Kurdish Studies
Jan 2024
Volume: 12, No: 1, pp. 3519-3535
ISSN: 2051-4883 (Print) | ISSN 2051-4891 (Online)
www.KurdishStudies.net

Received: October 2023 Accepted: December 2023
DOI: https://doi.org/10.58262/ks.v12i1.250

Towards Tailored Treatment: A Comparative Analysis of Schema Therapy and Dialectical Behavior Therapy for Borderline Personality Disorder

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Abstract

This study aimed to enhance the response of individuals diagnosed with borderline personality disorder to two types of therapy: Schema Therapy and Dialectical Behavior Therapy. The primary objective was to predict treatment response and understand the mechanisms of change in BPD patients. A comprehensive randomized trial was conducted, involving 180 BPD patients who were randomly assigned to receive either Schema Therapy or Dialectical Behavior Therapy. The treatment phase lasted for one year. This study used the Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD) to assess the change in BPD symptom severity. Secondary outcome measures included levels of depression and anxiety. Both Schema Therapy and Dialectical Behavior Therapy showed effectiveness in reducing the severity of BPD symptoms (with p-value < .05), and the mean difference of ST (11) is higher than the mean difference of DBT (4.07), which means Schema Therapy (ST) demonstrated a greater efficacy than Dialectical Behavior (DBT) in reducing borderline personality disorder (BPD). The analysis also concluded that there is an impact of these therapies on depression and anxiety levels. The findings of this study suggest that both Schema Therapy and Dialectical Behavior Therapy are effective in improving the response of BPD patients. Understanding the factors that predict treatment response, such as levels of functioning and comorbid conditions, can aid in tailoring treatment approaches for better outcomes. It is recommended that an additional investigation in this field has the potential to make a valuable contribution to the continuous advancement and enhancement of therapeutic interventions designed for individuals diagnosed with BPD. Ultimately, such research endeavors hold the promise of enhancing emotional well-being and general quality of life for these individuals.

Keywords: *Borderline Personality Disorder - Dialectical Behavior Therapy - Schema Therapy Mechanisms of Change.*

Introduction

Borderline personality disorder (BPD) is a mental health disorder characterized by instability in mood, interpersonal relationships, self-perception, and behavior, often

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leading to intense and rapidly shifting emotions such as anger, sadness, and anxiety (Heerebrand et al., 2021). Individuals with BPD may struggle with maintaining healthy relationships and engage in impulsive or self-destructive behaviors (Leichsenring and Heim, 2023).

BPD's impact on society is substantial, resulting in increased healthcare costs and lost productivity (Wibbelink et al., 2022). The complexity of BPD poses challenges in treatment planning, as individuals may exhibit a wide range of symptoms, including intense emotions, unstable relationships, and impulsive behavior (Zittel Conklin and Westen, 2005; Soler et al., 2022). Building trust and forming relationships is challenging for individuals with BPD, making engagement in therapy, a crucial aspect of successful treatment, difficult (Megan et al., 2022). Despite these challenges, there is a pressing need to enhance treatment responses for BPD due to its prevalence and significant impact on individuals' lives, leading to issues such as unemployment, homelessness, and incarceration, along with an increased risk of substance abuse, self-harm, and suicide (Thompson and Fineberg, 2022).

Dialectical Behavior Therapy (DBT) is a systematic outpatient treatment rooted in cognitive-behavioral concepts, developed by Dr. Marsha Linehan in the early 1990s to address parasuicidal behavior in individuals with BPD (Stoffers-Winterling et al., 2022). Numerous randomized controlled trials (RCTs) attest to the efficacy of DBT in reducing parasuicidal behaviors, improving treatment adherence, and decreasing hospitalization rates compared to community-based treatment-as-usual (Kells et al., 2020). DBT has demonstrated effectiveness in treating individuals with co-occurring disorders, including substance use, depression, binge eating, and bulimia nervosa.

Schema therapy (ST), rooted in cognitive-behavioral therapy (CBT), offers an intervention for individuals with persistent psychological difficulties and concurrent personality disorders, unresponsive to conventional CBT approaches (HAMID et al., 2020). This research aims to enhance treatment response in individuals with BPD by identifying predictive patient characteristics and unraveling the mechanisms of change underlying DBT and ST. The study seeks to guide clinicians in selecting appropriate treatment approaches and refining therapeutic techniques for improved outcomes, contributing to the advancement of BPD treatment and offering hope for a better quality of life for those grappling with this challenging disorder (Richardi et al., 2016).

Objectives of the Study

This study has several objectives to achieve, including:

1. Determine which therapy is more effective in reducing symptoms, improving overall functioning, and enhancing the quality of life for individuals with BPD.
2. Comparing the immediate effectiveness of ST and DBT, the study also aims to assess the long-term outcomes of these therapies for individuals with borderline personality disorder. The objective is to determine which therapy leads to better maintenance of treatment gains and sustained improvements in symptoms and functioning over an extended period.
3. Identifying effective treatments and understanding the factors that contribute to treatment success is critical for improving the lives of individuals with BPD. This study has the potential to make a significant contribution to the field of BPD treatment by providing valuable insights into the optimal use of ST and DBT (Emmerik et al., 2021).

Research Questions

1. Which therapy is more effective in reducing symptoms and enhancing the quality of life for individuals with BPD?
2. What are the long-term outcomes for the effectiveness of ST and DBT for individuals with borderline personality disorder?
3. What are factors that contribute to treatment success are critical for improving the lives of individuals with BPD?

Research Hypothesis

This study hypothesizes that Schema Therapy is more effective with statistically significant differences than Dialectical Behavior Therapy in treating BPD.

Aim of the Study

This study aims to investigate and improve the response of individuals diagnosed with BPD to two evidence-based therapeutic approaches, namely (DBT) and (ST).

Novelty of the Study

This study brings several novel aspects to the existing body of knowledge. These novel contributions include:

Integration of Two Therapeutic Approaches: This study combines two evidence-based therapeutic approaches, (DBT) and (ST), in the treatment of (BPD) patients. By examining the effectiveness of these two interventions in conjunction, the study offers a unique perspective on their combined impact and potential synergistic effects on treatment outcomes. (Ripoll, 2023). Predictive Models for Treatment Response: The development of predictive models to determine the treatment response of BPD patients to DBT and ST is a novel aspect of this study. By identifying specific factors or variables that influence treatment outcomes, such as demographic characteristics, symptom severity, comorbidities, and therapeutic alliance, the research aims to provide clinicians with valuable tools to predict and optimize treatment success for individual patients (Keefe et al., 2020). Mechanisms of Change: Another novel aspect of this study is the exploration of the underlying mechanisms of change associated with DBT and ST in BPD patients. By delving into the specific processes, techniques, and therapeutic components that contribute to positive treatment outcomes, the research aims to uncover valuable insights into how these interventions work and the mechanisms that drive change in BPD symptoms, emotion regulation, and interpersonal functioning. This understanding can inform the development of more targeted and effective interventions for BPD (Rudge et al., 2020).

