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Research Article

Understanding The Effectiveness of Dialectical Behaviour Therapy Skills Training on Emotion Regulation Among Men with Alcohol Dependence

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Abstract:

In treating various psychiatric disorders one therapy which tends to stand out because of its wide use and applicability is Dialectical Behaviour Therapy Skills Training. Focus of the current research was to evaluate and see the usefulness of the Dialectical Behaviour Therapy Skills Training Module for Emotion Regulation as well as to see if it has the capacity to regulate emotions in the case of men with alcohol dependency disorder. Total 20 patients were taken as participants for the study. Out of this 10 belonged to the experimental group and 10 were waitlisted or from controlled group. The data was being collected from rehabilitation centre (inpatient) from Pune. Here, in order to assess emotion regulation among the participants, total of ten group therapy sessions were taken in order to assess the same. Pre and Post interventions were assessed in order to see for their ability to regulate emotions for the samples used in the Study. Results of the study showed that there existed a significant difference on the capacity to control emotions among samples from the controlled and experimental groups. This current study fills the gap in the available literature. One of the important aspects of this study is that this skills training programs are not only economic but are also helpful in cutting off the resource strains. And hence these can be effectively used to make changes in the society.

Keywords: alcohol dependence, emotion regulation, dialectical behaviour therapy, skills training

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Alcohol, although legal, is one of the most dangerous of recreational drugs and its reach extends across the life span of an individual (Comer, 2013). A comprehensive study conducted by the All India Institute of Medical Sciences (AIIMS) in the Indian states and Union Territories suggested that 5.7 crore Indians depend on alcohol and require treatment (AIIMS, 2019). Alcohol Dependence can be defined as "a cluster of

physiological, behavioral, and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviors that once had greater value" (WHO, 1992).

There is a growing body of research that depicts the link between problems in the areas of alcohol usage and regulation of emotions. Example, it is seen that limited

access to emotion regulation strategies significantly predicts alcohol-related problems (Simons et al., 2017). Specific patterns of emotion deregulation are associated with alcohol dependence (Jakubczyk et al., 2018). Alcohol dependent patients report significantly greater use of response modulation and attentional deployment but lesser use of cognitive change during emotion regulation (Petit et al., 2015). Among individuals with alcohol dependence, many difficulties associated with quantity of drinks consumed are seen to be in relation with emotion regulation. These problems include problems in engaging in goal-oriented behaviours, less emotional clarity, lack of acceptance of emotional responses, problems in controlling impulses etc. Problems associated with in goal-oriented behaviour is also positively associated with anyone experiencing any alcohol-related repercussion. (Dvorak et al., 2014). Emerging research indicates that enhanced emotion regulation as a result of learning emotion regulation strategies show a decrease in the use of these maladaptive emotion regulation strategies among recently abstinent alcohol users (Nandirino et al., 2021). The Emotion Regulation Module of Dialectical Behaviour Therapy (DBT) Skills Training is based on the theory that intense emotions are conditioned responses to troublesome experiences (Linehan, 2015). Skills associated with emotion regulation in the context to DBT are taught with respect to skills which are associated with mindfulness. These are seen as an essential part of the DBT and hence are considered as "Fundamental" skills. Unlike standard behaviour and cognitive therapy which focuses on changing distressing emotions and events, a major emphasis of mindfulness is given in DBT which involves learning to bear emotional pain skilfully (Linehan, Bohus & Lynch, 2007). Emotion regulation skills, target the reduction of emotional distress through exposure to the primary emotion in a non-judgemental atmosphere and application of a set of specific skills (Linehan, Bohus & Lynch, 2007).

Although a growing body of research shows the effectiveness of DBT on emotion regulation, the studies have methodological flaws. Consistent treatment conditions, better standardization of DBT based interventions are necessary to truly understand the effectiveness of DBT on emotion regulation (Harvey, Hunt & White, 2019).

Aim

To examine the usefulness of the (DBT-ST) i.e. Dialectical Behaviour Skills Training in regulating emotions in Men having Alcohol Dependency Disorder.

Hypotheses

- There will be no significant difference seen for the ability to regulate emotion within experimental group following DBT-ST.

