International Journal of Social Science Research and Review

http://ijssrr.com
editor@ijssrr.com
Volume 9, Issue 3
March, 2026
Pages: 339-354

Beyond Symptom Reduction: Process and Outcome in Psychotherapy Across Diagnostic Categories

Bora Korkut

Rutgers University, New Jersey, USA

E_Mail: bk615@scarletmail.rutgers.edu

http://dx.doi.org/10.47814/ijssrr.v9i3.3311

Abstract

Advances in psychotherapy research have viewed symptom reduction as the primary indicator of treatment success. However, empirical evidence shows that psychotherapeutic outcomes are shaped by complex factors, such as therapeutic mechanisms, therapeutic relationships, and disorder-specific features, which may not be adequately captured by symptom-based measurements alone. In this review, we will discuss four main categories: anxiety disorders, depressive disorders, obsessive-compulsive disorders, and personality disorders, and the psychotherapy processes and outcomes for these diagnostic categories. First, a conceptual framework that distinguishes the psychotherapy process from outcome is presented, highlighting methodological challenges in measuring outcome. Then, for each disorder, empirical evidence is examined, focusing on factors such as treatment approach, mechanisms of change, durability of outcomes, and barriers to applying the research to real-world settings. Anxiety disorders show strong convergence between process mechanisms and symptom outcomes, while there is significant variability in outcomes and a risk of relapse in depressive disorders. Obsessive-compulsive disorder shows robust efficacy and limited real-world dissemination, and personality disorders demonstrate the need for long-term process-focused change and innovation in traditional research designs. Finally, this review highlights the science–practice gap and the potential of transdiagnostic mechanisms in improving psychotherapeutic research and clinical practice. Collectively, the findings highlight the need for outcome models beyond symptom reduction and better reflect the processes through which psychotherapy produces meaningful and sustained change.

Keywords: *Psychotherapy Outcomes; Therapeutic Alliance; Anxiety Disorders; Depression; Obsessive-Compulsive Disorders (OCD); Personality Disorders; Measurement-Based Care*

Introduction

Psychotherapy refers to a group of treatments aimed at identifying and changing behaviors, thoughts, and emotions that cause distress in an individual's personal life (Cook et al., 2017). From an evidence-based treatment perspective, “evidence” usually comes from carefully conducted studies to see

if therapy works better than no treatment or another type of treatment. However, these studies are conducted under highly controlled, ideal research conditions, leading to questions about how well the research environment can be translated to routine clinical settings. (Kazdin, 2004).

One of the major challenges in psychotherapy is separating what changes during the treatment from how that change happens. Treatment outcomes refer to measurable signs of improvement that can be captured by symptom scales and summarized as standard mean differences with binary indicators, such as treatment response (Cuijpers et al., 2024). Response is defined by a specific level of symptom reduction from pre-treatment to post-treatment to provide comparison across studies while not losing focus on the changes in symptoms in the treatment period (Cuijpers et al., 2024). On the other hand, the psychotherapy process requires facilitating factors that enable change. These factors include the relationship between the therapist and the client, and the specific techniques used to support the healing process.

According to Kazdin (2004), regardless of whether the change is large or small, statistical change does not always result in significant improvement in daily life. Furthermore, broader perspectives, such as functioning and quality of life, are not adequately incorporated into the management of evidence-based treatments. This review focuses on anxiety disorders, depressive disorders, obsessive-compulsive disorders, and personality disorders because these disorders show differences in chronicity, symptom structure, and treatment characteristics. Understanding how well the goals set in the process align with the achieved outcomes will beneficial. The aim is to examine how the process and outcome of psychotherapy are characterized, measured, and researched for these four disorders.

Methodology

This review uses a narrative approach to examine psychotherapy processes and outcomes across anxiety, depressive, obsessive, and personality disorders. Empirical studies were found by using database searches and citation tracking in early January, and the materials were chosen if they were peer-reviewed, included meta-analyses, and longitudinal studies that were linked to the disorders mentioned above and psychotherapy processes such as alliance and mechanisms of change to understand outcomes like symptom reduction and functional improvement. Instead of covering all the studies, articles that had conceptual relevance and methodological quality that addressed diverse treatment models and outcome measurements were chosen. This approach was selected for this narrative because variation in research designs and definitions is informative, and this helps us understand how disorder-specific factors affect therapeutic change and recovery.

Literature Review

Conceptual Foundations of Psychotherapy Process and Outcome

The psychotherapy process can be observed from session to session. It describes how changes in therapy help people change. Therefore, this process is a definition of observable and measurable factors that can be observed within a specific process and are considered to influence improvement (Elliott, 2010). The therapeutic alliance is one of the most important factors because it involves the quality of the relationship between the client and the therapist and the strength of the bond. Moreover, this is primarily measured through a standardized questionnaire administered by the therapist or observer to the client (Flückiger et al., 2018).

According to extensive reviews, therapy types and settings with stronger bonds show better results. Based on the average of 295 studies involving more than 30,000 patients, the correlation is approximately r =.28. However, this correlation result may vary depending on how the connection is

defined (Flückiger et al., 2018). This correlation shows a weaker result when treatment is discontinued, approximately (about r = .18), and a higher result with broader outcome measures, approximately (about r = .30). This means that the data in the recovery process differ depending on what researchers choose to define and measure as improvement (Flückiger et al., 2018).

Another critical factor affecting therapy is the therapist's influence. This is one of the critical factors that affects both the relationship between the therapist and the patient during the session and the differences in the results that affect the outcomes of the therapy (Del Re et al., 2012). According to research, when the study design of therapy studies is aimed at identifying these differences, therapist-level differences become more understandable. For example, in a scenario where each therapist works with one patient, the Alliance-Outcome relationship is close to $|r| \approx 40$. This suggests that the therapist skills have a significant impact on the outcome, but this relationship weakens in scenarios where therapists treat many patients (Del Re et al., 2012). This weakening indicates that differences between therapists have a more significant impact than fluctuations in individual sessions. Looking at this, it shows that Alliance scores cannot be understood in a single, simple way, as they are influenced by the therapist's skills, the patient's personality traits, and momentary changes (Del Re et al., 2012).

