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Feasibility and Efficacy of Brief DBT Intervention for Adults With Borderline Personality Disorder/Traits: A Systematic Review

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ABSTRACT

Standard, comprehensive dialectical behavioral therapy (DBT) has been well established as an effective and evidence-based treatment for borderline personality disorder (BPD). As a comprehensive and longer term treatment (e.g., 6–12 months or more), DBT can be challenging to implement in resource-strapped public healthcare settings. The purpose of this systematic review was to examine existing literature to assess the efficacy and feasibility of abbreviated DBT programs (16 weeks or fewer in duration, no more than one group session per week). Literature searches yielded 22 studies (20 journal articles and 2 dissertations) meeting criteria for inclusion. Findings indicated that abbreviated forms of DBT are overall effective in improving symptoms of BPD, general psychiatric symptoms including depression and anxiety, and general functioning. Attrition rates varied widely (between 0% and 60%). Of note, the majority of studies reviewed were observational, had small sample sizes, and used varied outcome measures focusing on preintervention and postintervention symptom scores. In this article, we discuss the current state of the literature and suggest future directions for the efficient implementation of DBT.

1 | Background

Borderline personality disorder (BPD) is a complex mental health concern marked by heightened prevalence of suicidal and self-harm behavior (Paris 2019) and frequent mental health crisis service use (Shaikh et al. 2017). The most well-studied treatment approaches involve comprehensive forms of psychotherapy, yet these treatments can be cost- and resource-intensive (Iliakis et al. 2019). Several approaches have been proposed to address barriers to accessing comprehensive evidence-based therapy. These include general psychiatric management/structured clinical management (Iliakis et al. 2019), a clinical staging approach (whereas appropriate therapies are initiated based on the severity and persistence of clinical symptoms regardless of diagnostic

categories; Chanen et al. 2016), or a stepped-care approach (Iliakis et al. 2019; Choi-Kain et al. 2016). Using a stepped-care model may be especially appropriate for conditions such as BPD where prevalence is high but prognoses and outcomes vary widely between individual patients (Laporte et al. 2018), a feature that could also help to explain why treatment duration does not consistently moderate treatment outcomes in this population. Patients with more severe symptomatology who do not find sufficient benefit from brief intervention could then be referred on to continue a more intensive program.

Standard dialectical behavior therapy (DBT) is a well-established, comprehensive evidence-based treatment program that has been shown to decrease self-injurious/suicidal behaviors and

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crisis service use (DeCou et al. 2019; Panos et al. 2013; Linehan et al. 2006). Standard DBT is delivered intensely over the course of a year or more with multiple concurrent components (individual therapy, group skills training, telephone coaching, and a consultation team for clinicians), which require substantial clinician involvement and resources (Linehan 1993). The demand for evidence-based BPD treatment far exceeds the availability of trained clinicians around the world (Iliakis et al. 2019), leaving many BPD patients without potentially life-saving treatment. This disparity may be even more pronounced for underprivileged BPD patients who rely on public healthcare systems, which often lack the resources to develop and sustain standard DBT programs (Carmel et al. 2014). There is an urgent need for shorter, less intensive, and more accessible interventions that can be feasibly implemented in community mental health settings.

To address these challenges, emerging research has examined modified, abbreviated, or adjunctive forms of DBT as alternatives to standard DBT. A recent study found that 6 months of comprehensive DBT was noninferior to 12 months of comprehensive DBT for reducing self-harm and suicide attempts (McMain et al. 2022), supporting the effectiveness of delivering standard DBT in brief formats. Other studies support the efficacy and feasibility of modified forms of DBT treatment, such as stand-alone DBT skills training (Valentine et al. 2020), Internet-delivered DBT skills training (Vasiljevic et al. 2022; Wilks et al. 2018), and adjunctive DBT that augments standard therapy provided by community therapists (Gratz et al. 2014; Gratz and Tull 2011). A comprehensive overview of research regarding abbreviated and modified forms of DBT is thus needed to provide a clearer direction for future research and clinical implementation, particularly in settings where resources are limited and where standard DBT might not be feasible.

We conducted a systematic review to examine existing literature regarding the efficacy (as defined by patient outcome measures) and feasibility (as defined by patient tolerability/attrition rates or systems outcomes related to waitlist management) of abbreviated comprehensive DBT and modified DBT-informed interventions lasting less than 16 weeks for patients with BPD or BPD features. A treatment duration of approximately 4 months aligns with the limitations often seen in public healthcare settings, where the number of sessions and overall treatment duration are highly restricted.

2 | Methods

We conducted this review in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Liberati et al. 2009). A systematic literature search was conducted by two independent reviewers (see Figure 1 for PRISMA flowchart). The first author conducted a literature search on PubMed and PsycINFO in June 2023 for all relevant articles published prior to June 2023 with the terms “(brief or abbreviated or stepped care model or stepped care or stepped-care) and (DBT or dialectical behavioral therapy or dialectical behavior therapy or dialectical behavior intervention) and (BPD or borderline personality disorder or emotionally unstable personality disorder or EUPD).”

The second author conducted an independent search of articles on PubMed and PsycINFO in June 2024 using the same search terms. Google Scholar was also used to identify additional relevant articles. Articles were imported into Covidence and underwent title/abstract screening and full-text screening, which was completed by both the first and the second authors. The eligibility of the articles was determined separately, and disagreements were resolved by consensus. We did not contact study authors to obtain additional information. Rather, we based our review on the results provided in the publications.

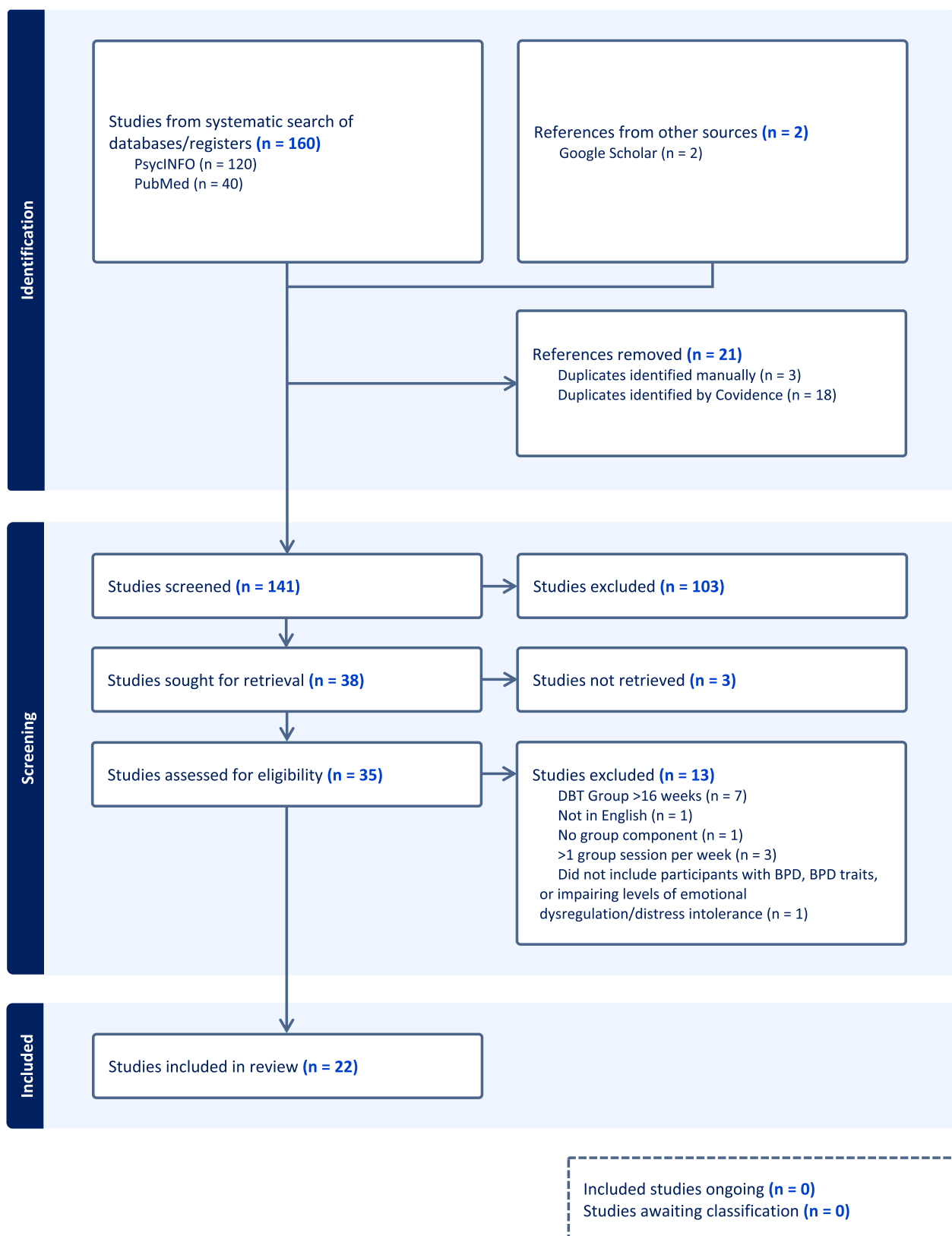
We included any papers assessing brief (16 weeks or less) outpatient DBT-informed programs for adults with BPD or BPD traits. The DBT program may be abbreviated forms of comprehensive DBT or treatment with one or more DBT treatment components (i.e., standalone skills training, combined individual therapy, and phone coaching). We included individuals with subthreshold scores on measures of BPD or significant emotion regulation difficulties to broaden the range of our search. Study types included were randomized controlled trials (RCTs), nonrandomized controlled trials, and observational/pilot/feasibility studies. Papers written in languages other than English were excluded. Studies that did not assess a DBT-informed intervention, had program duration exceeding 16 weeks, or had high program intensity (> 1 group session per week) were excluded. Studies that examined nonadult populations (i.e., adolescents) or did not include participants with BPD, BPD traits, or impairing levels of emotional dysregulation/distress intolerance were excluded.

