was missed session rate among clients who initiated psychotherapy. Reference groups were female sex, non-White/minoritized race/ethnicity, and internalizing symptoms for primary reason for seeking services. Estimates reflect pooled multiple imputation results ($m = 20$). B = unstandardized coefficient; CI = confidence interval.

Factors predicting premature termination

Logistic regression models examined predictors of premature termination among clients who initiated treatment (Tables 7). Missed session rate was significantly associated with premature termination. Specifically, higher missed session rates were associated with greater odds of premature termination ($OR = 2.72$, 95% CI [1.06, 6.98], $p = .038$). Interpreted proportionally, a 10% increase in missed session rate corresponded to approximately a 11% increase in the odds of premature termination. In contrast, pre-treatment client-level and structural factors, including age, sex, race/ethnicity, prior therapy experience, primary presenting

concern, annual income, and wait time prior to intake were not significantly associated with premature termination ($ps = .083-.861$).

Table 7

Logistic Regression Predicting Premature Termination Among Psychotherapy Initiators

Predictor	B	SE	OR	95% CI	<i>p</i>
Intercept	0.19	0.78	1.21	[0.26, 5.62]	.807
Age	0.00	0.02	1.00	[0.97, 1.04]	.817
Male	-0.18	0.41	0.83	[0.37, 1.87]	.656
White non-Hispanic	0.29	0.45	1.34	[0.56, 3.22]	.517
Prior therapy	-0.09	0.49	0.92	[0.35, 2.41]	.861
Psychosocial/contextual concerns	-0.53	0.49	0.59	[0.23, 1.53]	.279
Other/complex presentations	-0.30	0.56	0.74	[0.25, 2.24]	.598
Income	<0.001	<0.001	0.999	[0.999, 1.000]	.083
Wait time	0.001	0.001	1.001	[0.999, 1.003]	.349
Missed session rate	1.00	0.48	2.72	[1.06, 6.98]	.038*

Note. Outcome coded as 1 = premature termination and 0 = planned treatment completion among clients who initiated psychotherapy. Reference groups were female sex, non-White/minoritized race/ethnicity, and internalizing symptoms for primary reason for seeking services. Estimates reflect pooled multiple imputation results ($m = 20$). B = log-odds coefficient; OR = odds ratio; CI = confidence interval. * $p < .05$

As a sensitivity analysis, the premature termination model among psychotherapy initiators was re-estimated including total number of sessions attended as an additional predictor (see Appendix B). In this model, greater number of attended sessions was associated with lower odds of premature termination, OR = 0.89, 95% CI [0.82, 0.97], $p = .010$, whereas missed appointment rate was no longer significantly associated with premature termination, $p = .723$.

However, number of sessions attended was not included in the primary analyses because treatment completion status is conceptually intertwined with total session attendance. As such, including total attended sessions may introduce a circular or tautological relationship that obscures interpretation regarding predictors of premature termination.

Additionally, a sensitivity analysis examined a broader operationalization of premature termination in which clients who completed intake but never initiated psychotherapy were also classified as prematurely terminated (see Appendix C). In this model, client-level and structural characteristics generally remained unrelated to premature termination. Income demonstrated a trend-level association, such that higher income was associated with lower odds of premature termination, $OR = 1.00$, 95% CI $[1.00, 1.00]$, $p = .051$. Collectively, findings from these sensitivity analyses were generally consistent with the primary analyses and suggest that stable pre-treatment client characteristics demonstrated limited associations with disengagement outcomes relative to more proximal indicators of ongoing treatment participation.

Discussion

The present findings suggest that psychotherapy engagement is best understood as a process that unfolds across multiple phases of care rather than as a single event marked by treatment completion or discontinuation. Attrition was greatest prior to treatment initiation, yet more than half of clients who initiated psychotherapy subsequently terminated treatment before clinicians considered treatment complete. Among clients who entered psychotherapy, missed appointment patterns during treatment emerged as the only significant predictor of later premature termination, whereas client-level and structural characteristics assessed prior to treatment initiation were not associated with post-initiation engagement outcomes. Collectively, these findings indicate that different factors may influence engagement at different points along

the treatment pathway. Rather than reflecting a single phenomenon, psychotherapy engagement appears to be a dynamic process in which predictors of treatment access, treatment initiation, and sustained participation differ across phases of care.

Of the 970 individuals who contacted the clinic, only 4.5% ultimately reached planned treatment completion, reflecting attrition accumulating across multiple phases of care rather than occurring at any single transition point. The steepest losses occurred prior to treatment initiation, consistent with literature suggesting that structural and logistical barriers play a substantial role in limiting access to mental health services (Armoon et al., 2025). Among clients who initiated psychotherapy, 52.8% were classified as prematurely terminating treatment. Although this rate exceeded the pooled estimate reported for university-based outpatient clinics (Swift & Greenberg, 2012), it was lower than the average rate observed across six psychology training clinics in Callahan et al.'s (2014) multisite study, in which premature termination averaged 69.4% and ranged from 58.5% to 80.0% across sites. These comparisons should be interpreted cautiously because each study used different operational definitions of premature termination. Nevertheless, the findings suggest that clinician-based report of premature termination was common within this psychology training clinic, but it does not appear to be unusually elevated relative to comparable training settings.

Interpretation of these findings should consider the operationalization of premature termination used in the present study. The present study classified clients according to clinician-documented treatment noncompletion rather than the number of sessions attended or symptom improvement. In contrast, Callahan et al. (2014) classified clients as prematurely terminating treatment if they discontinued therapy before achieving recovery on the Outcome Questionnaire, a more outcome-based definition. Among clients classified as prematurely terminating treatment

in the present study, the median number of psychotherapy sessions attended was seven ($M = 12.02$, $SD = 13.37$, range = 1–76), indicating that although many clients discontinued relatively early in treatment, there was substantial variability in when treatment ended. Clients in the clinic attended a mean of 17.92 psychotherapy sessions overall, whereas those classified as prematurely terminating treatment attended an average of 12.02 sessions, a duration comparable to the approximately 11–13 sessions that prior dose-response research suggests are sufficient for many clients to achieve clinically meaningful improvement (Hansen et al., 2002; Lambert, 2007). Because longitudinal symptom outcome data could not be linked to electronic health records, it was not possible to determine whether these clients had achieved meaningful clinical improvement before treatment ended. Accordingly, the present findings are best understood as reflecting clinician-documented noncompletion of the planned course of treatment rather than insufficient therapeutic exposure or a failure to benefit from psychotherapy.

This distinction has particular relevance for psychology training clinics. The present study relied on a therapist-defined conceptualization of premature termination, consistent with recommendations that therapist judgment represents one of the most clinically meaningful approaches to defining treatment dropout (Swift & Greenberg, 2012). At the same time, therapist-defined noncompletion may not fully capture the client's perspective regarding whether treatment was complete or beneficial. For example, clients may elect to discontinue treatment after experiencing meaningful improvement or achieving their highest-priority goals, whereas therapists may conceptualize additional treatment as necessary to consolidate gains or address broader clinical concerns. Furthermore, structural features of psychology training clinics, including trainee turnover and academic calendar transitions, may also influence clinician-documented treatment completion. Accordingly, clinician-documented premature termination

within training clinics can reflect multiple circumstances, including client disengagement, client-perceived treatment completion, and structural features of the treatment context. Although the term *disengagement* is used throughout this dissertation to align with the broader psychotherapy engagement literature, the present study directly examined clinician-documented treatment noncompletion rather than the psychological process of disengagement itself. Future research should integrate therapist reports, client-reported reasons for ending treatment, and longitudinal symptom outcomes to more fully characterize why psychotherapy ends before planned completion.

The mean missed appointment rate of 43.3% was notable, with clients missing nearly half of scheduled psychotherapy sessions on average. More importantly, missed appointment rate emerged as the only significant predictor of premature termination in the primary regression model, with each 10-percentage-point increase in missed appointment rate associated with approximately an 11% increase in the odds of premature termination. These findings suggest that missed appointments may function as more than isolated scheduling difficulties and may instead reflect emerging disengagement from treatment. This interpretation is consistent with prior research indicating that attendance instability often precedes dropout from psychotherapy (Krendl & Lorenzo-Luaces, 2022). Importantly, attendance instability may become observable prior to treatment discontinuation, making it a potentially actionable indicator for clinical intervention. Structured outreach following missed appointments, proactive re-engagement efforts, and ongoing monitoring of attendance patterns may therefore represent clinically meaningful opportunities to intervene before disengagement culminates in treatment termination (Becker & Chorpita, 2023; Lindsey et al., 2014). Although the effectiveness of such

interventions within training clinic settings remains unclear, the present findings identify missed appointment patterns as a potentially important behavioral marker of disengagement risk.

The absence of significant associations between pre-treatment client-level and structural variables, including age, sex, race/ethnicity, income, prior therapy history, presenting concern, and wait time, and post-initiation engagement outcomes warrants interpretation. Prior meta-analytic work has identified demographic characteristics, including age, income, and racial/ethnic minority status, as predictors of premature termination in outpatient settings (Acosta et al., 2020; Joiner et al., 2022; Swift & Greenberg, 2012), making their absence in the present study notable. One possible interpretation is that these variables may operate differently across phases of care. Specifically, client-level and structural characteristics may play a larger role in shaping whether individuals access and initiate treatment, whereas different mechanisms may become more salient once treatment is underway. Support for this interpretation comes from findings within the same clinic context: Brar et al. (in preparation) found that wait time predicted pre-intake attrition, whereas wait time was not associated with post-initiation engagement outcomes in the present study. This finding suggests that predictors of engagement may not generalize uniformly across phases of care and that phase of treatment may meaningfully shape which variables are most relevant to engagement outcomes. It is also possible that ongoing engagement in psychotherapy is more strongly influenced by dynamic within-treatment processes, such as therapeutic alliance, treatment expectations, motivation, or early symptom change, rather than by static pre-treatment characteristics alone (Roos & Werbart, 2013). These variables could not be examined in the present study because process and outcome measures were not linkable to EHR data, representing an important limitation of the current design.

Interpretation of these findings should also account for the structural features of training clinic settings. Clients in the present study waited an average of nearly 7 months between initial contact and intake, and treatment occurred within a setting characterized by trainee clinician turnover, academic calendar transitions, and varying levels of therapist experience. The 52.8% premature termination rate observed among psychotherapy initiators substantially exceeds the approximately 20% dropout rate estimated across broader outpatient psychotherapy settings (Swift & Greenberg, 2012), suggesting that some portion of disengagement may reflect contextual features specific to training clinics. At the same time, the broader processes implicated in the present findings, including attendance instability as an indicator of disengagement risk and the limited predictive utility of static pre-treatment variables for ongoing engagement, likely extend beyond training clinic settings. Attendance instability, motivational ambivalence, and treatment expectation mismatches may represent transdiagnostic processes relevant across outpatient contexts and clinical populations (Oldham et al., 2012), even if the magnitude of disengagement differs by setting.

The present findings also have implications for the organization and delivery of psychotherapy within psychology training clinics. Although clients attended an average of nearly 18 psychotherapy sessions, those classified as prematurely terminating treatment still attended an average of approximately 12 sessions, a duration comparable to the 11–13 sessions that prior dose-response research suggests are sufficient for many clients to experience clinically meaningful improvement (Hansen et al., 2002; Lambert, 2007). At the same time, more than half of clients who initiated psychotherapy were classified as prematurely terminating treatment based on clinician documentation. Taken together, these findings raise important questions regarding how treatment completion is conceptualized and managed within psychology training

clinics. Although symptom outcome data were unavailable to determine whether these clients had achieved meaningful clinical improvement prior to ending treatment, the findings suggest that clinician-defined treatment noncompletion may, in some cases, reflect differences between therapist and client expectations regarding when treatment has achieved its intended goals rather than insufficient therapeutic exposure alone.

These findings also highlight broader policy considerations regarding the allocation of limited psychotherapy resources within psychology training clinics. The present clinic experienced extensive wait times prior to treatment initiation while simultaneously providing relatively lengthy courses of psychotherapy for clients who entered care. The coexistence of prolonged waitlists, lengthy treatment episodes, and substantial rates of clinician-documented premature termination suggests that this clinic may benefit from more intentional approaches to treatment planning throughout the course of care. Rather than allowing treatment to continue by default, psychology training clinics may consider implementing structured treatment reviews at regular intervals to evaluate symptom change, functional improvement, progress toward collaboratively established treatment goals, and the anticipated value of continued psychotherapy. Such decision points could facilitate collaborative discussions regarding whether treatment goals have been achieved, whether priorities have evolved, or whether additional treatment remains clinically indicated.

From a training perspective, these findings further suggest that recognizing readiness for treatment termination should be considered a core clinical competency. Although graduate training appropriately emphasizes assessment, case conceptualization, and evidence-based intervention, comparatively less attention is often devoted to determining when psychotherapy has achieved its intended aims and how to collaboratively conclude treatment. Psychology

training clinics may therefore benefit from incorporating more explicit supervision focused on ongoing treatment planning and termination decision making, including the integration of symptom trajectories, functional recovery, and client-defined goal attainment into decisions regarding treatment continuation. Routine outcome monitoring may further support these efforts by providing therapists and supervisors with objective information to guide discussions regarding clinical progress and readiness for termination, rather than relying primarily on therapist judgment or administrative timelines.

Finally, the present findings suggest that psychology training clinics may benefit from viewing attendance patterns as an important component of ongoing treatment planning. Missed appointment rate was the only significant predictor of clinician-documented premature termination, indicating that attendance instability may serve as an early behavioral indicator of disengagement. Rather than treating missed appointments solely as scheduling difficulties, clinics may benefit from implementing systematic procedures for reviewing attendance patterns, initiating proactive outreach following repeated missed appointments, and incorporating attendance trends into routine supervision. Together, these approaches may facilitate earlier intervention when engagement begins to decline while promoting more intentional, collaborative, and data-informed decisions regarding the course and completion of psychotherapy.

Several limitations should be considered when interpreting the present findings. First, the archival EHR data were collected for clinical rather than research purposes, and variability in documentation practices across clinicians and administrative staff likely introduced measurement inconsistency into several study variables. Relatedly, cancellations and no-shows were combined into a single missed appointment variable because documentation of no-shows was not

sufficiently consistent to permit reliable differentiation between these attendance behaviors. Although this decision was necessary to maximize data quality, cancellations and no-shows may reflect distinct underlying processes (e.g., logistical barriers versus disengagement), and combining them may have obscured meaningful differences in their associations with treatment engagement.

Second, several potentially important contributors to psychotherapy engagement could not be examined. Clinician-level characteristics, including therapist training level, theoretical orientation, supervisory relationships, and caseload, were unavailable within the EHR and therefore could not be evaluated as predictors of engagement. Likewise, process variables such as therapeutic alliance, treatment expectations, motivation, and longitudinal symptom and functional outcomes could not be linked to the clinical record. As discussed previously, the absence of routine outcome data limits interpretation of clinician-documented premature termination, as it was not possible to determine whether clients who ended treatment before clinician-defined completion had nonetheless experienced meaningful clinical improvement or achieved their treatment goals. Future studies integrating administrative records with routinely collected outcome measures and process data would provide a more comprehensive understanding of how engagement evolves throughout psychotherapy.

Finally, the present findings should be interpreted within the context of a single university-based psychology training clinic. Although this setting provides an important opportunity to examine engagement within an understudied service context, clinic-specific characteristics, including lengthy wait times, trainee clinician turnover, and academic calendar transitions, may limit the generalizability of engagement rates and effect size estimates to other outpatient settings. In addition, clients who remained engaged long enough to initiate

psychotherapy despite extended wait times may represent a highly selected subgroup characterized by greater persistence, motivation, symptom severity, or fewer competing barriers to care. Consequently, findings regarding post-initiation engagement may not generalize to individuals who disengaged earlier in the treatment pathway or to outpatient settings with substantially different organizational structures.

Overall, Study 1 provides support for a phase-based conceptualization of psychotherapy engagement in which treatment access, initiation, and sustained participation may be influenced by different mechanisms across the care pathway. Missed appointment instability emerged as a clinically observable and temporally proximal indicator of later disengagement, whereas pre-treatment client-level and structural characteristics demonstrated limited associations with post-initiation engagement outcomes. These findings highlight the importance of monitoring attendance patterns as a clinically observable signal of emerging disengagement. At the same time, the present findings also point toward the pre-treatment period as a potentially consequential window for engagement-focused intervention. The largest point of attrition in the present sample occurred prior to treatment initiation, and the absence of associations between stable pre-treatment demographic and structural characteristics and post-initiation engagement suggests that *how* clients are prepared to engage may matter more than *who* they are when they arrive. If missed appointments function as behavioral signals of emerging disengagement during active treatment, a natural upstream question is whether intervening before treatment begins can reduce the likelihood that those patterns emerge over the course of care. Collectively, these findings support the importance of extending engagement-focused intervention efforts earlier in the treatment pathway, prior to the initiation of psychotherapy. Future research should incorporate dynamic process variables, including therapeutic alliance, treatment expectations,

symptom trajectories, and motivation, within longitudinal designs capable of examining how engagement evolves over time. In addition, multilevel approaches that account for both therapist- and client-level influences may help clarify the extent to which disengagement reflects individual client processes versus characteristics of the treatment context and therapeutic relationship.

Study 2: Development and Preliminary Evaluation of an Engagement-Enhancing Intervention for Adults Awaiting Psychotherapy in an Outpatient Psychology Clinic

Navigating the pathway to psychotherapy services presents significant challenges for many individuals, particularly within high-demand outpatient and training clinic settings where wait times for care can extend for months (Peipert et al., 2022). Although psychotherapy offers critical support for addressing mental health concerns, clients often receive little structured clinical contact between initial help-seeking and treatment access. Research across healthcare settings has consistently found that longer wait times are associated with lower satisfaction with services, increased missed appointments, and reduced treatment participation following referral (Bjorngaard et al., 2008; Jones et al., 2000; Kinnan et al., 2019; Molfenter, 2013; Punton et al., 2022; Williams et al., 2008). While rates of missed appointments vary widely across clinical services and settings (Dantas et al., 2018), outpatient mental health clinics experience nearly double the missed appointment rates observed in other specialties (Mitchell & Selmes, 2007). Moreover, these missed appointments exact a toll on both the healthcare system and individual well-being. They contribute to the inefficient use of resources (Rusius, 1995), cost the United States an estimated \$150 billion annually (Gier, 2017), delay treatment (Marbough et al., 2020), and are associated with worse health outcomes (Hwang et al., 2015). In an effort to discern reasons for patient-initiated missed psychotherapy appointments, DeFife and colleagues (2010) found that motivational issues rank as the third most frequently cited reason by clinicians, behind clinical problems (e.g., illness) and practical matters (e.g., limited transportation). Additionally, studies conducted within psychotherapy waitlist settings have found that between one-third and over half of clients report that they are no longer interested in or seeking services by the time treatment becomes available (Brown et al., 2002; Szafranski et al., 2017). Prior work conducted

at the UCLA Psychology Clinic similarly found that longer wait times significantly predicted higher rates of pre-intake attrition among adults seeking psychotherapy services between 2016 and 2024 (Brar et al., in preparation), suggesting that the transition from waitlist to treatment may represent a particularly vulnerable period for disengagement from care.

A range of strategies have been developed to improve engagement in mental health treatment, particularly in response to high rates of missed appointments and premature termination observed across outpatient settings (Greene et al., 2016; Swift & Greenberg, 2015). These approaches have included appointment reminders, administrative outreach, psychoeducation, motivational interviewing strategies, and pre-treatment preparation interventions (Drabkin et al., 2019; Gandy et al., 2019; McLean et al., 2016). Among these approaches, pre-treatment preparation interventions have demonstrated particular promise for improving psychotherapy attendance and reducing premature termination (Delgadillo & Groom, 2017; Greene et al., 2016; Reis & Brown, 2006; Strassle et al., 2011; Swift & Greenberg, 2015). These interventions commonly incorporate role induction strategies designed to clarify expectations regarding the psychotherapy process, orient clients to treatment, and define therapist and client roles within care (Orne & Wender, 1968; Swift & Greenberg, 2015). The available literature indicates that a bundle or combination of engagement improvement interventions tends to be more effective than individual interventions; however, no research identifies a specific bundle or combination of interventions that consistently yield optimal results (Gandy et al., 2019; Lefforge et al., 2007).