Literature Review

Predicting treatment response in borderline personality disorder (BPD) patients can be challenging, as individuals with BPD often present with a variety of symptoms and comorbid conditions. However, certain patient characteristics may provide some insight into treatment response (Bozzatello et al., 2021).

Also, the presence of comorbid disorders, such as substance abuse, eating disorders, or mood disorders, can impact treatment response. Addressing these comorbid conditions alongside BPD treatment is crucial. Treatment Engagement which includes Motivation,

willingness to actively participate, and adherence to treatment recommendations are important factors that influence treatment response (Sugarman et al., 2017). Patients who are more engaged and committed to the therapeutic process tend to have better outcomes. In addition to that, the previous treatment experiences and the patient's perception of treatment effectiveness can influence response to subsequent treatments. Understanding past treatment experiences can help tailor the approach to better meet the patient's needs (Clarkin et al, 2013).

Another study by (Farrell et al., 2019) illustrated that the decision regarding the most appropriate treatment for a BPD patient should be made collaboratively between the patient and their mental health professional, considering the individual's unique circumstances and preferences. It further explained that DBT is based on the idea that people with BPD need to learn to balance (dialectically) acceptance of their current situation with change-oriented behavior. DBT combines elements of cognitive-behavioral therapy (CBT) with mindfulness practices. A study conducted by Kulacaoglu and Kose (2018) examined the factors that have been associated with treatment outcomes in BPD, such as the Level of Functioning: Individuals with higher levels of functioning, such as better emotional regulation skills and less severe impairment in daily life, tend to have better treatment outcomes.

(Gunderson et al, 2018) suggested that (DBT) is a type of cognitive-behavioral therapy that was concerned with people with (BPD). They also suggested that Cognitive-behavioral skills empower individuals to achieve a better balance between acceptance and change, ultimately leading to improved emotional well-being and more fulfilling relationships. Also, it was observed by Kopf-Beck et al. (2020), who showed that s ST focuses on identifying and modifying maladaptive schemas (deep-seated, self-defeating patterns) and modes (emotional states that drive maladaptive behavior) associated with BPD. Schema Therapy is a comprehensive and extended therapeutic approach that combines various elements from cognitive-behavioral therapy, psychodynamic approaches, and attachment theory. It is specifically designed to address the complex and deep-rooted challenges associated with borderline personality disorder (BPD).

It was noted that Averbeck et al. (2018) explained that at the core of Schema Therapy is the recognition and exploration of maladaptive schemas, which are deeply ingrained and self-defeating patterns of thinking, feeling, and behaving. These schemas often originate from early life experiences and significantly impact an individual's perception of themselves, others, and the world. By identifying and understanding these maladaptive schemas, individuals can gain insight into the underlying causes of their difficulties and work towards modifying them. Furthermore, (Taylor et al., 2017) showed that Mechanisms of change in ST include, Schema Awareness: ST aims to help individuals identify and gain awareness of their maladaptive schemas and modes, which are often deeply ingrained and automatic. Recognizing these patterns allows for targeted intervention. Emotional Connection and Validation: ST emphasizes the therapeutic relationship, providing a safe and validating environment for patients to express and explore their emotions. This process helps repair attachment-related deficits and facilitates emotional healing.

In addition, Haro et al. (2017) conducted a randomized controlled trial of virtual reality skills training This randomized controlled trial examined a virtual reality-based DBT skills training program for emotion regulation in BPD patients. Participants practiced DBT skills

in simulated situations using VR. Results showed the VR DBT skills training significantly reduced emotion dysregulation compared to a waitlist control group. This supports using technology like VR to make DBT skills training more immersive and generalizable. A study conducted by Thomsen et al. (2017) looked at changes in neurocognitive functioning following group ST for BPD patients. Performance on executive functioning, memory, and attention tasks was assessed pre-and post-treatment. ST led to significant improvements in executive functioning, verbal memory, and attentional switching. This lends support to ST improving neurocognitive capacities related to emotion regulation and interpersonal functioning in BPD.

A study conducted by Fassbinder et al. (2018) examined findings from 13 randomized controlled trials on ST for BPD. Results found ST to be highly effective in reducing BPD symptoms, improving quality of life, and retaining patients in treatment compared to control conditions like usual care. The large effect sizes support ST as an evidence-based treatment for BPD. Another study conducted by Van Toorenburg et al. (2020), who found that patients who experienced sudden significant symptom improvements also had superior outcomes at termination. Sudden gains appeared attributable to the acquisition of key emotion regulation skills. Monitoring sudden gains may help identify turning points in BPD treatment.

Methods and Participants

Research Strategy

In a comprehensive study, a randomized controlled trial was undertaken involving a random sample trial in a local mental health clinic in the period 2015 to 2022. This sample consists of 180 individuals who had been diagnosed with (BPD). These participants were allocated randomly to one of two treatment groups: Schema Therapy (ST) or Dialectical Behavior Therapy (DBT). The duration of the treatment phase spanned a year.

The primary objective of this trial was to evaluate the extent of change in BPD symptom severity amongst the participants. This assessment was carried out using the Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD), which served as the primary outcome measure. Moreover, the researchers also examined several secondary outcome measures, including alterations in levels of depression, anxiety, social functioning, and overall quality of life.

Participants

The chosen participants were obtained randomly according to the following eligibility criteria choosing all participants with readily diagnosed BPD and other related psychological disorders with moderate to severe cases only and without any other chronic physical disorders.

The primary outcome in this study was measured using the Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD). This scale was used to assess the change in borderline personality disorder (BPD) symptom severity.

The following table shows the Characteristics of Schema Therapy and Dialectical Behavior Therapy applied to the study sample

Table 1: The Characteristics of Schema Therapy and Dialectical Behavior Therapy Applied to the Study Sample.