- There will be no significant difference seen in the ability to regulate emotions among the control group and experimental group following DBT-ST

Research Design

In this Study, Pre-test Post-test Control Group Experimental Design was used.

Variables

Here, Intervention DBT-ST is independent variable and dependent variable is emotion regulation.

Sample

Participants for this study were selected using purposive sampling from a rehabilitation center in an urban city of India. The sample consisted of twenty individuals with a primary diagnosis of (F10.21) which consists of Behavioural and Mental disorders due to use of alcohol, dependence syndrome and are currently in remission but in a secured environment, according to ICD-10.

The inclusion criteria for selecting participants were: men belonging to the age range of 18 years to 50 years with a minimum educational qualification of 12th standard. The individuals belonged to at least a middle socio-economic class. Individuals with polysubstance dependence, those with a co-morbid condition in the psychotic spectrum, individuals with a history of trauma or head injury, and those with scores of more than 26 on the Montreal Cognitive Assessment (MOCA) were excluded from the sample.

Tools

Tools included for the Study are WHO-Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST V3.0), Socio-Demographic Questionnaire, Brief Psychiatric Rating Scale (BPRS), WHO- Alcohol Use Disorder Identification Test (AUDIT), Montreal Cognitive Assessment (MOCA) and (DERS) i.e. Difficulties in Emotion Regulation Scale were used.

Procedure

Sample was collected from a rehabilitation centre from an urban city in India. Initial screening of the participants was done by taking a brief case history and MSE and administering the WHO- ASSIST V3.0, WHO- AUDIT, MOCA, and BPRS. A sample of 20 was selected after the screening. Informed consent was taken from the participants. A socio-demographic form was given to the participants and the 'Difficulties in Emotion Regulation Scale' (DERS) was administered. The participants were distributed in 2 groups- experimental category and other in waitlisted control group or category. Each category had 10 participants. The experimental group received 10 sessions of DBT-ST of Emotion Regulation. The post-test assessment consisted of administering the DERS after completion of the intervention.

Results

Demographic Variables

Table 1: Comparison of age between the individuals in the control and experimental groups with the use of Mann-Whitney U Test.

<u>Variables</u>	<u>Groups</u>	<u>Median</u>	<u>Mean</u>	<u>SD</u>	<u>Z</u>
Age	Experimental Group	36	33.9	8.82	0.114
	Control Group	33	33.8	12.28	

Table 2: Results of chi square analysis of the socio-demographic variables of education, occupation and marital status

<u>Variables</u>	-	<u>Percentage in Experimental Group</u>	<u>Percentage in Control Group</u>	<u>Chi-Square</u>	<u>p-value</u>
Education	Post-graduate	20	20	0.20	0.655
	Graduate	40	30		
	Undergraduate	40	50		
Occupation	Unemployed	30	60	1.833	0.399
	Service	50	30		
	Business	20	10		
Marital Status	Unmarried	50	40	0.20	0.88
	Married	50	60		

Table 3: Comparing the age of duration and onset of illness or disorder between experimental and control group

<u>Variables</u>	<u>Groups</u>	<u>Median</u>	<u>Mean</u>	<u>SD</u>	<u>Z</u>
Age of Onset	Experimental Group	21	20.70	4.13	0.495
	Control Group	17	20.10	6.17	
Duration of Illness	Experimental Group	10	13.20	6.54	0.229
	Control Group	10	12.70	7.31	

Hypothesis Testing

- **Hypothesis 1.** There will be no significant difference seen for the ability to regulate emotion within experimental group following DBT-ST.

Table 4: Wilcoxon Signed Rank Test for the Experimental Group

<u>DERS Domains</u>	<u>Z</u>	<u>p-value</u>
Non-Acceptance of Emotional Responses	1.089	0.276
Difficulties in Goal Directed Behaviour	1.511	0.131
Impulse Control Difficulties	0.690	0.490
Absence of Emotional Awareness	0.722	0.470
Restricted Access to Emotion Regulation Strategies	1.841	0.066
Absence of Emotional Clarity	0.086	0.931
Total	2.803	0.005

The p-value is 0.005 suggesting a significant difference at 0.01 level between the pre-test and post-test scores between two groups or categories.