The following data were extracted from the 22 articles meeting the inclusion criteria: (a) author and year of publication; (b) study type; (c) location; (d) sample size; (e) participant demographics; (f) participant diagnosis; (g) delivery and format of the DBT intervention; (h) intervention duration, frequency, and session length; (i) number of participants per group; (j) outcome measures; and (k) results. After completion of the initial data extraction, a second independent reviewer checked the accuracy of the extracted data. Table 1 summarizes extracted data, and Table 2 provides an index of scales and outcome measures used in included studies.

3 | Results

3.1 | Participant Characteristics

Participants in all studies were majority female (69.6%–100%) and average participant age ranged from 20.40 to 40.33. Studies were conducted in a variety of different countries around the world (Australia, Canada, Denmark, Malaysia, Spain, Sweden, Taiwan, United Kingdom, and the United States of America). Participants in the majority of studies (15/22) were diagnosed with BPD. Of the remaining seven studies, one had participants with methamphetamine use disorder and BPD features; two were transdiagnostic studies including individuals with personality disorders; three had college-age participants with Cluster B personality traits, significant emotion regulation difficulties, or poor coping; and one had perinatal female participants with difficulties in emotion regulation. Ten studies explicitly included participants with a variety of comorbid psychiatric disorders. Frequently used exclusion criteria



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FIGURE 1 | PRISMA flowchart.

included active psychosis ($n = 12$), active hypomania or mania ($n = 3$), organic brain disorder ($n = 6$), intellectual disability ($n = 8$), imminent suicide risk ($n = 2$), and severe substance use disorder ($n = 8$). Eight studies also excluded participants with historical diagnoses of bipolar disorder, psychosis, or active major depressive episode.

3.2 | Study Characteristics

Fourteen of 22 studies were observational (predominantly feasibility, pilot, and/or naturalistic studies). Three studies were nonrandomized clinical trials. The remaining five studies were randomized controlled trials. Control groups were given treatment as usual (TAU), cognitive group therapy, collaborative assessment and management of suicidality (CAMS, aka optimized standard treatment), in-person DBT (Alevi et al., comparing e-DBT to in-person DBT skills group), general psychiatric management (GPM), or standard group therapy (SGT). Of note, one RCT (Soler et al. 2005) examined the effectiveness of brief DBT with or without adjunctive olanzapine treatment. Sample sizes were also highly variable between studies (range 6–584 participants, $M = 86.86$).

3.3 | Intervention Characteristics

There was significant variation in the characteristics of interventions examined. Two studies assessed virtual DBT delivery options. Most studies used modified DBT skills groups as a primary intervention. Three studies examined brief DBT-informed individual therapy (no skills group) or virtual forms of brief modified DBT delivery. Seven studies offered as-needed telephone support to participants in addition to the main DBT intervention. For studies involving skills training groups, 11 studies reported group sizes, ranging from 2 to 11 participants ($M = 8.28$). The duration of the intervention ranged from 8 to 16 weeks. Group sessions lasted 90 min to 4.5 h per session, with most studies reporting a 2-h group session.

Individual counseling and psychiatric follow-up were quite varied across papers reviewed. Four studies with group interventions also provided participants with weekly 1-h individual DBT sessions. Three studies had participants who received weekly or biweekly individual counseling that was not required to be DBT-informed. Four studies provided participants with psychiatric follow-up every 2–4 weeks.

3.4 | Outcome Measures

3.4.1 | Feasibility/Acceptability

Attrition or dropout rates between studies in this review were quite varied, with a range of 0%–60%. The average attrition rate across all studies that reported dropout (after initiating brief DBT treatment) was 29.77%, slightly higher than the 25% dropout rate reported in Linehan's standard DBT (Linehan et al. 2006) but largely comparable to more recent meta-analyses of DBT indicating an average dropout rate of around 28% (Dixon and Linardon 2019; Kliem et al. 2010). These data suggest that

brief DBT may be an acceptable and feasible treatment alternative to standard DBT for patients with BPD traits or emotional dysregulation. One study comparing e-DBT with in-person DBT groups also found no significant difference in the attrition rate between interventions.

Only one study directly examined the idea of brief DBT as part of a stepped care approach to the treatment of BPD (Laporte et al. 2018). Findings indicated that only 12% of patients who were initially referred to short-term DBT treatment (12-week program) returned to the clinic after short-term treatment and were then referred to the extended care clinic, suggesting that a multipronged approach is a promising potential solution to the problem of lengthy waitlists for publicly funded DBT treatment. Seow et al. (2021) also conclude that more severe BPD symptoms may benefit less from brief treatment, as around half of patients in this study did not achieve reliable improvement or deteriorated.

Preliminary data suggest that participants may prefer longer treatment when asked about intervention acceptability. For example, most participants in the small feasibility study by Vasiljevic et al. (2022) reported wanting more therapist support and longer program duration after a 9-week individual DBT skills training program consisting of virtual modules with brief therapist check-ins weekly. Similarly, treatment was extended for all five group completers in a 14-week modified DBT pilot (Gayner 1999) due to participant preference. One study (Soler et al. 2022) also found that participant satisfaction (as indicated by dropout rates) improved when intervention duration was increased from 8 to 12 weeks.

3.4.2 | Efficacy

There was a diverse range of outcome measures used across studies, with most employing various self-report rating scales taken preintervention and postintervention to assess efficacy of interventions. The most frequently assessed outcomes were for general borderline symptoms, suicidal ideation, emotional dysregulation, impulsivity, interpersonal problems, general psychiatric symptoms, anxiety, depression, substance use, stress, general functioning, general mental wellbeing, self-esteem/self-compassion, and DBT skill use including coping skills and mindfulness. More infrequently used outcome measures include suicidal communication, cognitive errors, continuous attention, psychoticism, irritability, confidence in ability to cope with mental health challenges, and stage of change. Six studies also used behavioral reports to measure number of emergency department visits or inpatient stays, self-harm or suicidal behavior, or aggressive episodes. Six studies collected follow-up data for at least one time point after completion of intervention.

3.4.2.1 | Behavioral Reports (Suicidal or Aggressive Behavior and ED Visits/Hospitalizations). Results for behavioral reports were overall mixed, with most studies reporting nonsignificant improvements in target behavior. Of the six studies including the severity of nonsuicidal self-injury (NSSI) behavior as an outcome measure, one found that brief stepped-care DBT interventions led to significant improvement

TABLE 1 | Summary of included studies in the systematic review.