Despite evidence supporting pre-treatment preparation interventions, limited research has examined whether these pre-treatment approaches may help address engagement-related difficulties associated with prolonged wait times for psychotherapy services (Peipert et al., 2022;

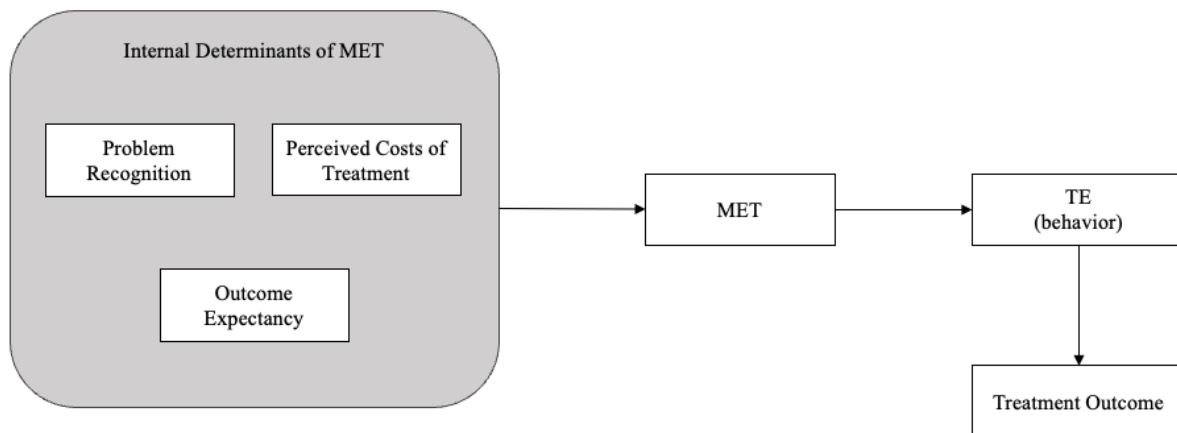
Schleider et al., 2021). Brar et al.'s (in prep.) findings suggest that prolonged wait times are associated with reduced initial intake appointment attendance. Findings from Study 1 of this dissertation further demonstrated that missed appointments during ongoing psychotherapy were associated with increased likelihood of premature termination among adults receiving services at the same clinic. Existing research has additionally shown that pre-treatment preparation and role induction interventions can improve both psychotherapy attendance and reduce premature termination (Delgadillo & Groom, 2017; Greene et al., 2016; Reis & Brown, 2006; Strassle et al., 2011; Swift & Greenberg, 2015). Together, these findings suggest that interventions delivered during the transition from waitlist to treatment initiation may represent one approach for supporting engagement as psychotherapy begins and over the course of care.

Treatment motivation has long been recognized as a factor associated with engagement in mental health treatment, including psychotherapy attendance and attrition (DeFife et al., 2010, 2013; Drieschner et al., 2004). Theoretical models of treatment motivation such as the Integral Model of Treatment Motivation (Drieschner et al., 2004; Jochems et al., 2018) suggest that expectations regarding psychotherapy, perceived barriers or costs of treatment, and recognition of the need for change may each influence willingness to participate in care (Figure 3). These processes may be particularly relevant during prolonged wait periods, during which clients may experience fluctuations in motivation due to uncertainty regarding what psychotherapy will involve, encounter logistical or emotional barriers to participation, or doubts about the utility of treatment (Brown et al., 2002; Szafranski et al., 2017). At the same time, pre-treatment preparation interventions often target broader engagement-related processes beyond motivation alone, including clarifying expectations for psychotherapy, orienting clients to treatment, and increasing preparedness for participation in care (Orne & Wender, 1968; Swift & Greenberg,

2015). Accordingly, the Pre-treatment Engagement Program adapted from the Unified Protocol (PREP-UP) was developed as a brief pre-treatment engagement preparation intervention intended to support clients transitioning from psychotherapy waitlists into care through the combination of motivational enhancement and role induction strategies (Barlow et al., 2017; Orne & Wender, 1968).

Figure 3

The Integral Model of Treatment Motivation



Note. Empirically supported internal determinants of the Integral Model are shown. Adapted from Drieschner et al. (2004). MET = Motivation to engage in treatment. TE = Treatment engagement.

PREP-UP Intervention

The Pre-treatment Engagement Program adapted from the Unified Protocol (PREP-UP) was adapted to be a 60-minute, single-session, pre-treatment engagement preparation intervention for adults awaiting psychotherapy services at the UCLA Psychology Clinic. Delivered prior to intake, the intervention was designed to support clients during the transition from psychotherapy waitlist to treatment access by targeting processes associated with poor engagement with care. Sessions were conducted virtually using the clinic's approved telehealth

platform, Zoom for Healthcare (Humer et al., 2020; Leuchtenberg et al., 2023). PREP-UP sessions were delivered by the author of this dissertation, who was a fourth-year doctoral student in clinical psychology at the UCLA Clinical Psychology program at the time of intervention development and delivery. The author had prior training in psychotherapy assessment and intervention, including experience with motivational interviewing and cognitive-behavioral approaches within outpatient clinical settings. PREP-UP delivery was supervised by a licensed clinical psychologist through weekly supervision meetings focused on intervention delivery, clinical decision-making, client engagement concerns, and appropriateness of services. Supervision also supported adherence to the PREP-UP framework while allowing flexibility to respond to individual client needs and presenting concerns.

The intervention adapted and combined motivational enhancement strategies from Module 1 of the Unified Protocol for the Transdiagnostic Treatment of Emotional Disorders (Unified Protocol; Barlow et al., 2017) with role induction strategies designed to clarify expectations regarding psychotherapy, orient clients to clinic procedures and the intake process, and increase preparedness for treatment participation (Orne & Wender, 1968; Swift & Greenberg, 2015). Adaptations were informed by the Integral Model of Treatment Motivation (Drieschner et al., 2004), which proposes that treatment engagement may be influenced by internal motivational determinants including problem recognition, perceived costs of treatment, and outcome expectancy (Table 8). Motivational enhancement components from the Unified Protocol included treatment goal clarification (see Appendix E) and decisional balance (see Appendix D) exercises intended to enhance readiness for treatment participation (Barlow et al., 2017). Broadly, the session focused on increasing preparedness for treatment participation by clarifying expectations regarding psychotherapy, reviewing clinic procedures, identifying

treatment goals, and exploring potential barriers to engagement in care. Sessions were conducted collaboratively and emphasized open discussion regarding clients' expectations, concerns, and potential barriers related to psychotherapy participation.

Table 8

PREP-UP Intervention Elements

Intervention Elements	Internal Determinant of Motivation
<i>Role Induction (25mins)</i>	
1. Logistical Information a. Clinic/Staff Overview b. Procedure & Goals of Intake Session c. Treatment Session Information 2. Client Role Expectations a. Importance of effort b. Encouragement of open communication 3. Therapist Role Expectations a. Focus on listening, understanding, and earning trust b. Goal is to assist clients in navigating concerns c. Therapists have different approaches 4. Treatment Rationale a. Evidence-based treatments b. Specific treatment modality depends on presenting concerns and treatment goals	Outcome Expectancy (expectations of treatment)
<i>Enhancing Motivation (35mins)</i>	
1. Clarifying Top Problems & Setting Treatment Goals a. Activity: Develop concrete goals using the Treatment Goals Form 2. Building Motivation a. Activity: Explore pros/cons of changing using the Decisional Balance Form	Outcome Expectancy (perceived effectiveness) Problem Recognition Perceived Costs of Treatment

Note. Internal determinants of motivation were outlined by Drieschner et al. (2004). Text written in green indicates intervention elements that I developed myself. Text written in blue indicates intervention elements that I adapted from the Unified Protocol.

Consistent with the iterative nature of early-stage intervention development, role induction components were later adapted for more flexible delivery based on participant

feedback obtained during the first two PREP-UP sessions. Early client feedback suggested that the perceived relevance of some informational role induction content varied across participants depending on prior therapy experience, familiarity with psychotherapy, and individual informational needs. As a result, subsequent PREP-UP sessions adopted a more flexible, modular approach in which role induction topics could be tailored to clients' interests, questions, and preferences. Motivational enhancement components (i.e., treatment goal clarification and decisional balance exercises) were delivered consistently across participants throughout the pilot period.

Following PREP-UP sessions, relevant session materials were uploaded to the client's EHR including the collaboratively completed goal-setting worksheet and decisional balance exercise completed during the session. Treatment motivation scores from the Treatment Motivation Scale for forensic outpatients (TMS-f; Drieschner et al., 2004), which were administered by clinic staff as part of standard clinic procedures at phone screen and intake, were also available within the chart. Brief chart notes summarizing the encounter and themes discussed during PREP-UP, including treatment goals, barriers to engagement, and questions or concerns regarding therapy, were additionally documented to support continuity of care. Intake therapists were notified when a client assigned to them had completed a PREP-UP session so that these materials could be reviewed prior to intake. These materials were intended to facilitate rapport-building, provide contextual information regarding client readiness and treatment goals, and support continuity between pre-treatment engagement and intake services.

Present Study

The present study examined the appropriateness, acceptability, and efficacy of PREP-UP, a brief pre-treatment engagement preparation intervention designed to support psychotherapy

engagement during the transition from waitlist to treatment access among adults receiving services through the UCLA Psychology Clinic. Broadly, the study evaluated the perceived usefulness and fit of PREP-UP within the clinic setting while also examining preliminary associations between PREP-UP participation and psychotherapy engagement across phases of care. In addition, the study explored whether participation in PREP-UP was associated with increased treatment motivation at intake. Collectively, these aims were intended to provide preliminary data regarding the potential utility of PREP-UP as an intervention targeting engagement.

Method

Study Design

The present study is a mixed-method, quasi-experimental implementation-effectiveness pilot evaluation of PREP-UP. The study examined preliminary implementation and psychotherapy engagement outcomes associated with PREP-UP participation using quantitative, qualitative, and EHR data. A quasi-experimental cohort design was used to compare psychotherapy engagement outcomes across three groups: (1) a historical 2023 services-as-usual (SAU) cohort prior to PREP-UP implementation, (2) a contemporaneous 2024 SAU cohort consisting of clients offered but not participating in PREP-UP, and (3) clients who completed PREP-UP in 2024 prior to intake.

Quantitative analyses evaluated preliminary implementation outcomes including reach, acceptability, appropriateness, feasibility, and fidelity, as well as psychotherapy engagement outcomes across phases of care, including intake completion, binary therapy attended, count of session attendance and missed appointments during active treatment, and premature versus planned treatment termination status. Qualitative interviews with clients and clinic personnel were conducted to further evaluate perceptions of the intervention and identify areas for

refinement. This study was reviewed and approved by the University of California, Los Angeles Institutional Review Board as a quality improvement initiative (IRB #24-000868).

Participants and Procedures

Clients

Adult clients (>18 years of age) scheduled to come off the individual psychotherapy waitlist between July 2024 and March 2025 and determined to be eligible for adult outpatient psychotherapy services during the clinic phone screening process were eligible for participation in PREP-UP. Exclusion criteria were consistent with standard clinic eligibility requirements for outpatient psychotherapy services and included acute suicidality requiring a higher level of care, recent psychiatric hospitalization, active psychosis, anorexia nervosa, or primary substance use concerns requiring specialized treatment. Clients are selected to come off the waitlist based on a combination of clinician availability, training needs, and chronological order. Clients seen at the psychology training clinic are part of the general community population and primarily self-referred. Clinic clients are on average 34 years of age ($SD = 11.62$), predominantly White (56.9%), single (54.4%), and equally likely to identify as male or female (Chen & Keenan-Miller, 2019). The most common diagnoses for those seeking services at the clinic are anxiety disorders (75.86%), depressive disorders (67.24%), obsessive-compulsive and related disorders (13.79%), and trauma and stressor-related disorders (10.34%) (Chen & Keenan-Miller, 2019).

Clients determined to be eligible for clinic services during the phone screening process were offered the opportunity to participate in PREP-UP prior to intake by the clinic staff member conducting the phone screen. PREP-UP was described as an optional single-session quality improvement intervention intended to provide information about psychotherapy and clinic procedures while helping clients clarify treatment goals and potential barriers to engagement.

Clients who expressed interest in participating provided permission for their contact information to be shared with the study team for scheduling prior to intake. Clients who declined participation continued through standard clinic procedures and were provided services as usual. Clients who completed PREP-UP ($n = 20$) were invited to complete brief post-session intervention evaluation measures and optional follow-up qualitative interviews conducted by a clinic staff member regarding their experiences with the intervention. A total of 17 clients participated in follow-up qualitative interviews regarding their experiences with the intervention.

In addition, this study included a retrospective historical comparison cohort ($n = 27$) of adult individual psychotherapy clients who completed intake and initiated services at the clinic during the 2023-2024 academic year, prior to the PREP-UP pilot.

Clinic Personnel

Clinic personnel participants included clinic staff and leadership ($n = 3$), doctoral trainee clinicians serving on the clinic intake team, advanced doctoral trainees supervising intake clinicians and advanced trainees providing psychotherapy services within the clinic ($n = 9$), and licensed clinical supervisors ($n = 6$) overseeing clinic training and patient care during the PREP-UP pilot period. Clinic staff are responsible for addressing new client inquiries, managing the waitlist for therapy services, conducting phone screens for prospective clients, scheduling therapy intakes, and assisting clients during their involvement with the Clinic. Clinic leadership includes the clinic director who oversees and approves all clinic procedures.

Clinic personnel were invited via email distributed through the clinic listserv to participate in qualitative interviews regarding acceptability, appropriateness, and feasibility of PREP-UP and areas for refinement. Participation additionally included completion of brief self-report questionnaires assessing the same outcomes. Interested personnel contacted the study team

via email regarding participation. Recruitment of clinic personnel participants ended once saturation was reached within qualitative data collection.

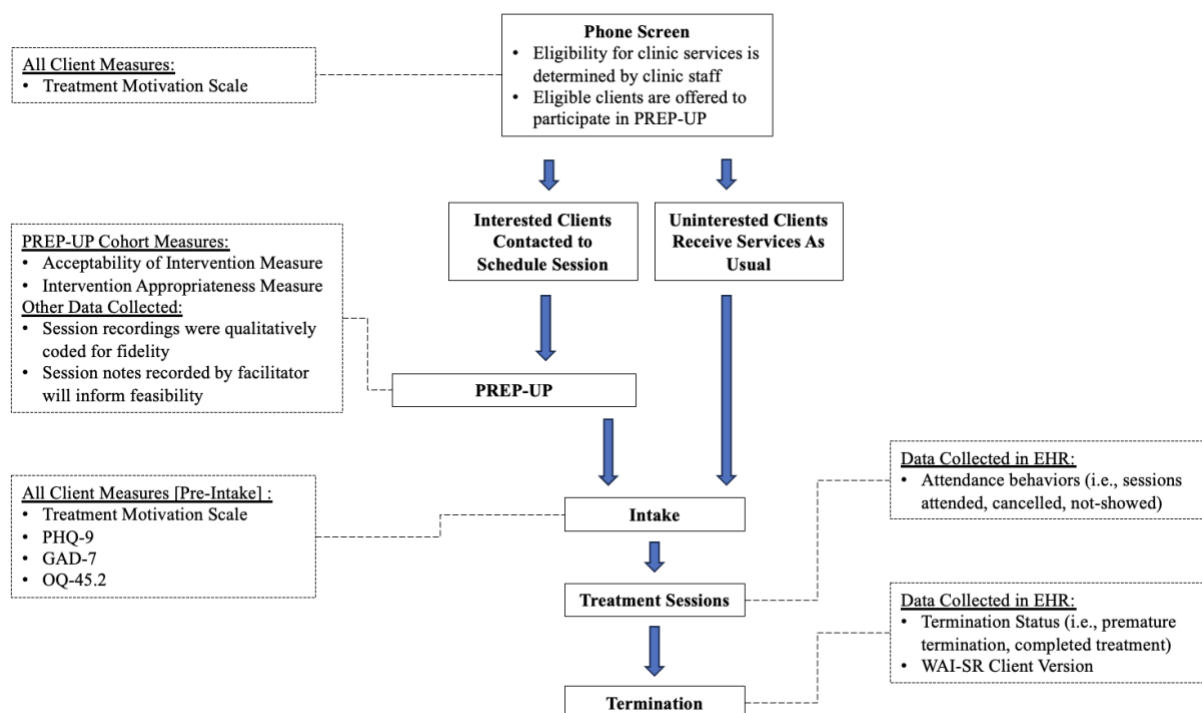
Measures

Outcomes

Quantitative and qualitative data were collected from multiple sources to evaluate PREP-UP and associated psychotherapy engagement outcomes. Data sources include client- and clinic personnel-reported measures and qualitative interviews, as well as data extracted from the EHR. Outcomes are grouped into three categories for organization: (a) intervention implementation outcomes, (b), treatment motivation, and (c) psychotherapy engagement outcomes. Client self-report measures were collected at multiple timepoints as part of standard clinic procedures and PREP-UP evaluation activities (see Figure 4).

Figure 4

Flow of Client Data Collection



Note. PREP-UP = Pre-treatment Engagement Program adapted from the Unified Protocol.

Intervention Implementation Outcomes

Implementation outcomes were informed by the RE-AIM framework (Glasgow et al., 1999), which provides a structure for evaluating the public health and implementation impact of interventions across dimensions including Reach, Effectiveness, Adoption, Implementation, and Maintenance. Given the pilot nature of the present study and early stage of intervention development, the current evaluation primarily focused on Reach and Implementation-related outcomes, including acceptability, appropriateness, feasibility, and fidelity. This framework was used to guide evaluation of both the practical integration of PREP-UP within a university training clinic and its potential to support psychotherapy engagement.

Reach: Reach was operationalized as the proportion of eligible clients offered PREP-UP who participated in the intervention.

Acceptability: Acceptability of PREP-UP was assessed quantitatively using the Acceptability of Intervention Measure (AIM; Weiner et al., 2017). The AIM is a brief four-item self-report questionnaire rated on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree), with higher mean scores indicating greater perceived acceptability of the intervention. This measure was administered to the 2024 PREP-UP cohort and clinic personnel participants. Clients who participated in PREP-UP completed the AIM immediately following the session. In addition, clients who participated in follow-up qualitative interviews were asked about their perceptions of the intervention's acceptability during the interview. Clinic personnel were similarly asked to shared perceptions of PREP-UP acceptability during qualitative interviews and completed the AIM following participation in the interview. The AIM demonstrated excellent internal consistency in the current client sample ($\alpha = .95$).

Appropriateness: Appropriateness of PREP-UP was assessed using the Intervention Appropriateness Measure (IAM; Weiner et al., 2017). The IAM is a brief four-item self-report questionnaire rated on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree), with higher mean scores indicating greater perceived appropriateness of the intervention. This measure was administered to the 2024 PREP-UP cohort and clinic personnel participants. Clients who participated in PREP-UP completed the IAM immediately following the session. In addition, clients who participated in follow-up qualitative interviews were asked about their perceptions of the intervention's appropriateness during the interview. Clinic personnel were similarly asked to discuss perceptions of PREP-UP appropriateness during qualitative interviews and completed the IAM following participation in the interview. The IAM demonstrated good internal consistency in the current client sample ($\alpha = .89$).

Feasibility: Feasibility of PREP-UP was assessed using the Feasibility of Intervention Measure (FIM; Weiner et al., 2017). The FIM is a brief four-item self-report questionnaire rated on a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree), with higher mean scores indicating greater perceived feasibility of the intervention. This measure was only administered to clinic personnel participants. Clinic personnel were asked to discuss perceptions of PREP-UP's feasibility during qualitative interviews and completed the FIM following participation in the interview. The FIM demonstrated excellent internal consistency in the current clinic personnel sample ($\alpha = .91$).