Patient expectations and other situational factors also influence change in psychotherapy, as these factors play an active role in the treatment process. Research suggests that stable characteristics affect both the alliance and expectations in addition to factors that change over time (Zilcha-Mano et al., 2019). Therefore, it is essential to measure these throughout the sessions. Furthermore, the fact that these factors are linked to brain systems involved in reward, threat, and emotion regulation leads us to believe that expectations and alliances play a significant role in the connection (Zilcha-Mano et al., 2019).

Psychotherapy outcomes are the measures that researchers use to determine whether treatment is effective. Improvements in new therapy methods should encompass functioning, relationships, well-being, and how long the improvements last (Boswell et al., 2023). Measurement-based care, feedback, and regular assessments provide a broader perspective on ongoing treatments, improving them, and leading to higher treatment adherence and continued patient improvement (Boswell et al., 2023). This perspective is relevant to how improvement can be sustained within the context of change. Therefore, the process of change should be addressed before and after the outcome, avoiding focusing solely on the outcome itself (Elliott, 2010).

Also, because different disorders have different processes and outcomes, different standards should be maintained for treatment. Process-based approaches focus on monitoring specific changes in the treatment process, as simply focusing on the patient's diagnosis is not sufficient (Ong et al., 2022). Similarly, relationship-focused studies show that many aspects of the therapeutic relationship are linked to the outcome, and that tailoring treatment specifically to the patient is crucial for their recovery (Norcross & Lambert, 2018). Considering all of this, to improve the scope of psychotherapy and make it more functional over time, it is necessary to address therapeutic alliances, client expectations, and therapist-related factors and targeted change mechanisms more broadly.

Psychotherapy Processes and Outcomes in Anxiety Disorders

Anxiety disorders involve recurring fear and anxiety, reinforced by avoidance and safety behaviors stemming from persistent fear and anxiety. One of the most significant factors complicating anxiety treatment is the tendency to quickly perceive something as a threat, leading to avoidance behaviors that prevent long-term improvement and learning that would correct the behavior (Kaczkurkin & Foa, 2015). In generalized anxiety disorder, symptoms such as uncontrollable worry, restlessness, fatigue, difficulty concentrating, irritability, muscle tension, and sleep disturbances make this disorder a greater burden than simply fearing specific things (Newman et al., 2022).

Placebo-controlled randomized trials show that cognitive behavioral therapy (CBT) provides benefits beyond non-specific treatment effects in anxiety disorders. Meta-analyses of 41 studies involving 2843 participants showed moderate treatment effects on diagnostic-specific symptoms in the post-treatment period (g = 0.56). Compared to placebo, there was an increased likelihood of treatment response (OR = 2.97), and improvements in generalized anxiety (g = 0.38), depression (g = 0.31), and quality of life (g = 0.30). While the magnitude of improvement was lower compared to placebo, a positive effect was still observed (Carpenter et al., 2018). Subgroup analyses showed that OCD (G=1.33) and generalized anxiety disorder (G=1.01) showed a greater control effect than panic disorder and social anxiety (Carpenter et al., 2018). Follow-up data from 22 studies, with an average follow-up period of approximately 5.55 months, showed that the effects did not vary much for diagnostic-specific symptoms (G = 0.47), broad anxiety (G = 0.42), and depression (G = 0.29) (Carpenter et al., 2018). Broader syntheses also suggest that the characteristic features of CBT can be used as a first step in the initial intervention for anxiety disorders and yield positive results in panic disorder and social anxiety disorders (Hofmann, 2012).

The effectiveness of the treatment varies greatly depending on the exposure method used to treat each disorder. For example, improvement in panic disorder stems from the individual directly confronting the bodily sensations they fear. While social anxiety treatment involves the individual repeatedly entering social situations, they avoid reducing negative expectations and anxiety that cause the anxiety to be experienced (Kaczkurkin & Foa, 2015). In generalized anxiety disorder, the anxiety experienced stems from imagined scenarios. However, this approach has been less researched compared to exposure methods used for other anxiety disorders, and the results may vary depending on the method and treatment used (Kaczkurkin & Foa, 2015; Newman et al., 2022).

Anxiety disorders often have an impact on processes such as fear of extinction and inhibitory learning. In clinical practice, this process is achieved by showing the patient that what they fear will not actually happen, thus reducing their fear. The inhibitory learning model reduces fear by teaching newer and safer associations on top of the fearful response. This approach plans to maximize treatment outcomes by using cues to maximize expectation violation, incorporating as many stimuli and contexts as possible, reducing safety behaviors, and generalizing the learned outcomes as much as possible (Craske et al., 2014).

Another limitation is the limited number of participants in the treatment. Consequently, it showed a higher dropout rate compared to the placebo group (OR = 1.35). This is specifically important in cases of post-traumatic stress disorder, and the degree of adherence to the treatment has a significant impact on the results (Carpenter et al., 2018). In a nine-module, guided, internet-based CBT study, self-efficacy-based treatment methods were found to be more effective at reducing symptoms than repeatedly used treatments. This study combined basic program components and included 575 participants (Schønning & Nordgreen, 2021). While the completion rate of more advanced internet-based CBT ranges from 16% to 50%, lack of access, therapist support, and ethical concerns about privacy and confidentiality are significant factors leading to treatment failure in the real world (Onyeka et al., 2024).

This table summarizes the core processes of psychotherapy, typical interventions, primary outcome measures, and common findings related to therapeutic alliance, expectation of breaches, and treatment adherence.