Author, date of publication	Type of study	Location	Sample size	Participant demographics	Participant diagnoses
Vasiljevic et al. (2022)	Observational/feasibility	Sweden, virtual	9 (20 invited to participate)	100% female, age 19–37 (mean 27.89). All participants were Swedish speaking.	BPD/emotionally unstable personality disorder according to ICD-10, validated by SCID-II, 7 with variety of comorbid psychiatric disorders (anxiety, depression, Asperger's, ADHD, bipolar, dissociative disorder, schizophrenia/schizotypal/delusional disorders, substance abuse)
Soler et al. (2022)	Observational/feasibility	Spain, in-person	20	95% female, age 27–45 (mean 40.3)	Long-lasting BPD (the presence of some clinical improvement accompanied by persistent low mood, poor psychosocial adjustment, and/or feelings of emptiness). Diagnosis was established using the structured Diagnostic Interview for Borderlines Revised (DIB-R). Exclusion criteria: presence of life-threatening behaviors in the last 12 months; PTSD or related symptoms; diagnosis of drug-induced psychosis, organic brain syndrome, bipolar or psychotic disorder; intellectual disability; participation in any other psychotherapy treatment during the study
Hashworth et al. (2022)	Observational/pilot	Australia, in-person	57	91.5% female at intake, age 18–72 (mean 35.86)	BPD (current/lifetime) and variety of comorbid psychiatric disorders (depression, anxiety, bipolar, PTSD). BPD symptoms were assessed using the Borderline Personality Disorder Checklist (cut-off score of 7 or higher indicates a likely diagnosis of BPD)
Seow et al. (2021)	Observational/naturalistic	Australia, in-person	395 (224 DBT-5, 141 DBT-12)	45.2% inpatients, 54.8% outpatients. DBT-5: 69.6% female, age 18–76 (mean 37.79) DBT-12: 90.8% female, age 18–60 (mean 32.33)	18.7% primary PD dx (80.2% BPD), 20.9% secondary PD dx (44.9% primary mood, 35.5% primary anxiety, 13% substance use disorders, 5.6% other/schizophrenia/behavioral disorders). Those without PD dx: 49% mood, 33.5% anxiety, 9.4% SUDs, 8.1% other/schizophrenia/behavioral disorders. BPD symptoms were assessed using Borderline Symptom List-Short Version (BSL-23)
Keng et al. (2021)	Observational/pilot/feasibility	Malaysia, in-person	20	95% female, age 18–60 (mean 27.25), Muslim majority	BPD and variety of comorbid psychiatric disorders (all on psychiatric medications), 5 bipolar 1 or 2, 4 MDD, 1 PTSD + SAD, 1 ADHD. Exclusion criteria: active psychosis/mania, organic brain disorder/intellectual disability, or imminent suicide risk (expression of intent to kill self in last 24 h) BPD symptoms were assessed using PAI-BOR

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Type of study	Location	Sample size	Participant demographics	Participant diagnoses
Alavi et al. (2021)	Nonrandomized controlled trial	Canada (Ontario), in-person	107 (52 e-DBT, 55 in-person DBT group, i.e., controls)	Age 18–65. e-DBT group: 80.8% female. Control group: 74.5% female.	BPD (DSM-5) Exclusion criteria: acute hypomania/mania/psychosis, severe alcohol/substance use disorders, current DBT
Seow et al. (2020)	Observational/mediation analysis	Australia, in-person	102 included in analysis (missed < 4 sessions, pretreatment and posttreatment data available) of 365 initial program attendees	72.41% female, age 18–68, mean 37.23	18 PD (17.65%), of which majority had (16) BPD dx 52 mood disorders, 26 anxiety disorders, 13 substance use disorders, 3 behavioral problems/schizophrenia
Wilson and Donachie (2018)	Observational	United Kingdom	21	100% female, age 19–42, mean 31	Perinatal women with difficulties in emotion regulation (e.g., marked fluctuations in mood, inaccurate expression of emotion, and thoughts/acts to self-harm/suicidal behavior). 15.6% unipolar depression, 18.8% bipolar depression, 3.1% anxiety disorder, 37.5% c-PTSD
Lin et al. (2018)	RCT	Taiwan, in-person	82 (42 in DBTSTG vs. 40 in CTG group)	DBTSTG: 90.48% female, mean age 20.40 CTG: 85% female, mean age 20.47	BPD, at least 1 suicide attempt in last 6 months. None on medications. Exclusion criteria: lifetime diagnosis or psychotic/bipolar disorder, current severe depression or suicide risk indicating need for inpatient care, current neurological signs, or substance abuse during last 6 months
Laporte et al. (2018)	Observational/naturalistic	Canada (Quebec), in-person	584 (479 ST (short-term) patients, 145 EC (extended care) patients) 239 ST, 79 EC patients with complete data included in analysis.	ST patients: 94% female, mean age 27.1 ST patients who did not return postintervention questionnaires (data not included in analysis) were younger, more impulsive, and had less education. EC clinic: 89% female, mean age 36.1	BPD, minimum score of 8/10 on DIB-R current/lifetime (current score for ST patients, lifetime score for EC patients)
Andreasson et al. (2016)	RCT/clinical superiority trial, observer-blinded	Denmark, in-person	108 (57 DBT group, 57 CAMS group)	DBT group: 71.9% female, mean age 32.4 CAMS group: 76.5% female, mean age 30.8. All participants were Danish-speaking.	BPD traits/disorder (2 or more criteria from BPD diagnosis) and recent suicide attempt (majority of participants within 1 month). Comorbidities: MDD, GAD, and/or panic disorder. Exclusion criteria: severe depression, bipolar, psychosis in schizophrenia spectrum, anorexia, alcohol/drug dependence, intellectual disability.

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Type of study	Location	Sample size	Participant demographics	Participant diagnoses
Panepinto et al. (2015)	Observational	USA, in-person	110	77.3% female, age 18–48 (mean 25.53)	Open to any student lacking coping strategies, referred by counselor. Of 64 completers, 8% dx BPD, 2% (1 student) dx ASPD, 19% depressive disorders 19% anxiety disorders, 17% adjustment disorders 17% stressful life circumstance 16% eating disorders, 3% SUD, 3% OCD, 2% bipolar, 2% unspecified mood, 2% PTSD, 2% ADHD. Exclusion criteria: active psychosis, were a danger to others, or were unwilling to fully commit.
Feliu-Soler et al. (2014)	Nonrandomized clinical trial	Spain, in-person	35 (18 DBT-M, 17 GPM)	DBT-M: 88.88% female, mean age 30.11 GPM: 88.23% female, mean age 30.29	BPD Exclusion criteria: comorbid schizophrenia, organic brain syndrome, drug-induced psychosis, bipolar disorder, intellectual disability, current MDD, current substance abuse/dependence, current PTSD, current psychotherapy, or major medical illness
Rizvi and Steffel (2014)	Observational/pilot/feasibility	USA, in-person	24 (8 ER-skills only, 16 M + ER; assignment based on availability)	87.5% female, age 18–29	Undergraduates with significant emotion regulation difficulties (minimum 105 on DERS), self-referred or referred from counseling center. Exclusion criteria: previous exposure to DBT skills or met criteria for psychotic disorder or other life-threatening disorder such as severe anorexia
Chugani et al. (2013)	Nonrandomized clinical trial/pilot	USA, in-person	19 (11 DBT, 8 TAU)	94.74% female, mean age 21.31	College students with cluster B personality disorders/traits significant enough to impair functioning, at least 1.5 SD above mean on GEDM being treated at a university counseling center. Exclusion criteria: current psychosis, below average intellect, or repeating the group
Meaney-Tavares and Hasking (2013)	Observational/pilot	Australia, in-person	23 began program, 17 ultimately completed program and were included in analysis	76.5% female, age 18–28 (mean 22.47)	College students with BPD (meeting at least 5 DSM-IV-TR criteria for BPD on intake interview). 85% on medication. 14 comorbid MDD, 2 bipolar, 1 MDD + substance dependence. Exclusion criteria: comorbid disorders that deleteriously impact treatment (i.e., bipolar 1 and substance abuse)

