Dialectical Behavior Therapy Skills Training as a Standalone Therapy: a Scoping Review Protocol

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Protocol

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Abstract

Background:

Dialectical Behavior Therapy (DBT) Skills Training (DBT-ST) is one of the four core elements of standard DBT. Studies show that standalone DBT-ST appears to be a promising treatment in patients with emotion dysregulation by teaching them skills needed to change patterns associated with problems in living. It is not clear who benefits from this treatment and which components are most beneficial. Relevant studies will be easily navigated once mapped and summarized in this proposed scoping review.

Methods:

The proposed scoping review will be conducted following Joanna Briggs Institute (JBI) methodology for scoping reviews. Medical literature databases including MEDLINE, PsycINFO, EMBASE, CINAHL, SCOPUS, Web of Science, and Cochrane will be searched. Papers retrieved will be screened for inclusion by two independent reviewers and data will be extracted and reported in a summary table with supporting narrative. We aim to include all English academic papers addressing standalone DBT-ST including studies utilizing quantitative, qualitative, and mixed methods approaches.

Discussion:

The objective of this scoping review is to explore the literature, map, and summarize evidence pertaining to DBT-ST to help guide future research and treatment.

Background

Dialectical Behavior Therapy (DBT) is a comprehensive treatment developed for patients with borderline personality disorder (BPD).(1) Standard DBT is made up of four core elements carried out concurrently, often over 1 year. These include: weekly individual therapy (1 hour), weekly skills training (2.5 hours), and between session as-needed 24 hour telephone coaching, and a therapist consultation team.(1, 2) Since the initial development of DBT, its use has expanded beyond the population of individuals with borderline personality disorder. Studies support its efficacy for posttraumatic stress disorder (PTSD) due to childhood sexual abuse(3); bulimia nervosa(4); depression in older adults(5, 6); and patients with concurrent substance use disorders.(7, 8)

When the components of DBT have been evaluated, interventions that include DBT skills training are more effective than DBT without skills training.(9) DBT skills use has been shown to mediate the decreases in suicide attempts, non-suicidal self-injury, depression and anger in individuals with BPD.(10) There have been emerging trials demonstrating the clinical utility of DBT skills training alone (DBT-ST) in patients with depressive disorders(11, 12); substance use disorders(13, 14); attention deficit hyperactivity disorder (ADHD)(15, 16) and conversion disorder with seizures(17). Emotion dysregulation is a common feature across multiple diagnostic categories, and DBT-ST appears to be a promising treatment for depressed and anxious transdiagnostic adults.(18)

Most often delivered in a group format, DBT-ST aims to give patients the skills needed to change maladaptive behavioral, thinking, and emotional patterns.(2) DBT-ST is comprised of four modules which include: Core Mindfulness (addressing deficits in attentional control); Interpersonal Effectiveness (addressing deficits in effective interpersonal interactions); Emotion Regulation (addressing deficits in identifying and influencing emotions); and Distress Tolerance (addressing deficits in identifying a crisis and managing difficult emotions).(2)

Despite how promising DBT-ST appears, it is not clear from the literature which patients are more likely to benefit from DBT-ST versus standard DBT.(19) This is especially important considering the significant amount of resources both require. Standard DBT requires all four core elements mentioned above to be carried out in parallel, putting a greater burden on resources when compared to standalone DBT-ST. Although fewer resources are required for DBT-ST, provider training and compensation, infrastructure to conduct the skills training, and the patients' time commitment to change are all resources that must be considered.(2) It is also important to consider factors that are associated with individuals who have already begun treatment and drop out. If we can help identify such factors with the proposed review, practitioners may be able to identify these in patients and help them complete treatment.

Prior to undertaking this review protocol, databases were searched to identify literature that would be helpful for guiding best practices. The search was conducted over four databases including PubMed, Medline, Joanna Briggs Institute (JBI) Evidence Based Practice Database, and the Cochrane Database of Systematic Reviews. PubMed and Medline did identify that numerous studies have explored DBT-ST as a standalone therapy whereas JBI and Cochrane review yielded no results.