Characteristic	Schema Therapy	Dialectical Behavior Therapy
Participants number (N)	98	82
Age (years)	Mean: 31, SD: 12	Mean: 31, SD: 12
Gender	63% female, 37% male	57% female, 43% male
Diagnosis	Borderline Personality Disorder	Borderline Personality Disorder
Symptom Severity	Moderate to severe	Moderate to severe
Comorbid Conditions	Major Depression (38%), anxiety disorders (29%), Substance Use (18%)	Major Depression (32%), anxiety disorders (21%), Substance Use (12%)
Previous Treatments	Outpatient therapy (72%), Inpatient (42%), Medication (61%)	Outpatient therapy (68%), Inpatient (38%), Medication (49%)
Baseline BPD Symptoms	Mean ZAN-BPD Score: 21	Mean ZAN-BPD Score: 20
Baseline Depression	Mean BDI Score: 27	Mean BDI Score: 25
Baseline Anxiety	Mean BAI Score: 31	Mean BAI Score: 28

Procedures

Both types of therapies were delivered by a clinical psychologist, each was provided over three sessions, 45 minutes over three weeks.

In the first session of the treatment phase, the participants were introduced to Schema Therapy (ST) and Dialectical Behavior Therapy (DBT). The session aimed to provide psychoeducation about these therapeutic approaches and set the foundation for the subsequent sessions. The clinical psychologist began by explaining the basic principles and goals of both ST and DBT. The participants were informed about the importance of understanding their borderline personality disorder (BPD) symptoms, the underlying mechanisms contributing to their difficulties, and the potential benefits of therapy in improving their overall well-being. During this session, the participants were encouraged to ask questions and clarify any concerns they had regarding the therapy process. The clinical psychologist addressed their queries and ensured that they had a clear understanding of what to expect in the upcoming sessions .The second session focused on skills training and the practical application of therapeutic techniques. The participants were introduced to specific skills and strategies derived from ST and DBT that could help them cope with their BPD symptoms and improve their emotional regulation and interpersonal functioning. For Schema Therapy, participants learned about identifying and challenging maladaptive schemas, which are deeply ingrained patterns of thinking, feeling, and behaving. They were guided on how to recognize these schemas and develop alternative, healthier ways of responding to triggering situations. In Dialectical Behavior Therapy, participants were taught various skills, such as mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness. These skills aim to enhance their ability to manage distressing emotions, tolerate difficult situations, regulate their emotions effectively, and improve communication and relationship skills. The clinical psychologist provided examples and practical exercises to help participants grasp and practice these skills. Role-plays, guided imagery, and real-life scenarios were used to facilitate the application of these techniques to their own experiences .The third and final session of each treatment cycle focused on integrating the skills learned in the previous sessions and monitoring the participants' progress. The clinical psychologist reviewed the participants' experiences with applying therapeutic techniques outside of therapy and encouraged them to share their challenges and successes. During this session, the participants were allowed to reflect on their progress and identify areas

where they had experienced improvement or encountered difficulties. The clinical psychologist provided feedback and guidance based on their individual experiences, reinforcing the importance of continued practice and perseverance. The participants were also encouraged to discuss any modifications or adjustments they felt were necessary in their treatment plan. The clinical psychologist addressed their concerns and collaborated with them to tailor the therapy approach to their specific needs and goals.

Trail Profile Chart

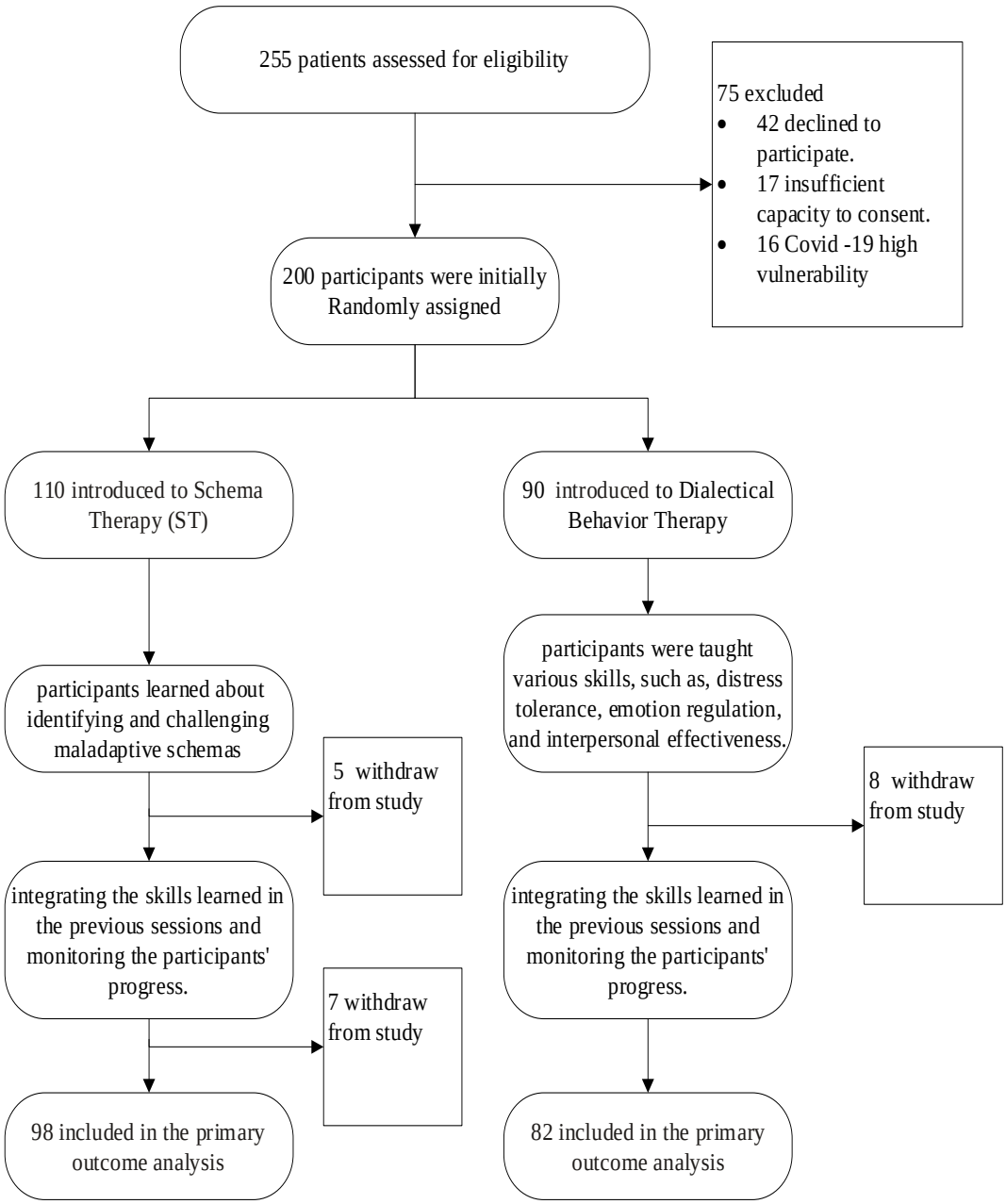

Figure 1: Trail Profile Chart Used in This Study.