Fidelity: Fidelity was assessed using a structured session checklist developed for the study to document completion of planned PREP-UP intervention components (see Appendix F). Following each session, the intervention provider completed the fidelity checklist to indicate which intervention elements were delivered. In addition, a trained research assistant

independently reviewed video recordings of all PREP-UP sessions and completed the same fidelity checklist to evaluate adherence to intervention content. Session-level fidelity scores were calculated by dividing the number of completed intervention components by the total number of planned components for that session and multiplying by 100. Given the modular delivery approach that was adopted, planned intervention components were defined as the two core motivational enhancement components delivered across all sessions in addition to the role induction components selected for inclusion based on each client's identified interests, questions, and informational needs. Fidelity ratings therefore reflected adherence to both required intervention elements and session-specific modular content. Average fidelity percentage across sessions are reported.

Treatment Motivation

Treatment Motivation: Treatment motivation was measured using the self-report client version of the Treatment Motivation Scale for forensic outpatients (TMS-f; Drieschner et al., 2004). Though the TMS-f was originally developed for use in a forensic psychiatric setting, it has since been used in general outpatient mental health settings (Jochems et al., 2011; Jochems et al., 2012; Jochems et al., 2014) given that the items are sufficiently general for application outside a forensic setting (Jochems et al., 2014). The TMS-f has been found to be a reliable and valid operationalization of the constructs in the Integral Model of Treatment Motivation across forensic and non-forensic outpatient populations with a variety of psychiatric disorders (Drieschner, 2005; Drieschner & Boomsma, 2008a, 2008b; Jochems et al., 2012; Jochems et al., 2014). The TMS-f demonstrated good internal consistency in the current client sample ($\alpha = .84$).

In addition to the total score, the TMS-f includes six subscales for each internal determinant of motivation. To reduce participant burden and maintain relevance to a pre-

treatment context and the study goals, only the MET, problem recognition (PR), perceived costs of treatment (CT), and outcome expectancy (OE) subscales were administered.

The total TMS-f score (26-items) measures overall treatment motivation by assessing commitment for treatment engagement, session attendance, treatment completion and readiness to make sacrifices necessary for treatment (e.g. money, emotional burden, and lifestyle changes) (Drieschner & Boomsma, 2008b). The PR subscale is an 8-item measure of two cognitions relevant to treatment: recognition of having a concern that requires change and needing treatment to achieve this change (Drieschner & Boomsma, 2008b). The CT subscale is a 9-item measure of the perception of sacrifices needed for treatment and the aversiveness of treatment (Drieschner & Boomsma, 2008b). The OE subscale is a 9-item measure of three treatment-related expectancies: ability to complete treatment, that treatment leads to intended change, and that treatment will result in a better life (Drieschner & Boomsma, 2008b).

All response options are rated on a 5-point Likert scale from 1 (“completely agree”) to 5 (“completely disagree”). Several items are reverse scored after which the items are summed. Total scores can range from 5 to 130, with higher scores indicating greater overall motivation to engage in treatment. Scores on the PR subscale range from 5 to 40, with higher scores reflecting greater recognition of experiencing concerns that require change and a stronger perceived need for treatment. Scores on the CT subscale range from 5 to 45, with higher scores indicating greater perceived barriers, burdens, or costs associated with engaging in treatment. Scores on the OE subscale range from 5 to 45, with higher scores indicating more positive treatment expectations and greater confidence in therapy.

Psychotherapy Engagement Outcomes

Client psychotherapy engagement outcomes were assessed for the 2023 SAU, 2024 SAU, and 2024 PREP-UP cohorts using attendance and case disposition data extracted from the EHR. Consistent with the conceptualization of psychotherapy engagement as a multi-phase process, outcomes were examined across the pre-treatment, treatment initiation, active treatment, and treatment termination phases of care.

Completed Intake Appointment (Pre-treatment): Intake completion was extracted from the clinic EHR and coded as a binary outcome variable, where 0 = did not complete intake and 1 = completed intake appointment.

Therapy Attended (Treatment initiation): Therapy attended captured whether clients attended at least one individual psychotherapy session following completion of their initial intake at the UCLA Psychology Clinic. Per routine clinic procedures, attendance behaviors were recorded in the EHR for all clients beginning with intake. Clients were coded as having attended a therapy session if documentation indicated completion of at least one scheduled individual psychotherapy appointment following intake. Clients who completed intake but did not attend any subsequent psychotherapy sessions were coded as having not attended therapy. The variable was operationalized dichotomously (0 = did not attend therapy; 1 = attended therapy).

Sessions Attended (Ongoing treatment): Session attendance was extracted from the EHR and counted to derive the total number of attended psychotherapy sessions following intake. Higher values reflect larger counts of attended psychotherapy sessions.

Missed Appointments (Ongoing treatment): Attendance data were obtained from the EHR. Missed appointments were initially conceptualized using two indicators: session cancellations and session no-shows. These were defined as the number of sessions cancelled by the client and the number of sessions missed without prior notice to the provider or clinic,

respectively, following intake. However, due to a low frequency of recorded no-show appointments in the dataset, separate analyses of cancellations and no-shows were not feasible. The low number of documented no-shows likely reflects limitations in how attendance was recorded in the EHR rather than true absence of no-show behavior. Although attendance behaviors were routinely recorded, variability in documentation practices may affect the precision with which different types of missed appointments are captured. Accordingly, these indicators were combined to create a single measure of missed appointments, operationalized as the total number of missed sessions (i.e., sum of cancellations and no-shows) post-intake. Higher values reflect larger counts of missed appointments during active treatment.

To provide a clearer representation of attendance patterns during active treatment, a missed appointment rate was also calculated. This variable was operationalized as the proportion of missed psychotherapy appointments (cancellations and no shows) relative to the total number of scheduled psychotherapy appointments following treatment initiation. Higher values reflected greater rates of missed appointments during active treatment.

Premature Termination (Termination phase): Premature termination was operationalized using clinician's reports of clients' termination status documented in the EHR. For all clients, clinicians were required to indicate the reason for termination in the 'TX Case Closure Summary' note before the case file could be closed in the EHR management system. Reasons include (1) Therapy goals attained, (2) Client no longer wishes to continue therapy, (3) Therapist leaving the clinic, (4) Client logistical barriers (e.g., cost, location, scheduling), (5) Client found services elsewhere, (6) Unknown (unable to contact client), and (7) Other. Though 'Other' was available in the EHR as a response category, no cases in the present sample were classified under this category, and it was therefore not included in analyses. 'Therapist leaving the Clinic' was

used to denote cases in which treatment was discontinued due to clinician-initiated factors, most commonly the end of a trainee's rotation, and involved transfer of care to another provider within the clinic. Cases coded as 'Therapist leaving the Clinic' were manually reviewed to confirm whether they reflected transfer of care and all cases were confirmed as representing transfers. Transfer cases were conceptually distinguished from both planned treatment completion and premature termination, as they reflect administrative or structural transitions in care rather than client-driven disengagement or attainment of treatment goals. For analyses using premature termination as the outcome, transfer cases were excluded, as these transitions were largely driven by clinician rotation changes within the clinic and did not constitute a definitive treatment endpoint within the study's focus on individuals' first episode of care.

Clients were considered premature terminators (binary variable = 1) if the reason for termination on their case closure report is indicated as 'Client no longer wishes to continue therapy,' 'Client logistical barriers (e.g., cost, location, scheduling),' 'Client found services elsewhere,' or 'Unknown (unable to contact).' Although obtaining services elsewhere may reflect continued engagement in mental health care, these cases were classified as premature termination in the present study, as treatment was not completed within the clinic during the defined episode of care. Clients will be considered to have planned treatment completion (binary variable = 0) if the reason for termination on their case closure report is indicated as 'Therapy goals attained.'

Primary Predictor

Group Status: Group status served as the primary predictor variable for psychotherapy engagement analyses and was operationalized as a three-level categorical variable representing cohort membership: (1) 2023 SAU cohort, consisting of adult psychotherapy clients who

initiated services in the 2023-2024 academic year prior to PREP-UP implementation; (2) 2024 SAU cohort, consisting of clients offered PREP-UP who did not participate in the intervention; and (3) 2024 PREP-UP cohort, consisting of clients who completed the PREP-UP intervention prior to intake.

Demographic and Background Variables

For descriptive purposes, age, sex, race/ethnicity (White vs. non-White), annual income, prior psychotherapy experience, primary reason for seeking services, and wait time prior to treatment were used to characterize the sample. Routine client self-report symptom outcomes at intake were also included for descriptive purposes.

Age: Age was calculated as the difference, in years, between the client's date of birth and the date of the First Contact Note in the EHR, representing age at the time of addition onto the clinic waitlist.

Sex: The clinic's EHR included multiple sex-related variables. "Legal Sex" was used as the primary variable due to its completeness. For cases with missing data, values were supplemented using "Sex Assigned at Birth," which clinic staff began recording consistently around 2020. Sex was coded dichotomously (0 = female, 1 = male).

Race/Ethnicity: Race and ethnicity data were derived from information routinely collected in the EHR. Eight initial categories were identified: American Indian, Asian/Pacific Islander, Black, Hispanic, Multi-Racial, White, Declined to Answer, and Unknown. Due to small cell sizes across several racial groups, race was dichotomized for analytic purposes as White non-Hispanic versus racially/ethnically minoritized (0 = racially/ethnically minoritized; 1 = White non-Hispanic). Participants with responses coded as "Unknown" or "Declined to Answer" were treated as missing.

History of Psychotherapy: History of psychotherapy was assessed using the question, “Have you been in therapy before?” from the First Contact Note in the EHR. Responses were initially recorded as open-ended and subsequently recoded into a dichotomous yes/no variable by research staff. For cases with missing data at first contact, responses to the same question from the phone screening or intake notes were used. The First Contact Note served as the primary reference point, with supplemental data incorporated to maximize completeness.

Primary Reason for Seeking Services: At the time of first contact, clients were asked to describe their “reason or impetus for requesting services.” The research team (comprising this author, a Clinic Associate, and an undergraduate research assistant) conducted a content analysis of these free-text responses from the First Contact Note to identify overarching categories. All team members independently coded an initial subset of responses. Through iterative discussions, discrepancies were resolved and the coding scheme was refined. Once consensus on coding definitions was achieved, interrater reliability was assessed on a subset of responses ($\kappa = .80$). The finalized coding scheme was applied to the full dataset. The research assistant then coded the full dataset, with ambiguous cases reviewed in weekly consensus meetings. Dependability and confirmability were supported by a codebook and iterative refinement of coding categories.

Each response could be assigned multiple codes (maximum of seven per case). Individual concerns were organized into six overarching domains: (1) internalizing symptoms (e.g., anxiety, depression, trauma-related concerns); (2) high-acuity or complex clinical presentations (e.g., psychosis, bipolar disorder, suicidal ideation, personality pathology); (3) psychosocial and contextual stressors (e.g., relationship difficulties, academic or occupational stress, grief, identity-related stress); (4) clinic-specific service needs (e.g., desire for specific treatments or providers); (5) neuropsychological concerns; and (6) other (e.g., insomnia, cult-related

experiences, paraphilic concerns). These domains were designed to group conceptually related presenting concerns while distinguishing between clinical symptom presentations and service-related factors influencing help-seeking.

Income: Annual income was derived from free-text responses in the Adult Therapy Screening Note and First Contact Note, prioritizing phone screening data as it reflected more recent self-report. Reported monthly and weekly incomes were converted to annual estimates by multiplying by 12 or 52, respectively. For clients with missing income data, the service fee quoted during the phone screen was used to estimate annual income based on the clinic's sliding-scale fee structure. Because fees vary by number of dependents (up to three), an average of two dependents was assumed, and the midpoint of the corresponding income range was used as the estimate. When phone screening data were unavailable, the same procedure was applied to First Contact Note data.

Waiting Time: The waiting period was calculated as the time elapsed, in days, between the date of the client's initial contact with the clinic (date of 'Reception First Contact' note in the EHR) and the date of their intake appointment (date of 'TX Adult Intake' note in the EHR). Given clinic procedures, which often involve additional delay between the intake appointment and the first treatment session (Fig. 1), a second variable reflecting the total wait time was computed as the number of days between the client's initial contact and their first treatment session (date of 'First TX Adult Visit' note in the EHR). Since this variable is only defined for clients who initiated treatment, it was used descriptively to characterize the full duration of the pre-treatment period and to quantify delays between intake and treatment initiation.

Patient Health Questionnaire, Nine-Item (PHQ-9): The PHQ-9 (Kroenke et al., 2001) is a well-established and widely used self-administered 9-item measure of depressive symptom

severity in the previous 2 weeks. The PHQ-9 comprises nine core symptom items (e.g., “Feeling down, depressed, or hopeless”) referencing the nine diagnostic criteria for major depression in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013). Response options were “not at all,” “several days,” “more than half the days,” and “nearly every day,” scored as 0, 1, 2, and 3, respectively, on a 4-point rating scale. PHQ-9 scores of 5, 10, 15, and 20 represent mild, moderate, moderately severe, and severe depression, respectively, with scores of 10 or above falling into the clinical range (Kroenke et al., 2001). The scale’s psychometric properties have been evaluated across a range of settings and populations, which has demonstrated the PHQ-9’s consistently high sensitivity and specificity as well as a breadth of data on its reliability and validity (Beard et al., 2016; Costantini et al., 2021; Kroenke et al., 2001; Levis et al., 2019; Reynolds et al., 2017). Per standard clinic procedures, the PHQ-9 is intended to be administered to all clients at intake.

Generalized Anxiety Disorder, Seven-Item (GAD-7): The GAD-7 (Spitzer et al., 2006) is a 7-item brief, self-administered scale of symptoms of anxiety (e.g., “Feeling nervous, anxious, or on edge”) referencing the core diagnostic criteria for generalized anxiety in the DSM-5 (American Psychiatric Association, 2013). Response options are “not at all,” “several days,” “more than half the days,” and “nearly every day,” scored as 0, 1, 2, and 3, respectively, on a 4-point rating scale. Scores of 5, 10, and 15 may be interpreted as representing mild, moderate, and severe levels of anxiety, respectively, with scores of 10 and above falling into the clinical range (Spitzer et al., 2006). A recent systematic review and meta-analysis found that the GAD-7 demonstrates favorable psychometric properties across a range of settings and populations (Plummer et al., 2016). Per standard clinic procedures, the GAD-7 is intended to be administered to all clients at intake.

Working Alliance Inventory, Short-form, Revised (WAI-SR): The WAI-SR is a 12-item client-report survey (Hatcher & Gillaspy, 2006) used to measure the client’s perspective of therapeutic alliance. The three subscales measure agreement about the goals of therapy, agreement about the tasks of therapy, and the bond between the therapist and client. Clients rate each item on a scale from 1 (“seldom”) to 5 (“always”). Total scores range from 12 to 60 and higher scores may be interpreted as a stronger therapeutic alliance. Adequate reliability and validity of the measure have been demonstrated across diverse groups of psychotherapy clients (Hatcher & Gillaspy, 2006; Munder et al., 2010). Per standard clinic procedures, the WAI-SR is intended to be administered to all clients at treatment termination.

Qualitative Procedures

Semi-structured qualitative interviews were conducted with both client and clinic personnel participants to obtain additional perspectives regarding PREP-UP. Client follow-up interviews explored participants’ experiences with PREP-UP, perceived usefulness of the intervention, relevance of intervention components, and perceptions regarding its impact on treatment preparation and engagement (see Appendix G). Clinic personnel interviews explored perceptions of PREP-UP’s acceptability, appropriateness, feasibility, and recommendations for future refinement and integration into clinic procedures after they were given information about PREP-UP (see Appendix H).

Qualitative interviews were conducted virtually using Zoom for Healthcare and were facilitated by the treatment developer. Interviews followed semi-structured interview guides developed for the study. All interviews were audio recorded and transcribed for analysis. Field notes were additionally maintained by the treatment developer to document emerging observations and considerations relevant to intervention refinement.

Note on Sample Size

In this pilot study, I acknowledge that the sample size may not provide adequate power for traditional hypothesis testing. However, this study aims to discern any trends or signals of effect related to PREP-UP. Pilot trials, by their nature, often prioritize detecting these signals rather than achieving statistical significance (Pearson et al., 2020; Taylor & Kowalkowski, 2021). Thus, while analyses may not yield statistically significant findings, they may offer valuable insights into the potential impact of PREP-UP on engagement outcomes.

Analytic Plan

All analyses were conducted using R Version 2025.09.0.387 (R Core Team, 2025). Given the modest sample sizes across cohorts and stakeholder groups, analyses were selected to prioritize descriptive interpretation, and estimation of preliminary associations rather than hypothesis testing intended to establish intervention efficacy.

Preliminary Analyses

Prior to addressing the primary study aims, preliminary analyses were conducted to characterize the sample and evaluate cohort comparability. The full client sample included 66 adult clients across three cohorts. Participant flow for the 2024 cohort was summarized descriptively using a CONSORT-style flow diagram.

Descriptive statistics were calculated for the full sample and separately by cohort. Continuous variables were summarized using means and standard deviations, and categorical variables were summarized using frequencies and percentages. Preliminary analyses examined whether cohorts differed on client-level and structural characteristics prior to conducting exploratory outcome analyses. Variables examined included age, sex, race/ethnicity, prior

psychotherapy history, annual income, primary reason for seeking treatment, and wait time from first contact to intake. Group differences on categorical variables (e.g., sex, race/ethnicity, prior psychotherapy history, primary presenting concern categories) were examined using Fisher's exact tests due to small cell sizes. Group differences on continuous variables (e.g., age, income, wait time) were examined using nonparametric Kruskal–Wallis tests. Baseline symptom severity variables, including PHQ-9, GAD-7, and OQ-45.2 scores collected at intake, were also compared across cohorts to assess whether groups differed in clinical presentation at baseline. Missing data were minimal for demographic and treatment variables extracted from the EHR. Consistent with the exploratory and pilot nature of the study, analyses were conducted using available data for each variable.

Aim 1: Examine the Reach, Acceptability, Appropriateness, Feasibility, and Fidelity of PREP-UP Across Stakeholder Groups

Aim 1 examined preliminary intervention evaluation outcomes associated with PREP-UP, including reach, acceptability, appropriateness, feasibility, and fidelity. Reach was calculated descriptively as the proportion of eligible clients offered PREP-UP who completed the intervention. Fidelity was summarized descriptively using session-level adherence percentages derived from fidelity checklists completed by both the intervention provider and an independent research assistant. Acceptability, appropriateness, and feasibility questionnaire data collected from clients and clinic personnel were summarized descriptively using means and standard deviations.

Qualitative interview data were analyzed using a hybrid directed and inductive qualitative content analysis approach (Hsieh & Shannon, 2005). Initial coding domains were informed by

the study's preliminary intervention evaluation constructs, including acceptability, appropriateness, and feasibility. Additional codes and categories were developed inductively to capture emergent concepts identified within the data, including perceived impact of PREP-UP and recommendations for future refinement.

The primary coder initially reviewed and coded all interview transcripts and developed a preliminary codebook through an iterative review process. A team of five undergraduate research assistants at the University of California, Los Angeles subsequently independently reviewed and double-coded transcripts using the developing codebook. Prior to coding, all research assistants completed HIPAA and CITI training and participated in a one-hour training on qualitative content analysis led by Dr. Lauren Ng, which reviewed the principles and procedures of content analysis coding. Additional training and calibration occurred during ongoing team meetings, during which relevant methodological literature was reviewed, and coding procedures were discussed collaboratively prior to beginning formal coding. Regular consensus meetings were conducted throughout the analytic process to review coding discrepancies, refine code definitions, and discuss emergent themes and categories. The codebook was iteratively revised until consensus regarding coding structure and category definitions was achieved across coders.

Following coding, themes were organized within implementation outcome domains for each stakeholder group. Frequencies and percentages were calculated descriptively to reflect the proportion of participants endorsing or discussing each theme. Because participants could endorse multiple themes, percentages were not expected to total 100%.

Aim 2: Examine Preliminary Treatment Engagement Outcomes Across Cohorts

This aim examined preliminary differences in treatment engagement outcomes across the 2023 SAU cohort, the 2024 SAU cohort, and the 2024 PREP-UP cohort among clients who completed intake. Given the small sample size and non-normal distribution of count-based attendance variables, nonparametric analyses were used. Because treatment attendance variables were positively skewed and violated assumptions of normality, Kruskal–Wallis tests were conducted to compare the number of treatment sessions attended and missed across cohorts. Effect sizes for Kruskal–Wallis analyses were calculated using epsilon-squared (ϵ^2). Fisher’s exact tests (Freeman–Halton extension) were conducted to examine cohort differences for premature termination status (Freeman & Halton, 1951). Effect sizes for categorical analyses were calculated using Cramer’s V.