To date, one systematic review investigating DBT-ST's potential in terms of treatment outcomes had been conducted. Published in 2015, Valentine et al. identified 17 trials of DBT-ST delivered to patients with personality disorders, mood disorders, binge eating behaviors, bulimia nervosa, non-suicidal self-injury, intellectual disability, oppositional defiant disorder and attention deficit hyperactivity disorder, as well as to incarcerated individuals and people caring for adults with dementia who were at risk for elder abuse.(19) It was found from these studies that DBT-ST: may be effective in helping Axis I mental health symptoms; may be enough to treat behaviors and symptoms of patients *without* Axis II features; and, may not be enough to treat behaviors such as self-harm or suicidality.(19) Conclusions drawn are to be taken with caution as there were significant limitations.(19) However, Valentine et al. was able to make several research recommendations including establishing treatment manuals for specific patient populations, conducting RCTs to compare DBT-ST to other, potentially less expensive, therapies, undertake more naturalistic studies to determine feasibility, and measure outcomes which are more precise and standardized.(19) As DBT-ST appears to be conducted unsystematically across various clinical settings,(20) determining who benefits from which component(s) may help guide treatment efforts, establish a new standard of care, and potentially conserve resources which can be reallocated to other areas of need.

Six years have passed since Valentine and colleagues published their review and a preliminary search of *DBT Skills* on PubMed yielded 118 results published between 2015–2020. These potentially relevant articles, as well as past articles which match our inclusion criteria (studies on DBT-ST in any context) make it necessary to write an up-to-date scholarly paper that methodically summarizes the current knowledge. Our options included three different types of literature review methods: systematic, scoping, and mapping reviews. Systematic reviews are used to provide evidence for decisions to change current practices.(21) Scoping reviews—potential precursors to systematic reviews—are used to identify existing evidence, clarify concepts, examine research methods, and to identify knowledge gaps for a given topic.(21, 22) Mapping reviews identify what evidence exists on a given topic without answering specific questions about it.(23, 24) We believe a scoping review to be the next contribution to the body of literature as an overview of the available evidence, examining the range and nature of DBT-ST, has yet to be done.

Overall, standalone DBT-ST is especially attractive in real-world treatment settings because of its promising potential and the proposed scoping review will provide an overview of the available evidence to help identify and fill knowledge gaps, clarify concepts, and guide future research and treatment decisions. Our objectives are to: understand how practitioners can optimally deliver DBT-ST as a standalone treatment; and, identify future research directions.

Review questions

- What evidence supports the use of DBT-ST?
- What patient and provider factors impact the success of DBT-ST?
- Does the effectiveness of treatment modules of DBT-ST vary across populations?
- What patient and provider factors affect the likelihood of treatment drop out/completion?

Methods/design

The proposed scoping review will be conducted following JBI methodology for scoping reviews.(25)

Inclusion criteria

Types of participants

Individuals 12 years and up in outpatient and inpatient treatment settings, for any indication.

Concept

This scoping review will identify, map, and summarize the various types of evidence available on DBT-ST including any information on its utility or limitations with respect to varying populations, outcome measures, study methods, and program structure. We also aim to identify any existing knowledge gaps.

Context

Any setting that investigates DBT-ST as a standalone treatment in some capacity.

Types of studies

This scoping review will consider quantitative, qualitative and mixed methods study designs for inclusion. In addition, systematic reviews and text and opinion papers will be considered for inclusion in the proposed scoping review. Articles published in English will be included. Articles published from any date will be included as the literature on DBT-ST is in the early stages of development.

Search Strategy

The search strategy will aim to locate both published and unpublished primary studies, reviews, and text and opinion papers. An initial limited search MEDLINE and PsycINFO was undertaken to identify articles on DBT-ST. The text words contained in the titles and abstracts of relevant articles, and the index terms used to describe the articles were used to develop a full search strategy for MEDLINE, PsycINFO, EMBASE, CINAHL, SCOPUS, Web of Science, and Cochrane (see Appendix I). The search strategy, including all identified keywords and index terms will be adapted for each included information source. The reference lists of articles selected for full text review included in the review will be screened for additional papers.