Table 1. Psychotherapy Processes, Interventions, and Outcome Findings

Process/ Mechanism	Typical Intervention	Primary Outcome Measure	Typical Finding
Therapeutic alliance	Standard face-to-face CBT	Global outcome indices (e.g., BDI-II, HAM-A	Small-to-moderate positive correlation with outcomes (r ≈ 0.30)
Expectancy Violation	Exposure-based CBT	Disorder-specific symptom scales (e.g., GAD-7, PDSS).	Medium-sized symptom reduction (g ≈ 0.5) that is mainly retained at 5-month follow-up
Treatment adherence	Guided internet-delivered CBT	Module completion, dropout odds (OR ≈ 1.35)	Higher adherence predicts greater symptom gain

Treatment Response, Relapse, and Long-Term Outcomes in Depressive Disorders

Depression is a disorder that negatively affects an individual's emotions, thoughts, and behaviors, leading to low mood and anhedonia. According to studies in the field of depression, the episodes are recurrent, often chronic, and therefore require multiple and diverse therapeutic approaches. Furthermore, relapses occur after treatment (DeRubeis et al., 2019). This disorder, instead of gradually disappearing, often leads many patients to continue struggling with recurring difficulties. Recent reviews emphasize that this ongoing recovery, rather than being considered a complete remission, focuses more on addressing aspects of daily life such as anhedonia and rumination (McIntyre et al., 2023).

While psychotherapy interventions show a positive impact on recovery, the short duration of treatment is often insufficient for sustained and lasting recovery. In a large-scale randomized trial conducted in Dutch mental health clinics, 341 individuals diagnosed with DSM-IV major depressive disorder received either cognitive behavioral therapy or short-term psychodynamic supportive psychotherapy over 16 sessions in 22 weeks (behavioral activation and cognitive restructuring) or short-term psychodynamic supportive psychotherapy (focused on supportive and insight-facilitating work around current relationships, internalized past relationships, and intrapersonal patterns). Response rates were 38.7% for CBT and 36.9% for psychodynamic therapy, while remission rates were 24.3% for CBT and 21.3% for psychodynamic therapy. Moreover, there was little difference between the treatments in terms of the durability of remission after treatment (Driessen et al., 2013). Less than a quarter of the patients achieved remission with this treatment. The authors interpret this process as indicating that short-term psychotherapy often provides inadequate care in comprehensive care settings, leading to incomplete recovery and an increased risk of relapse in the future (Driessen et al., 2013).

This further reinforces how early changes have lasting effects on long-term outcomes. In the Healthcare Activity program, a brief behavioral activation intervention was implemented in primary care, and each session was monitored using the PHQ-9, tracking each symptom from session to session (Singla et al., 2019). Patients who showed a 50% symptom reduction within three sessions had significantly lower depression scores at both three months (5.29 vs. 10.75) and 12 months (6.56 vs. 11.02) compared to those who did not respond early (Singla et al., 2019).

These rapid improvements suggest that early response is a strong predictor, and early behavioral engagement indicates which patients will maintain treatment gains. Long-term studies show how strategic sustainability and continuity are. For example, in a phase two randomized trial of adults treated for chronic or recurrent depression during acute treatment, antidepressant medication use, with or without CBT, showed a significant reduction in relapse rates over three years compared to medication withdrawal (DeRubeis et al., 2019). Relapse rates were 48.5% with continued medication and 74.8% after discontinuation. With combined treatment, these rates were 48.5% and 76.7%, respectively. Even in continuously monitored conditions, only one in three patients could sustain treatment (DeRubeis et al.,

2019). The outcomes were assessed clearly longitudinally, with repeated LIFE interviews, and these interviews continued over consecutive weeks, checking against DSM-IV depression criteria (DeRubeis et al., 2019).

The variability of outcomes becomes even more evident when considering treatment-resistant depression (TRD). Diagnostic criteria often classify TRD as a failure to respond to at least two adequate antidepressant trials, with prevalence rates exceeding thirty percent and rising even higher in more severe cases (McIntyre et al., 2023). However, these definitions often fail to include data on unsuccessful trials of standardized psychotherapy and rely primarily on clinician-rated symptom scales. This limits the ability to directly measure the effects of psychotherapy on depression in these studies (McIntyre et al., 2023).

Exposure and Response Prevention: Psychotherapy Outcomes in Obsessive-Compulsive Disorder

Obsessive-compulsive disorder (OCD) is characterized by symptoms consisting of obsessions, such as intrusive, distressing thoughts, images, or urges, and compulsions, which are often routines developed to counteract avoidance and distress. In psychotherapy research, symptom change over time is frequently tracked using clinician-rated severity measures, with scales such as the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) being among the most prominent. Clinical characterization also influences treatment planning and response, demonstrating how heterogeneous the symptom presentation and comorbidity are (Fineberg et al., 2020). Similar to other disorders and complex outcome measures used in other sections of this review, the OCD literature mainly focuses on symptom severity as the primary outcome, often using the Y-BOCS, and then reports these changes as findings depending on the style and population of the study and how functional the intervention is (Fineberg et al., 2020; Scapinakis et al., 2016). Exposure and Response Prevention (ERP), often implemented with Cognitive Behavioral Therapy (CBT), is a widely used psychosocial treatment method.

ERP is a therapy method that focuses on the underlying causes of existing compulsive habits and has a characteristically repetitive and applied design to reduce these habits and the tendency towards avoidance (Hezel & Simpson, 2019). According to adult OCD studies using Y-BOCS severity as the primary outcome, behavioral therapy shows a significantly higher difference compared to the placebo group. For example, the mean difference was -14.48, with a 95% confidence interval of -18.61 to -10.23, while in the cognitive therapy group, the mean difference was -13.36, with a 95% confidence interval ranging from -18.40 to -8.21. Furthermore, the same analyses indicate a major limitation regarding generalizability. Most psychotherapy trials explicitly allowed participants to continue using stable antidepressant doses, thus limiting clear conclusions about the effects of psychotherapy beyond the specific treatment methods and comparison conditions examined (Skapinakis et al., 2016). Looking at these effectiveness results, a position statement indicates that exposure and response prevention (ERP) and cognitive behavioral therapy (CBT) with serotonin reuptake inhibitors are the primary treatment methods used. However, it also notes that a significant number of patients do not respond well to these treatments or continue to experience persistent symptoms (Fineberg et al., 2020).

This process of change, described in the research, is closely linked to treatment methods. Hezel and Simpson (2019) used ERP to repeatedly expose individuals from the feared situation to the feared situation and prevent the response. However, to make progress today, it also emphasizes how crucial it is to cope with fear and learning to cope with these difficult situations and overcome obstacles. Similarly, data on cognitive therapy indicate that thought changes have a positive effect on improving symptoms. Assessments over time after a 24-week cognitive therapy study showed that maladaptive beliefs about perfectionism and inertia decreased, and that the beliefs predicted a decrease in OCD symptoms after treatment (Wilhelm et al., 2015).

