

From Despair to Hope: Assessing the Effectiveness of Dialectical Behaviour Therapy in Patients with Self-Harm Behaviour

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Abstract

AIM: Aimed at understanding the impact of the DBT technique on patients with self-harm complaints.

Methodology: A pre-and post-intervention study was conducted on 20 participants who presented to the Department of Psychiatry and Clinical Psychology at NIMS Hospital. The participants underwent DBT, and their progress was measured using the Beck Hopelessness Inventory, Self-Harm Inventory, and Suicide Intent Scale. Assessments were conducted before and after the intervention to evaluate changes in psychological distress and self-harm tendencies.

Summary of Results: The results demonstrated a significant improvement across all three scales post-intervention. Participants exhibited reduced levels of hopelessness, decreased self-harm behaviours, and lower suicidal intent scores, indicating the effectiveness of DBT in managing self-harm tendencies.

Conclusion: This study provides evidence supporting the efficacy of DBT in reducing self-harm behaviours and associated psychological distress. The findings highlight the importance of structured psychotherapeutic interventions in managing patients with self-harm tendencies, reinforcing DBT as a valuable therapeutic approach in clinical settings.

Keywords:- Dialectical Behaviour Therapy(DBT), Self-harm behaviour, Pre and Post Intervention.

Introduction

Self-harm behaviour has become a serious concern in the field of public health across the globe, especially among young individuals. It is often linked to emotional regulation problems, mental health issues, and maladaptive coping styles. According to the World Health Organisation, self-harm is defined as intentional self-injury or poisoning, irrespective of the underlying suicidal intentions.

Dialectical Behaviour Therapy (DBT), developed by Marsha Linehan, is a cognitive-behavioural treatment approach that combines acceptance strategies to deal with chronic emotional regulation problems and self-destructive behaviours. The therapy focuses on balancing acceptance and change through skill modules such as mindfulness, distress tolerance, emotional regulation, and interpersonal effectiveness.

The biosocial theory, which forms the basis of DBT, suggests that individuals who are emotionally sensitive and brought up in invalidating environments may lack effective coping strategies, resulting in self-harm behaviours as a means of emotional regulation.

Although there is evidence of DBT's effectiveness worldwide, there is a lack of research in Indian

clinical settings to assess its impact. Hence, the current study aims to assess the effectiveness of DBT in reducing self-harm behaviour among young individuals.

Review of Literature

Previous studies have always supported DBT as an effective treatment strategy in reducing suicidal and self-harming behaviours.

Asarnow et al. (2021) showed better emotion regulation and higher rates of self-harm remission in adolescents undergoing DBT compared to supportive therapy. Kothgassner et al. (2021) found moderate effects of DBT-A in decreasing self-harm and suicidal thoughts. Elsayad et al. (2022) showed significant decreases in suicide attempts in depressed patients undergoing DBT treatment interventions.

The meta-analytic results clearly show that emotion dysregulation is a strong predictor of nonsuicidal self-injury, thereby underlining the importance of emotion regulation as a core treatment target. However, there is a lack of Indian studies, thereby underlining the importance of culturally appropriate clinical studies.

STUDY DESIGN: Quasi-Experimental study.

STUDY AREA: The study will be conducted in the Department of Psychiatry and Clinical Psychology at the NIMS Hospital, Jaipur, Rajasthan.

STUDY POPULATION: Patients presenting with self-harm behaviours between the ages of 18 and 25 years, i.e. young adulthood, referred from the emergency/ ICU/ Medicine and Surgery departments of NIMS, Jaipur, Rajasthan.

SAMPLING TECHNIQUE: The technique used in my study to gather the participants is Purposive sampling, a non-random sampling technique where participants are specifically chosen according to predetermined standards pertinent to the study question. In this instance, students who possess:

1. A known or disclosed history of self-harm (e.g., cutting, overdosing, self-poisoning).
2. A willingness and ability to participate in interviews and therapy sessions.

INCLUSION CRITERIA:

1. Patients presenting with self-harm tendencies between the ages of 18 and 25 years.
2. Patients presenting to the psychiatry OPD and referred from the Emergency Department, Medicine Department, ICU and Surgery Department for self-harm.
3. patients/informants who will give written informed consent.

EXCLUSION CRITERIA:

1. Patients with significant other medical problems or any other surgeries.
2. patients/informants who will not give written informed consent.