Exploratory negative binomial regression models were subsequently conducted to further examine cohort differences in treatment attendance. Negative binomial regression was selected due to overdispersion in the count outcome and the skewed distribution of treatment attendance data. Incidence rate ratios (IRRs) and 95% confidence intervals were reported to facilitate interpretation of relative treatment attendance rates across cohorts. Given the exploratory nature of these analyses and limited statistical power, findings were interpreted cautiously as preliminary indicators of possible treatment engagement patterns associated with PREP-UP participation.

Aim 3: Examine Associations Between PREP-UP Participation and Treatment Motivation

This aim examined whether PREP-UP participation was associated with changes in treatment motivation and related motivational constructs from phone screen to intake among clients in the 2024 cohorts. Prior to regression analyses, baseline treatment motivation scores at

phone screen were compared between the 2024 SAU and PREP-UP groups to evaluate preexisting group differences. Because group sizes were unequal and variance assumptions could not be assumed, Welch's independent samples t-test was used to examine baseline group differences in phone screen treatment motivation scores.

To examine change in motivation over time, difference scores were calculated by subtracting phone screen motivation scores from intake motivation scores, such that positive values reflected increases in motivation between phone screen and intake. Welch's independent samples t-tests were conducted to examine whether changes in treatment motivation differed between clients who participated in PREP-UP and those who received standard care. Additionally, within the PREP-UP cohort, paired samples t-tests were conducted to examine whether treatment motivation significantly changed from phone screen to intake following participation in PREP-UP.

A linear regression model was conducted to examine whether PREP-UP participation predicted intake treatment motivation scores after controlling for baseline treatment motivation assessed at phone screen. Unstandardized regression coefficients (B), standard errors, t-statistics, and p-values were reported. Given the pilot nature of the study and modest sample size, analyses were interpreted as exploratory examinations of preliminary associations between PREP-UP participation and treatment motivation.

Aim 4: Exploratory Associations Between PREP-UP Participation, Intake Treatment Motivation Scores, and Subsequent Treatment Termination Status

This exploratory aim examined whether two factors hypothesized to be related to engagement – participation in PREP-UP and treatment motivation scores assessed at intake –

were individually associated with subsequent treatment termination status among clients offered the preparatory session. Fisher's exact test was used to examine associations between PREP-UP participation and treatment termination status because of small cell sizes. Odds ratios were calculated as effect size estimates for categorical associations. Welch's independent samples t-test was used to compare intake treatment motivation scores between clients with planned termination and clients with premature termination. Cohen's d was calculated using pooled standard deviations to estimate effect size. Given the modest sample size among clients offered PREP-UP, all analyses under this aim were considered exploratory and interpreted cautiously as preliminary descriptive associations rather than confirmatory findings.

Statistical Equations:

Aim 2

Negative binomial regression predicting sessions attended (count):

$$Y_i \sim NB(\mu_i, \theta)$$

$$\log(\mu_i) = \beta_0 + \beta_1(2023 \text{ Cohort}_i) + \beta_2(2024 \text{ PREP-UP Cohort}_i)$$

where the 2024 SAU cohort served as the reference group.

Aim 3

Linear regression predicting intake treatment motivation scores (continuous):

$$Y_i = \beta_0 + \beta_1(\text{PREP-UP Participation}_i) + \beta_2(\text{Baseline Treatment Motivation}_i) + \varepsilon_i$$

where:

$$\begin{aligned} Y_i &= \text{intake TMS-f MET score} \\ \text{PREP-UP Participation}_i &= \begin{cases} 0 & \text{2024 SAU} \\ 1 & \text{2024 PREP-UP} \end{cases} \end{aligned}$$

Aim 4

Fisher's exact test examining the association between PREP-UP participation and treatment termination status. For a 2×2 contingency table, the probability of the observed cell configuration, conditional on the marginal totals, was calculated as:

$$P = \frac{(a+b)!(c+d)!(a+c)!(b+d)!}{a!b!c!d!n!},$$

where a , b , c , and d represent the four cell frequencies and $n = a + b + c + d$.

The odds ratio estimating the odds of premature termination among PREP-UP participants relative to nonparticipants was calculated as:

$$OR = \frac{b/a}{d/c}$$

Welch's independent samples t -test was used to compare intake treatment motivation scores between clients with planned and premature termination:

$$t = \frac{\bar{X}_{PT} - \bar{X}_{PrT}}{\sqrt{\frac{s_{PT}^2}{n_{PT}} + \frac{s_{PrT}^2}{n_{PrT}}}}$$

Cohen's d was calculated using the pooled standard deviation:

$$d = \frac{\bar{X}_{PT} - \bar{X}_{PrT}}{s_p},$$

$$s_p = \sqrt{\frac{(n_{PT} - 1)s_{PT}^2 + (n_{PrT} - 1)s_{PrT}^2}{n_{PT} + n_{PrT} - 2}}$$

Definitions:

- Y_i = The dependent variable for participant i
- μ_i = expected number of sessions attended for participant i

- θ = negative binomial dispersion parameter
- β_0 = Intercept
- $\beta_1 - \beta_2$ = Regression coefficients
- ε_i = Residual error term
- $\bar{X}_{PT}, \bar{X}_{PrT}$ = mean motivation scores for the planned and premature termination groups
- s_{PT}, s_{PrT} = standard deviations for the two termination groups
- n_{PT}, n_{PrT} = sample sizes for the two termination groups
- s_p = pooled standard deviation

Results

Sample Characteristics

The full client sample included 66 adult clients who belonged to one of three groups: the 2023 SAU cohort ($n = 27$), the 2024 SAU cohort ($n = 19$), and the 2024 PREP-UP cohort ($n = 20$). Participant flow for the 2024 cohort is presented in Figure 5. Of 39 clients assessed at phone screen, 31 expressed interest in PREP-UP and 20 ultimately completed the session. Across the 2024 cohort, 35 clients completed intake (19 PREP-UP; 16 SAU) and were therefore included in the analyses for aims 2-4.

Descriptive statistics for the full sample and by group are presented in Tables 9 and 10. Across the full sample, participants were on average 35.4 years old ($SD = 16.2$), and the majority identified as female (72.3%) and reported a history of prior psychotherapy (77.3%). Approximately 56.1% of the sample identified as non-White. Anxiety (25.8%) was the most frequent reason for treatment, followed by interpersonal difficulties (10.6%) and seeking a specific evidence-based treatment (10.6%). Average wait time from first contact to intake was 516.5 days ($SD = 275.9$), and income levels demonstrated substantial variability.

Figure 5

Flow Diagram of 2024 Cohort Patient Progression Through the UCLA Psychology Clinic

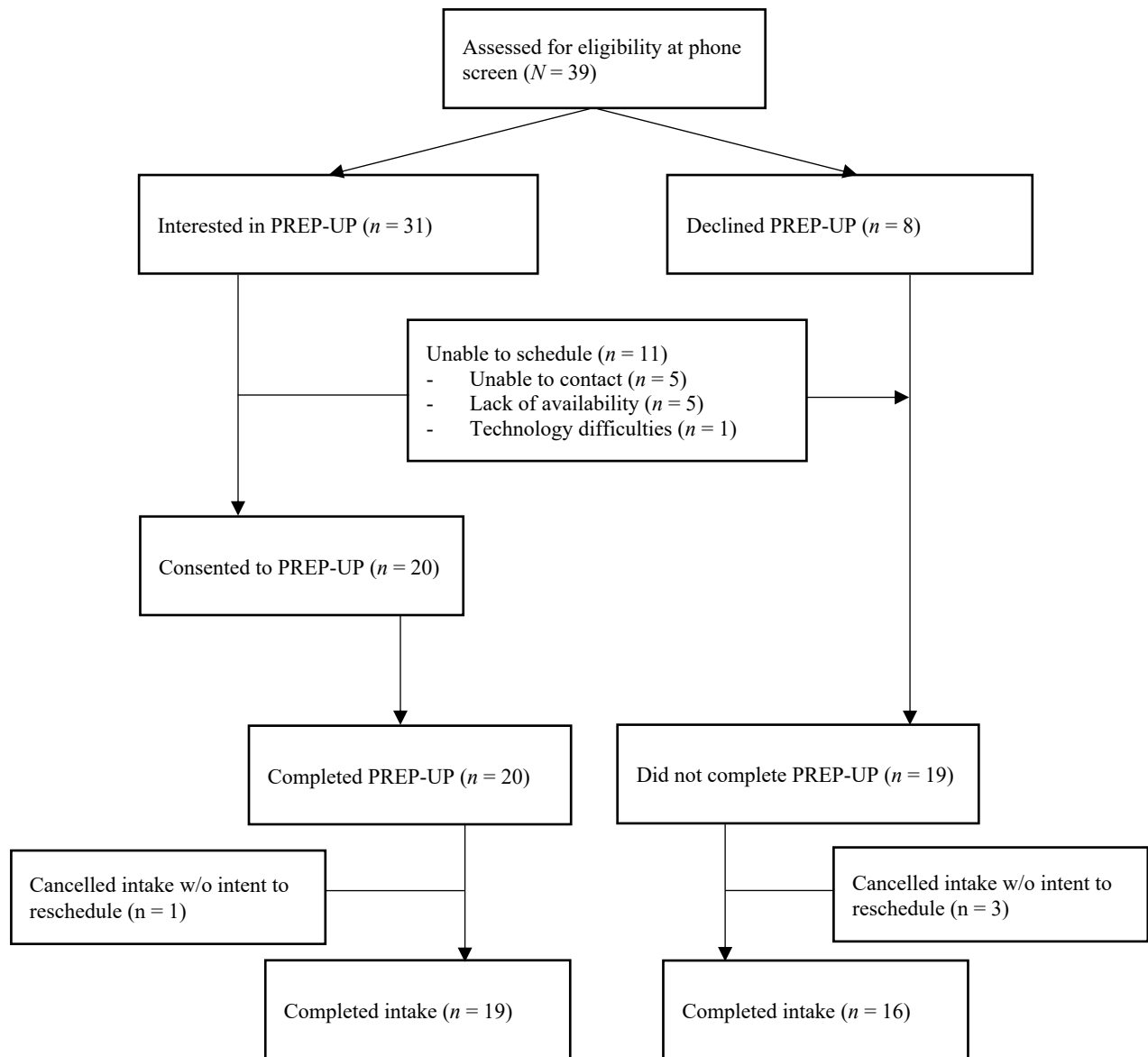


Table 9*Full Sample Characteristics*

	Full Sample (<i>N</i> = 66)
Age, M (SD)	35.4 (16.2)
Sex, n (%)	
Female	47 (72.3%)
Male	18 (27.3%)
Missing	1 (1.52%)
White or Non-White, n (%)	
Non-White	37 (56.1%)
White Non-Hispanic	26 (41.3%)
Missing	3 (4.6%)
Primary reason for seeking therapy, n (%)	
Internalizing symptoms	32 (48.5%)
Psychosocial/contextual concerns	24 (36.4%)
Clinic-specific service needs	7 (10.6%)
High-acuity/complex presentations	1 (1.5%)
Neuropsychological disorders	1 (1.5%)
Other	1 (1.5%)
Prior psychotherapy, n (%)	
Yes	51 (77.3%)
No	15 (22.7%)
Annual income, M (SD)	\$32,157 (\$39,777)
Annual income, median (IQR)	\$23,736 (\$6,000-\$42,000)
Wait to intake (days), M (SD)	516.5 (275.9)

Preliminary analyses examining baseline differences across cohorts indicated that groups did not significantly differ on demographic characteristics, including age, sex, race, prior psychotherapy, or income (all $ps > .05$). However, there was a significant difference in wait time to intake across groups, $H(2) = 6.44$, $p = .04$, with the 2024 PREP-UP cohort experiencing longer wait times on average compared to the other cohorts. The distribution of primary presenting concerns did not significantly differ across groups, Fisher's exact test $p = .15$. There were no significant differences in symptom severity measured at intake across groups, including PHQ-9, GAD-7, and OQ-45.2 scores (all $ps > .05$).

Table 10*Sample Characteristics by Cohort*

	2023 Cohort (<i>n</i> = 27)	2024 SAU Cohort (<i>n</i> = 19)	2024 PREP-UP Cohort (<i>n</i> = 20)
Age, M (SD)	36.8 (19.6)	33.9 (13.4)	35.1 (13.9)
Sex, <i>n</i> (%)			
Female	21 (77.8%)	11 (61.1%)	15 (75.0%)
Male	6 (22.8%)	7 (36.8%)	5 (25.0%)
Missing		1 (5.3%)	
White or Non-White, <i>n</i> (%)			
Non-White	17 (63.0%)	8 (42.1%)	12 (60.0%)
White Non-Hispanic	8 (29.6%)	10 (52.6%)	8 (40.0%)
Missing	2 (7.4%)	1 (5.26%)	
Primary reason for seeking therapy, <i>n</i> (%)			
Internalizing symptoms	13 (48.1%)	10 (52.6%)	9 (45.0%)
Psychosocial/contextual concerns	12 (44.4%)	3 (15.8%)	9 (45.0%)
Clinic-specific service needs	2 (7.4%)	4 (21.1%)	1 (5.0%)
High-acuity/complex presentations			1 (5.0%)
Neuropsychological disorders		1 (5.3%)	
Other		1 (5.3%)	
PHQ-9, M (SD)	9.2 (5.2)	9.7 (5.6)	9 (6.4)
GAD-7, M (SD)	9.8 (5.4)	9.6 (5.3)	11 (5.5)
OQ-45.2, M (SD)	67.8 (25.7)	79.2 (17.1)	81.9 (19.6)
Prior psychotherapy, <i>n</i> (%)			
Yes	20 (74.1%)	15 (78.9%)	16 (80.0%)
No	7 (25.9%)	4 (21.1%)	4 (20.0%)
Annual income, M (SD)	\$30,396 (\$40,423)	\$38,564 (\$50,998)	\$28,548 (\$24,794)
Annual income, median (IQR)	\$18,000 (\$6,500-\$38,100)	\$23,736 (\$15,600-\$48,000)	\$30,000 (\$6,000-\$40,800)
Wait to intake (days), M (SD)	445.1 (264.5)	498.3 (308.2)	639.8 (231.0)

Note. Percentages are calculated within each cohort.

Missing data were minimal for client-level and structural variables. As expected in EHR data, a subset of participants had missing self-report data (e.g., motivation and symptom measures). Analyses were conducted using available data for each variable.

Reach

Of the 39 clients assessed at phone screen and determined eligible for Clinic services and offered PREP-UP, 31 (79.5%) expressed interest in participating in the PREP-UP session. Of those, 20 (64.5%) completed the session, representing a reach of 51.3% of the total eligible sample. Qualitative findings suggested that logistical barriers, including limited availability and short scheduling windows between phone screen and intake, may have reduced participation in PREP-UP. Of the 20 PREP-UP participants, 17 completed follow-up qualitative interviews.

Fidelity

Fidelity to the PREP-UP intervention protocol was high. Across sessions, the facilitator completed an average of 94.5% (SD = 4.2) of planned intervention components based on adherence checklist ratings completed through facilitator self-report and independent recording review.

Acceptability

Quantitative Acceptability Findings

Acceptability ratings for PREP-UP were high across stakeholder groups (Table 11). Among clients who completed the PREP-UP session and post-session measures ($n = 19$), the mean AIM score was 4.63 out of 5 (SD = 0.54). Acceptability ratings were similarly high among clinicians (M = 4.67, SD = 0.43), licensed supervisors (M = 4.71, SD = 0.25), and clinic leadership/staff (M = 4.62, SD = 0.38), suggesting broad support for PREP-UP across stakeholder groups.

Factors Supporting Acceptability

Qualitative findings across stakeholder groups further supported the acceptability of PREP-UP (Tables 12-14). Clients consistently described the session as clear, supportive, and worthwhile, with many emphasizing the value of role induction, psychoeducation, expectation-setting, and opportunities to clarify treatment goals prior to intake (Table 12). Nearly all interviewed clients (16/17, 94%) indicated that they would recommend PREP-UP to future clients. One participant stated that the session “[helped] me think more specifically about what I wanted to work on” (Table 12).

Clinicians and supervisors similarly described PREP-UP as a clinically thoughtful and valuable intervention. In particular, stakeholders highlighted the motivational enhancement and psychoeducational components of the intervention, as well as its potential utility within a university training clinic context characterized by prolonged waitlists, elevated disengagement risk, and novice trainee therapists (Table 13-14). Supervisors additionally emphasized PREP-UP’s alignment with evidence-based practice and described the intervention as clinically sophisticated and responsive to a meaningful gap in services during the pre-treatment period (Table 14).

Factors Limiting Acceptability and Areas for Improvement

Despite overall high acceptability, several participants identified areas for refinement. Some clients with extensive prior psychotherapy experience described portions of the session as repetitive or less personally relevant, particularly information related to therapy structure or clinic orientation (Table 12). Others noted that portions of the session felt somewhat dense or lengthy and suggested greater flexibility in pacing and tailoring based on prior therapy exposure and client needs (Table 12). These findings suggest that although PREP-UP was broadly

experienced as acceptable, perceived usefulness may vary based on familiarity with psychotherapy and mental health services.

Table 11

Implementation Outcomes Across Respondent Groups

	Clients ($n = 19$)	Clinicians ($n = 9$)	Licensed Supervisors ($n = 6$)	Clinic Leadership & Staff ($n = 3$)
AIM, M (SD)	4.63 (0.54)	4.67 (0.43)	4.71 (0.25)	4.62 (0.38)
IAM, M (SD)	4.66 (0.47)	4.53 (0.42)	4.54 (0.43)	4.45 (0.43)
FIM, M (SD)		4.36 (0.52)	4.43 (0.46)	4.32 (0.42)

Note. AIM = Acceptability of Intervention Measure; IAM = Intervention Appropriateness Measure; FIM = Feasibility of Intervention Measure. Values are presented as mean (SD). Sample sizes reflect the number of respondents with available data for each measure.

Appropriateness

Quantitative Appropriateness Findings

Stakeholders generally perceived PREP-UP as highly appropriate for the clinic setting and client population (Table 11). Clients reported high appropriateness ratings on the IAM ($M = 4.66$, $SD = 0.47$). Ratings were similarly high among clinicians ($M = 4.53$, $SD = 0.42$), licensed supervisors ($M = 4.54$, $SD = 0.43$), and clinic leadership/staff ($M = 4.45$, $SD = 0.43$).

Factors Supporting Appropriateness

Qualitative findings further suggested that PREP-UP was perceived as a strong fit for this university-affiliated training clinic setting. Clients frequently described the intervention as particularly useful for individuals new to therapy or returning to treatment following prolonged wait periods, emphasizing the value of clarifying therapy expectations, learning about treatment modalities, and reducing uncertainty prior to intake (Table 12).

Clinicians and supervisors similarly viewed PREP-UP as well-suited for the clinic's long-waitlist context and elevated disengagement risk (Table 13-14). Stakeholders described the intervention as particularly beneficial for clients who were ambivalent, overwhelmed, unfamiliar with psychotherapy, or uncertain about treatment goals. Supervisors additionally emphasized the intervention's alignment with evidence-based behavioral approaches and highlighted the importance of providing clients with earlier orientation and preparation before initiating treatment with trainee therapists (Table 14).

Factors Limiting Appropriateness and Areas for Improvement

Although perceptions of appropriateness were highly positive overall, some participants noted that perceived fit varied depending on prior therapy experience. Several clients with extensive prior exposure to psychotherapy reported that some session components felt less relevant or duplicative of prior knowledge (Table 12). In addition, a small number of supervisors raised concerns regarding potential overlap between PREP-UP content and material addressed during intake or early treatment sessions, particularly within a clinic model involving multiple provider transitions (Table 14). These findings suggested that greater tailoring of PREP-UP content and clearer delineation of intervention roles within the broader clinic workflow may improve perceived fit across clients and providers.

Feasibility

Quantitative Feasibility Findings

Feasibility ratings were generally high across stakeholder groups (Table 11). Clinicians reported a mean FIM score of 4.36 (SD = 0.52), licensed supervisors reported a mean of 4.43 (SD = 0.46), and clinic leadership/staff reported a mean of 4.32 (SD = 0.42), suggesting that PREP-UP was perceived as manageable to implement within the clinic setting.