Although ERP is effective, it is not widely used as a primary treatment method. In randomized controlled ERP studies, the treatment discontinuation rate was 15.4%, and in most studies, the treatment discontinuation rate was not fully stated (Ong et al., 2016). The influence of the environment and the therapist is the factor that affects whether ERP is applied correctly or not. Survey on pediatric OCD, Hoarding, and taboo obsessions to ERP for topics such as Hoarding and taboo obsessions. It has been shown that the rate of using the ERP treatment method is low since the obsessions are invisible, the identification of overt obsessions is difficult, and the presence of taboo content in the environment. It has also been found that the therapist's exposure to negative thoughts about therapy is associated with less use of ERP (Keleher et al., 2020). Difficulties in accessing therapy also fuel the flames of this problem. Although self-administered online cognitive behavioral therapy, CBT, is an option for dissemination, the results have been observed to be worse after treatment in patients with severe OCD and depression, while the opposite has been observed in patients who have more hope for recovery and are more willing to reduce their obsessions, so that the results may vary (Wootton et al., 2024). In summary, OCD research shows that a regular treatment method, such as ERP, is not used in the real world due to reasons such as patient participation, therapist bias, and making this treatment method an uncommon method. Moreover, that is why it is tough to find strong evidence and make this treatment method widespread.

This table highlights broader themes in psychotherapy research, including process-outcome agreement, scope of measurement, challenges in translating research into practice, and standard transdiagnostic mechanisms.

Table 2. Broader Themes in Psychotherapy Research: Process Alignment, Measurement, and Translation

Process/ Mechanism	Typical Intervention	Primary Outcome Measure	Typical Finding
Symptom improvement	Short-term CBT/ Psychodynamic	Response & remission rates	~38% respond, <25% remit
Early response prediction	Behavioral activation	PHQ-9 symptom reduction	An early 50% reduction predicts long-term gains
Relapse prevention	Continued medication ± CBT	Relapse rates (3 years)	Medication lowers relapse from ~75% to ~48%
Treatment resistance	Multiple antidepressant trials	TRD prevalence	>30% prevalence; psychotherapy effects under-reported
Persistent symptoms	Ongoing psychotherapy	Anhedonia, rumination scores	Recovery is incomplete; focus on symptom management

Long-Term Psychotherapy Processes in Personality Disorders

Personality disorders, especially borderline personality disorder (BPD), are characterized by frequent emotional fluctuations, impulsive behaviors, and difficulties in social relationships, rather than short-term symptoms. Unlike episodic disorders, personality disorders involve maladaptive behavioral patterns that manifest in different situations, leading to difficulties in forming relationships and problems with self-perception and emotional regulation. Therefore, treatment models focused on reducing short-term symptoms will be insufficient; long-term effects are needed. Methods that promote positive progress in interpersonal relationships and self-understanding are necessary.

This approach is also supported by the results of extensive psychotherapy studies. According to the Mentalization-Based Treatment with outpatients' study by Bateman and Fonagy (2009), considering factors such as suicide attempts, self-harm, hospitalization, and social functioning over 18 months, these methods would be more effective than structural clinical management. Schema-focused therapy has also shown longer-lasting changes in character. In a three-year study comparing Transference-Focused Psychotherapy with Schema Therapy, results showed a higher rate of improvement and a lower dropout rate in Schema Therapy. This shows that character change, or personality change, is a slow and gradual process (Giesen-Bloo et al., 2006).

Dialectical Behavioral Therapy (DBT) offers a different approach by teaching skills such as emotional regulation. In a study on women with BPD and substance abuse, DBT showed a reduction in substance use, increased social functioning, and a higher rate of treatment completion. This suggests that the treatment's effectiveness stems from stabilizing behaviors rather than simply reducing symptoms (Linehan et al., 1999). However, extensive reviews show methodological problems. A Cochrane review revealed high variability in treatment methods, outcome measurements, and follow-up periods, while many studies lacked long-term data on the characteristic interpersonal features of BPD (Stoffers et al., 2013).

Updated reviews also indicate a limited scope of results and that lasting effects are not adequately reported (Storebø et al., 2020). Meta-analyses have shown that treatment effects are milder in more rigorously controlled, smaller studies and that these effects diminish over time. Therefore, this shows that methodology influences the outcome (Cristea et al., 2017).

Long-term evaluations are also complex because patients may receive other treatments during follow-up. This makes it challenging to attribute post-treatment improvements to the initial treatment directly. Methodological analysis indicates that the therapists themselves and the additional care provided make it difficult to predict outcomes in patients with complex and comorbid psychiatric disorders (Blaß et al., 2025).

Integrating Process and Outcome: Transdiagnostic and Practice-Based Approaches

In disorder-specific treatments, the integration of science and practice is effective if the treatment gives a significant outcome and if these outcomes are helpful in improving evidence-supported change processes (Teachman et al., 2012; Hofmann & Hayes, 2020). However, process–outcome alignment is different in each disorder category in this evidence base.

For adult anxiety disorders, alignment is done mainly by cross-diagnostic outcome equivalence instead of a diagnostic-specific mechanism. In a study that included panic disorders, generalized anxiety disorder, obsessive compulsive disorder, and social anxiety disorder, a randomized equivalence trial was done with unified protocol or diagnostic-specific (CBT) up to 16 sessions with clinician-rated severity assessments at post-treatment and a six-month follow-up after the sessions (Barlow et al., 2017). The unified protocol procedures reduced the main diagnostic severity to a matching degree for different types of symptoms. Moreover, it showed that focusing on standard and emotional processes could show a similar result to disorder-specific treatment guidelines in outpatients with comorbid conditions. (Barlow et al., 2017)

Cognitive Behavioral therapy (CBT) for treating post-traumatic stress disorders shows that mechanistic changes happen before the symptom improves, so it is important to focus on transdiagnostic processes like emotional regulation and cognitive reassessment. However, this approach does not fit with the outcome of equivalence approach used in treating mixed anxiety disorders. (Gallagher, 2016) However, there are apparent limitations to guided treatments since comparative studies show that

outcome differences disappear when looking for methodological factors, and it cannot specify which mechanisms should be specifically targeted or monitored (Mulder et al., 2017).