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Type of study	Location	Sample size	Participant demographics	Participant diagnoses
Soler et al. (2012)	RCT	Spain, in-person	60 (40 DBT-M + GPM, 19 GPM only included in analysis)	DBT-M + GPM: 78.9% female, age 18–48, mean age (31.78) GPM: 90% female, age 18–48, mean age (29.33)	BPD as assessed by 2 diagnostic interviews Exclusion criteria: Comorbid schizophrenia, drug-induced psychosis, alcohol or other substance dependence, organic brain syndrome, bipolar disorder, intellectual disability, or current major depressive episode
Soler et al. (2009)	Single-blind RCT, single-center	Spain, in-person	60 randomized (29 DBT-ST, 30 SGT included in analysis)	DBT-ST: 79.3% female, age 19–41, mean age 28.45 SGT: 86.7% female, age 21–39, mean age 29.97	BPD as assessed by 2 diagnostic interviews, CGI-S ≥ 4 Exclusion criteria: Comorbid schizophrenia, drug-induced psychosis, alcohol or other substance dependence, organic brain syndrome, bipolar disorder, intellectual disability, or current major depressive episode
Soler et al. (2008)	Observational	Spain, in-person	Initial sample (completed preintervention URICA) of 79, 60 began intervention, 51 completers: 42 correctly completed pretreatment and posttreatment measures	Initial sample: 86% female, age 19–43, mean age 27.4	Moderate to severe BPD as assessed by 2 diagnostic interviews, CGI-S ≥ 4 . 73.5% also met criteria for 1 or more other personality disorders. Exclusion criteria: Comorbid schizophrenia, drug-induced psychosis, organic brain syndrome, current alcohol/other substance dependence, bipolar disorder, intellectual disability, or current major depressive disorder
Schultz-Fischer (2007) (dissertation)	Observational/pilot, nonconcurrent multiple baseline design	USA, in-person	9, with 4 completing treatment.	100% female, age 20–49, mean age 33.33.	Methamphetamine use disorder within past 12 months on DSM-IV, BPD features (> 5 on ZAN-BPD). Exclusion criteria: Acute mania/psychosis/homicidal ideation/severe suicidality, or new psychiatric medication/dose change within the past month.
Soler et al. (2005)	Double-blind RCT	Spain, in-person	60 (30 DBT + olanzapine, 30 DBT + placebo)	DBT + olanzapine: 83.3% female, mean age 27.57 DBT + placebo group: 90% female, mean age 26.33	BPD as assessed by 2 diagnostic interviews, CGI-S ≥ 4 . Exclusion criteria: Any comorbid unstable axis I disorder
Gayner (1999) (dissertation)	Observational	USA, in-person	6	100% female, age 38–50, mean age 40.33	BPD diagnosed by psychiatrist and study author according to DIB. Majority had comorbid psychiatric diagnoses including SUD. Majority on psychotropic meds. Exclusion criteria: active psychosis or history of major psychotic disorder, current drug or alcohol dependence, intellectual disability, terminal illness, or inability to commit to all 14 sessions.

TABLE 1 | (Continued)

Author, date of publication	Intervention	Intervention duration, frequency, session length	Number of participants per group	Outcome measures	Results
Vasiljevic et al. (2022)	Modified brief DBT skills training (delivered virtually)	9 weeks, 1 module delivered every 2 weeks, weekly therapist check-ins (average 16.2 min per patient per week, range 7.8–23.9 min)	N/A (individual)	BSL-23 (suicidal and NSSI behaviors subscale) preintervention and postintervention, impulse to drop out	No dropouts reported after study began, though only 45% of invited participants began the program. At group level, no change in levels of NSSI, suicidal communication, or suicide attempts. All participants reported some positive experiences (e.g., knowledge and skills to manage situations in new ways) with the intervention though most reported no change in their perceived wellbeing during the program. Some reported decreased NSSI and increased hope. Most wanted more therapist support and longer program duration. No noncompleters.
Soler et al. (2022)	DBT skills training combined with positive psychology and contextual-based skills	Initial intervention had 8 weekly sessions; revised intervention was extended to 12 weeks. Two hours per session.	N/A (number of participants varied during refinement of the group procedures)	Acceptability (dropout rates)	Six overarching themes emerged from group discussion following the intervention: helpful, unhelpful and neutral practices; internal/external barriers; facilitators; and effects. Helpful practices included gratitude and savoring, mindfulness, and increasing awareness of personal strengths. In contrast, participants reported difficulties in imagining an optimal future and self-compassion. The main internal barrier was dealing with difficult emotions, whereas the primary external barrier involved language-related issues. The group format was seen as a key facilitator of success, and dropout rates significantly decreased after implementing the modified intervention protocol (from 60% to 20%).
Hashworth et al. (2022)	Outpatient DBT group	3 months, semiopen groups (new participants every 4 weeks), 5.5-h group sessions once weekly (1.5-h homework review, 30-min break, 1.5-h didactic learning and skills training, 30-min lunch break, 1.5-h skills training and homework setting)	Not reported	Depression and anxiety (MHI-5), personal agency (MH-LOC), BPD symptoms (BPD checklist), pathological personality traits (PID-5-BF). Assessed at intake, postintervention, and 12-month follow-up.	23.37% attrition rate. Significant reduction in BPD scores over course of program which was stable at follow-up. No significant change in personal agency over time. Anxiety and depression scores did not significantly change because of treatment.

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TABLE 1 | (Continued)

Author, date of publication	Intervention	Intervention duration, frequency, session length	Number of participants per group	Outcome measures	Results
Seow et al. (2021)	DBT-5: intensive DBT skills group delivered over 5 consecutive days DBT-12: weekly DBT skills group delivered over 12 weeks with weekly individual therapy. Both groups also had telephone support as needed.	DBT-5: 5 days, daily 3-h group sessions, no individual sessions. DBT-12: 12 weeks, 1 group session per week, 3 h per session. 1 h-long individual DBT session weekly.	DBT-5: 8–9 DBT-12: 8–11	DASS 21, HoNOS, RSE, SF-14, BSL-23. Depression, anxiety, stress, borderline symptoms, self-esteem, and general mental wellbeing pretreatment/posttreatment measured.	DBT-5: attrition rate 18%. DBT-12: attrition rate 12%–32%. DBT-5 comparably effective to DBT-12. Moderate to large effect sizes for both groups pretreatment/posttreatment in all measures. Effect sizes of DBT-12 within or above range reported in standard DBT on depression (0.70), anxiety (0.46), interpersonal problems (0.68), mental health/wellbeing (0.79), BPD symptoms (0.72). However around 50% of patients did not achieve reliable change or deteriorated, suggesting more severe BPD symptoms benefit less from brief treatment. Largely no significant differences in outcomes between patients with and without a PD diagnosis (aside from bigger improvements in role limitations for patients with PD). Inpatients had significantly greater improvements in self-esteem, BPD symptoms, and clinician-rated psychological distress than outpatients, although outpatients did also have significant improvements in BPD symptoms postintervention. Suggests DBT-5 and DBT-12 may be beneficial for both inpatients and outpatients.
Keng et al. (2021)	Outpatient DBT skills group	14 weeks, 1 session per week, 2 h per session	10	Psychological symptoms, NSSI behaviors, suicidal ideation, emotion regulation difficulties, self-compassion, and well-being preintervention and postintervention. (PAI-BOR, DSHI, PHQ-9, DASS-21, DERS-SF, SCS, PWT, C-SSRS, SCID II)	No dropouts after study began. Significant reductions found in depressive symptoms, stress, and emotion regulation difficulties. Significant increases in self-compassion and personal wellbeing. Trend found toward decreases in frequency and types of NSSI, SI, anxiety. Qualitative feedback indicated majority of participants found positive impact from the skills group. Mindfulness and distress tolerance were rated frequently as beneficial skills. Study suggests DBT skills training feasible and acceptable in low resource setting.