Table 12*Client-Reported Themes Related to PREP-UP Implementation Outcomes (n = 17)*

Domain	Theme	Description	Exemplar Quote	n (%)
Acceptability	Positive and helpful session experience	Participants described PREP-UP as clear, helpful, and worthwhile.	“Very easy to understand, and it went at a good pace.”	16 (94%)
	Broad endorsement	Most participants would recommend PREP-UP to future clients.	“Yeah, I would recommend it... it’s helpful to think about those questions before going in.”	16 (94%)
Appropriateness	Strong fit for new clients	PREP-UP was particularly relevant for individuals new to therapy.	“I think it’s good for everyone that is starting therapy.”	4 (24%)
	Variable relevance based on prior experience	Participants with prior therapy experience found some content repetitive.	“I already knew about [Clinic] information... but it was good to have the goals.”	7 (41%)
Feasibility	Manageable logistics	Scheduling and structure were manageable, especially via telehealth.	“It was very manageable because mine was via Zoom.”	13 (76%)
	Timing within clinic services	Some participants noted challenges with scheduling in the short window between phone screen and intake.	“I only had one day to schedule.”	5 (29%)
Perceived Impact of PREP-UP	Preparation for therapy	Participants felt more prepared and less uncertain before therapy.	“So you're not going in blind.” “Especially since I was a bit confused, ... I was able to ask her questions I had.”	13 (76%)
	Goal clarification and reflection	Participants described increased clarity around therapy goals.	“It was helpful to think about what goals I have for therapy.”	9 (53%)
	Understanding of therapy	Participants gained knowledge about available treatment modalities and therapy expectations.	“I enjoyed understanding the treatment options they have and what the purpose of the intake is.”	13 (76%)
	Trust in clinic services	Participants reported increased trust in the clinic’s services	“It made me trust the clinic more to know about the types of therapies and that there’s almost a team thinking about me.”	3 (18%)

Recommendations	Tailor for client needs	Participants recommended adapting PREP-UP for different client groups, namely those with prior therapy history and those without.	“Two different sets of protocols would probably be helpful, especially for someone who doesn’t know therapy.”	5 (29%)
	Enhance materials and communication	Participants suggested adding follow-up materials and clearer communication.	“Having the slides sent over afterwards would be helpful.”	4 (24%)
	Refine session timing and pacing	Participants suggested adjustments to pacing and session length.	“It went a little bit over an hour.”	6 (35%)

Note. $N = 17$ clients. n (%) reflects the number and percentage of participants who endorsed each theme. Participants could endorse multiple themes; therefore, percentages do not sum to 100%. Exemplar quotes are presented verbatim.

Factors Supporting Feasibility

Qualitative findings suggested that PREP-UP was generally experienced as feasible and relatively low burden to participate in and implement (Tables 12-14). Clients frequently described the scheduling process and session structure as manageable, particularly as sessions were conducted via telehealth (Table 12). Clinicians and supervisors additionally reported that PREP-UP documentation and materials were relatively easy to review and could provide clinically useful information with minimal additional burden when integrated into supervision and intake planning workflows (Table 13-14).

Factors Limiting Feasibility and Areas for Improvement

At the same time, several implementation challenges emerged across stakeholder groups. Clients described difficulties scheduling PREP-UP sessions within the short interval between phone screen and intake appointments (Table 12). Clinicians and supervisors additionally identified workflow integration challenges, including inconsistent communication across providers, limited integration of PREP-UP materials into routine supervision practices, and variability in whether intervention materials were systematically reviewed prior to intake sessions (Table 13-14).

Stakeholders also raised concerns regarding the number of provider transitions involved in the clinic process, noting that clients could interact with multiple clinicians between phone screen, PREP-UP, intake, and ongoing therapy (Table 14). Although these concerns did not appear to substantially reduce overall perceptions of feasibility, they highlighted important areas for refinement in future implementation efforts, particularly regarding workflow integration, communication across providers, and longitudinal incorporation of PREP-UP materials into treatment planning and supervision.

Table 13*Clinician-Reported Themes Related to PREP-UP Implementation Outcomes (n = 9)*

Domain	Main Theme	Description	Exemplar Quote	n (%)
Acceptability	Broad endorsement	Clinicians consistently described PREP-UP as a valuable and worthwhile addition to the clinic. Role induction, expectation-setting, and psychoeducation about therapy processes were viewed as especially beneficial for preparing clients for treatment.	“I think it’s a really great idea and strategy and I definitely see the benefits of doing this.”	9 (100%)
Appropriateness	PREP-UP was perceived as a strong fit for the training clinic context	Clinicians described PREP-UP as well-suited for a training clinic setting and particularly beneficial for clients who were new to therapy, uncertain about treatment, or returning after long wait periods.	“Especially with it being a training clinic... people come in with preconceived notions. I think this can help ensure expectations are aligned.”	9 (100%)
Feasibility	Workflow integration gaps	Although clinicians generally viewed PREP-UP positively, they identified barriers related to scheduling, communication across providers, inconsistent use of materials, and limited integration into routine clinical workflow.	“It’s not being routinely and systematically incorporated into clinical care.”	8 (88.9%)
Perceived Impact	Client readiness for intake and therapy	Clinicians reported that PREP-UP observably improved client preparedness for therapy by increasing clarity around treatment goals and reducing uncertainty.	“I could just tell like when [clients] had done the session and when they hadn’t. If they did the session, then they seemed more ready to go and had a better idea of what they wanted.”	9 (100%)
	Clinician intake preparation and treatment planning	Clinicians stated that materials from PREP-UP session EHR documentation provided clinically useful information that	“I feel like I am essentially like three steps ahead.”	9 (100%)

		informed intake and early treatment planning.		
	Trust in clinic services	Clinicians observed that PREP-UP helped clients feel heard, more comfortable with the clinic, and safer engaging in treatment prior to beginning therapy.	In reference to a client who completed PREP-UP and attended intake: “He felt heard by our clinic early on.”	7 (77.8%)
Recommendations	Integration into active treatment and clinic workflow	Clinicians recommended greater continuity between PREP-UP, intake, and ongoing therapy, including revisiting worksheets during treatment, improving communication between providers, and increasing clinician awareness of PREP-UP materials.	“Increase communication amongst everyone so everyone knows what’s happening there and how to best use it throughout treatment.”	8 (88.9%)

Note. $N = 9$ clinician participants. Percentages reflect the proportion of clinician participants who endorsed or discussed each theme. Themes were identified using hybrid directed and inductive content analysis. Participants could contribute to multiple themes; therefore, percentages do not sum to 100%.

Perceived Impact of PREP-UP

Although initial coding domains were informed by prespecified implementation outcomes, an additional domain related to the perceived impact of PREP-UP emerged inductively across stakeholder interviews. Clients consistently described PREP-UP as increasing their sense of readiness for therapy by improving understanding of treatment expectations, clarifying therapy goals, and reducing uncertainty prior to intake (Table 12). Many participants described feeling more prepared, focused, and emotionally ready to begin psychotherapy following the intervention. As one participant reflected, the session helped them feel as though they were “not going in blind” (Table 12).

Table 14

Licensed Supervisor-Reported Themes Related to PREP-UP Implementation Outcomes (n = 6)

Domain	Main Theme	Description	Exemplar Quote	n (%)
Acceptability	PREP-UP was viewed as highly valuable, evidence-based, and clinically thoughtful	Supervisors consistently described PREP-UP as theoretically grounded, clinically sophisticated, and strongly aligned with evidence-based practice. Goal clarification, motivational enhancement, psychoeducation, and role induction were viewed as particularly valuable components.	“I think this is brilliant. I think this should be in all the clinics.”	6 (100%)
	PREP-UP helped normalize and socialize clients to therapy	Supervisors emphasized that PREP-UP reduced uncertainty and stigma by orienting clients to therapy expectations, clinic procedures, and the structure of evidence-based treatment.	“It’s also so good to socialize them to therapy.”	6 (100%)
Appropriateness	PREP-UP was perceived as a strong fit for the training clinic and long-waitlist context	Supervisors repeatedly described PREP-UP as addressing a major systems-level gap created by prolonged clinic waitlists, changing client needs over time, and disengagement risk within a trainee clinic setting.	“It feels like a very necessary step in helping people get ready for treatment.”	6 (100%)
	PREP-UP was viewed as especially helpful for therapy-naïve, ambivalent, or overwhelmed clients	Supervisors perceived PREP-UP as particularly beneficial for clients unfamiliar with therapy, uncertain about treatment, or struggling to clarify treatment goals and readiness.	“For people who are new to therapy, this probably is really great.”	6 (100%)
Feasibility	Workflow integration and multiple contact points were the primary feasibility concerns	Although supervisors generally viewed PREP-UP positively, concerns emerged regarding multiple clinician transitions, additional appointments, inconsistent workflow integration, and systematic review of PREP-UP materials.	“Three different clinicians is a lot.”	6 (100%)

	PREP-UP was viewed as feasible and relatively low-burden for clinicians	Supervisors generally perceived PREP-UP materials as manageable to review and clinically useful, particularly when implementation procedures were clearly integrated into supervision and intake workflows.	“It doesn’t really have much, if any, burden on the clinician.”	5 (83.3%)
Perceived Impact	PREP-UP improved readiness, goal clarity, and treatment planning	Supervisors perceived PREP-UP as increasing client readiness for therapy, clarifying goals, improving case conceptualization, and providing clinically actionable information that supported supervision and early treatment planning.	“It would provide a really fantastic roadmap for actually guiding supervision.”	6 (100%)
	PREP-UP fostered early engagement and reduced therapy anxiety	Supervisors described PREP-UP as helping clients feel more comfortable, prepared, and connected to treatment prior to beginning formal psychotherapy.	“I actually just met with a clinician and they were nice and calm and friendly and it wasn’t scary.”	5 (83.3%)
Recommendations	Supervisors recommended stronger integration into supervision and active treatment	Supervisors recommended routinely reviewing PREP-UP materials in supervision, integrating forms longitudinally throughout treatment, and embedding PREP-UP more systematically into clinic workflow.	“Make sure students review it and are prepared to discuss it at each supervision meeting.”	6 (100%)

Note. $N = 6$ licensed supervisor participants. Percentages reflect the proportion of licensed supervisor participants who endorsed or discussed each theme. Themes were identified using hybrid directed and inductive content analysis. Participants could contribute to multiple themes; therefore, percentages do not sum to 100%.

Overall Recommendations for Future Refinement

Across stakeholder groups, several recommendations for future refinement emerged qualitatively. Clients suggested increasing flexibility in session pacing and tailoring intervention content based on prior therapy experience and familiarity with psychotherapy. Clinicians and supervisors recommended stronger integration of PREP-UP materials into intake supervision and active treatment planning, greater continuity across provider transitions, and clearer communication regarding how PREP-UP materials should be incorporated into ongoing care. Stakeholders additionally suggested that intervention worksheets and goals could be revisited longitudinally throughout treatment to reinforce motivation, treatment focus, and engagement over time.

Preliminary treatment engagement and termination outcomes

Preliminary analyses examined treatment engagement and termination outcomes across the 2023 cohort, 2024 SAU cohort, and 2024 PREP-UP cohort among clients who completed intake (Table 15). A Kruskal–Wallis test revealed significant differences in total sessions attended across cohorts, $H(2) = 7.12, p = .028, \varepsilon^2 = .087$, indicating a modest effect size. Exploratory negative binomial regression models were conducted to further examine cohort differences in treatment attendance, using the 2024 SAU cohort as the reference group (Table 16). Relative to the 2024 SAU cohort, clients in the 2023 cohort attended treatment sessions at a rate approximately 3.63 times greater (IRR = 3.63, 95% CI [1.37, 9.03], $p = .006$). Similarly, clients in the 2024 PREP-UP cohort attended treatment sessions at a rate approximately 2.95 times greater than the 2024 standard care cohort (IRR = 2.95, 95% CI [1.06, 8.03], $p = .033$). Descriptively, treatment attendance among clients who participated in PREP-UP more closely

Table 15*Preliminary Treatment Engagement Outcomes by Cohort*

	2023 Cohort (<i>n</i> = 27)	2024 SAU Cohort (<i>n</i> = 16)	2024 PREP- UP Cohort (<i>n</i> = 19)	Test Statistic	<i>p</i>	Effect Size
Attendance, <i>M</i> (<i>SD</i>)						
Sessions attended	13.89 (13.64)	3.81 (6.56)	11.32 (15.34)	<i>H</i> (2) = 7.12	.028*	ε^2 = .087
Sessions missed	0.67 (1.21)	1.12 (4.50)	0.84 (2.12)	<i>H</i> (2) = 3.55	.169	ε^2 = .026
Treatment outcome, <i>n/N</i> (%)						
Prematurely terminated	18/25 (72.0 %)	10/12 (83.3%)	10/16 (62.5%)	Fisher's exact	.538	<i>V</i> = .17
Retained in care, <i>n/N</i> (%)						
Yes	8/26 (29.6%)	6/16 (37.5%)	8/18 (44.4%)	Fisher's exact	.705	<i>V</i> = .11

Note. The sample includes clients from the 2023 and 2024 cohorts who completed intake. Values are presented as mean (*SD*) or *n* (%). Percentages were calculated using the number of clients eligible for each outcome as the denominator. For premature termination, clients who transferred care within the clinic or were referred to services elsewhere following intake were excluded because these outcomes do not represent treatment discontinuation. Accordingly, the denominators were 25 for the 2023 cohort (27 total; 1 transfer, 1 referred elsewhere), 12 for the 2024 SAU cohort (16 total; 4 transfers), and 16 for the 2024 PREP-UP cohort (19 total; 2 transfers, 1 referred elsewhere). For retained in care, clients who transferred to another clinician within the clinic were classified as retained, whereas clients referred to services elsewhere were excluded. Thus, the denominators were 26 for the 2023 cohort, 16 for the 2024 SAU cohort, and 18 for the 2024 PREP-UP cohort. Kruskal–Wallis tests were used for count outcomes and Fisher’s exact tests (Freeman–Halton extension) were used for categorical outcomes. ε^2 = epsilon-squared effect size; *V* = Cramer’s *V*. **p* < .05.

resembled that of the 2023 SAU cohort than the 2024 SAU cohort. Cohorts did not significantly differ in missed appointments, $H(2) = 3.55$, $p = .169$, $\varepsilon^2 = .026$. Similarly, Fisher’s exact tests (Freeman–Halton extension) indicated no significant differences across cohorts in premature termination status, $p = .538$, $V = .17$, or retained-in-care status, $p = .705$, $V = .11$.

Table 16*Exploratory Negative Binomial Regression Models Predicting Treatment Sessions Attended*

Predictor	IRR	95% CI	p
Intercept	3.81	[1.92, 8.74]	<.001
2023 cohort	3.63	[1.37, 9.03]	.006**
2024 PREP-UP cohort	2.95	[1.06, 8.03]	.033*

Note. The 2024 standard care cohort served as the reference group. IRR = incidence rate ratio; CI = confidence interval. Incidence rate ratios greater than 1 indicate a higher rate of treatment visits relative to the reference group. * $p < .05$; ** $p < .01$

Associations between PREP-UP attendance and treatment motivation at intake

Descriptive statistics for treatment motivation scores at phone screen and intake are presented in Table 17. At phone screen, treatment motivation scores were similar across the 2024 SAU and PREP-UP groups. Clients in the 2024 SAU group reported a mean treatment motivation score of 95.50 (SD = 10.90) at phone screen, whereas clients in the PREP-UP group reported a mean score of 94.44 (SD = 17.50). At intake, mean treatment motivation scores were 95.60 (SD = 12.70) for the 2024 SAU group and 90.81 (SD = 11.80) for the PREP-UP group.

Table 17

Descriptive Statistics for Treatment Motivation by Group

	2024 SAU ($n = 10$)	PREP-UP ($n = 16$)
Phone screen treatment motivation, M (SD)	95.50 (10.90)	94.44 (17.50)
Intake treatment motivation, M (SD)	95.60 (12.70)	90.81 (11.80)

Note. SAU = service-as-usual cohort. Treatment motivation scores reflect scores on the Treatment Motivation Scale (TMS-f) overall motivation scale administered at phone screen and intake.

Treatment motivation scores assessed at phone screen did not significantly differ between the 2024 SAU and PREP-UP groups, $t(24) = 0.19$, $p = .850$ (Table 18).

Table 18

Phone Screen Treatment Motivation Score Differences by Group

	2024 SAU (<i>n</i> = 10)	2024 PREP-UP (<i>n</i> = 16)	Test Statistic	<i>p</i>
Phone screen treatment motivation, <i>M</i> (SD)	95.50 (10.90)	94.44 (17.50)	<i>t</i> (24) = 0.19	.850

Note. SAU = service-as-usual. Treatment motivation scores reflect total scores on the Treatment Motivation Scale (TMS-f) scale administered at phone screen. Welch's independent samples *t*-test was used to examine baseline group differences.

Among clients who were offered PREP-UP, exploratory analyses examined whether changes in treatment motivation scores from phone screen to intake differed between clients who attended PREP-UP and those who did not (Table 19). Welch's independent samples *t*-tests indicated no significant between-group differences in change scores for overall treatment motivation, problem recognition, or outcome expectancy (*ps* = .328–.367). However, changes in perceived costs of treatment approached significance, *t*(22.87) = 1.94, *p* = .065, such that PREP-UP attenders demonstrated decreases in perceived costs of treatment between phone screen and intake relative to non-attenders.

Within the 2024 PREP-UP cohort, paired samples *t*-tests were conducted to examine changes in treatment motivation from phone screen to intake (Table 19). No significant changes were observed in overall treatment motivation, *t*(15) = -1.41, *p* = .180, or problem recognition, *t*(15) = -1.20, *p* = .251. However, PREP-UP attenders demonstrated a significant decrease in their perceived costs of treatment from phone screen to intake, *t*(15) = -2.98, *p* = .009.

Additionally, outcome expectancy scores demonstrated a trend-level decrease from phone screen to intake, *t*(15) = -2.04, *p* = .059. Collectively, findings suggest that PREP-UP participation may have been associated more strongly with reductions in perceived costs of treatment and tempered expectations about psychotherapy than with overall changes in treatment motivation.

Table 19*Changes in Treatment Motivation Scores Among Clients Offered PREP-UP*

Outcome	2024 SAU M (SD)	2024 PREP-UP M (SD)	Between- Group t(df)	<i>p</i>	Within 2024 PREP-UP t(df)	<i>p</i>
MET Change	0.10 (8.52)	-3.63 (10.30)	1.00 (21.96)	.328	-1.41 (15)	.180
PR Change	0.50 (3.31)	-0.69 (2.30)	0.99 (14.47)	.336	-1.20 (15)	.251
CT Change	-0.30 (3.27)	-3.19 (4.28)	1.94 (22.87)	.065	-2.98 (15)	.009**
OE Change	-0.10 (5.67)	-2.00 (3.92)	0.93 (14.41)	.367	-2.04 (15)	.059

Note. SAU = service-as-usual. Change scores were calculated by subtracting phone screen scores from intake scores, such that negative values reflect decreases from phone screen to intake. Between-group analyses compared 2024 PREP-UP and 2024 SAU clients using Welch's independent samples t-tests. Within-group analyses examined changes from phone screen to intake among 2024 PREP-UP clients using paired samples t-tests. MET = motivation for treatment; PR = problem recognition; CT = perceived costs of treatment; OE = outcome expectancy. ** $p < .01$.

A linear regression model examined whether PREP-UP attendance was associated with treatment motivation scores at intake after adjusting for baseline treatment motivation assessed at phone screen (Table 20). Baseline treatment motivation significantly predicted treatment motivation at intake, $B = 0.62$, $p < .001$. PREP-UP participation was not significantly associated with treatment motivation at intake after controlling for baseline motivation, $B = -4.13$, $p = .204$. The overall model accounted for approximately 62% of the variance in intake treatment motivation, $R^2 = .62$, adjusted $R^2 = .58$.