The previous figure shows the "Trial profile chart" which presents a progression of the 180 participants with borderline personality disorder through the randomized trial comparing Schema Therapy (ST) and Dialectical Behavior Therapy (DBT).

Scales to Examine the Secondary Outcomes

Scales are used to examine the secondary outcomes of depression, anxiety, social functioning, and overall quality of life. the scales should be about the paper content, including:

1- **Depression**: The Beck Depression Inventory (BDI) was used to assess levels of depression in individuals with borderline personality disorder (BPD). The BDI is a widely used self-report questionnaire that measures the severity of depressive symptoms. It consists of 21 items that assess various aspects of depression, such as mood, pessimism, guilt, and loss of interest (Köhne et al., 2021).
2- **Anxiety**: The Beck Anxiety Inventory (BAI) was employed to measure anxiety symptoms in the research study. The BAI is a self-report inventory that includes 21 items, designed to assess the severity of anxiety symptoms experienced by individuals with BPD. It evaluates symptoms such as nervousness, fear, and physiological manifestations of anxiety (Toledano et al., 2020).

Also, additional Scales to examine the secondary outcomes are considered for future work:

Social Functioning: The Social Adjustment Scale (SAS) was utilized to evaluate social functioning and the impact of mental health conditions on an individual's social interactions and relationships. The SAS is a comprehensive measure that assesses various domains of social functioning, including work, social and leisure activities, family relationships, and overall social adjustment (Marino et al., 2019).

Quality of Life: The World Health Organization Quality of Life (WHOQOL) questionnaire was employed to assess the overall quality of life in individuals with BPD. The WHOQOL is a well-established measure that evaluates an individual's perception of their physical health, psychological well-being, social relationships, and environment (Ryan, 2023).

Measures Used in the Study

A) Primary Outcomes

Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD).

B) Secondary Outcomes

The Beck Depression Inventory (BDI), The Beck Anxiety Inventory (BAI), The Social Adjustment Scale (SAS), and The World Health Organization Quality of Life (WHOQOL) questionnaire.

Method and Timing of Application

These measures were administered to the participants at multiple time points throughout the study to assess changes in symptoms, functioning, and quality of life.

1- **Baseline Assessment**: Before the start of the treatment program, participants completed the BDI and BAI questionnaires to establish their initial levels of depression, anxiety, social functioning, and quality of life.

2- **Treatment Phase**: During the one-year treatment phase, participants attended therapy sessions with a clinical psychologist. Both Schema Therapy (ST) and Dialectical Behavior Therapy (DBT) were delivered over three sessions, each lasting 45 minutes, conducted once a week for three weeks.
3- **Follow-up Assessments**: After the completion of the treatment phase, participants underwent follow-up assessments at specific intervals (3 to 6 months) to measure changes in primary and secondary outcomes. The BDI and BAI questionnaires were administered again to evaluate the effectiveness of the therapies and sustained improvements in symptoms and functioning over time.

Treatment Program and Goals of Each Session:

Both Schema Therapy (ST) and Dialectical Behavior Therapy (DBT) were provided to the participants throughout the treatment phase. The treatment program aimed to address the specific needs of individuals with BPD and improve their overall well-**being.**

1- **Schema Therapy (ST):** This therapy focuses on identifying and changing maladaptive schemas or core beliefs that contribute to BPD symptoms. The goals of each session in Schema Therapy included exploring and understanding the patient's core beliefs and early experiences, Challenging and modifying negative schemas through cognitive restructuring techniques, Developing healthier coping strategies and improving emotional regulation skills, and Enhancing interpersonal functioning and improving relationships.
2- **Dialectical Behavior Therapy (DBT):** This therapy aims to help individuals with BPD develop skills for emotion regulation, distress tolerance, mindfulness, and interpersonal effectiveness. The goals of each session in Dialectical Behavior Therapy included:

- Learning and practicing mindfulness techniques to increase emotional awareness and reduce reactivity.
- Acquiring distress tolerance skills to manage intense emotions without resorting to self-destructive behaviors.
- Developing interpersonal effectiveness skills to improve communication, set boundaries, and maintain healthy relationships.
- Enhancing emotion regulation skills to manage mood swings and impulsivity.

Baseline Characteristics

The following table presents the Baseline characteristics of the study participants,

Table 2: Baseline Characteristics of the Study Participants.

Characteristic	Description
Study Participants (n)	180
Diagnosis	Borderline Personality Disorder (BPD)
Therapy Assignment	Schema Therapy (ST) / Dialectical Behavior Therapy (DBT)
Age (Mean ± SD)	31 ± 12 years
Gender Distribution	60% female, 40% male
Comorbid Conditions	Major depressive disorder (35%), generalized anxiety disorder (25%), substance use disorder (15%)
Previous Treatment Experiences	Psychotherapy (70%), pharmacotherapy (50%), hospitalizations (30%)
Treatment Engagement	Motivation, willingness to actively participate, adherence

The previous table shows that the mean age is 31 years old for groups of participants who are attending to get DBT or ST as a therapeutic approach, about a third of them had a major depressive disorder as comorbid disorder and their previous treatments showed that most of them got Psychotherapy (70%), followed by pharmacotherapy (50%), and hospitalizations (30%).

Data Collection and their Description

Data was collected through a random sample trial in a local mental health clinic in the period 2015 to 2022. The data size consists of 180 individuals who had been diagnosed with (BPD).

Utilizing SPSS to conduct various statistical analyses to examine both (ST) and (DBT) exhibited effectiveness in reducing the severity of symptoms associated with (BPD). Also, the effect of both (ST) and (DBT) on Depression and anxiety will be tested. Some analyses to consider include Descriptive statistics to summarize the data. And correlation analysis to determine relationships between variables.

The following table shows treatment used was Schema Therapy (ST) for 98 participants and Dialectical Behavior Therapy (DBT) for 82 participants,

Table 3: Treatment Used was Schema Therapy (ST) and Dialectical Behavior Therapy (DBT).

Description of Treatment type		
Intervention	Frequency (n)	%
DBT	82	45.6
ST	98	54.4
Total	180	100.0

The previous table shows that number of treatments by ST is more than DBT, (98 vs 82).

The following table illustrates the descriptive statistics for the study variable by presenting some statistical metrics,

Table 4: Descriptive Statistics for the Study Variable by Presenting Some Statistical Metrics (N=180).