Mechanism-focused models try to close by making clinical training from protocol control selection to decision making according to the modifiable processes. Studies found that Transdiagnostic Cognitive Behavioral Therapy (CBT) works by examining different parts, such as CBT skills, general factors like the therapist-patient relationship, and how patients react emotionally, which are different from the main mental health problems. It is proven that patients who have a strong alliance with their therapist have a better reduction in their symptoms, whereas people tend to bottle their emotions inside (Southward et al., 2024). Process-based therapy makes this by personalizing the intervention with a mediation-focused approach (Hofmann & Hayes, 2020).

Measurement-based care could be a valuable approach for identifying which parts of the therapy work by adding regular, systematic assessment to daily psychotherapy. (Boswell et al., 2023). Research showed that Processes regularly providing feedback improve the therapy outcomes. Importantly, in some cases, the therapist uses this information to adjust therapy instead of simple monitoring (Boswell et al., 2015). These findings suggest that monitoring both the way the therapy is performed and the outcome in real-life settings gives practical evidence that helps understand how therapist-patient alignment influences treatment change over time and supports clinical trials (Boswell, 2019).

Longitudinal data in precision mental health settings provide a customized treatment for each patient (Deisenhofer et al., 2024). Studies that focus on actual practice collect data from therapists' real-life decisions rather than from a strictly followed protocol, which makes the widespread dissemination and implementation of these methods possible in care settings. Formal monitoring systems have also been found helpful in identifying problems early, decreasing the risk of treatment failure, which is necessary for effective therapy (Lambert, 2010).

These practical limitations demonstrate that the gap between research and practice needs to be addressed. For routine outcome follow-ups to work efficiently, working therapists in evidence-based practice and a standard, systematic feedback loop between research and care delivery are necessary (Teachman et al., 2012). A university-community collaboration focused on Youth Services using a regulated six-week intensive outpatient program could keep it structured while integrating evidence-based content on childhood behavioral problem treatment and adolescent depression treatment (Bloomquist et al., 2010).

Discussion

In this review, we have examined how psychotherapy processes and outcomes are measured, identified, and linked to disorders such as anxiety, depression, obsessive-compulsive disorder, and personality disorders to determine if the empirical evidence reflects clinical realities and what aspects need improvement. Generally, symptom reduction is the primary outcome to be measured. However, the literature consistently shows that there are varying periods and processes aimed at creating change, and the variety of outcomes can be significant. It can vary depending on the disorder's characteristic features, treatment needs, and the methods used to test it. Measurement-based care is an important solution method in this regard because it determines which processes should be targeted and specifically corrected. Furthermore, this should be done by providing systematic processes and outcomes of psychotherapy (Boswell et al., 2023; Lambert, 2010).

In anxiety disorders, process definition and outcome measurements have the strongest relationship. Exposure-based interventions are used for fear reduction, eliminating the fear, and inhibitory learning, and outcomes are generally measured by disorder-specific symptom scales and short-term

follow-ups (Carpenter et al., 2018; Craske et al., 2014). Usually, symptoms are rapid and short-term, showing improvement. However, the high dropout rates, especially in trauma-focused and digital interventions, suggest that symptom reduction alone is not sufficient to demonstrate treatment success (Carpenter et al., 2018; Schønning & Nordgreen, 2021).

In depressive disorders, the convergence between short-term symptoms and long-term improvement is weaker. Although there is an average improvement, the remission rate remains limited, and the relapse risk is high (Driessen et al., 2013; DeRubeis et al., 2019). Process-oriented findings show that early symptom improvements during therapy provide more clinically significant information than the final symptom course alone (Singla et al., 2019).

In obsessive-compulsive disorder, even though response prevention and exposure were successful in reducing the severity, challenges such as patient avoidance and difficulties in dissemination have made transferring research to real-world applications difficult (Skapinakis et al., 2016; Ong et al., 2016). However, in personality disorders, successful change requires more time and greater interpersonal functioning and emotional regulation, which makes traditional symptom-based assessment insufficient for understanding the characteristics of the process (Hezel & Simpson, 2019; Wilhelm et al., 2015).

Therefore, instead of a standard protocol, research on science and practice relies more on monitoring treatment progress than on diagnosis alone, such as alliance, quality, influence, expectation, and engagement. Research shows that psychotherapy is most effective when outcomes align with targeted processes, and that persistence and functionality are required for treatment of success.

This table presents important clinical outcomes across various treatment approaches, including symptom improvement, early response prediction, relapse prevention, treatment resistance, and persistent symptoms.

Table 3. Clinical Outcomes in Psychotherapy: Symptom Change, Relapse, and Treatment Challenges

Process/Mechanism	Typical Intervention	Primary Outcome Measure
Process-outcome alignment	Stronger for anxiety, weaker for disorders like depression and personality disorders that have more variables	Proves the importance of process monitoring (e.g., alliance, expectancy) across all disorders
Measurement range	Symptom scales are a significant focus, while measures of functionality, quality of life, and resilience are less emphasized.	United multimodal outcome batteries (functioning, QoL, long-term follow-up)
Translating to clinical practice	Robust efficacy (e.g., ERP, exposure) usually fails to reach routine practice	Investing in training scalable digital supports and translating research into practice
Transdiagnostic mechanisms	Emotion regulation, avoidance, and alliance can be seen across diagnoses	Develop and test interventions that focus on the shared mechanisms to improve scalability

Future Research

Future psychotherapy research will benefit from a design that links process changes to outcomes over time for greater clinical significance. Repeated assessments throughout the treatment period are

necessary to detect the temporal regression between process variables and outcome changes, as relying solely on outcomes derived from the process is insufficient for clinically accurate data.

Outcome definitions should be broadened to capture more than just symptom reduction, to successfully capture perspectives such as quality of life, enjoyment of personal effectiveness, and regression toward recovery after therapy. Research on chronic and recurrent conditions should be our follow-up work, emphasizing the real-world recovery process rather than the acute treatment window.