Assessment Tools

- Beck's Hopelessness Inventory
- Self-Harm Inventory
- Suicide Intent Scale

Intervention

Participants received DBT-based intervention including:

- Mindfulness training
- Distress tolerance skills
- Emotion regulation strategies
- Interpersonal effectiveness training

Result

The results of this study strongly support the effectiveness of Dialectical Behaviour Therapy (DBT) to significantly decrease hopelessness, self-harm and suicide intent in a subsample of young adults aged 18 to 25 who had a history of self-harm. After a six-month DBT intervention (which included eight sessions across all four of the DBT core modules, being mindfulness, distress tolerance, emotion regulation and interpersonal effectiveness), significant statistical and clinically meaningful gains were found in all of the outcome measures. Specifically, participants' Beck Hopelessness Inventory (BHI) scores moved from a pre-intervention mean of 13.63 (SD = 2.45) to a post-intervention mean of 5.38 (SD = 2.19), which indicated a substantial decrease in negative future expectations. Similarly, Self-Harm Inventory (SHI) scores decreased from 17.25 (SD = 3.79) to 4.94 (SD = 1.69) after the intervention, which indicated a significant reduction in self-injurious behaviour. The Suicide Intent Scale (SIS) also indicated a significant reduction in desire or plans to end their lives, as scores decreased from 18.50 (SD = 5.35) to 6.00 (SD = 3.06). These gains were further supported using both paired-samples t-tests and non-parametric Wilcoxon signed-rank tests, all indicating $p < .001$. From the perspective of the mean difference, BHI: 8.25, SHI: 12.31, SIS: 12.50, and large t-values amplified a strong response to the intervention. Overall, these findings demonstrate the efficacy of DBT as an effective intervention for ameliorating the most significant psychological risk factors for suicide and self-harm in emerging adults.

Discussion

My study examined the effectiveness of Dialectical Behaviour Therapy (DBT) and its impact on reducing hopelessness, self-harming behaviour, and suicide intent in young adults aged 18-25 years with self-harming behaviours. The six-month intervention consisted of 8 individual sessions that addressed the four standard DBT modules: mindfulness, emotion regulation, interpersonal effectiveness, and distress tolerance. Clinical improvements for the three main outcome measures were defined as statistically significant and clinically relevant, as the mean decline in participant scores was substantial. The mean score on the Beck Hopelessness Inventory (BHI) dropped by 8.25 points, self-harming behaviours measured by the Self-Harm Inventory (SHI) dropped by 12.31 points, and suicide intent measured by the Suicide Intent Scale dropped by 12.50 points. All of these changes were statistically significant ($p < .001$) and also clinically significant, indicating that DBT was effective in reducing important psychological risk factors for suicidal behaviour in this age group. My findings are in line with the findings from meta-analyses and systematic reviews finding DBT-A (dialectical behaviour therapy for adolescents) effective in reducing self-harm and suicidal ideation. A recent meta-analysis of 21 controlled trials 1673 participants found that DBT-A had a large effect size for self-harm reduction in randomised controlled trials (RCTs) and a small-moderate effect in non-randomised controlled clinical trials (CCTs) [Kothgassner et al., 2023]. The same review identified small-to-moderate effect sizes for reductions in suicidal ideation, especially Borderline personality disorder (BPD) symptoms in teenagers. Although I did not measure symptoms of BPD among our participants, the statistical reductions in levels of hopelessness and suicide intent are congruent with the reductions reported in controlled trials of DBT-

A, suggesting the potential for DBT's effectiveness to generalise beyond adolescents to a young adult population in a non-Western context.

Additionally, my findings are consistent with evidence from a single clinical trial, as illustrated in [McCauley et al., 2018], who discovered that compared to adolescents receiving supportive therapy, adolescents receiving DBT reported noticeably fewer suicide attempts and self-harming behaviours. My results are also consistent with [Asarnow et al., 2021] reporting that adolescents receiving DBT had a significant proportion of self-reported suicidal youth reporting reductions in urges to self-harm and improved emotion regulation, two constructs that are believed to mediate treatment outcomes. The finding that suicide attempts, self-harm, emotion regulation, and changes in emotional dysregulation converge across various demographic and cultural samples indicates that the impactful effects of DBT hold important meaning. Most significantly, our results provide important insights to the mental health service context in India, which is encumbered by limited access, systemic stigma and under-diagnosis. [Senapati et al., 2024] in a scoping review of suicide risk among Indian adolescents recently reported on the urgent need for more structured, evidence-based strategies to combat the rising prevalence of suicidality and self-harming behaviours among India's youth. The substantial improvement in BHI, SHI, and SIS, indicating improvement in suicidality after treatment, suggests that the modular structure of DBT and the skills framework may be relevant within some cultural contexts and could be effective when delivered in relatively short formats. This is in line with the alarming degree of underdiagnosis among adolescents, as noted by [Senapati et al., 2024]. In support of this, [Singh et al., 2023] also reported that mindfulness training based on DBT was shown to significantly reduce suicidal ideation among older Indian farmers, providing further support for DBT's trans-contextual applicability. While our results are promising, they should be considered in the context of a wider ongoing debate related to differential benefits of DBT across symptom domains. Some researchers have produced mixed results. For example, [Fox et al., 2020] and [DeCou et al., 2019] both reported that even though participants had some modest improvements with self-harm behaviour, DBT had negligible effects on suicidal ideation for the adult samples. The discrepancies between these studies and my study may be related to different outcome measures, the duration of the DBT intervention, and/or characteristics of the participants (e.g., severity of BPD features and treatment setting). Though directly opposed to the aforementioned studies, my sample of young adults demonstrated admirable gains with both behavioural (SHI) and cognitive/affective (BHI, SIS) components of suicidality. It is possible that the use of all four DBT modules as well as a consistent duration of treatment across participants in my study facilitated these stronger outcomes. The literature also indicates that treatment duration and treatment setting may influence DBT's effectiveness, with [Kothgassner et al., 2023] observing that longer durations of DBT-A were correlated with improvements, mainly in suicidal ideation and BPD symptomatology. My study's intervention period was shorter at 6 months and had effect sizes that were quite large. This would suggest that even DBT programs with moderate length treatment duration may create significant clinical changes, especially if all of the core module's content is delivered. Furthermore, my participants all received treatment in an outpatient setting, which likely had an impact on treatment retention and generalizability. Previous meta-analyses have found that RCTs recruiting from an outpatient context had larger effect sizes compared to RCTs recruiting from inpatient samples [McDonnell et al., 2010; Tebbett-Mock et al., 2020]. Another relevant aspect of DBT-A that past research has focused on but was not directly addressed in my study is family involvement. Family involvement often forms part of the adolescent-focused DBT-A model by involving parents and family members in therapy to address a