Table 20*Linear Regression Model Predicting Treatment Motivation at Intake*

Predictor	B	SE	<i>t</i>	<i>p</i>
Intercept	36.71	10.27	3.57	.002
PREP-UP attendance	-4.13	3.16	-1.31	0.204
Baseline treatment motivation scores	0.62	0.10	5.91	<.001***

Note. The 2024 SAU cohort served as the reference group. $R^2 = .62$, adjusted $R^2 = .58$, $F(2, 23) = 18.61$, $p < .001$. B = unstandardized regression coefficient; SE = standard error. *** $p < .001$.

Exploratory Associations Between PREP-UP Participation, Intake Treatment Motivation Scores, and Subsequent Treatment Termination Status

Exploratory analyses examined whether participation in PREP-UP and intake treatment motivation were associated with subsequent treatment termination among clients offered the preparatory session (Table 21). For descriptive purposes, PREP-UP participation rates and mean intake treatment motivation scores are presented separately for clients with planned versus premature treatment termination. Among clients with planned treatment termination, 75.0% participated in PREP-UP, compared to 50.0% of clients with premature termination. Still, PREP-UP participation was not significantly associated with treatment termination status, Fisher's exact $p = .401$. Although nonsignificant, the observed pattern suggested lower odds of premature termination among clients who participated in PREP-UP relative to those who did not. Findings should be interpreted as preliminary and exploratory given the modest sample size.

Intake treatment motivation did not significantly differ between clients with planned treatment termination and those with premature termination, $t(19.77) = -0.44$, $p = .666$, $d = -0.16$. Mean intake treatment motivation scores were 90.14 ($SD = 6.87$) among clients with planned termination and 92.07 ($SD = 13.70$) among clients with premature termination.

Table 21

Exploratory Associations Between PREP-UP Participation, Intake Treatment Motivation Scores, and Subsequent Treatment Termination Status

	Planned Termination (<i>n</i> = 8)	Premature Termination (<i>n</i> = 20)	Test Statistic	<i>p</i>	Effect size
PREP-UP participation, <i>n</i> (%)	6 (75%)	10 (50%)	Fisher's exact	0.401	OR = 0.35
Intake treatment motivation, <i>M</i> (SD)	90.14 (6.87)	92.07 (13.70)	<i>t</i> (19.77) = -0.44	.666	<i>d</i> = -0.16

Note. Treatment motivation scores reflect the total Treatment Motivation Scale (TMS-f) score administered at intake. Cohen's *d* was calculated using pooled standard deviations. OR = odds ratio. Percentages for PREP-UP participation were calculated within termination status groups.

Discussion

This study examined the preliminary evaluation of PREP-UP, a brief pre-treatment engagement preparation intervention for adults waiting to begin psychotherapy at a university-affiliated psychology training clinic. Across stakeholder groups and data sources, findings consistently supported the acceptability, appropriateness, and feasibility of PREP-UP, and qualitative findings suggested that the intervention was perceived as clinically meaningful by clients and clinic personnel alike. Exploratory quantitative findings indicated that clients who participated in PREP-UP attended treatment at rates more comparable to the historical 2023 SAU cohort than to the 2024 SAU cohort, and that PREP-UP participation was associated with reductions in perceived costs of treatment and tempered and realistic expectations about psychotherapy by intake. Collectively, these findings provide strong support for the acceptability, appropriateness, and feasibility of implementing PREP-UP within a psychology training clinic. Evidence regarding its effectiveness, however, remains preliminary. Although descriptive patterns suggested that PREP-UP may be associated with improved treatment engagement and changes in selected treatment-related beliefs, the present study was not designed or powered to determine whether PREP-UP improves engagement outcomes.

Implementation findings were among the clearest and most consistent results of the study. Acceptability, appropriateness, and feasibility ratings were high across clients, clinicians, supervisors, and clinic leadership, reflecting broad stakeholder agreement that PREP-UP addressed a meaningful clinical need and fit reasonably well within the clinic's operational context. This convergence across stakeholder groups is important given that interventions perceived as burdensome, poorly integrated, or misaligned with existing workflows are less likely to sustain beyond initial implementation efforts (Proctor et al., 2011). Stakeholders across levels of the clinic system described PREP-UP as responsive to challenges associated with long waitlists, treatment uncertainty, and early disengagement risk. Fidelity was also high across sessions, suggesting that the intervention could be delivered consistently within the constraints of a real-world training clinic environment.

Qualitative findings provided important insight into the processes through which PREP-UP may influence early engagement experiences. Across client and clinician interviews, the most consistently described benefit was increased preparedness for treatment. Clients described entering intake with greater clarity regarding their treatment goals, more realistic expectations about psychotherapy, and reduced uncertainty regarding the treatment process. Clinicians similarly reported perceiving PREP-UP participants as more focused, more able to articulate treatment goals, and more prepared to engage during intake sessions. These findings are consistent with prior research suggesting that role induction, expectation clarification, and early therapeutic orientation may reduce disengagement by helping clients develop a more coherent understanding of psychotherapy and their role within treatment (Constantino et al., 2011; Westra et al., 2009). Qualitative findings additionally suggested that PREP-UP may have facilitated early trust and comfort with the clinic and therapeutic process, which aligns with broader

psychotherapy literature emphasizing the importance of early relational engagement for sustained participation in care (Anderson et al., 2019).

The TMS-f findings, although modest in magnitude, were broadly consistent with the intervention's proposed targets. Among PREP-UP participants, perceived costs of treatment decreased significantly from phone screen to intake, and outcome expectancy scores demonstrated a trend-level decrease, reflecting tempered or realistic expectations about psychotherapy. This pattern is theoretically coherent given that PREP-UP explicitly targets anticipated barriers, treatment concerns, and expectations regarding psychotherapy through psychoeducation, motivational enhancement, and role induction strategies. In contrast, overall treatment motivation scores did not significantly change over time. One possible explanation is that clients who sought services, remained on a lengthy waitlist, completed phone screening, and scheduled intake may already have represented a relatively motivated subgroup with limited room for measurable improvement on broad motivation composites. Within this context, PREP-UP may function less as a mechanism for generating motivation where it is absent and more as a mechanism for supporting, clarifying, and sustaining existing motivation while specifically addressing the perceived costs and uncertainties that may interfere with treatment initiation. Although reductions in perceived costs and changes in outcome expectancy were observed among PREP-UP participants, these findings should be interpreted cautiously given the modest sample size, exploratory nature of the analyses, and number of statistical comparisons conducted. Rather than providing definitive evidence of intervention mechanisms, these findings identify potentially promising targets for future investigation.

The substantially poorer attendance outcomes observed in the 2024 SAU cohort relative to both the 2023 SAU cohort and the 2024 PREP-UP cohort were unexpected and warrant

cautious interpretation. Clients in the 2024 SAU cohort attended fewer than four sessions on average and demonstrated the highest premature termination rate despite not differing significantly from the comparison groups on observed demographic characteristics, symptom severity, wait time, or baseline treatment motivation. Several possible interpretations merit consideration.

One possibility is that non-participation in PREP-UP may itself reflect an early behavioral indicator of engagement vulnerability rather than a neutral absence of intervention exposure. Many clients expressed initial interest in PREP-UP during phone screening but did not ultimately complete the session. It is possible that clients who completed PREP-UP differed from those who did not in ways that extended beyond treatment motivation, including scheduling availability, competing demands, or other unmeasured barriers that influenced both intervention participation and subsequent treatment engagement. Because participation in PREP-UP was not randomized, these selection processes cannot be disentangled from potential intervention effects. Under this interpretation, poorer engagement outcomes among the 2024 SAU cohort may reflect pre-existing differences in barriers to care rather than effects attributable solely to intervention exposure.

A second possibility is that completing repeated motivation assessments without an accompanying intervention may not have been psychologically neutral for some clients. The TMS-f prompts reflection on treatment expectations, barriers, doubts, and perceived costs of care. PREP-UP provided a structured context within which these themes could be explored and normalized, whereas clients in the 2024 SAU cohort completed the same assessments without additional support or discussion. It is therefore possible that the assessments increased awareness of treatment ambivalence or barriers that remained unaddressed. However, these interpretations

remain speculative given the study design and small sample size and should be understood as hypotheses for future investigation rather than conclusions supported directly by the present data. Future randomized studies with larger samples will be necessary to clarify whether these patterns reflect intervention effects, selection processes, assessment effects, or broader cohort-related contextual differences.

Several limitations constrain interpretation of the present findings. The quasi-experimental design precludes causal inference and observed cohort differences may reflect unmeasured contextual or temporal factors unrelated to PREP-UP itself. Although cohorts did not significantly differ on measured baseline characteristics, selection effects remain possible, particularly regarding which clients ultimately completed versus declined PREP-UP participation. Sample sizes across cohorts and stakeholder groups were modest, limiting statistical power and reducing the ability to detect small-to-moderate effects. Quantitative findings should therefore be interpreted as preliminary and hypothesis-generating. The study was conducted within a single university-affiliated psychology training clinic, limiting generalizability to other outpatient settings, although the training clinic context is itself clinically important given its structural characteristics and elevated disengagement risk. Finally, intervention reach was constrained by the narrow scheduling window between phone screen and intake, suggesting that earlier outreach and more flexible scheduling procedures may improve participation in future implementation efforts.

At the same time, the mixed-methods design represents an important methodological strength. Integrating quantitative implementation outcome measures with qualitative stakeholder perspectives allowed for a more comprehensive understanding of how PREP-UP was experienced across levels of the clinic system. Inclusion of clients, clinicians, supervisors, and

administrative staff and leadership as stakeholder groups strengthened the ecological validity of the findings and provided insight into both client-level and systems-level implementation processes. Evaluating PREP-UP within a real-world clinic environment characterized by genuine operational constraints also enhances the translational relevance of the findings and strengthens conclusions regarding feasibility.

Conceptually, the present findings contribute to a growing literature suggesting that engagement processes begin before the first therapy session and may be meaningfully shaped during the transition from help-seeking to treatment initiation (Cooper et al., 2023; Hurlocker et al., 2023; Snell-Johns et al., 2004). The pre-treatment period has historically been treated primarily as an administrative precursor to care rather than as a clinically meaningful intervention window. The present findings suggest that clients waiting to begin psychotherapy are actively forming expectations about treatment, evaluating anticipated costs and benefits, and deciding whether to follow through on treatment participation. Interventions that target this transitional period may therefore represent a potentially important avenue for improving engagement before disengagement patterns become established during active treatment.

The study also contributes conceptually to the broader literature on mental health treatment engagement. Much of the existing engagement literature focuses on dropout after treatment has already begun (Swift & Greenberg, 2012; Wierzbicki & Pekarik, 1993). In contrast, the present findings support the idea that engagement processes begin well before the first therapy session and may be meaningfully shaped during the transition from help-seeking to treatment initiation. As such, these findings serve as a reminder to conceptualize the pre-treatment period as an active and clinically meaningful phase for engagement interventions rather than solely an administrative precursor to care.

Future research should continue to examine PREP-UP using larger and more diverse samples across clinical settings. Randomized controlled trials would help clarify whether PREP-UP contributes to improvements in treatment attendance, retention, and clinical outcomes beyond standard care procedures. Future studies will also benefit from examining additional mechanisms of change, including treatment expectancy, therapeutic alliance, self-efficacy for therapy participation, and perceived readiness for treatment. Given the qualitative findings suggesting that PREP-UP may help reduce uncertainty and increase preparedness, future work should consider incorporating measures that more directly assess these constructs.

Future implementation efforts may also explore adaptations of PREP-UP across service settings and delivery modalities. For example, abbreviated group-based versions, asynchronous digital components, or intake+ models may increase scalability while preserving core intervention elements. Additional work examining how PREP-UP can be integrated into routine clinic workflows without increasing provider burden will also be important for long-term sustainability.

In conclusion, the present study provides preliminary support for PREP-UP as an acceptable, appropriate, and feasible pre-treatment engagement intervention within a university-based psychology training clinic. Although findings related to treatment motivation and treatment engagement outcomes were exploratory and do not permit conclusions regarding intervention effectiveness, qualitative and quantitative findings together suggest that PREP-UP may help clients feel more prepared, informed, and psychologically ready to begin therapy during a vulnerable transition period. These findings support continued investigation of pre-treatment engagement interventions as one potential strategy for strengthening continuity of care and improving the transition into mental health treatment.

Future research should examine PREP-UP in larger and more diverse outpatient samples using randomized designs capable of disentangling intervention effects from selection processes and cohort-related contextual factors. Identifying moderators of PREP-UP response, including prior therapy experience, baseline ambivalence, and presenting concern, may help clarify which clients benefit most from pre-treatment preparation interventions. Given that some therapy-experienced clients described portions of PREP-UP as less personally relevant, future iterations may benefit from greater tailoring based on prior psychotherapy exposure. Future work should also examine specific mechanisms through which PREP-UP may influence engagement, including preparedness for treatment, expectation clarity, perceived barriers, and early therapeutic alliance. Finally, integrating PREP-UP materials more systematically into intake preparation, supervision, and ongoing treatment planning, consistent with stakeholder recommendations, may strengthen continuity across phases of care and enhance the intervention's long-term clinical utility.

General Conclusion

The present dissertation was guided by the premise that psychotherapy engagement is better understood as a process unfolding across multiple phases of care than as a single discrete outcome. Although engagement is often operationalized through isolated behavioral indicators such as pre-intake attrition, treatment initiation, attendance behaviors, or premature termination, these behaviors occur within a broader longitudinal process through which clients access, enter, participate in, and ultimately remain connected to care over time. By examining engagement across treatment initiation, ongoing attendance, and treatment termination within the same clinical context, and by developing and preliminarily evaluating a pre-treatment intervention designed to support clients before formal psychotherapy begins, this dissertation sought to advance both the conceptualization of psychotherapy disengagement and the identification of intervention opportunities across phases of care.

Study 1 provided empirical support for a phase-based conceptualization of engagement. Following treatment access, pre-treatment client-level and structural characteristics were not consistently associated with post-initiation engagement outcomes, suggesting that factors associated with accessing treatment may differ from those most relevant to sustaining engagement once treatment begins. In contrast, missed appointments during active treatment emerged as a significant predictor of premature termination. This finding suggests that attendance instability may function not merely as a logistical issue but as a clinically observable indicator of emerging disengagement that may become detectable before treatment dropout occurs. Collectively, these findings highlight the importance of examining engagement dynamically across phases of care and suggest that proximal behavioral indicators during

treatment may provide more clinically actionable information than static pre-treatment characteristics alone.

Study 2 extended this conceptual framework upstream by examining whether engagement could be supported prior to treatment initiation through PREP-UP, a brief pre-treatment engagement preparation intervention. Findings demonstrated that PREP-UP was perceived as acceptable, appropriate, and feasible across multiple stakeholder groups within a real-world psychology training clinic setting. Qualitative findings suggested that PREP-UP helped clients enter treatment with greater preparedness, clearer expectations regarding psychotherapy, and greater clarity regarding treatment goals. Exploratory quantitative findings indicated that clients who participated in PREP-UP attended treatment at rates more comparable to the historical 2023 SAU cohort than to the concurrent 2024 SAU cohort and demonstrated reductions in perceived treatment costs and more realistic expectations about psychotherapy by intake. Together, these findings build on previous suggestions that the pre-treatment period may be a clinically meaningful phase of engagement during which clients are actively evaluating treatment expectations, anticipated barriers, and readiness for participation in care. These findings additionally suggest that targeted pre-treatment preparation may help clients enter psychotherapy feeling better prepared to engage, although further evaluation is needed to determine whether these changes translate into improvements in treatment engagement outcomes.

Taken together, the two studies advance a common conceptual argument from complementary perspectives. Study 1 demonstrates that disengagement may emerge through observable behavioral patterns that unfold over time during treatment participation. Study 2 suggests that intervening earlier in the engagement process, before disengagement patterns

become established, is both feasible and potentially clinically meaningful. These findings identify broader opportunities for strengthening engagement within psychology training clinics. Across studies, the results suggest that structured orientation to psychotherapy, collaborative goal setting, and proactive discussion of treatment expectations and anticipated barriers during the pre-treatment period may represent practical targets for improving continuity of care. As such, the present work offers not only a conceptual framework for understanding engagement across phases of care but also a foundation for informing clinic-level practices designed to support engagement before and during psychotherapy.

Several directions for future research follow directly from these findings. Longitudinal studies examining engagement processes across multiple phases of care within the same sample would help clarify how disengagement develops over time and identify more proximal intervention targets at different stages of treatment participation. Integrating process variables such as therapeutic alliance, expectation accuracy, treatment preparedness, and motivation into these longitudinal models may further improve understanding of how engagement is sustained or disrupted over time. Randomized controlled trials of PREP-UP across more diverse outpatient settings will be necessary to determine whether the intervention's preliminary promise translates into reliable improvements in attendance and retention and to identify moderators that may inform more tailored implementation approaches. More broadly, the present findings suggest that the period between initial help-seeking and psychotherapy initiation warrants greater clinical and empirical attention. This transition period is often lengthy, minimally supported, and marked by substantial attrition, yet it may represent an especially important and potentially tractable opportunity for reducing disengagement before patterns of treatment withdrawal become established.

Appendices

Appendix A: Comparisons Between Clients Who Initiated Psychotherapy and Clients Who Did Not Initiate Psychotherapy Following Intake

Variable	Did Not Initiate (<i>n</i> = 55)	Initiated (<i>n</i> = 218)	Test Statistic	<i>p</i>
Age, M (SD)	36.45 (14.75)	35.10 (13.33)	$t(77.70) = 0.62$	.536
Wait time to intake, M (SD)	233.81 (203.79)	205.23 (197.79)	$t(58.75) = 0.84$	.402
Income, M (SD)	\$34,470.26 (\$36,848.66)	\$32,808.42 (\$34,826.11)	$t(77.11) = 0.30$	.768
Female, <i>n</i> (%)	31 (56.4%)	142 (65.1%)	$\chi^2(1) = 1.29$	.256
Prior psychotherapy history, <i>n</i> (%)	36 (70.6%)	149 (76.4%)	$\chi^2(1) = 0.38$	.538
White non-Hispanic, <i>n</i> (%)	27 (49.1%)	113 (51.8%)	$\chi^2(2) = 1.03$	.596
Psychosocial/contextual concerns, <i>n</i> (%)	18 (32.7%)	55 (25.2%)	$\chi^2(2) = 1.66$	.436

Note. Psychotherapy initiation was defined as attendance at least one psychotherapy session following intake. Continuous variables were compared using Welch's independent samples *t*-tests and categorical variables were compared using chi-square tests. Percentages are reported within psychotherapy initiation groups.

Appendix B: Sensitivity Analysis of Logistic Regression Predicting Premature Termination Including Number of Sessions Attended Among Psychotherapy Initiators

Predictor	B	SE	OR	95% CI	<i>p</i>
Intercept	2.86	1.34	17.40	[1.26, 240.81]	.038
Age	-0.01	0.02	0.99	[0.96, 1.03]	.759
Male	0.02	0.47	1.02	[0.41, 2.55]	.967
White non-Hispanic	0.21	0.51	1.24	[0.45, 3.39]	.682
Prior therapy	-0.17	0.58	0.84	[0.27, 2.61]	.769
Psychosocial/contextual concerns	-0.44	0.54	0.64	[0.22, 1.84]	.411
Other/complex presentations	-0.16	0.67	0.85	[0.23, 3.15]	.811
Income	<0.001	<0.001	1.00	[1.00, 1.00]	.075
Wait time	0.001	0.001	1.00	[1.00, 1.00]	.606
Missed session rate	-0.42	1.17	0.66	[0.07, 6.53]	.723
Total Attended Sessions	-0.11	0.04	0.89	[0.82, 0.97]	.010**

Note. Outcome coded as 1 = premature termination and 0 = planned treatment completion among clients who initiated psychotherapy. Reference groups were female sex, non-White/minoritized race/ethnicity, and internalizing symptoms for primary reason for seeking services. Estimates reflect pooled multiple imputation results ($m = 20$). B = log-odds coefficient; OR = odds ratio; CI = confidence interval. ** $p < .01$

Appendix C: Sensitivity Analysis of Logistic Regression Predicting Premature Termination Among Intake Completers

Predictor	B	SE	OR	95% CI	<i>p</i>
Intercept	1.27	0.61	3.57	[1.07, 11.84]	.040
Age	0.002	0.015	1.00	[0.97, 1.03]	.919
Male	-0.29	0.38	0.75	[0.35, 1.57]	.442
White non-Hispanic	0.38	0.40	1.46	[0.66, 3.23]	.348
Prior therapy	-0.16	0.44	0.85	[0.36, 2.04]	.723
Psychosocial/contextual concerns	-0.41	0.43	0.66	[0.28, 1.55]	.345
Other/complex presentations	-0.49	0.52	0.61	[0.22, 1.70]	.350
Income	-0.00001	0.00001	1.00	[1.00, 1.00]	.051
Wait time	0.001	0.001	1.00	[1.00, 1.00]	.378

Note. Outcome coded as 1 = premature termination and 0 = planned treatment completion among clients who initiated psychotherapy. Reference groups were female sex, non-White/minoritized race/ethnicity, and internalizing symptoms for primary reason for seeking services. Estimates reflect pooled multiple imputation results ($m = 20$). B = log-odds coefficient; OR = odds ratio; CI = confidence interval.