Another critical aspect is to implement focused research on therapist training, treatment adherence, adaptability, and system barriers, as these can explain why intervention methods fail to reach people effectively. Integrating process and outcome monitoring methods into routine care settings can provide a healthy feedback loop between research and practice.

Finally, transdiagnostic models utilizing standard mechanisms such as emotion regulation, avoidance, and interpersonal functioning hold promise for the future. Future studies should test whether this package provides benefits across a variety of disorders and whether these methods can be developed and improved without compromising clinical specifics.

Conclusion

This review highlights that psychotherapy outcomes cannot be adequately understood through symptom reduction alone. Across anxiety disorders, depressive disorders, obsessive-compulsive disorders, and personality disorders, the relationship between therapeutic processes and outcomes differs in each disorder in a systematic way that shows their disorder structure, what they need for treatment and recovery, and what the recovery goal is. Some conditions require strong short-term dependency mechanisms and symptom changes, while others need broader and longer-term outcome models to provide the most effective treatment.

The evidence revealed in this literature review shows how important an integrated process-outcome perspective is in evaluating psychotherapy. Doing this clarifies why some treatments are successful during research and in daily life applications, and why the reasons that ensure the permanence of treatment after routine research cannot be found by conventional endpoints. To improve the science and practice of psychotherapy, we need research designs that allow outcome models to observe and test how and when changes occur, improve the effectiveness of these tests even after treatment, and bridge the gap between empirical and clinical practice perspectives.

References

Barlow, D. H., Farchione, T. J., Bullis, J. R., Gallagher, M. W., Murray-Latin, H., Sauer-Zavala, S., Bentley, K. H., Thompson-Hollands, J., Conklin, L. R., Boswell, J. F., Ametaj, A., Carl, J. R., Boettcher, H. T., & Cassiello-Robbins, C. (2017). The Unified Protocol for Transdiagnostic Treatment of Emotional Disorders Compared With Diagnosis-Specific Protocols for Anxiety Disorders: A Randomized Clinical Trial. JAMA psychiatry, 74(9), 875–884. https://doi.org/10.1001/jamapsychiatry.2017.2164

Bateman, A., & Fonagy, P. (2009). Randomized controlled trial of outpatient mentalization-based treatment versus structured clinical management for borderline personality disorder. The American journal of psychiatry, 166(12), 1355–1364. https://doi.org/10.1176/appi.ajp.2009.09040539

Blaß, J., Iffland, B., Herzog, P., Kaiser, T., Elbert, T., & Steuwe, C. (2025). Predicting the outcome of psychological treatments for borderline personality disorder and posttraumatic stress disorder: a machine learning approach to predict long-term outcome of Narrative Exposure Therapy vs. Dialectical Behavioral Therapy based treatment. European journal of psychotraumatology, 16(1), 2497161. https://doi.org/10.1080/20008066.2025.2497161

Bloomquist, M. L., Giovanelli, A., Benton, A., Piehler, T. F., Quevedo, K., & Oberstar, J. (2016). Implementation and Evaluation of Evidence-Based Psychotherapeutic Practices for Youth in a Mental Health Organization. Journal of child and family studies, 25(11), 3278–3292. https://doi.org/10.1007/s10826-016-0479-5

Boswell, J. F. (2020). Monitoring processes and outcomes in routine clinical practice: A promising approach to plugging the holes of the practice-based evidence colander. Psychotherapy Research, 30(7), 829–842. https://doi.org/10.1080/10503307.2019.1686192

Boswell, J. F., Hepner, K. A., Lysell, K., Rothrock, N. E., Bott, N., Childs, A. W., Douglas, S., Owings-Fonner, N., Wright, C. V., Stephens, K. A., Bard, D. E., Aajmain, S., & Bobbitt, B. L. (2023). The need for a measurement-based care professional practice guideline. Psychotherapy, 60(1), 1–16. https://doi.org/10.1037/pst0000439

Boswell, J. F., Kraus, D. R., Miller, S. D., & Lambert, M. J. (2015). Implementing routine outcome monitoring in clinical practice: Benefits, challenges, and solutions. Psychotherapy Research, 25(1), 6–19. https://doi.org/10.1080/10503307.2013.817696

Carpenter, J. K., Andrews, L. A., Witcraft, S. M., Powers, M. B., Smits, J. A. J., & Hofmann, S. G. (2018). Cognitive behavioral therapy for anxiety and related disorders: A meta-analysis of randomized placebo-controlled trials. Depression and anxiety, 35(6), 502–514. https://doi.org/10.1002/da.22728

Cook, S. C., Schwartz, A. C., & Kaslow, N. J. (2017). Evidence-Based Psychotherapy: Advantages and Challenges. Neurotherapeutics : the journal of the American Society for Experimental NeuroTherapeutics, 14(3), 537–545. https://doi.org/10.1007/s13311-017-0549-4

Craske, M. G., Treanor, M., Conway, C. C., Zbozinek, T., & Vervliet, B. (2014). Maximizing exposure therapy: an inhibitory learning approach. Behaviour research and therapy, 58, 10–23. https://doi.org/10.1016/j.brat.2014.04.006

Cristea, I. A., Gentili, C., Cotet, C. D., Palomba, D., Barbui, C., & Cuijpers, P. (2017). Efficacy of Psychotherapies for Borderline Personality Disorder: A Systematic Review and Meta-analysis. JAMA psychiatry, 74(4), 319–328. https://doi.org/10.1001/jamapsychiatry.2016.4287

Crits-Christoph, P., Johnson, J. E., Connolly Gibbons, M. B., & Gallop, R. (2013). Process predictors of the outcome of group drug counseling. Journal of consulting and clinical psychology, 81(1), 23–34. https://doi.org/10.1037/a0030101