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Intervention	Intervention duration, frequency, session length	Number of participants per group	Outcome measures	Results
Alavi et al. (2021)	e-DBT (DBT skills program in email format) vs. in-person DBT skills group	15 weeks, 1 session per week of individual e-DBT or in-person DBT skills group. E-DBT participants individually emailed 30–40 PowerPoint slides weekly with homework sheet. Needed to email homework by deadline to receive following week's materials. Therapist would review homework and email individualized feedback.	N/A (individual)/not reported	SAQ, DERS pretreatment and posttreatment	56% attrition rate in e-DBT program, 51% attrition rate in in-person—no significant difference, though those who prematurely terminated e-DBT completed more sessions than those in in-person group. Significant improvement in general psychiatric symptoms (SAQ) and emotional regulation (DERS) in both groups posttreatment. No difference between groups pretreatment or posttreatment. No significant difference on nonacceptance, awareness, goals, impulse, strategies, or clarity between groups. Suggests e-DBT may provide comparable treatment to DBT skills group.
Seow et al. (2020)	Abbreviated DBT (DBT skills group and individual therapy with as-needed telephone consultation)	12 weeks, 1 individual session (1 h) and 1 group session (3 h) per week.	Average 10	BSL-23, WHO-5, 5 item daily index, health of a nation outcome scale, DASS-21, DBT progress questionnaire pretreatment and posttreatment	Self-reported DBT skill use and perceived effectiveness of and confidence in DBT skills for people with higher levels of BPD symptoms was associated with greater reductions in emotional distress. No significant relationship between perceived skills use and posttreatment psychological distress in people with low BPD symptoms.
Wilson and Donachie (2018)	DBT-informed skills training group	12 weeks, 1 session per week, 2 h per session	Not reported	CORE-34, MHCS, LES at baseline, pregroup, and postgroup	33% Attrition rate. Decreased overall psychological distress, increased confidence in managing mental health and ability to cope with emotions after intervention.
Lin et al. (2018)	Outpatient DBT skills training group (DBTSTG) vs. cognitive therapy group (CTG, i.e., controls)	8 weeks, 1 session per week, 2 h per session	7–9	BPD-FS, KDI, ASIQ-S, CEQ-S, ERS measured at baseline, 4 weeks, 8 weeks (treatment completion), 20 weeks, 32 weeks.	14.28% attrition rate. Significant decrease in suicide reattempt rates, depression at all timepoints for both groups, no difference between groups. Significant decrease in BPD symptoms and SI at 4, 8, and 20 weeks for both groups with no intergroup differences, but at 32 weeks, DBTSTG group has significantly lower BPD symptoms and SI than CTG group. Improvement in cognitive errors for both groups at all time points but CTG group had significantly greater reduction in cognitive errors and better cognitive reappraisal than DBTSTG. DBTSTG more effective in alleviating emotional suppression and improving emotional acceptance.

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Intervention	Intervention duration, frequency, session length	Number of participants per group	Outcome measures	Results
Laporte et al. (2018)	Stepped care model for BPD—short-term and extended care clinics using integrated treatment based in DBT, mentalization, and STEPPS.	ST clinic: 12 weeks, 1 group session and 1 individual session per week EC clinic: 6–24 months, mean 18.7 months, 2 group sessions per week, 1 individual session per week	Not reported	BIS-II, RSE, BDI-21, DERS, SCL-90-R, ASI, SHBQ. Measures preintervention/postintervention for ST clinic, every 6 months for EC clinic. Assessed treatment completion, depression, self-esteem, impulsivity, emotional dysregulation, general symptoms, NSSI, suicide attempts, substance use	12% patients who were initially referred to ST treatment requested further treatment and were referred to EC clinic. ST clinic: 28.6% attrition rate. Significant improvement in impulsivity, affective instability, global symptoms, emotional dysregulation, and functioning. Significant decrease in percentage of patients who self-harmed or attempted suicide. No change in percentage of patients who used drugs/alcohol to intoxication. EC clinic: 40.7% attrition rate. Significant positive gains on all symptoms, decreased percentage of patients who self-harmed, attempted suicide, used drugs, or drank alcohol to intoxication at end of treatment. In all symptoms, no significant difference between patients who stayed in treatment for 6–12 months vs. those who stayed 18–24 months.
Andreasson et al. (2016)	Compared brief DBT vs. CAMS (optimized standard treatment, collaborative assessment and management of suicidality)	DBT: 16 weeks, 1-h individual therapy weekly, 2-h group session skills session weekly, phone consultation as needed CAMS: max 16 weeks, individual therapy 1 h weekly	Not reported	Self-harm questionnaire, # self-harm acts, BPD severity (ZAN-BPD), depression (HDRS-18, BDI-II), hopelessness, SI, self-esteem (BSIS, BHS, RSE) Measures preintervention and at 17 weeks, 28 weeks, 52 weeks after randomization.	DBT group: 60% attrition rate CAMS group: 9.8% attrition rate At Week 28, no significant difference in self-harm (NSSI or suicide attempts). No significant difference between groups with BPD symptoms, SI, hopelessness, self-esteem, depression at any time point. Concluded that a short course in DBT was not superior to CAMS treatment in reduction of self-harm, though study was underpowered and quality of DBT may be limited.
Panepinto et al. (2015)	Outpatient DBT skills group at college counseling center	6- to 13-week DBT skills groups, weekly 90-min sessions. Individual counseling biweekly (not necessarily DBT based).	14 groups for 110 participants—average 7.86	BSI, LPI	42% attrition rate. Significant reduction postintervention in confusion about self, impulsivity, emotional dysregulation, interpersonal chaos, interpersonal sensitivity. Also significant improvement in depression, anxiety, obsessive-compulsive, psychotic, somatic, paranoid ideation, and phobic anxiety symptoms. No significant change in hostility. Length of program did not impact outcome.

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Intervention	Intervention duration, frequency, session length	Number of participants per group	Outcome measures	Results
Feliu-Soler et al. (2014)	Outpatient modified DBT skills group – mindfulness module only (DBT-M) vs. general psychiatric management (GPM)	DBT-M: 10 weeks, weekly group sessions, 120 min per session	Not reported	HDRS, BPRS, EQ, mindfulness practice time, self-assessment manikin questionnaire (SAM) to assess affective reaction, salivary cortisol, salivary enzyme alpha-amylase (sAA) preintervention/postintervention	DBT-M: Attrition rate 27.78%. GPM: Attrition rate 29.41%. No difference between groups on mean induction scores for SAM/biological variables. Both groups had clinical improvement on depressive symptoms and general psychiatric symptoms, but DBT-M had greater improvement. Study concluded that DBT-M added to GPM is not able to improve emotion regulation on image-based emotion induction but had benefits for clinical symptoms. Strong correlation between greater duration of daily mindfulness and improved emotion regulation, less depressive symptoms
Rizvi and Steffel (2014)	Abbreviated DBT skills group (mindfulness (M) + emotion regulation (ER) modules vs. ER only) at college campus.	8 weeks, weekly 2-h group session. M + ER group: 2-week mindfulness skills + 6-week emotion regulation skills ER group: 8-week emotion regulation skills.	2–7	DASS-21, DBT-WCCL, DERS, FFMQ, PANAS-X, WSAS, measured at baseline, midtreatment, and at posttreatment, and at 4-week follow-up	12.5% attrition rate. Both treatment groups had significant improvements in emotion dysregulation, depression, stress, affect, use of coping skills, mindfulness, and work/social functioning with primarily large effect sizes that were maintained at follow-up, indicating short course of DBT may be impactful way to improve problems related to emotion dysregulation. No significant change in anxiety scores. No differences between two groups, suggesting no additive benefit of brief mindfulness skills training.
Chugani et al. (2013)	Outpatient DBT skills group for college students + TAU vs. TAU only	DBT skills group: 11 weeks, weekly 90-min group sessions. Some telephone/email support during business hours. TAU: typically weekly individual counseling sessions, not necessarily DBT-informed	Not reported	GEDM, DBT-WCCL, DERS preintervention and postintervention	No significant differences in pretest scores between DBT and TAU groups on DERS or WCCL. No dropouts reported. DBT group: Significantly greater improvement in dysfunctional coping and adaptive skills use compared to TAU. Trend toward greater improvement in emotion regulation compared to TAU. TAU group: Modest improvement in emotion regulation but not adaptive skills use. Suggests 11-week skills class has potential to be useful short-term adjunct to individual therapy in college counseling centers.