Descriptive Statistics			
	Min	Max	Mean± SD
Pre Treatment.ZAN.BPD.Score	16	25	20.63±2.871
Post.Treatment.ZAN.BPD.Score	9	17	12.79±2.730
Pre.Treatment.Depression.Score	22	30	26.23±2.561
Post.Treatment.Depression.Score	11	19	14.74±2.629
Pre.Treatment.Anxiety.Score	25	34	29.82±2.772
Post.Treatment.Anxiety	14	22	18.26±2.459

Pre-Treatment ZAN BPD Score. Minimum=16, Maximum=25, and Mean=20.63. Post-Treatment ZAN BPD Score, Minimum=9, Maximum=17, and Mean=12.79. Pre-Treatment Depression Score, Minimum=22, Maximum=33, and Mean=26.23. Post-Treatment Depression Score, Minimum=11, Maximum=19, and Mean=14.74. Pre-Treatment Anxiety Score, Minimum=25, Maximum=34, Mean=29.82. Post-Treatment Anxiety, Minimum=14, Maximum=22, and Mean=18.26.

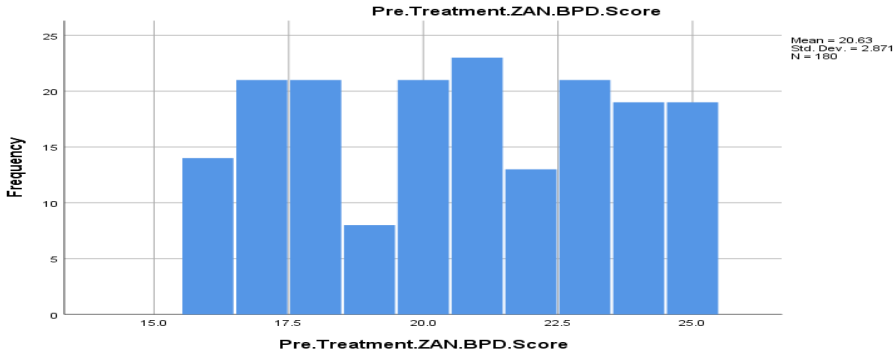

Figure 2: Pre-Treatment ZAN BPD Score.

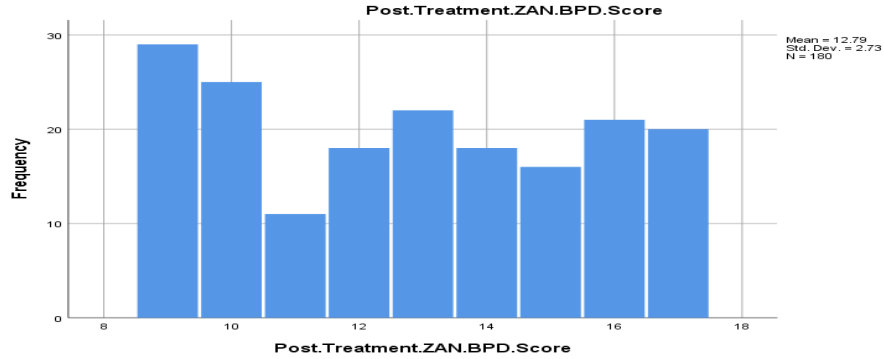

Figure 3: Histogram Presentation of Frequency and Descriptive Statistics of Post-Treatment ZAN BPD Score.

The previous figures show that the Pre-Treatment ZAN BPD Score is Minimum=16, Maximum=25, and has a Mean of 20.63. While Post-Treatment ZAN BPD Score is Minimum=9, Maximum=17 and has a Mean of 12.79

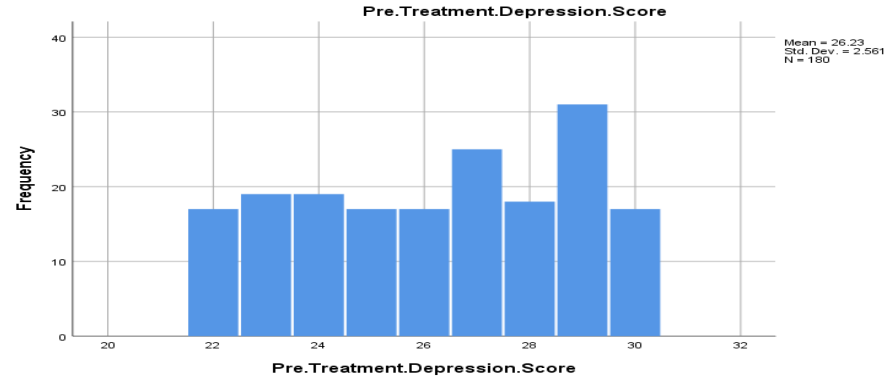

Figure 4: Histogram Presentation of Frequency and Descriptive Statistics of Pre-Treatment ZAN BPD Score.

Studying the mean difference of ST (11) is higher than the mean difference of DBT (4.07) shows that from t test results illustrated that there is no significant difference (p = 0..00) between Pre Treatment ZAN BPD Score and Post Treatment ZAN BPD Score

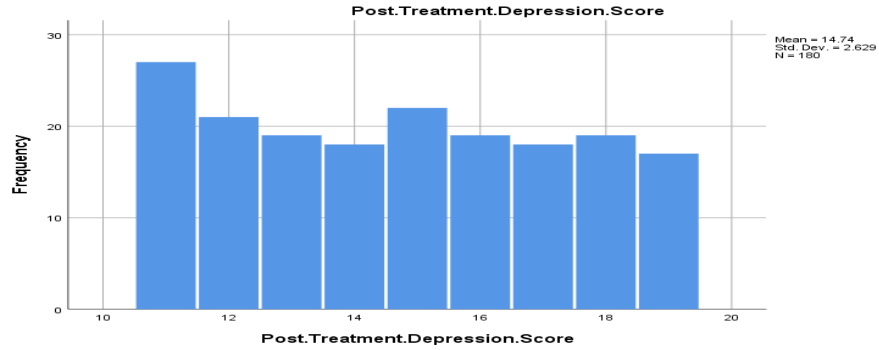

Figure 5 Histogram Presentation of Frequency and Descriptive Statistics of Post-Depression Scores.