Cuijpers, P., Miguel, C., Ciharova, M., Harrer, M., Basic, D., Cristea, I. A., de Ponti, N., Driessen, E., Hamblen, J., Larsen, S. E., Matbouriahi, M., Papola, D., Pauley, D., Plessen, C. Y., Pfund, R. A., Setkowski, K., Schnurr, P. P., van Ballegooijen, W., Wang, Y., Riper, H., … Karyotaki, E. (2024). Absolute and relative outcomes of psychotherapies for eight mental disorders: a systematic review and meta-analysis. World psychiatry : official journal of the World Psychiatric Association (WPA), 23(2), 267–275. https://doi.org/10.1002/wps.21203

Cuijpers, P., Reijnders, M., & Huibers, M. J. H. (2019). The Role of Common Factors in Psychotherapy Outcomes. Annual review of clinical psychology, 15, 207–231. https://doi.org/10.1146/annurev-clinpsy-050718-095424

Del Re, A. C., Flückiger, C., Horvath, A. O., Symonds, D., & Wampold, B. E. (2012). Therapist effects in the therapeutic alliance-outcome relationship: a restricted-maximum likelihood meta-analysis. Clinical psychology review, 32(7), 642–649. https://doi.org/10.1016/j.cpr.2012.07.002

DeRubeis, R. J., Zajecka, J., Shelton, R. C., Amsterdam, J. D., Fawcett, J., Xu, C., Young, P. R., Gallop, R., & Hollon, S. D. (2020). Prevention of Recurrence After Recovery From a Major Depressive Episode With Antidepressant Medication Alone or in Combination With Cognitive Behavioral Therapy: Phase 2 of a 2-Phase Randomized Clinical Trial. JAMA psychiatry, 77(3), 237–245. https://doi.org/10.1001/jamapsychiatry.2019.3900

Driessen, E., Van, H. L., Don, F. J., Peen, J., Kool, S., Westra, D., Hendriksen, M., Schoevers, R. A., Cuijpers, P., Twisk, J. W., & Dekker, J. J. (2013). The efficacy of cognitive-behavioral therapy and psychodynamic therapy in the outpatient treatment of major depression: a randomized clinical trial. The American journal of psychiatry, 170(9), 1041–1050. https://doi.org/10.1176/appi.ajp.2013.12070899

Elliott R. (2010). Psychotherapy change process research: realizing the promise. Psychotherapy research : journal of the Society for Psychotherapy Research, 20(2), 123–135. https://doi.org/10.1080/10503300903470743

Fineberg, N. A., Hollander, E., Pallanti, S., Walitza, S., Grünblatt, E., Dell'Osso, B. M., Albert, U., Geller, D. A., Brakoulias, V., Janardhan Reddy, Y. C., Arumugham, S. S., Shavitt, R. G., Drummond, L., Grancini, B., De Carlo, V., Cinosi, E., Chamberlain, S. R., Ioannidis, K., Rodriguez, C. I., Garg, K., … Menchon, J. M. (2020). Clinical advances in obsessive-compulsive disorder: a position statement by the International College of Obsessive-Compulsive Spectrum Disorders. International clinical psychopharmacology, 35(4), 173–193. https://doi.org/10.1097/YIC.0000000000000314

Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: A meta-analytic synthesis. Psychotherapy (Chicago, Ill.), 55(4), 316–340. https://doi.org/10.1037/pst0000172

Gallagher M. W. (2017). Transdiagnostic mechanisms of change and cognitive-behavioral treatments for PTSD. Current opinion in psychology, 14, 90–95. https://doi.org/10.1016/j.copsyc.2016.12.002

Hezel, D. M., & Simpson, H. B. (2019). Exposure and response prevention for obsessive-compulsive disorder: A review and new directions. Indian journal of psychiatry, 61(Suppl 1), S85–S92. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_516_18

Hofmann, S. G., Asnaani, A., Vonk, I. J., Sawyer, A. T., & Fang, A. (2012). The Efficacy of Cognitive Behavioral Therapy: A Review of Meta-analyses. Cognitive therapy and research, 36(5), 427–440. https://doi.org/10.1007/s10608-012-9476-1

Hofmann, S. G., & Hayes, S. C. (2019). The Future of Intervention Science: Process-Based Therapy. Clinical psychological science : a journal of the Association for Psychological Science, 7(1), 37–50. https://doi.org/10.1177/2167702618772296

Kaczkurkin, A. N., & Foa, E. B. (2015). Cognitive-behavioral therapy for anxiety disorders: an update on the empirical evidence. Dialogues in clinical neuroscience, 17(3), 337–346. https://doi.org/10.31887/DCNS.2015.17.3/akaczkurkin

Kazdin A. E. (2004). Evidence-based treatments: challenges and priorities for practice and research. Child and adolescent psychiatric clinics of North America, 13(4), 923–vii. https://doi.org/10.1016/j.chc.2004.04.002

Keleher, J., Jassi, A., & Krebs, G. (2020). Clinician-reported barriers to using exposure with response prevention in the treatment of paediatric obsessive-compulsive disorder. Journal of obsessive-compulsive and related disorders, 24, 100498. https://doi.org/10.1016/j.jocrd.2019.100498

Linehan, M. M., Schmidt, H., 3rd, Dimeff, L. A., Craft, J. C., Kanter, J., & Comtois, K. A. (1999). Dialectical behavior therapy for patients with borderline personality disorder and drug-dependence. The American journal on addictions, 8(4), 279–292. https://doi.org/10.1080/105504999305686

McIntyre, R. S., Alsuwaidan, M., Baune, B. T., Berk, M., Demyttenaere, K., Goldberg, J. F., Gorwood, P., Ho, R., Kasper, S., Kennedy, S. H., Ly-Uson, J., Mansur, R. B., McAllister-Williams, R. H., Murrough, J. W., Nemeroff, C. B., Nierenberg, A. A., Rosenblat, J. D., Sanacora, G., Schatzberg, A. F., Shelton, R., … Maj, M. (2023). Treatment-resistant depression: definition, prevalence, detection, management, and investigational interventions. World psychiatry : official journal of the World Psychiatric Association (WPA), 22(3), 394–412. https://doi.org/10.1002/wps.21120

Mulder, R., Murray, G., & Rucklidge, J. (2017). Common versus specific factors in psychotherapy: opening the black box. The lancet. Psychiatry, 4(12), 953–962. https://doi.org/10.1016/S2215-0366(17)30100-1