Appendix D: PREP-UP Decisional Balance Exercise Form

Use this form to explore all the pros and cons you can think of *both* for changing (or engaging with therapy) and for staying the same.

	Pros/Benefits	Cons/Costs
Change		
Stay the Same		

Adapted from the Unified Protocol for Transdiagnostic Disorders (Barlow et al., 2017).

Appendix E: PREP-UP Treatment Goal Exercise

Clarifying Top Problems <i>In what way have your emotions (i.e., feeling sad, anxious, guilty) caused problems in your life?</i>	Setting Concrete Goals <i>What are some concrete goals for addressing your top problem? What would you be doing/not doing if you achieved your goal?</i>
<u>Top Problem</u> 	<u>Concrete Goal 1</u>
	<u>Concrete Goal 2</u>
<u>Top Problem</u> 	<u>Concrete Goal 1</u>
	<u>Concrete Goal 2</u>

Adapted from the Unified Protocol for Transdiagnostic Disorders (Barlow et al., 2017).

Appendix F: Overview of PREP-UP Fidelity Checklist Structure

Intervention Element	Module	Example Fidelity Items	Rating Method
Session Introduction	Orientation to PREP-UP	Explained purpose of PREP-UP; identified and addressed participant questions/concerns	Presence/absence + 0–3 quality rating
Role Induction: Logistical Information	Clinic/Staff Overview	Introduced clinic functions; reviewed intake logistics and clinician roles	Checklist + quality rating
Role Induction: Treatment Rationale	Evidence-Based Treatment	Discussed treatment modalities, evidence base, and treatment matching process	Checklist + quality rating
Client Role Expectations	Importance of Effort & Open Communication	Reviewed attendance expectations, homework, honesty, and feedback processes	Checklist + quality rating
Therapist Role Expectations	Building Trust & Navigating Concerns	Reviewed therapist role, therapeutic relationship, and flexibility in treatment approaches	Checklist + quality rating
Motivational Enhancement Exercises	Treatment Goal Setting & Decisional Balance	Identified therapy goals and explored costs/benefits of engaging in therapy	Checklist + quality rating
Session Wrap-Up	Completion Confirmation	Reviewed intake appointment and provided session materials/resources	Checklist + quality rating

Note. Each module included multiple observer-rated adherence items corresponding to intervention content delivered during the PREP-UP session. Each module included dichotomous adherence items (completed/not completed) and a global quality rating ranging from 0 (“Not Applicable”) to 3 (“Excellent”).

Appendix G: Client Qualitative Interview Questions by Constructs and Domains

Construct	Domain	Question
Perception of PREP-UP	Overall perception of PREP-UP	Overall, how did you feel about the PREP-UP session? [probes: What did you like about it? What aspects did not work well for you?]
Acceptability	Overall acceptability	How acceptable or helpful did the PREP-UP session feel to you overall? [probe: Why?]
	Helpful and unhelpful components	Were there any parts of the session that felt especially helpful or unhelpful?
Appropriateness	Perceived fit with client needs	How well did the PREP-UP session fit your needs at this stage of seeking therapy?
	Relevance to presenting concerns	Did the session feel relevant to the concerns that brought you to treatment? Why or why not?
Feasibility	Ease of participation	How manageable was it for you to attend and complete the PREP-UP session?
	Barriers to participation	Were there any barriers that made participation difficult (e.g., scheduling, timing, technology)?
	Telehealth experience	How did the telehealth format affect your experience, if at all?
Clarity About Therapy Process	Understanding of therapy process	Did the session change your understanding of what to expect from therapy or the intake process?
	Clarity regarding clinic procedures	Were there aspects of therapy or the clinic process that felt clearer after the session?
Motivation and Readiness for Therapy	Increased readiness for therapy	Did the PREP-UP session affect your motivation or readiness to begin therapy? In what way?
	Motivation for treatment engagement	Did discussing your goals or reasons for seeking treatment change how you were thinking about therapy?
Treatment Goals and Expectations	Goal clarification	What was it like to discuss your goals for therapy during the session?
	Treatment expectations	Did the session help clarify what you hoped to get out of treatment?
Decisional Balance	Exploration of ambivalence	Did the session affect how you thought about the pros and cons of engaging in therapy?
	Concerns about treatment	Were there any concerns or hesitations about therapy that became clearer during the session?
Therapeutic Alliance	Interpersonal comfort	How did you feel talking with the PREP-UP therapist?

	Perceived support and understanding	Did you feel listened to and understood during the session? Why or why not?
Suggestions for Improvement	Recommendations for improvement	What changes, if any, would improve the PREP-UP session?
Final Thoughts	Additional thoughts	Is there anything else you'd like to share about your thoughts on PREP-UP?

Note. Questions were designed to guide semi-structured qualitative interviews examining client perceptions of PREP-UP across implementation and engagement-related domains. Interviewers used follow-up prompts and probes as needed to clarify participant responses and explore emerging themes in greater depth.

Appendix H: Clinic Personnel Qualitative Interview Questions by Constructs and Domains

Construct	Domain	Question
Perception of PREP-UP	Overall perception of PREP-UP	What have been your overall impressions of the PREP-UP intervention?
	Perceived role within clinic	How would you describe the purpose of PREP-UP within the clinic?
Acceptability	Clinician/ licensed supervisor/ clinic staff/ leadership acceptability	How acceptable does PREP-UP seem from your perspective?
	Client receptivity	How receptive have clients appeared to the intervention?
Appropriateness	Fit within clinic workflow	How well does PREP-UP fit within the clinic's workflow and training model?
	Compatibility with existing procedures	In what ways does PREP-UP complement or overlap with existing clinic procedures?
Feasibility	Feasibility of implementation	How has it been to implement PREP-UP within the clinic setting?
	Implementation barriers and facilitators	What logistical barriers or facilitators have affected implementation?
	Resource demands	How manageable has PREP-UP been in terms of staffing, scheduling, and clinic resources?
Impact on Treatment Engagement	Observed differences in engagement	What differences, if any, have you observed between clients who participated in PREP-UP and those who did not?
Intervention Content	Most effective intervention components	Which components of PREP-UP do you view as most important or effective?
	Areas for revision	Are there components that feel less useful or could be revised?
Sustainability	Sustainability considerations	What factors would influence whether PREP-UP could be sustained long-term in the clinic?
	Needed supports/resources	What resources or structural supports would be needed for continued implementation?

Suggestions for Improvement	Recommendations for improvement	What recommendations would you make for improving PREP-UP moving forward?
	Future directions	What future directions or adaptations would you prioritize?
Final Thoughts	Additional thoughts	Is there anything else you'd like to share about your thoughts on PREP-UP?

Note. Questions were designed to guide semi-structured qualitative interviews examining clinic personnel perceptions of PREP-UP across implementation and engagement-related domains. Interviewers used follow-up prompts and probes as needed to clarify participant responses and explore emerging themes in greater depth. Questions were asked and tailored to interviewee role (e.g., trainee clinician, licensed supervisor, clinic staff, clinic director).

References

- Acosta, F. J., Ramallo-Fariña, Y., Ruiz, L., Gómez, S., Hernández, A., Quesada, I., ... & Calviño, M. J. (2020). Prospective study of variables associated with nonadherence to psychotherapy. *Journal of Mental Health, 29*(5), 581-589.
- Al-Jabari, R., Murrell, A. R., Callahan, J. L., Cox, R. J., & Lester, E. G. (2019). Do distress level and waitlists impact termination in a training clinic?. *Training and Education in Professional Psychology, 13*(2), 127.
- American Psychiatric Association, D. S. M. T. F., & American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (Vol. 5, No. 5). Washington, DC: American psychiatric association.
- Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior, 36*(1), 1–10.
- Anderson, K. N., Bautista, C. L., & Hope, D. A. (2019). Therapeutic alliance, cultural competence and minority status in premature termination of psychotherapy. *American Journal of Orthopsychiatry, 89*(1), 104–114.
- Andrade, L. H., Alonso, J., Mneimneh, Z., Wells, J. E., Al-Hamzawi, A., Borges, G., ... & Kessler, R. C. (2014). Barriers to mental health treatment: results from the WHO World Mental Health surveys. *Psychological medicine, 44*(6), 1303-1317.
- Armoon, B., Lesage, A., Mohammadi, R., Khoshnazar, Z., Varnosfaderani, M. R., Hosseini, A., Fotovvati, F., Mohammadjani, F., Khosravi, L., Beigzadeh, M., & Griffiths, M. D. (2025). Perceived unmet need for care and barriers to care among individuals with mental health issues: A meta-analysis. *Administration and Policy in Mental Health and Mental Health Services Research, 52*(4), 653–686.

- Barlow, D. H., Allen, L. B., & Choate, M. L. (2004). Toward a unified treatment for emotional disorders. In *The Neurotic Paradox, Volume 1* (pp. 141-166). Routledge.
- Barlow, David H., and others, Unified Protocol for Transdiagnostic Treatment of Emotional Disorders: Therapist Guide, 2 edn, Treatments That Work (New York, 2017; online edn, Oxford Academic, 1 Jan. 2018).
- Barrett, M. S., Chua, W. J., Crits-Christoph, P., Gibbons, M. B., & Thompson, D. (2008). Early withdrawal from mental health treatment: Implications for psychotherapy practice. *Psychotherapy: Theory, research, practice, training*, 45(2), 247.
- Beard, C., Hsu, K. J., Rifkin, L. S., Busch, A. B., & Björgvinsson, T. (2016). Validation of the PHQ-9 in a psychiatric sample. *Journal of affective disorders*, 193, 267-273.
- Becker, K. D., & Chorpita, B. F. (2023). Future directions in youth and family treatment engagement: Finishing the bridge between science and service. *Journal of Clinical Child & Adolescent Psychology*, 52(2), 284–309.
- Benjet, C., Borges, G., Aguilar-Gaxiola, S., Medina-Mora, M. E., & Wang, P. S. (2022). Youth mental health service barriers and treatment utilization: A systematic review. *Epidemiology and Psychiatric Sciences*, 31, e17.
- Berrigan, L. P., & Garfield, S. L. (1981). Relationship of missed psychotherapy appointments to premature termination and social class. *British Journal of Clinical Psychology*, 20(4), 239-242.
- Bjørngaard, J. H., Wessel Andersson, H., Osborg Ose, S., & Hanssen-Bauer, K. (2008). User satisfaction with child and adolescent mental health services: impact of the service unit level. *Social psychiatry and psychiatric epidemiology*, 43, 635-641.
- Borkovec, T. D. (2004). Research in training clinics and practice research networks: A route to

- the integration of science and practice. *Clinical Psychology: Science and Practice*, 11(2), 211-215.
- Bowker, H., Saxon, D., & Delgadillo, J. (2025). First impressions matter: The influence of initial assessments on psychological treatment initiation and subsequent dropout. *Psychotherapy Research*, 35(3), 368-378.
- Brar, J., Moodliar, R., LeBeau, R. (in preparation). Who Enters Treatment? Predictors of Pre-Intake Attrition in a Psychology Training Clinic. [Unpublished manuscript].
- Brown, S. A., Parker, J. D., & Godding, P. R. (2002). Administrative, clinical, and ethical issues surrounding the use of waiting lists in the delivery of mental health services. *The journal of behavioral health services & research*, 29, 217-228.
- Callahan, J. L., Aubuchon-Endsley, N., Borja, S. E., & Swift, J. K. (2009). Pretreatment expectancies and premature termination in a training clinic environment. *Training and Education in Professional Psychology*, 3(2), 111.
- Callahan, J. L., Gustafson, S. A., Misner, J. B., Paprocki, C. M., Sauer, E. M., Saules, K. K., ... & Wise, E. H. (2014). Introducing the association of psychology training clinics' collaborative research network: A study on client expectancies. *Training and Education in Professional Psychology*, 8(2), 95.
- Carpenter, P. J., Morrow, G. R., Del Gaudio, A. C., & Ritzler, B. A. (1981). Who keeps the first outpatient appointment? *American Journal of Psychiatry*, 138(8), 102–105.
- Chen, B., & Keenan-Miller, D. (2021). How much therapy is enough? The dose–response effect and its moderators in a psychology training clinic. *Journal of Clinical Psychology*, 77(1), 20-35.
- Costantini, L., Pasquarella, C., Odone, A., Colucci, M. E., Costanza, A., Serafini, G., ... &

- Amerio, A. (2021). Screening for depression in primary care with Patient Health Questionnaire-9 (PHQ-9): A systematic review. *Journal of affective disorders*, 279, 473-483.
- Cooper, A. A., Kline, A. C., Baier, A. L., & Feeny, N. C. (2023). Rethinking research on prediction and prevention of psychotherapy dropout: A mechanism-oriented approach. *Behavior modification*, 47(6), 1195-1218.
- Cummings, J. R., Wen, H., & Druss, B. G. (2017). Improving access to mental health services for youth in the United States. *JAMA*, 318(6), 513–514.
- da Silva Machado, P., de Oliveira, I. R., & Peregrino, A. A. F. (2022). Predictors of psychotherapy dropout: A systematic review. *Trends in Psychiatry and Psychotherapy*, 44, e20200170.
- Dantas, L. F., Fleck, J. L., Oliveira, F. L. C., & Hamacher, S. (2018). No-shows in appointment scheduling—a systematic literature review. *Health Policy*, 122(4), 412-421.
- De Salve, F., Rossi, C., Gioacchini, E., Messina, I., & Oasi, O. (2025). Dropout in psychotherapy for personality disorders: A systematic review of predictors. *Clinical Psychology & Psychotherapy*, 32(3), e70080.
- Defife, J. A., Conklin, C. Z., Smith, J. M., & Poole, J. (2010). Psychotherapy appointment no shows: rates and reasons. *Psychotherapy: Theory, Research, Practice, Training*, 47(3), 413.
- DeFife, J. A., Smith, J. M., & Conklin, C. (2013). Psychotherapy appointment no-shows: Clinicians' approaches. *Journal of Contemporary Psychotherapy*, 43, 107-113.
- Delgadillo, J., & Groom, M. (2017). Using psychoeducation and role induction to improve

- completion rates in cognitive behavioural therapy. *Behavioural and Cognitive Psychotherapy*, 45(2), 170-184.
- Derisley, J., & Reynolds, S. (2000). The transtheoretical stages of change as a predictor of premature termination, attendance and alliance in psychotherapy. *British Journal of Clinical Psychology*, 39(4), 371–382. <https://doi.org/10.1348/014466500163356>
- Dixon, L. B., Holoshitz, Y., & Nossel, I. (2016). Treatment engagement of individuals experiencing mental illness: Review and update. *World Psychiatry*, 15(1), 13–20. <https://doi.org/10.1002/wps.20306>
- Drabkin, M. J., Lobel, S., Kanth, N., Martynov, A., Hunt III, H. W., Guerrero, D., ... & Lev, S. (2019). Telephone reminders reduce no-shows: a quality initiative at a breast imaging center. *Clinical imaging*, 54, 108-111.
- Drieschner, K. H. (2005). *Measuring treatment motivation and treatment engagement in forensic psychiatric outpatient treatment: Development of two instruments*. sl: sn.
- Drieschner, K. H., & Boomsma, A. (2008a). The treatment motivation scales for forensic outpatient treatment (TMS-f) construction and psychometric evaluation. *Assessment*, 15(2), 224-241.
- Drieschner, K. H., & Boomsma, A. (2008b). Validation of the treatment motivation scales for forensic outpatient treatment (TMS-f). *Assessment*, 15(2), 242-255.
- Drieschner, K. H., Lammers, S. M., & van der Staak, C. P. (2004). Treatment motivation: An attempt for clarification of an ambiguous concept. *Clinical psychology review*, 23(8), 1115-1137.
- Dunn, D., Donato, S., & Keenan-Miller, D. (2023). Perceived helpfulness of previous therapy: A

- predictor of premature termination. *Professional Psychology: Research and Practice*, 54(4), 275.
- Dyason, K. M., Shanley, D. C., Hawkins, E., Morrissey, S. A., & Lambert, M. J. (2019). A systematic review of research in psychology training clinics: How far have we come?. *Training and Education in Professional Psychology*, 13(1), 4.
- Edlund, M. J., Wang, P. S., Berglund, P. A., Katz, S. J., Lin, E., & Kessler, R. C. (2002). Dropping out of mental health treatment: Patterns and predictors among epidemiological survey respondents in the United States and Ontario. *American Journal of Psychiatry*, 159(5), 845–851.
- Enders, C. K. (2010). *Applied missing data analysis*. Guilford Press.
- Fernandez, E., Salem, D., Swift, J. K., & Ramtahal, N. (2015). Meta-analysis of dropout from cognitive behavioral therapy: Magnitude, timing, and moderators. *Journal of Consulting and Clinical Psychology*, 83(6), 1108–1122.
- Fortuna, L. R., Alegría, M., & Gao, S. (2010). Retention in depression treatment among ethnic and racial minority groups in the United States. *Depression and Anxiety*, 27(5), 485–494.
- Freeman, G. H., & Halton, J. H. (1951). Note on an exact treatment of contingency, goodness of fit and other problems of significance. *Biometrika*, 38(1–2), 141–149.
- Gandy, M., Karin, E., Fogliati, V. J., Dear, B. F., Titov, N., & Staples, L. G. (2019). Monitoring patient dropout in electronic mental health interventions: Development of a predictive model. *Internet Interventions*, 16, 45–52.
- Garfield, S. L. (1994). Research on client variables in psychotherapy. *Hand book of Psychotherapy and Behavior Change*, 6, 213–256.
- Gao, Y., Burns, R., Leach, L., Chilver, M. R., & Butterworth, P. (2024). Examining the mental

- health services among people with mental disorders: a literature review. *BMC psychiatry*, 24(1), 568.
- Gier, J. (2017). Missed appointments cost the US healthcare system \$150 B each year. *Health Management Technology*, 2.
- Glasgow, R. E., Vogt, T. M., & Boles, S. M. (1999). Evaluating the public health impact of health promotion interventions: The RE-AIM framework. *American Journal of Public Health*, 89(9), 1322–1327. <https://doi.org/10.2105/AJPH.89.9.1322>
- Gmeinwieser, T., Schiepek, G. K., & Aichhorn, W. (2020). Psychotherapy dropout: Using the therapeutic alliance and early change variables to predict treatment attrition. *Psychotherapy Research*, 30(6), 698–709.
- Graham, A. K., Lattie, E. G., & Mohr, D. C. (2017). Experimental therapeutics for digital mental health. *JAMA Psychiatry*, 76(12), 1223–1224.
- Green, C. A., & Pescosolido, B. A. (2024). The social determinants of mental health service use and treatment engagement. *Annual Review of Sociology*, 50, 213–233.
- Greene, J. A., Bina, R., & Gum, A. M. (2016). Interventions to increase retention in mental health services: a systematic review. *Psychiatric Services*, 67(5), 485-495.
- Hannan, C., Lambert, M. J., Harmon, C., Nielsen, S. L., Smart, D. W., Shimokawa, K., & Sutton, S. W. (2005). A lab test and algorithms for identifying clients at risk for treatment failure. *Journal of Clinical Psychology*, 61(2), 155–163.
- Hansen, N. B., Lambert, M. J., & Forman, E. M. (2002). The psychotherapy dose-response effect and its implications for treatment delivery services. *Clinical Psychology: science and practice*, 9(3), 329.
- Hatchett, G. T., & Park, H. L. (2003). Comparison of four operational definitions of premature

- termination. *Psychotherapy: Theory, Research, Practice, Training*, 40(3), 226.
- Hatcher, R. L., & Gillasp, J. A. (2006). Development and validation of a revised short version of the Working Alliance Inventory. *Psychotherapy research*, 16(1), 12-25.
- Holdsworth, E., Bowen, E., Brown, S., & Howat, D. (2014). Client engagement in psychotherapeutic treatment and associations with client characteristics, therapist characteristics, and treatment factors. *Clinical psychology review*, 34(5), 428-450.
- Howard, K. I., Kopta, S. M., Krause, M. S., & Orlinsky, D. E. (1993). The dose-effect relationship in psychotherapy. *American Psychologist*, 41(2), 159–164.
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288.
- Humer, E., Stippl, P., Pieh, C., Schimböck, W., & Probst, T. (2020). Psychotherapy via the Internet: What programs do psychotherapists use, how well-informed do they feel, and what are their wishes for continuous education?. *International Journal of Environmental Research and Public Health*, 17(21), 8182.
- Hurlocker, M. C., Madson, M. B., Schumacher, J. A., & Schumacher, J. E. (2023). Predictors of psychotherapy dropout and attendance: A systematic review of treatment engagement research. *Psychotherapy Research*, 33(5), 561–578.
- Hwang, A. S., Atlas, S. J., Cronin, P., Ashburner, J. M., Shah, S. J., He, W., & Hong, C. S. (2015). Appointment “no-shows” are an independent predictor of subsequent quality of care and resource utilization outcomes. *Journal of general internal medicine*, 30, 1426-1433.
- Jacobson, N. S., & Truax, P. (1991). Clinical significance: a statistical approach to defining meaningful change in psychotherapy research.