The results of the study indicated that both (ST) and (DBT) exhibited effectiveness in reducing the severity of symptoms associated with (BPD) . Through a closer examination of the data, these findings emerged: As per the analysis of this sample of participants, it was concluded that no significant differences were observed between the two treatment approaches concerning their overall effectiveness in addressing BPD symptoms. Pre-Treatment ZAN BPD Score is Minimum=16, Maximum=25, and has a Mean of 20.63. While Post-Treatment ZAN BPD Score is Minimum=9, Maximum=17 and has a Mean of 12.79

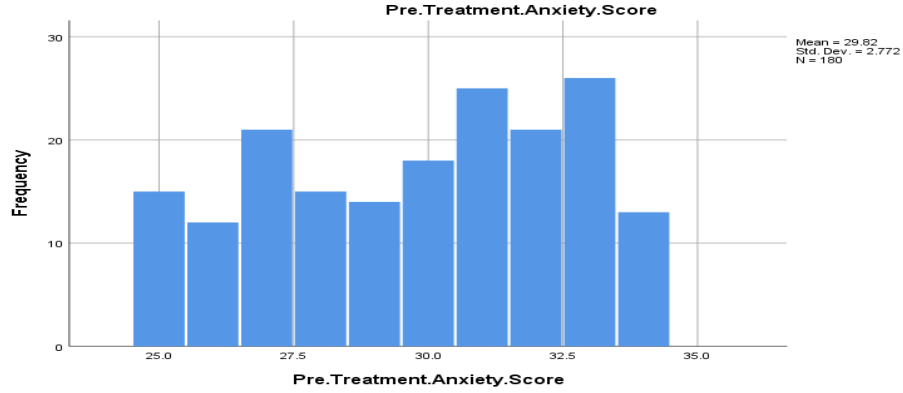

Figure 6: Histogram Presentation of Frequency and Descriptive Statistics of Pre-Anxiety Score.

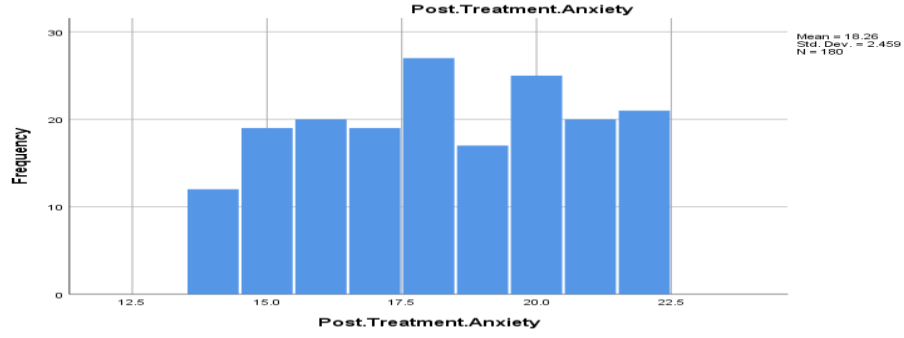

Figure 7: Histogram Presentation of Frequency and Descriptive Statistics of Post-Anxiety Score.

Schema Therapy (ST) demonstrated a greater efficacy than Dialectical Behavior (DBT) in reducing (BPD). Dialectical Behavior Therapy (DBT) demonstrated a greater efficacy than Schema Therapy (ST) in reducing symptoms of depression**.** Dialectical Behavior Therapy (DBT) demonstrated a greater efficacy than Schema Therapy (ST) in reducing Anxiety scores.

Discussion

The findings of this study suggest that both (ST) and (DBT) can significantly contribute to the reduction of BPD symptom severity. The results aligned with previous research that has highlighted the effectiveness of both ST and DBT in treating BPD (Farrell et al, 2019). Furthermore, the study explored the influence of treatment on secondary outcome measures, such as depression, anxiety, social functioning, and overall quality of life.

The results indicated that both ST and DBT had a positive effect on these measures, suggesting that they can contribute to overall well-being and improved functioning in individuals with BPD. These findings are consistent with previous studies that have emphasized the beneficial effects of these therapies on various aspects of BPD (Soler et al., 2022). The discussion of previous studies revealed important factors that can influence treatment response in BPD patients. Higher levels of functioning, including better emotional regulation skills and less severe impairment in daily life, tend to be associated with better treatment outcomes.

Additionally, addressing comorbid disorders, such as substance abuse, eating disorders, or mood disorders, alongside BPD treatment, is crucial for achieving positive treatment responses (Fassbinder et al, 2018). The engagement and commitment of the patients to the therapeutic process were also identified as significant factors influencing treatment response. Patients who actively participated in treatment and demonstrated motivation tended to have better outcomes. Moreover, understanding the patient's past treatment experiences and their perception of treatment effectiveness can help tailor the approach to meet their specific needs (Kopf-Beck et al, 2020).

The collaborative decision-making process between the patient and mental health professional was highlighted as an important aspect when determining the most appropriate treatment for BPD patients. Considering the unique circumstances and preferences of the individual can contribute to treatment success.

The study's results support the effectiveness of ST in reducing BPD symptom severity, highlighting its potential as a comprehensive therapeutic approach for addressing the complex challenges associated with BPD (Finch et al., 2017). The results of this study reinforce the effectiveness of DBT in reducing BPD symptoms and improving overall well-being. The mechanisms of change in both ST and DBT were discussed, emphasizing the importance of schema awareness and emotional connection/validation in ST. By identifying maladaptive schemas and exploring emotions in a supportive therapeutic environment, individuals can work towards modifying their difficulties and promoting emotional healing.

DBT's focus on balancing acceptance and change contributes to improved emotional well-being and more fulfilling relationships (Taylor et al, 2017). The statistical analysis conducted using SPSS provided valuable insights into the treatment outcomes. Descriptive statistics summarized the data, indicating the mean scores for pre- and post-treatment measures of BPD symptom severity, depression, and anxiety. These findings provided a quantitative perspective on the effectiveness of ST and DBT in symptom reduction.

Conclusion

This comprehensive study entailed a randomized controlled trial designed to assess the reactions of individuals diagnosed with (BPD) when exposed to (ST) and (DBT). Previous research has highlighted several factors that can influence treatment response in BPD patients, such as the individual's level of functioning, the presence of comorbid disorders, treatment engagement, and past treatment experiences. Understanding these factors is crucial for tailoring treatment approaches to meet the unique needs of each patient. Also, ST integrates cognitive-behavioral therapy, psychodynamic approaches, and attachment theory to address maladaptive schemas and modes associated with BPD .The statistical analysis conducted using SPSS indicated that both ST and DBT were effective in reducing the severity of BPD symptoms. Furthermore, the analysis also explored the impact of these therapies on depression and anxiety levels. In conclusion, this study provides valuable insights into the treatment response of BPD patients to (ST) and (DBT). The findings support the effectiveness of both therapies in reducing BPD symptom severity. Mental health professionals should consider individual characteristics, preferences, and comorbid conditions when selecting the most appropriate treatment approach for BPD patients. Further research in this area can contribute to the ongoing development and refinement of therapeutic interventions for individuals with BPD, ultimately improving their emotional well-being and overall quality of life.