Study Selection

Following the search, all identified records will be collated and uploaded into Covidence and duplicates removed. Titles and abstracts will then be screened by two independent reviewers for assessment against the inclusion criteria for the review. Potentially relevant papers will be retrieved in full and the full text of selected citations will be assessed in detail against the inclusion criteria by two independent reviewers. Reasons for exclusion of full text papers that do not meet the inclusion criteria will be recorded and reported in the scoping review. Any disagreements that arise between the reviewers at each stage of the selection process will be resolved through discussion, or with a third reviewer. The results of the search will be reported in full in the final scoping review and presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA-ScR) flow diagram.(26)

Data extraction

Data will be extracted from papers included in the scoping review by two independent reviewers using a data extraction tool developed by the reviewers. The data extracted will include specific details about the population, concept, context, methods and key findings relevant to the review questions. The extraction tool has been developed based on recommendations and the example provided by JBI.(27) A draft extraction tool is provided (see Appendix II). The draft data

extraction tool will be modified and revised as necessary during the process of extracting data from each included paper. Modifications will be detailed in the full scoping review. Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer. Authors of papers will be contacted to request missing or additional data, where required.

Data presentation

The extracted data will be presented in tabular form in a manner that aligns with the objective of this scoping review (see Appendix II). A narrative summary will accompany the tabulated results and will describe how the results relate to the reviews objective and questions.

Discussion

Scoping reviews do not provide a synthesized result, but rather provide an overview of the available literature from a wide range of study designs and methods. Since the concept of understanding DBT-ST among patients with emotion dysregulation is relatively new, a scoping review is the best approach, because it will ensure that the literature covered will be as broad as possible. Through ensuring a broad search by following our search strategy outlined in this article, we mitigate any room for selection bias. With this study we aim to explore the literature, map, and summarize evidence pertaining to DBT-ST to complement the evidence base and help guide future research and treatment. It is expected that the findings of this study will provide evidence of the utility of DBT-ST, current methods used to assess it, and strategies employed thus far to optimize DBT-ST among various populations. Patient and provider factors affecting the likelihood of treatment drop out or completion will hopefully be clarified. Knowing these will help close knowledge gaps and inform the design of future research. We anticipate that our scoping review will be useful to a variety of stakeholders who have an interest in DBT and DBT-ST.

Abbreviations

DBT-ST: Dialectical behavior therapy skills training; DBT: Dialectical behavior therapy; BPD: Borderline personality disorder; PTSD: Post-traumatic stress disorder; ADHD: Attention deficit hyperactivity disorder; RCT: Randomized controlled trial; JBI: Joanne Briggs Institute; PRISMA-ScR: Preferred reporting items for systematic reviews and meta-analyses extension for scoping reviews.

Declarations

Ethics approval and consent to participate – Not applicable.

Consent for publication – Not applicable.

Availability of data and materials – All data generated or analyzed during this study are included in this published article.

Competing interests – The authors declare that they have no competing interests.

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Authors' contributions – All authors contributed to the manuscript and read and approved the final draft.

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Appendix

Appendix I: Search strategy

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily <1946 to present date>

1 Dialectical Behavior Therapy/

2 Behavior Therapy/

3 (skill* adj3 train*).ti,ab,kf,tw.

4 "dialectical behavio?r* therap*".ti,ab,kf,tw.

5 dialectical.ti,ab,kf,tw.

6 2 and 5 339

7 1 or 4 or 6

8 3 and 7

9 (DBT adj1 ST).ti,ab,kf,tw.

10 8 or 9

Appendix II: Data extraction instrument

Title
Author(s)
Year of Publication
Country where study conducted
Type of study
Aim(s)
Study population
Sample size
Methods
Intervention Type
Context
Comparator (control)
Duration of Intervention
Evaluation tools
Outcome(s)
Evidence supporting the use of DBT-ST
Evidence not supporting the use of DBT-ST
Patient factors impacting the success of DBT-ST
Provider factors impacting the success of DBT-ST
Indications that the effectiveness of treatment modules of DBT-ST vary across populations: Yes/No, discuss indications.
Patient factors affecting the likelihood of treatment drop out/completion
Provider factors affecting the likelihood of treatment drop out/completion