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Intervention	Intervention duration, frequency, session length	Number of participants per group	Outcome measures	Results
Meaney-Tavares and Hasking (2013)	Outpatient modified DBT skills group for college students	8-week program, weekly 2-h group session + TAU (weekly 1 h individual counseling, not necessarily DBT-based)	4–8	BDI, BAI, BPD symptoms checklist, measured preintervention and postintervention	21.74% attrition rate, participants who dropped out (all within first 3 weeks) had overall lower severity scores. Significant reduction in depression scores. No reduction in anxiety scores (may be partially explained by program finishing in week immediately prior to exams), though trend toward reduction in number of participants reporting clinical range anxiety. Significant reduction in BPD symptoms. No hospitalizations during program. 94% of participants did not engage in self-harm during program. Significant increase in adaptive coping skills (focusing on solving problem, seeking professional help, constructive self-talk), decrease in self-blame.
Soler et al. (2012)	Outpatient modified DBT skills group (mindfulness module/skills only) as adjunct to GPM vs. GPM only (case management, emphasis on psychoeducation, here-and-now problem solving, empathy).	DBT-M: 8-week program, weekly 2-h group sessions GPM: case management, supportive appointments every 2–3 weeks, No individual therapy in either group.	9–11	Amount of formal mindfulness practice, CPT-II (test of attention), FFMQ, EQ (mindfulness, centering ability), POMS, HRSD-17, BPRS (general symptoms). Measures preintervention/postintervention.	No significant differences between groups in baseline demographics/severity. DBT-M + GPM: 31.58% attrition rate GPM: 27.5% attrition rate DBT-M + GPM group had significant improvements in continuous attention and impulsivity compared to GPM only group. Longer formal mindfulness practice periods correlated with a prominent reduction in depressive symptoms, confusion symptoms, and reactivity to inner experiences. No correlation with cognition/attention scores.
Soler et al. (2009)	Outpatient DBT skills training group vs. SGT (standard group therapy)	DBT-ST: 13-week program, weekly 2-h group sessions. SGT: 13-week program, weekly group sessions focused on relational experience, psychodynamic techniques. Not mentalization or transference focused. No individual therapy for participants in either group. Individual psychiatric follow-up every two weeks.	9–11	CGI-BPD, HRSD-17, HRSA, BPRS, SCL-90-R, Buss-Durkee Inventory (hostility/irritability), BI (impulsivity), NSSI, suicide attempts, visits to psychiatric emergency service. Measured preintervention/postintervention by evaluator masked to experimental condition.	DBT-ST: 34.5% attrition rate. SGT: 63.4% attrition rate Significantly higher retention rate in DBT-ST group. DBT-ST group showed significantly greater decrease in depression, anxiety, general psychiatric symptoms, irritability, psychoticism, anger, emptiness, and affect instability compared with SGT group. Both groups had significant decreases in CGI-BPD global severity scores but no significant differences between groups. No significant difference between groups in impulsivity or behavioral reports (# self-harm behaviors, suicide attempts, ED visits)

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Intervention	Intervention duration, frequency, session length	Number of participants per group	Outcome measures	Results
Soler et al. (2008)	Adapted brief outpatient DBT (skills groups and phone call support)	13 weeks, weekly 150-min group sessions, as needed phone support, individual psychiatric follow-up every 2 weeks.	8–10	URICA (stage of change assessment) preintervention and postintervention	35.44% attrition rate. Patients in precontemplation stage were significantly more likely to dropout from DBT group. “Action” subscale and “committed action” score significantly higher by end of DBT group treatment. Results suggest stage-of-change is a useful predictor of DBT dropout and brief DBT group interventions may support patients in motivation to change. Treatment completers no longer met criteria at follow-up (1 and 3 month) for any type of substance abuse and continued to have significantly decreased BPD symptoms and emotion regulation difficulties. Suggests abbreviated DBT may be modestly effective for this population.
Schultz-Fischer (2007) (dissertation)	Modified brief outpatient individual DBT protocol, not including interpersonal effectiveness module	12 individual sessions total over 12–14 weeks, 90 min per session.	N/A (individual)	SCID for substance use disorders, pretreatment/posttreatment and at 3-month follow-up. ZAN-BPD, BDI, DAST-20, ERQ, SARTS, KIMS, AAQ, TAS-20, at pretreatment/posttreatment and 1 & 3-month follow-up. A-COPE, BSI pretreatment/posttreatment, weekly during treatment, and at 1 & 3-month follow-up. Client satisfaction questionnaire posttreatment.	55.56% attrition rate. Completer group mean age (mean age 38.75) was nonsignificantly older than noncompleter group (mean 29.00). At pretreatment completer group used significantly fewer substances to cope with difficult situations, had significantly more adaptive acceptance skills, and trended toward less severe BPD symptoms at baseline. All participants showed some reduction in global symptom severity, and 2/3 had significant improvements. All participants had mild to significant decreases in negative coping behaviors and substance use coping behaviors. Most noncompleters unable to maintain treatment gains after discontinuing therapy.

(Continues)

TABLE 1 | (Continued)

Author, date of publication	Intervention	Intervention duration, frequency, session length	Number of participants per group	Outcome measures	Results
Soler et al. (2005)	Adapted brief outpatient DBT (skills groups and phone call support) with olanzapine (5–20 mg/day) or placebo.	12 weeks, weekly 150-min group sessions, as needed phone support, individual psychiatric follow-up every 2 weeks	Not reported	HDRS, HRSA, CGI-S preintervention/postintervention. Biweekly behavioral reports: episodes of impulsivity/aggression, NSSI/suicide attempts, ED visits.	30% attrition rate (no significant difference between dropout rate in olanzapine or placebo group). Both groups showed significant improvement in most psychopathology scales (depression, anxiety, symptom severity). Olanzapine + DBT group had significantly greater decrease in depressive symptoms, and clinical anxiety. Olanzapine + DBT group also had significantly decreased frequency of impulsivity/aggressive behaviors, and ED visits. Self-injuring behavior/suicide attempts decreased nonsignificantly in both groups. Impulsivity/aggressive behavior and ED visits decreased nonsignificantly in placebo + DBT group.
Gayner (1999) (dissertation)	Modified brief outpatient DBT psychosocial skills training group (emotion regulation, interpersonal effectiveness, distress tolerance) with phone call support. No individual therapy.	14 weeks, weekly 2-h closed group sessions. Individual psychiatric follow-up every month.	6	Attendance rate, parasuicidal behavior and psychiatric inpatient stays, pregroup and postgroup questionnaires (addressed frequency of BPD behaviors) GAF (global functioning)	16.67% attrition rate. Clinical staff decided to extend the treatment and all 5 group completers continued treatment for a minimum of 6 months longer with addition of bimonthly Individual DBT. Short-term group treatment felt to have limited benefit for positive behavioral change/“cure” but had greater benefit as preparation for longer treatment (may be helpful for patients to feel more secure in ability to commit to longer treatment). Majority of group had no hospitalizations. All group members had intermittent SI with comparatively few parasuicidal episodes. Mild impact of treatment on overall functioning. No dramatic change in frequency of borderline behaviors preintervention/postintervention, though majority reported decrease in some area of emotional, interpersonal, or behavioral dysregulation. Introduction of coping skills not sufficient to allow for profound decreases in borderline behaviors but many developed more coping skills and self-understanding. All found some aspect of intervention to be helpful but all felt group should be longer. Therapeutic factors more intrinsic to group modality were helpful (e.g., cohesion, universality, altruism, imparting information, and instilling hope).

TABLE 2 | Summary of acronyms.

A-COPE: Abbreviated COPE inventory	GEDM: General emotional dysregulation measure
AAQ: Acceptance and action questionnaire	HDRS-17: Hamilton depression rating scale
ASI: Addiction severity index	HRSA- Hamilton rating scale for anxiety
ASIQ-S: Adult suicidal ideation questionnaire	HoNOS: Health of a Nation Outcome Scale (health and social functioning)
BAI: Beck anxiety inventory	KDI: Ko's depression inventory
BDI: Beck depression inventory	KIMS: Kentucky inventory of mindfulness skills
BI: Barrat inventory	LES: Living with Emotions Scale
BHS: Beck hopelessness scale	LPI: Life problems inventory
BIS-II: Barratt impulsivity scale	MHCS: Mental Health Confidence Scale
BPD-FS: BPD features scale	MHI-5: Mental Health Inventory
BPD CL: Borderline Personality Disorder Checklist	MH-LOC: Mental Health Locus of Control Scale
BPRS: Brief psychiatric rating scale	PAI-BOR: Personality assessment inventory—borderline features scale
BSI: Brief symptom inventory	PANAS-X: Positive affect and negative affect schedule
BSIS: Beck suicide ideation scale	PHQ-9: Patient health questionnaire
BSL-23: Borderline symptom list 23	PID-5-BF: Personality Inventory Brief Form for the DSM-5
CGI-S: Clinical global impression of severity	POMS: Profile of mood states
CORE-34: Clinical outcomes in routine evaluation	PWI: Personal wellbeing index
CPT-II: Connors continuous performance task	RSE: Rosenberg Self-Esteem Scale
CSA: Coping scale for adults	SAM: Self-assessment manikin questionnaire
C-SSRS: Columbia suicide severity rating scale	SAQ: Self-assessment questionnaire
CEQ-S: Cognitive error questionnaire	SARRTS: Substance abuse risk response test
DASS-21: Depression, anxiety, and stress scales	SASII: Suicide attempt and self-injury interview
DAST-20: Drug use questionnaire	SCID-II: Structured clinical interview for DSM-IV Axis II personality disorders
DBT-WCCL: DBT ways of coping checklist	SCL-90-R: Symptom checklist-90
DERS-SF: Difficulties with emotion regulation scale, short form	SCS: Self-compassion scale
DIB-R: Diagnostic interview for borderline, revised	SF-14: Short Form 14 Health Survey Questionnaire
DSHI: Deliberate self-harm inventory	SHBQ: Self-harm behavior questionnaire
EQ: Experiences questionnaire (decentering ability)	TAS-20: Toronto alexithymia score
ERQ: Emotion regulation questionnaire	URICA: University of Rhode Island Change Assessment scale
ERS: Emotion regulation scale	WHO-5: World health organization wellbeing index
FFMQ: Five facet mindfulness questionnaire	WSAS: Adapted work and social adjustment scale
GAF: Global assessment of functioning	ZAN-BPD: Zanarini rating scale