Limitations & Recommendations

Limitations

Sample Size: The study involved a sample size of 180 BPD patients, which may limit the generalizability of the findings. A larger sample size could provide more robust results and enhance the external validity of the study. Duration of Treatment: The treatment phase of the study lasted for one year. While this duration allows for an assessment of short-term treatment outcomes, it may not capture the long-term effects of Schema Therapy and Dialectical Behavior Therapy. Longer follow-up periods would provide a more comprehensive understanding of the sustained improvements in symptoms and functioning. Treatment Setting: The study did not specify the treatment setting in which Schema Therapy and Dialectical Behavior Therapy were administered. Different treatment settings, such as inpatient or outpatient, may have varying effects on treatment outcomes. Considering the treatment setting as a potential factor could provide a more nuanced understanding of the results. Finally, lack of Control Group: The study compared the effectiveness of Schema Therapy and Dialectical Behavior Therapy without a control group. The absence of a control group limits the ability to determine whether the observed improvements are solely attributable to the therapies or if other factors may have influenced the outcomes.

Recommendations

From this study's findings, it is recommended for long-Term Follow-up: Conducting follow-up assessments beyond the one-year treatment phase would allow for a better understanding of the durability of treatment effects. Long-term follow-up could provide insights into the maintenance of treatment gains and the potential need for additional interventions or support, Comparative Studies and Future research could include comparative studies with control groups to directly compare the effectiveness of Schema Therapy and Dialectical Behavior Therapy against alternative or no treatment options. This would help establish the specific

benefits of these therapies and inform treatment selection and treatment Modifiers to investigate additional factors that may influence treatment response and outcomes, such as the severity of BPD symptoms, the presence of comorbid conditions, or specific patient characteristics. Identifying treatment modifiers could assist in tailoring interventions to individual needs optimizing treatment outcomes and exploring the impact of different treatment settings (e.g., inpatient, outpatient, group therapy) on treatment response and outcomes. Comparing the effectiveness of Schema Therapy and Dialectical Behavior Therapy in various settings could inform treatment planning and resource allocation. Further, investigate the underlying mechanisms of change associated with Schema Therapy and Dialectical Behavior Therapy. Understanding how these therapies produce positive outcomes can guide the development of more targeted and effective interventions for BPD and replicate the study with larger and more diverse samples to enhance the generalizability of the findings. Replication studies can help validate the effectiveness of Schema Therapy and Dialectical Behavior Therapy in different populations and settings.

By addressing these limitations and considering the recommended avenues for future research, the field of BPD treatment can advance, leading to improved outcomes and quality of life for individuals living with this challenging disorder

References

Bozzatello, P., Garbarini, C., Rocca, P., & Bellino, S. (2021). Borderline Personality Disorder: Risk Factors and Early Detection. *Diagnostics (Basel, Switzerland)*, 11(11), 21-28.

Chen, S. Y., Cheng, Y., Zhao, W. W., & Zhang, Y. H. (2021). Effects of dialectical behavior therapy on reducing self-harming behaviors and negative emotions in patients with borderline personality disorder: A meta-analysis. *Journal of Psychiatric and Mental Health Nursing*, 28(6), 1128-1139.

Choi-Kain, L. W., Finch, E. F., Masland, S. R., Jenkins, J. A., & Unruh, B. T. (2017). What Works in the Treatment of Borderline Personality Disorder. *Current Behavioral Neuroscience Reports*, 4(1), 21–30.

Clarkin, J. F., Levy, K. N., Lenzenweger, M. F., & Kernberg, O. F. (2013). Evaluating three treatments for borderline personality disorder: A multiwave study. *Focus*, 11(2), 269-276.

Farrell, J. M., Shaw, I. A., & Webber, M. A. (2009). A schema-focused approach to group psychotherapy for outpatients with borderline personality disorder: a randomized controlled trial. *Journal of Behavior Therapy and Experimental Psychiatry*, 40(2), 317-328.

Fassbinder, E., Assmann, N., Schaich, A., Heinecke, K., Wagner, T., Sipos, V., ... & Schweiger, U. (2018). PRO* BPD: effectiveness of outpatient treatment programs for borderline personality disorder: a comparison of Schema therapy and dialectical behavior therapy: study protocol for a randomized trial. *BMC Psychiatry*, 18, 1-17.

Gunderson, J. G., Herpertz, S. C., Skodol, A. E., Torgersen, S., & Zanarini, M. C. (2018). Borderline personality disorder. *Nature Reviews Disease Primers*, 4(1), 1-20.

HAMID, N., Molajegh, R. R., Bashlideh, K., & SHEHNIYAILAGH, M. (2020). The Comparison of Effectiveness of Dialectical Behavioral Therapy (DBT) and Schema Therapy (ST) in Reducing the Severity of Clinical Symptoms (Disruptive Communication, Emotional Deregulation and Behavioral Deregulation) of Borderline Personality Disorder in Iran. *Pakistan Journal of Medical and Health Sciences*, 14(2), 1354-1362.

Heerebrand, S. L., Bray, J., Ulbrich, C., Roberts, R. M., & Edwards, S. (2021). Effectiveness of dialectical behavior therapy skills training group for adults with borderline personality disorder. *Journal of Clinical Psychology*, 77(7), 1573-1590.

Keefe, J., Kim, T., DeRubeis, R., Streiner, D., Links, P., & McMain, S. (2021). Treatment selection in borderline personality disorder between dialectical behavior therapy and psychodynamic psychiatric management. *Psychological Medicine*, 51(11), 1829-1837.

Kells, M., Joyce, M., Flynn, D., Spillane, A., & Hayes, A. (2020). Dialectical behaviour therapy skills reconsidered: applying skills training to emotionally dysregulated individuals who do not engage in suicidal and self-harming behaviours. *Borderline Personality Disorder and Emotion Dysregulation*, 7(1), 1-8.

Köhne, A. C. J., & Isvoranu, A. M. (2021). A Network Perspective on the Comorbidity of Personality Disorders and Mental Disorders: An Illustration of Depression and Borderline Personality Disorder. *Frontiers in Psychology*, 12, 68-75.

Kopf-Beck, J., Zimmermann, P., Egli, S., Rein, M., Kappelmann, N., Fietz, J., ... & Keck, M. E. (2020). Schema therapy versus cognitive behavioral therapy versus individual supportive therapy for depression in an inpatient and day clinic setting: study protocol of the OPTIMA-RCT. *BMC Psychiatry*, 20, 1-19.