- Jochems, E. C., Mulder, C. L., van Dam, A., Duivenvoorden, H. J. (2011). A critical analysis of the utility and compatibility of motivation theories in psychiatric treatment. *Current Psychiatry Reviews*, 7(4), 298-312.
- Jochems, E. C., Mulder, C. L., van Dam, A., Duivenvoorden, H. J., Scheffer, S. C., van der Spek, W., & van der Feltz-Cornelis, C. M. (2012). Motivation and treatment engagement intervention trial (MotivaTe-IT): The effects of motivation feedback to clinicians on treatment engagement in patients with severe mental illness. *BMC psychiatry*, 12, 1-17.
- Jochems, E. C., Mulder, C. L., Duivenvoorden, H. J., van der Feltz-Cornelis, C. M., & van Dam, A. (2014). Measures of motivation for psychiatric treatment based on self-determination theory: psychometric properties in Dutch psychiatric outpatients. *Assessment*, 21(4), 494-510.
- Jochems, E. C., Duivenvoorden, H. J., van Dam, A., Mulder, C. L., & Van der Feltz-Cornelis, C. M. (2018). Testing the Integral Model of treatment motivation in outpatients with severe mental illness. *Motivation and Emotion*, 42, 816-830.
- Joiner, T. E., Robison, M., Robertson, L., Keel, P., Daurio, A. M., Mehra, L. M., & Millender, E. (2022). Ethnoracial status, intersectionality with gender, and psychotherapy utilization, retention, and outcomes. *Journal of Consulting and Clinical Psychology*, 90(10), 837.
- Jones, E., Lucey, C., & Wadland, L. (2000). Triage: a waiting list initiative in a child mental health service. *Psychiatric Bulletin*, 24(2), 57-59.
- Kalibatseva, Z., & Leong, F. T. L. (2011). Depression among Asian Americans: Review and recommendations. *Depression Research and Treatment*, 2011, 1–9.
- Killaspy, H., Banerjee, S., King, M., & Lloyd, M. (2000). Prospective controlled study of psychiatric out-patient non-attendance. *British Journal of Psychiatry*, 176(2), 160–165.

- Kinnan, S., Emerson, M. R., Kern, J., & Ratzliff, A. (2019). How a health center eliminated the waiting list for psychiatric services. *Psychiatric Services*, 70(12), 1176-1179.
- Krebs, P., Norcross, J. C., Nicholson, J. M., & Prochaska, J. O. (2018). Stages of change and psychotherapy outcomes: A review and meta-analysis. *Journal of clinical psychology*, 74(11), 1964-1979.
- Krendl, A. C., & Lorenzo-Luaces, L. (2022). Identifying peaks in attrition after clients initiate mental health treatment in a university training clinic. *Psychological Services*, 19(3), 519.
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of general internal medicine*, 16(9), 606-613.
- LaGanga, L. R., & Lawrence, S. R. (2007). Appointment overbooking in health care clinics to improve patient service and clinic performance. *Production and Operations Management*, 16(4), 541–553.
- Lambert, M. J. (2007). What we have learned from a decade of research aimed at improving psychotherapy outcome in routine care (2007). In *Visions in Psychotherapy Research and Practice* (pp. 272-291). Routledge.
- Lambert, M. J., Burlingame, G. M., Umphress, V., Hansen, N. B., Vermeersch, D. A., Clouse, G. C., & Yanchar, S. C. (1996). The reliability and validity of the Outcome Questionnaire. *Clinical Psychology & Psychotherapy: An International Journal of Theory and Practice*, 3(4), 249-258.
- Lambert, M. J., Hansen, N. B., & Finch, A. E. (2001). Patient-focused research: Using patient outcome data to enhance treatment effects. *Journal of Consulting and Clinical Psychology*, 69(2), 159–172.
- Lefforge, N. L., Donohue, B., & Strada, M. J. (2007). Improving session attendance in mental

- health and substance abuse settings: a review of controlled studies. *Behavior Therapy*, 38(1), 1-22.
- Leuchtenberg, S., Gromer, D., & Käthner, I. (2023). Videoconferencing versus face-to-face psychotherapy: Insights from patients and psychotherapists about comparability of therapeutic alliance, empathy and treatment characteristics. *Counselling and Psychotherapy Research*, 23(2), 389-403.
- Levis, B., Benedetti, A., & Thombs, B. D. (2019). Accuracy of Patient Health Questionnaire-9 (PHQ-9) for screening to detect major depression: individual participant data meta-analysis. *bmj*, 365.
- Levy, H. C., Gabriele, J. M., Graves, L., & Lyons, J. A. (2019). Initiation of evidence-based psychotherapies in Veterans with posttraumatic stress disorder. *Military Psychology*, 31(3), 169-177.
- Lilienfeld, S. O., Ritschel, L. A., Lynn, S. J., Cautin, R. L., & Latzman, R. D. (2014). Why ineffective psychotherapies appear to work: A taxonomy of causes of spurious therapeutic effectiveness. *Perspectives on Psychological Science*, 9(4), 355-387.
- Lindsey, M. A., Brandt, N. E., Becker, K. D., Lee, B. R., Barth, R. P., Daleiden, E. L., & Chorpita, B. F. (2014). Identifying the common elements of treatment engagement interventions in children's mental health services. *Clinical child and family psychology review*, 17(3), 283-298.
- Marbough, D., Khaleel, I., Al Shanqiti, K., Al Tamimi, M., Simsekler, M. C. E., Ellahham, S., ... & Alibazoglu, H. (2020). Evaluating the impact of patient no-shows on service quality. *Risk management and healthcare policy*, 509-517.
- McGovern, C., Athey, A., Beale, E. E., Overholser, J. C., Gomez, S. H., & Silva, C. (2024). Who

- will stay and who will go? Identifying risk factors for psychotherapy dropout. *Counselling and Psychotherapy Research*, 24(4), 1432-1441.
- McLean, S. M., Booth, A., Gee, M., Salway, S., Cobb, M., Bhanbhro, S., & Nancarrow, S. A. (2016). Appointment reminder systems are effective but not optimal: results of a systematic review and evidence synthesis employing realist principles. *Patient preference and adherence*, 479-499.
- McNeil, G. D., & Repetti, R. L. (2022). Increases in positive emotions as precursors to therapeutic change. *Clinical Psychology & Psychotherapy*, 29(3), 1113-1124.
- Miller, M. J., & Ambrose, D. M. (2019). The problem of missed mental healthcare appointments. *Clinical schizophrenia & related psychoses*, 12(4), 177-184.
- Mitchell, A. J., & Selmes, T. (2007). A comparative survey of missed initial and follow-up appointments to psychiatric specialties in the United Kingdom. *Psychiatric Services*, 58(6), 868-871.
- Mojtabai, R., Olfson, M., & Sampson, N. A. (2011). Barriers to mental health treatment: Results from the National Comorbidity Survey Replication. *Psychological Medicine*, 41(8), 1751–1761.
- Molfenter, T. (2013). Reducing appointment no-shows: going from theory to practice. *Substance use & misuse*, 48(9), 743-749.
- Munder, T., Wilmers, F., Leonhart, R., Linster, H. W., & Barth, J. (2010). Working Alliance Inventory-Short Revised (WAI-SR): psychometric properties in outpatients and inpatients. *Clinical Psychology & Psychotherapy: An International Journal of Theory & Practice*, 17(3), 231-239.
- Nock, M. K., & Kazdin, A. E. (2001). Parent expectancies for child therapy: Assessment and

- relation to participation in treatment. *Journal of Child and Family Studies*, 10, 155-180.
- Oldham, M., Kellett, S., Miles, E., & Sheeran, P. (2012). Interventions to increase attendance at psychotherapy: a meta-analysis of randomized controlled trials. *Journal of consulting and clinical psychology*, 80(5), 928.
- Olfson, M., Mojtabai, R., Sampson, N. A., Hwang, I., Druss, B., Wang, P. S., Wells, K. B., Pincus, H. A., & Kessler, R. C. (2009). Dropout from outpatient mental health care in the United States. *Psychiatric Services*, 60(7), 898–907.
- O’Keefe, V. M., Wingate, L. R., Tucker, R. P., Cole, A. B., & Hollingsworth, D. W. (2018). Type D personality and suicidal ideation among college students: The mediating role of depression and social support. *Journal of Clinical Psychology*, 74(6), 1003–1015.
- Organista, K. C., Muñoz, R. F., & González, G. (1994). Cognitive-behavioral therapy for depression in low-income and minority medical outpatients: Description of a program and exploratory analyses. *Cognitive Therapy and Research*, 18(3), 241–259.
- Oliveira, J. T., Sousa, I., Ribeiro, A. P., & Gonçalves, M. M. (2022). Premature termination of the unified protocol for the transdiagnostic treatment of emotional disorders: The role of ambivalence towards change. *Clinical psychology & psychotherapy*, 29(3), 1089-1100.
- Orne, M. T., & Wender, P. H. (1968). Anticipatory socialization for psychotherapy: Method and rationale. *American Journal of Psychiatry*, 124(9), 1202-1212.
- Pearson, N., Naylor, P. J., Ashe, M. C., Fernandez, M., Yoong, S. L., & Wolfenden, L. (2020). Guidance for conducting feasibility and pilot studies for implementation trials. *Pilot and feasibility studies*, 6, 1-12.
- Peipert, A., Krendl, A. C., & Lorenzo-Luaces, L. (2022). Waiting lists for psychotherapy and

- provider attitudes toward low-intensity treatments as potential interventions: Survey study. *JMIR formative research*, 6(9), e39787.
- Pekarik, G. (1983). Follow-up adjustment of outpatient dropouts. *American Journal of Orthopsychiatry*, 53(3), 501-511.
- Pescosolido, B. A. (1991). Illness careers and network ties: A conceptual model of utilization and compliance. *Advances in Medical Sociology*, 2, 161–184.
- Plummer, F., Manea, L., Trepel, D., & McMillan, D. (2016). Screening for anxiety disorders with the GAD-7 and GAD-2: a systematic review and diagnostic metaanalysis. *General hospital psychiatry*, 39, 24-31.
- Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51(3), 390–395.
- Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., ... & Hensley, M. (2011). Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Administration and policy in mental health and mental health services research*, 38, 65-76.
- Punton, G., Dodd, A. L., & McNeill, A. (2022). ‘You’re on the waiting list’: An interpretive phenomenological analysis of young adults’ experiences of waiting lists within mental health services in the UK. *Plos one*, 17(3), e0265542.
- R Core Team. (2025). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. <https://www.R-project.org/>
- Rancher, C., Winters, O., Tilstra-Ferrell, E., McGuire, A., Wallace, M. M., Rheingold, A. A., & Smith, D. W. (2025). Preintake attrition among children and adults waiting for trauma-

- focused treatment. *Psychological services*.
- Reininghaus, U., Reinhold, A. S., Priebe, S., Rauschenberg, C., Fleck, L., Schick, A., ... & Hartmann, J. A. (2024). Toward equitable interventions in public mental health: A review. *JAMA psychiatry*, 81(12), 1270-1275.
- Reis, B. F., & Brown, L. G. (2006). Preventing therapy dropout in the real world: The clinical utility of videotape preparation and client estimate of treatment duration. *Professional Psychology: Research and Practice*, 37(3), 311–316.
- Reitzel, L. R., Kilpatrick, D. G., & Dutton, G. R. (2006). Predictors of psychotherapy dropout among low-income minority women. *Psychological Services*, 3(1), 62–73.
- Renk, K., & Dinger, T. M. (2002). Reasons for therapy termination in a university psychology clinic. *Journal of Clinical Psychology*, 58(9), 1173-1181.
- Reynolds 3rd, C. F., & Patel, V. (2017). Screening for depression: the global mental health context. *World Psychiatry*, 16(3), 316.
- Robinson, L., Delgadillo, J., & Kellett, S. (2020). The dose-response effect in routinely delivered psychological therapies: A systematic review. *Psychotherapy research*, 30(1), 79-96.
- Roos, J., & Werbart, A. (2013). Therapist and relationship factors influencing dropout from individual psychotherapy: A literature review. *Psychotherapy Research*, 23(4), 394–418.
- Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys*. Wiley.
- Rusius, C. W. (1995). Improving out-patient attendance using postal appointment reminders. *Psychiatric Bulletin*, 19(5), 291-292.
- Schleider, J. L., Sung, J., Bianco, A., Gonzalez, A., Vivian, D., & Mullarkey, M. C. (2021). Open pilot trial of a single-session consultation service for clients on psychotherapy wait-lists. *The Behavior Therapist*, 44(1), 8-15.

- Sharf, J., & Primavera, L. H. (2009). Meta-analysis of psychotherapy dropout. *Unpublished manuscript, Adelphi University.*
- Sherman, M. L., Barnum, D. D., Buhman-Wiggs, A., & Nyberg, E. (2009). Clinical intake of child and adolescent consumers in a rural community mental health center: does wait-time predict attendance?. *Community Mental Health Journal, 45*, 78-84.
- Simon, G. E., Imel, Z. E., Ludman, E. J., & Steinfeld, B. J. (2012). Is dropout after a first psychotherapy visit always a bad outcome?. *Psychiatric Services, 63*(7), 705-707.
- Simo, B., Bamvita, J. M., Caron, J., & Fleury, M. J. (2018). Patterns of health care service utilization by individuals with mental health problems: A predictive cluster analysis. *Psychiatric Quarterly, 89*(3), 675-690.
- Snell-Johns, J., Mendez, J. L., & Smith, B. H. (2004). Evidence-based solutions for overcoming access barriers, decreasing attrition, and promoting change with underserved families. *Journal of Family Psychology, 18*(1), 19.
- Sparks, W. A., Daniels, J. A., & Johnson, E. (2003). Relationship of referral source, race, and wait time on preintake attrition. *Professional Psychology: Research and Practice, 34*(5), 514.
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of internal medicine, 166*(10), 1092-1097.
- Spruill, J., Rozensky, R. H., Stigall, T. T., Vasquez, M., Bingham, R. P., & Olvey, C. D. V. (2004). Becoming a competent clinician: Basic competencies in intervention. *Journal of Clinical Psychology, 60*(7), 741-754.
- Strassle, C. G., Maravilla, J. C., Germain, M. L., & de Roten, Y. (2011). Therapist-client

- agreement on therapeutic alliance and outcome in psychotherapy: A meta-analysis. *Psychotherapy Research*, 21(4), 377–390.
- Substance Abuse and Mental Health Services Administration. (2023). *Key substance use and mental health indicators in the United States: Results from the 2022 National Survey on Drug Use and Health* (HHS Publication No. PEP23-07-01-006, NSDUH Series H-58). U.S. Department of Health and Human Services.
- Swift, J. K., Callahan, J., & Levine, J. C. (2009). Using clinically significant change to identify premature termination. *Psychotherapy: Theory, Research, Practice, Training*, 46(3), 328.
- Swift, J. K., & Callahan, J. L. (2011). Decreasing treatment dropout by addressing expectations for treatment length. *Psychotherapy Research*, 21(2), 193–200.
- Swift, J. K., & Greenberg, R. P. (2012). Premature discontinuation in adult psychotherapy: a meta-analysis. *Journal of consulting and clinical psychology*, 80(4), 547.
- Swift, J. K., Whipple, J. L., & Sandberg, P. (2012). A prediction of initial appointment attendance and initial outcome expectations. *Psychotherapy*, 49, 549–556.
- Swift, J. K., & Greenberg, R. P. (2015). *Premature termination in psychotherapy: Strategies for engaging clients and improving outcomes*. American Psychological Association.
- Szafranski, D. D., Smith, B. N., Gros, D. F., & Resick, P. A. (2017). High rates of PTSD treatment dropout: A possible red herring?. *Journal of Anxiety Disorders*, 47, 91-98.
- Taylor, S. P., & Kowalkowski, M. A. (2021). Using implementation science-guided pilot studies to assess and improve the informativeness of clinical trials. *Journal of General Internal Medicine*, 36(2), 533-536.
- Van Buuren, S., & Groothuis-Oudshoorn, K. (2011). mice: Multivariate imputation by chained equations in R. *Journal of statistical software*, 45, 1-67.

- van Dijk, S. D. M., Hanssen, D. J. C., Naarding, P., Lucassen, P., Comijs, H., & Oude Voshaar, R. C. (2023). Predictors of mental health care disengagement and dropout in outpatient psychotherapy: A systematic review. *Psychological Medicine*, 53(14), 6625–6638.
- Vigo, D., Thornicroft, G., & Atun, R. (2025). Estimating the true global burden of mental illness and the access-to-effective-treatment gap. *JAMA Psychiatry*, 82(2), 145–154.
- Walfish, S., McAlister, B., O'Donnell, P., & Lambert, M. J. (2012). An investigation of self-assessment bias in mental health providers. *Psychological Reports*, 110(2), 639–644.
- Walker, E. R., Cummings, J. R., Hockenberry, J. M., & Druss, B. G. (2015). Insurance status, use of mental health services, and unmet need for mental health care in the United States. *Psychiatric Services*, 66(6), 578-584.
- Weiner, B. J., Lewis, C. C., Stanick, C., Powell, B. J., Dorsey, C. N., Clary, A. S., ... & Halko, H. (2017). Psychometric assessment of three newly developed implementation outcome measures. *Implementation science*, 12, 1-12.
- Wells, J. E., Browne, M. O., Aguilar-Gaxiola, S., Al-Hamzawi, A., Alonso, J., Angermeyer, M. C., ... & Kessler, R. C. (2013). Drop out from out-patient mental healthcare in the World Health Organization's World Mental Health Survey initiative. *The British Journal of Psychiatry*, 202(1), 42-49.
- Westra, H. A., Aviram, A., Barnes, M., & Angus, L. (2009). Therapy was not what I expected: A preliminary qualitative analysis of concordance between client expectations and experience of cognitive-behavioural therapy. *Psychotherapy Research*, 20(4), 436–446.
- Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. *Professional Psychology: Research and Practice*, 24(2), 190–195.

- Williams, M. E., Latta, J., & Conversano, P. (2008). Eliminating the wait for mental health services. *The journal of behavioral health services & research*, 35, 107-114.
- Windle, E., Tee, H., Sabitova, A., Jovanovic, N., Priebe, S., & Carr, C. (2020). Association of patient treatment preference with dropout and clinical outcomes in adult psychosocial mental health interventions: a systematic review and meta-analysis. *JAMA psychiatry*, 77(3), 294-302.
- Zieve, G. G., Persons, J. B., & Yu, L. A. D. (2019). The relationship between dropout and outcome in naturalistic cognitive behavior therapy. *Behavior therapy*, 50(1), 189-199.