(Laporte et al. 2018); three studies found trends toward improvement; one found some participants showed improvement with individual e-DBT, but there was no group-level change (Vasiljevic et al. 2022); one RCT found no significant difference between DBT groups and standard group therapy; and one RCT found no significant difference between DBT groups and CAMS. Results were similar for suicide attempts, as two studies found improvements that reached significance, including one where

this was maintained at follow-up; one found trends toward improvement; one found no group-level change with individual e-DBT (though no participants reported suicide attempts during the intervention); one RCT found no significant difference between DBT groups and standard group therapy; and one RCT found no significant difference between DBT groups and CAMS. There was no significant change at the group level regarding suicidal communication in the one study (Vasiljevic et al. 2022)

that included this outcome. In one study including aggressive episodes as an outcome measure (Soler et al. 2005), patients receiving brief DBT with olanzapine demonstrated significant improvement in aggressive episodes, whereas the DBT-only patients did not. This study also found that patients in the DBT with olanzapine condition had fewer emergency department visits, but this was not the case for the DBT-only participants. One RCT found no significant difference between DBT groups and standard group therapy with regard to emergency department visits. One paper reported no hospitalizations during treatment, and one reported one hospitalization (out of a group of six) (Gayner 1999).

3.4.2.2 | General Borderline Personality Disorder Symptoms.

Nine studies included self-rated or clinician-rated severity of general BPD symptoms as an outcome measure. Results were overall strongly positive, with eight of the nine studies reporting significant improvement after DBT intervention. Of these, three studies reported improvements that were sustained at follow-up (1 month; 3 months, Soler et al. 2008; 12 months, Hashworth et al. 2022; and 32 weeks, Lin et al. 2018), and in one study, the effect size was similar to that of standard DBT. Of note, one study found that there was no significant difference between DBT and standard group therapy, though both groups showed significant improvement (Soler et al. 2009), and one study found that DBT groups were superior to cognitive therapy groups with this outcome at 32 weeks follow-up (Lin et al. 2018). One pilot study reported that there was no significant change overall in BPD symptoms but that the majority of six participants reported some improvement in emotional, interpersonal, or behavioral dysregulation (Gayner 1999).

3.4.2.3 | Suicidal Ideation.

Three studies included suicidal ideation as an outcome measure, and results were generally positive to equivocal. Lin et al. (2018) found significant improvement in suicidal ideation for both DBT and cognitive therapy groups, with participants in DBT groups reporting significantly less suicidal ideation than participants in cognitive therapy groups at follow-up. One small study found that participants continued to have intermittent ongoing SI throughout treatment despite comparatively fewer self-injurious episodes (Gayner 1999). Another found that brief DBT led to no significant improvement in suicidal ideation (Keng et al. 2021).

3.4.2.4 | Emotional Dysregulation.

Seven studies included emotional dysregulation as an outcome measure, and results were overall strongly positive, with all seven studies finding a significant improvement after brief DBT intervention. Of these, two studies also found that this improvement was sustained at follow-up (4 weeks and 3 months). Chugani et al. (2013) note no significant difference between DBT and TAU with regard to improvements in emotional regulation skills. Alavi et al. (2021) note that individual e-DBT was equally as effective as in-person DBT groups for improving emotional regulation.

3.4.2.5 | Impulsivity.

Four studies included impulsivity as an outcome measure, and results were overall strongly positive, with significant improvement found in all four studies postintervention. A mindfulness-only DBT group had significantly greater improvement in impulsivity compared to the general

psychiatric management group (Soler et al. 2012). There was no difference between DBT groups and the standard group therapy found in one study, although both showed significant improvement in impulsivity (Soler et al. 2009).

3.4.2.6 | Interpersonal Problems.

Two studies included interpersonal problems, including interpersonal chaos and interpersonal sensitivity, as an outcome measure; results were overall strongly positive, with significant improvement found in both studies postintervention.

3.4.2.7 | General Psychiatric Symptoms.

Five studies included general psychiatric symptoms as an outcome measure, and results were overall strongly positive, with significant improvement in all five studies postintervention. Brief DBT interventions also appear to be more effective than standard group therapy (Soler et al. 2009) or general psychiatric management (Feliu-Soler et al. 2014) for general psychiatric symptoms. Of note, Alavi et al. (2021) found that individual e-DBT was not significantly more or less effective than in-person DBT groups for improving general psychiatric symptoms.

3.4.2.8 | Anxiety.

Seven studies included anxiety symptoms as an outcome measure, and results trended positive, with significant improvement found postintervention in four studies. Of these, one study found that effect size was not significantly different from standard DBT (Seow et al. 2021); another found brief DBT groups to be significantly more effective for treating anxiety symptoms than standard group therapy (Soler et al. 2009). Of the three studies not reaching significance, two noted a trend toward reduction in anxiety.

3.4.2.9 | Depression.

Twelve studies included depressive symptoms as an outcome measure, and results were overall strongly positive, with 11 studies reporting significant improvement postintervention. Of these, one study found that effect size was comparable to standard DBT (Seow et al. 2021), and two noted improvements were maintained at follow-up (4 and 32 weeks). No significant differences were found in depressive symptoms following brief DBT compared to CGT or collaborative assessment and management of suicidality, but brief DBT may be more effective than standard group therapy or general psychiatric management.

3.4.2.10 | Substance Use.

Three studies included problematic substance use as an outcome measure; results were overall positive, with all three finding some improvement postintervention. However, Laporte et al. (2018) found only patients who received extended DBT treatment had significant improvement overall in using substances to intoxication, and short-term DBT patients did not. Schultz-Fischer (2007) found all participants had mild to significant decreases in substance use coping behaviors postintervention.

3.4.2.11 | Stress.

Three studies included stress as an outcome measure; results were strongly positive, with all three reporting significant improvement after brief DBT intervention and one also noting that improvement was maintained at 4-week follow-up (Rizvi and Steffel 2014). This study also found no difference between limiting skills group to emotion regulation modules versus adding a brief mindfulness training.

3.4.2.12 | General Functioning. Three studies included work, social, or global functioning as an outcome measure; results were overall strongly positive, with one study noting mild improvement and the other two reporting significant improvement postintervention. One study also noted benefits were maintained at the 4-week follow-up regardless of whether the mindfulness module was added to the emotion regulation module (Rizvi and Steffel 2014).

3.4.2.13 | General Mental Wellbeing. Two studies included general mental wellbeing as an outcome measure; results were overall strongly positive, with both reporting significant improvement overall postintervention, of which one found the effect size to be comparable to standard DBT.

3.4.2.14 | Self-Esteem/Self-Compassion. Three studies included self-esteem or self-compassion as an outcome measure, and results were overall positive, with all finding improvement postintervention. However, brief DBT was not found to be more effective than collaborative assessment and management of suicidality for improving self-esteem (Andreasson et al. 2016).