Kulacaoglu, F., & Kose, S. (2018). Borderline personality disorder (BPD): in the midst of vulnerability, chaos, and awe. *Brain Sciences*, 8(11), 201.

Leichsenring, F., Heim, N., Leweke, F., Spitzer, C., Steinert, C., & Kernberg, O. F. (2023). Borderline Personality Disorder: A Review. *JAMA*, 329(8), 670-679.

Marino, L. A., Campbell, A. N. C., Pavlicova, M., Hu, M., & Nunes, E. V. (2019). Social functioning outcomes among individuals with substance use disorders receiving internet-delivered community reinforcement approach. *Substance Use & Misuse*, 54(7), 1067–1074.

May, J. M., Richardi, T. M., & Barth, K. S. (2016). Dialectical behavior therapy as treatment for borderline personality disorder. *The Mental Health Clinician*, 6(2), 62–67.

Megan, B. (2022). Borderline Personality Disorder. *Penn State Health Hershey Medical Center, Hershey, Pennsylvania*, 105(2), pp. 157- 160.

Navarro Haro, Marivi & del Hoyo, Yolanda & Campos, Daniel & Linehan, Marsha & Hoffman, Hunter & Garcia-Palacios, Azucena & Modrego-Alarcón, Marta & Borao-Zabala, Luis & Garcia-Campayo, Javier. (2017). Meditation experts try Virtual Reality Mindfulness: A pilot study evaluation of the feasibility and acceptability of Virtual Reality to facilitate mindfulness practice in people attending a Mindfulness conference. *PLoS ONE*, 12(11), pp. 18-25.

Probst, T., O'ROURKE, T. E. R. E. S. A., Decker, V., Kießling, E. V. A., Meyer, S., Bofinger, C., ... & Pieh, C. (2019). Effectiveness of a 5-week inpatient dialectical behavior therapy for borderline personality disorder. *Journal of Psychiatric Practice*, 25(3), 192-198.

Rameckers, S. A., Verhoef, R. E. J., Grasman, R. P. P. P., Cox, W. R., van Emmerik, A. A. P., Engelmoer, I. M., & Arntz, A. (2021). Effectiveness of Psychological Treatments for Borderline Personality

Disorder and Predictors of Treatment Outcomes: A Multivariate Multilevel Meta-Analysis of Data from All Design Types. *Journal of Clinical Medicine*, 10(23), 56- 62.

Ripoll, L. H. (2023). Psychopharmacologic treatment of borderline personality disorder. *Dialogues in Clinical Neuroscience*, 15(2), 213–224.

Rudge, S., Feigenbaum, J. D., & Fonagy, P. (2020). Mechanisms of change in dialectical behaviour therapy and cognitive behaviour therapy for borderline personality disorder: a critical review of the literature. *Journal of Mental Health*, 29(1), 92-102.

Shapiro-Thompson, R., & Fineberg, S. K. (2022). The State of Overmedication in Borderline Personality Disorder: Interpersonal and Structural Factors. *Current Treatment Options in Psychiatry*, 9(1), 1–13.

Shirley Ryan. (2023). WHO Quality of Life-BREF (WHOQOL-BREF). *Ability Lab*, pp.2-4.

Soler, J., Casellas-Pujol, E., Fernández-Felipe, I., Martín-Blanco, A., Almenta, D., & Pascual, J. C. (2022). "Skills for pills": The dialectical-behavioural therapy skills training reduces polypharmacy in borderline personality disorder. *Acta Psychiatrica Scandinavica*, 145(4), 332-342.

Stoffers-Winterling, J. M., Storebø, O. J., Kongerslev, M. T., Faltinsen, E., Todorovac, A., Jørgensen, M. S., & Simonsen, E. (2022). Psychotherapies for borderline personality disorder: a focused systematic review and meta-analysis. *The British Journal of Psychiatry*, 1-15.

Sugarman, D. E., Campbell, A. N. C., Iles, B. R., & Greenfield, S. F. (2017). Technology-Based Interventions for Substance Use and Comorbid Disorders: An Examination of the Emerging Literature. *Harvard Review of Psychiatry*, 25(3), 123–134.

Tan, Y. M., Lee, C. W., Averbeck, L. E., Brand-de Wilde, O., Farrell, J., Fassbinder, E., ... & Arntz, A. (2018). Schema therapy for borderline personality disorder: A qualitative study of patients' perceptions. *PLoS One*, 13(11), e0206039.

Taylor, C. D., Bee, P., & Haddock, G. (2017). Does schema therapy change schemas and symptoms? A systematic review across mental health disorders. *Psychology and Psychotherapy: Theory, Research and Practice*, 90(3), 456-479.

Thomsen, M. S., Ruocco, A. C., Uliaszek, A. A., Mathiesen, B. B., & Simonsen, E. (2017). Changes in neurocognitive functioning after 6 months of mentalization-based treatment for borderline personality disorder. *Journal of Personality Disorders*, 31(3), 306-324.

Toledano-Toledano, F., Moral de la Rubia, J., Domínguez-Guedea, M. T., Nabors, L. A., Barcelata-Eguiarte, B. E., Rocha-Pérez, E., Luna, D., Leyva-López, A., & Rivera-Rivera, L. (2020). Validity and Reliability of the Beck Anxiety Inventory (BAI) for Family Caregivers of Children with Cancer. *International Journal of Environmental Research and Public Health*, 17(21), 77-85.

Van Toorenburg, M. M., Sanches, S. A., Linders, B., Rozendaal, L., Voorendonk, E. M., Van Minnen, A., & De Jongh, A. (2020). Do emotion regulation difficulties affect outcome of intensive trauma-focused treatment of patients with severe PTSD?. *European Journal of Psychotraumatology*, 11(1), 1724417.

Wibbelink, C. J., Arntz, A., Grasman, R. P., Sinnaeve, R., Boog, M., Bremer, O. M., ... & Kamphuis, J. H. (2022). Towards optimal treatment selection for borderline personality disorder patients (BOOTS): a study protocol for a multicenter randomized clinical trial comparing schema therapy and dialectical behavior therapy. *BMC Psychiatry*, 22(1), 89.

Yin, Q., Stern, M., Kleiman, E. M., & Rizvi, S. L. (2023). Investigating predictors of treatment response in Dialectical Behavior Therapy for borderline personality disorder using LASSO regression. *Psychotherapy Research*, 33(4), 455-467.

Zittel Conklin, C., & Westen, D. (2005). Borderline personality disorder in clinical practice. *American Journal of Psychiatry*, 162(5), 867-875.