Newman, M. G., Basterfield, C., Erickson, T. M., Caulley, E., Przeworski, A., & Llera, S. J. (2022). Psychotherapeutic treatments for generalized anxiety disorder: cognitive and behavioral therapies, enhancement strategies, and emerging efforts. Expert review of neurotherapeutics, 22(9), 751–770. https://doi.org/10.1080/14737175.2022.2125800

Norcross, J. C., & Lambert, M. J. (2018). Psychotherapy relationships that work III.Psychotherapy, 55(4), 303–315. https://doi.org/10.1037/pst0000193

Ong, C. W., Clyde, J. W., Bluett, E. J., Levin, M. E., & Twohig, M. P. (2016). Dropout rates in exposure with response prevention for obsessive-compulsive disorder: What do the data really say?. Journal of anxiety disorders, 40, 8–17. https://doi.org/10.1016/j.janxdis.2016.03.006

Ong, C. W., Hayes, S. C., & Hofmann, S. G. (2022). A process-based approach to cognitive behavioral therapy: A theory-based case illustration. Frontiers in psychology, 13, 1002849. https://doi.org/10.3389/fpsyg.2022.1002849

Onyeka, O. C., Riddle, D., Bivins, E., Armstrong, G., Upshaw, B., Rast, C., & Silva, T. (2024). Internet-Delivered Cognitive Behavioral Therapy for Anxiety. Advances in psychiatry and behavioral health, 4(1), 91–100. https://doi.org/10.1016/j.ypsc.2024.05.003

Rognstad, K., Wentzel-Larsen, T., Neumer, S. P., & Kjøbli, J. (2023). A Systematic Review and Meta-Analysis of Measurement Feedback Systems in Treatment for Common Mental Health Disorders. Administration and policy in mental health, 50(2), 269–282. https://doi.org/10.1007/s10488-022-01236-9

Schønning, A., & Nordgreen, T. (2021). Predicting Treatment Outcomes in Guided Internet-Delivered Therapy for Anxiety Disorders-The Role of Treatment Self-Efficacy. Frontiers in psychology, 12, 712421. https://doi.org/10.3389/fpsyg.2021.712421

Singla, D. R., Hollon, S. D., Fairburn, C. G., Dimidjian, S., & Patel, V. (2019). The Roles of Early Response and Sudden Gains on Depression Outcomes: Findings From a Randomized Controlled Trial of Behavioral Activation in Goa, India. Clinical psychological science : a journal of the Association for Psychological Science, 7(4), 768–777. https://doi.org/10.1177/2167702619825860

Skapinakis, P., Caldwell, D. M., Hollingworth, W., Bryden, P., Fineberg, N. A., Salkovskis, P., Welton, N. J., Baxter, H., Kessler, D., Churchill, R., & Lewis, G. (2016). Pharmacological and psychotherapeutic interventions for management of obsessive-compulsive disorder in adults: a systematic review and network meta-analysis. The lancet. Psychiatry, 3(8), 730–739. https://doi.org/10.1016/S2215-0366(16)30069-4

Southward, M. W., Kushner, M. L., Terrill, D. R., & Sauer-Zavala, S. (2024). A Review of Transdiagnostic Mechanisms in Cognitive Behavior Therapy. The Psychiatric clinics of North America, 47(2), 343–354. https://doi.org/10.1016/j.psc.2024.02.003

S Giesen-Bloo, J., van Dyck, R., Spinhoven, P., van Tilburg, W., Dirksen, C., van Asselt, T., Kremers, I., Nadort, M., & Arntz, A. (2006). Outpatient psychotherapy for borderline personality disorder: randomized trial of schema-focused therapy vs transference-focused psychotherapy. Archives of general psychiatry, 63(6), 649–658. https://doi.org/10.1001/archpsyc.63.6.649

Stoffers, J. M., Völlm, B. A., Rücker, G., Timmer, A., Huband, N., & Lieb, K. (2012). Psychological therapies for people with borderline personality disorder. The Cochrane database of systematic reviews, 2012(8), CD005652. https://doi.org/10.1002/14651858.CD005652.pub2

Storebø, O. J., Stoffers-Winterling, J. M., Völlm, B. A., Kongerslev, M. T., Mattivi, J. T., Jørgensen, M. S., Faltinsen, E., Todorovac, A., Sales, C. P., Callesen, H. E., Lieb, K., & Simonsen, E. (2020). Psychological therapies for people with borderline personality disorder. The Cochrane database of systematic reviews, 5(5), CD012955. https://doi.org/10.1002/14651858.CD012955.pub2

Teachman, B. A., Drabick, D. A., Hershenberg, R., Vivian, D., Wolfe, B. E., & Goldfried, M. R. (2012). Bridging the gap between clinical research and clinical practice: introduction to the special section. Psychotherapy (Chicago, Ill.), 49(2), 97–100. https://doi.org/10.1037/a0027346

Wampold B. E. (2015). How important are the common factors in psychotherapy? An update. World psychiatry : official journal of the World Psychiatric Association (WPA), 14(3), 270–277. https://doi.org/10.1002/wps.20238

Wilhelm, S., Berman, N. C., Keshaviah, A., Schwartz, R. A., & Steketee, G. (2015). Mechanisms of change in cognitive therapy for obsessive compulsive disorder: role of maladaptive beliefs and schemas. Behaviour research and therapy, 65, 5–10. https://doi.org/10.1016/j.brat.2014.12.006

Wootton, B. M., Karin, E., Melkonian, M., McDonald, S., Titov, N., & Dear, B. F. (2024). Moderators of outcome in self-guided internet-delivered cognitive-behavior therapy for obsessive-compulsive disorder. Behaviour research and therapy, 183, 104643. https://doi.org/10.1016/j.brat.2024.104643

Zilcha-Mano, S., Roose, S. P., Brown, P. J., & Rutherford, B. R. (2019). Not Just Nonspecific Factors: The Roles of Alliance and Expectancy in Treatment, and Their Neurobiological Underpinnings. Frontiers in behavioral neuroscience, 12, 293. https://doi.org/10.3389/fnbeh.2018.00293