3.4.2.15 | DBT Skill Use. Eight studies looked into the effect of brief DBT intervention on the use of coping skills and mindfulness, with overall strongly positive results. Three studies found significant improvement in adaptive coping skills postintervention. Of these, one noted improvements were maintained at the 4-week follow-up (Rizvi and Steffel 2014); another noted similar improvement in coping was not seen in TAU (Chugani et al. 2013). Additionally, Schultz-Fischer (2007) found that all participants had mild to significant improvement in negative coping behaviors. Gayner (1999) reports that despite a lack of profound decreases in borderline behaviors with brief intervention, many participants developed more coping skills and self-understanding.

With regards to mindfulness, Rizvi and Steffel (2014) noted significant improvement in mindfulness skills postintervention, again maintained at follow-up. Feliu-Soler et al. (2014) noted that the duration of mindfulness practice reported by participants was strongly correlated with improvements in emotional regulation and depression. Similarly, Soler et al. (2012) found that longer formal mindfulness practice was correlated with greater reductions in depression, confusion, and reactivity to inner experiences.

Interestingly, Seow et al. (2020) found that self-reported DBT skill use during the intervention and perceived effectiveness of DBT skills for people with higher levels of BPD symptoms was associated with greater reductions in emotional distress; however, no significant relationship was found between perceived skills use and posttreatment psychological distress in those with low BPD symptoms. This suggests practice and acceptance of DBT skills may be most helpful in reducing distress for those with significant BPD traits.

4 | Discussion

Overall, this review of 22 research studies found that brief DBT-informed interventions for borderline personality disorder

and traits are overall feasible and effective in decreasing BPD-specific symptoms (including suicidal ideation, emotional dysregulation, impulsivity, and interpersonal problems), improving general psychiatric symptoms (including depression, anxiety, stress, substance use, functioning, wellbeing, and self-esteem), and increasing the use of adaptive coping skills. Evidence ranges from equivocal to positive regarding the efficacy of brief DBT interventions for reducing BPD-related behavioral problems such as suicide attempts, self-harm, and emergency department visits, which is not unexpected as these behaviors are more severe and not always seen in individuals with milder BPD symptoms. Based on limited evidence, there does not seem to be clear superiority for brief DBT compared to other treatment protocols in targeting behavioral problems. Furthermore, there is very limited evidence around the use of brief DBT as a public health strategy for managing waitlists; however, preliminary evidence suggests that a stepped-care approach could be a reasonable solution. Brief DBT programs could be most appropriately used as an intervention for milder BPD traits or as an introductory intervention for those with more severe symptoms who both want and require more intensive treatment. A strength of this review is its inclusion of studies done in a variety of countries around the world, suggesting that brief DBT may be feasible in diverse populations not limited to the North American context.

Though there is still insufficient evidence to make definitive conclusions, studies in this review looking at acceptability suggest that participants typically find at least a mild degree of therapeutic benefit in brief versions of therapy, even if most participants express a desire for the program to be extended when surveyed directly (Vasiljevic et al. 2022; Gayner 1999). Moreover, the acceptability of brief therapies can vary depending on the session contents. For example, Soler et al. (2022) suggest that incorporating iterative feedback from participants may help with intervention acceptability and future participant retention, even within structured time constraints. As such, even if brief forms of DBT are ultimately less efficacious than comprehensive DBT, a stepped care approach may represent distributive justice for resource-limited public healthcare systems that ultimately cannot fund gold-standard DBT for every patient who would benefit from it within a reasonable timeframe.

4.1 | Limitations and Future Directions

There are several limitations associated with this review. Research on brief DBT-informed interventions is limited, with only 22 relevant studies identified. Meta-analysis of outcomes was not possible given the high degree of heterogeneity within study characteristics and quality, intervention characteristics, and measured outcomes. Structured assessment of bias for included studies was also not possible for these reasons. Over half of the articles reviewed were feasibility or pilot studies, with only eight RCTs or nonrandomized clinical trials. In trials where there is no control group, it is difficult to ascertain whether positive results are directly caused by the studied intervention or confounding variables. Some also had very small sample sizes, which limits the power of these studies. As such, large-scale noninferiority trials comparing shorter versions of DBT (less than 4 months) and standard DBT are needed.

Interventions employed by these studies also varied widely in content, duration, and treatment components (e.g., phone support or individual counseling), making it difficult to assess the efficacy and feasibility of specific components of brief DBT. To reflect the constraints typically observed in public health systems, we only included brief DBT interventions that had group meetings no more than once per week, which excluded some studies with more frequent group sessions. Future research should explore which specific components or combinations of DBT components are most effective when delivered in a short format and whether more frequent sessions in a condensed period would lead to better outcomes. Translational research is crucial to evaluate the efficacy and feasibility of brief DBT interventions in real-world settings, including their cost-effectiveness, accessibility, and long-term sustainability. Such research should also explore how interventions can be tailored to meet the needs of diverse populations and integrated into existing public health frameworks to maximize their reach and impact.

Of note, no studies used a DBT-informed group intervention with session lengths of less than 90 min, even though limited resources in public health systems often necessitate shorter sessions. Briefer groups could be more accessible for clients at a range of developmental levels (e.g., children or youth) or who are neurodivergent. Future research should examine whether a shorter session duration influences participant acceptability or treatment efficacy. Moreover, very few studies assessed virtual interventions or used waitlist management outcome measures. Given the constraints of public healthcare systems seeking to optimize management of large volumes of patients in need of care, this should also be a direction for further inquiry.

Finally, only a minority of studies reported outcome measures for at least one time point beyond the completion of the intervention. No studies examined follow-up data beyond 12-month postintervention. From a healthcare systems perspective, understanding long-term treatment outcomes for brief interventions is crucial for the purpose of appropriately allocating healthcare dollars in a cost-effective manner. As such, future research should seek to understand longer term therapeutic benefit and outcomes of brief DBT interventions as compared to treatment-as-usual and/or comprehensive DBT.

4.2 | Implications

Despite the limitations, our findings carry meaningful clinical and public health implications. Consistent with the literature on the stepped care model for BPD (e.g., Paris 2013), there may be significant benefits of tailoring DBT interventions to the severity of BPD symptoms. For instance, individuals with milder BPD symptoms might benefit from brief, skills-focused interventions that equip them with essential coping strategies without entering a comprehensive DBT program. On the other hand, BPD patients with more severe presentations could receive a brief intervention for immediate support while preparing them for the transition to comprehensive DBT. Although more research is needed, this approach has the potential to optimize resource allocation and ensure that individuals receive care that is appropriate to their needs at different stages of their treatment journey.

Moreover, almost all (21 out of 22) studies identified in our review incorporated a DBT-informed skills training group within their treatment protocol. Our results highlight the critical role of skills training in brief DBT interventions and suggest that, when delivered in a short format, group-based skills training can deliver significant benefits. This is consistent with the emerging literature supporting DBT skills training as a standalone treatment (Valentine et al. 2020). Additionally, brief group-based treatment may be particularly valuable in under-resourced and high-demand contexts, where individual therapy may not always be feasible due to time or financial constraints.

5 | Conclusion

In conclusion, brief DBT interventions (defined as 16 weeks or less) appear feasible and effective in reducing BPD symptoms and improving general psychiatric symptoms. Although evidence is limited regarding behavioral problems, brief DBT may be most appropriate for milder BPD traits or as an introductory intervention or part of an overarching stepped care approach. Most of the extant research involved open trials or effectiveness studies; thus, more studies employing randomized trial designs would help in drawing firmer conclusions about efficacy. Research is also needed to examine whether brief DBT interventions can improve outcomes if offered prior to longer term, comprehensive DBT. In addition, although stepped care approaches appear promising and might facilitate the implementation of DBT, studies specifically examining these approaches and the matching of patients to interventions based on pretreatment characteristics or severity are limited thus far. Overall, this is a promising area for clinical research and practice, with the possibility of increasing the accessibility of evidence-based, compassionate treatment for people struggling with complex mental health concerns.

Conflicts of Interest

Dr. Smit is a member of the DBT working group at the Fraser Health Authority in BC, Canada (tasked with implementing DBT in this region) and regularly provides DBT in routine clinical work as a general psychiatrist. Dr. Chapman co-owns a psychology practice specializing in DBT, co-authored, and receives royalties for books on DBT, and regularly provides training to clinicians in DBT.

Data Availability Statement

Data sharing is not applicable to this article, as no new data were created or analyzed in this study.

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