problematic, invalidating home environment and reinforce DBT skills in their everyday environment [Adrian et al., 2019; Yeo et al., 2020]. We only engaged individual clients in our intervention, and without family-based interventions, we may be limiting the generalisation of our findings to DBT-A models in which environmental reinforcement is central to the model. Future iterations of this work could explore the potential added value of involving caregivers in the treatment of young adults, especially when situated in collectivist cultural contexts like India, where family can greatly affect emotional functioning and assist in shaping help-seeking behaviour. Ultimately, although my study produced favourable results, we want to present the limitations of this study. The small sample size, $n = 16$, limits the statistical power and generalizability, and we didn't have a control group; therefore, we cannot make strong causal inferences. Furthermore, we found a statistically significant reduction in all three of our outcomes. We did not code any long-term follow-up data; hence, we do not know what the durability of the treatment effects is. This is particularly relevant with evidence from [Mehlum et al., 2014], who found better results in the area of suicidality one-year post high-intensity DBT-A treatment. [Mehlum et al., 2014] also emphasised the importance of later follow-up on long-term project effectiveness.

Conclusion

The effectiveness of dialectical behaviour therapy (DBT) was the main focus of my study. In decreasing the important psychological and behavioural correlates of suicide risk (hopelessness, self-harm behaviour, and suicidal intent) in Indian young adults aged 18-25 who had a history of self-harm. Following our six-month intervention, made up of eight individualised DBT sessions addressing all four modules. There were statistically and clinically significant decreases in each area measured. To be specific, the means had an 8.25-point decrease on the Beck Hopelessness Inventory (BHI), a 12.31-point decrease on the Self-Harm Inventory (SHI), and a 12.50-point decrease on the Suicide Intent Scale (SIS) - with all results reaching very high levels of statistical significance ($p < .001$) These results further support the growing international consensus of DBT being an evidence-based effective treatment for self-harm and suicidal youth and young adults. The current study adds to the small but growing body of research that supports the use of DBT in low- and middle-income (LMIC) countries, particularly in India [Singh et al., 2025]. Although DBT was developed in the West, and with that comes what can be argued to be a considerable cultural bias, the degree of improvement seen in this study supports the idea that DBT's therapeutic elements of emotional validation, skills learning, and behaviour change can be employed in various cultural/social contexts. This, in turn, supports [Asarnow et al., 2021], [Singh et al., 2023], and [Senapati et al., 2024], who stated that DBT applies to suicide risk in adolescents and young adults from varying backgrounds. Moreover, we found that DBT could reduce observable self-harm behaviours and even reduce internal psychological states that initiate suicidal actions, like hopelessness and suicidal ideation. The reduction in observable self-harming and an internalised suicidal state is especially meaningful because just treating behaviours may ignore the internal emotional and cognitive risk factors that result in a suicide attempt. While our study was able to show that a time-bound DBT intervention (6 months, 10 sessions) could lead to increases in large magnitude effect sizes, we were also able to demonstrate the practical application and scalability of DBT, because this was in the context of a community-based practice of mental health where resources might be limited even for evidence-proven practices like DBT for suicide prevention. In conclusion, our findings provide some early-stage evidence that DBT is a useful treatment for Indian young adults who exhibit self-

harming behaviours and suicidality. The DBT approach provides a structure to help enact change in both behaviour and cognition with young adults and further supports the consideration of DBT in suicide prevention models for emerging adults. Further, controlled studies with larger sample sizes using long-term follow-up would provide a better understanding of the effects of our intervention. In the meantime, we believe this study has made some valuable contributions to how DBT can be adapted locally to be useful in effecting clinically important change for one of India's most serious public health concerns for its youth right now.

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