Table 5: Control group assessed through Wilcoxon Signed Rank Test

<u>DERS Domains</u>	<u>Z</u>	<u>p-value</u>
Non-Acceptance of Emotional Responses	1.276	0.202
Difficulties in Goal-Oriented Behaviour	0.137	0.891
Impulse Control Difficulties	0.690	0.490
Absence of Emotional Awareness	0.722	0.470
Restricted Access to Emotion Regulation Strategies	1.276	0.202
Insufficiency of Emotional Clarity	0.086	0.931
Total	2.023	0.043*

There was a difference in the pre-test and post-test scores at 0.05 level for the control group. The p-value is 0.043.

- **Hypothesis 2.** There will be no significant difference seen in the ability to regulate emotions among the experimental group and control group following DBT-ST

Table 6: Comparing the Pre-test for the experimental and control groups using Mann-Whitney U Test

<u>DERS Domains</u>	<u>Groups</u>	<u>Median</u>	<u>Z</u>
Non-Acceptance of Emotional Response	Experimental Group	18	0.759
	Control Group	16.5	
Difficulty in Goal-Directed Behaviour	Experimental Group	17	0.228
	Control Group	17.5	
Impulse Control Difficulties	Experimental Group	19	1.020
	Control Group	18	
Lack of Emotional Awareness	Experimental Group	19	1.265
	Control Group	18.5	
Limited Emotion Regulation Strategies	Experimental Group	19	1.231
	Control Group	19	
Lack of Emotional Clarity	Experimental Group	19	1.459
	Control Group	17.5	
Total DERS	Experimental Group	110	0.682
	Control Group	109	

On the pre-test analysis, difference between the experimental and control groups is not statistically significant, $U = 41.0$, $z = 0.68$, $p > 0.05$.

Table 7: Comparison of the post-test for the control and experimental groups by using the Mann-Whitney U Test.

<u>DERS Domains</u>	<u>Groups</u>	<u>Median</u>	<u>Z</u>
Non-Acceptance of Emotional Response	Experimental Group	12	2.550
	Control Group	18	
Difficulty in Goal Directed Behaviour	Experimental Group	12	2.918
	Control Group	19.5	
Impulse Control Difficulties	Experimental Group	15	1.333
	Control Group	17.5	
Lack of Emotional Awareness	Experimental Group	13	2.058
	Control Group	18	
Limited Emotion Regulation Strategies	Experimental Group	18	1.765
	Control Group	19	
Lack of Emotional Clarity	Experimental Group	15	0.956
	Control Group	17.5	
Total DERS	Experimental Group	79	2.083
	Control Group	107	

The results indicated a difference which is statistically significant, $U = 22.5$, $z = 2.083$, $p < 0.05$ among the experimental group (Mdn = 79) and the control group (Mdn = 107) on DERS post DBT-ST.

Discussion

Socio-demographic Variables

The two groups or categories saw a difference which was not significant for socio-demographic variables like age, occupation, education, marital status and age of onset of the illness. Since these variables can have an impact on the emotion regulation ability, it was important to ensure that the two groups were similar on these variables.

Hypothesis 1

It was hypothesized that there will be a difference which will not be significantly seen for the ability to regulate emotion within experimental group following DBT-ST. This hypothesis was rejected. There was a significant difference seen and found within experimental group in their ability to regulate emotions post DBT-ST, $Z = 2.803$, $p < 0.05$. Although, the control group or category did see significant change their ability to regulate emotions, $Z = 2.023$, $p < 0.05$.

The change noted for the control group could be assigned to the fact that the patients received treatment that consisted of regular therapy sessions apart from the research intervention. Previous research indicates that some change can be expected within the control group in experimental designs that use treatment as usual (TAU) control groups (Guidi, et al., 2018). This applies to the current study as well. Apart from the DBT-ST intervention, all the individuals were receiving individual therapy at least twice a week and group therapy sessions covering a wide array of topics, twice a day. This may have resulted in the decreased scores on difficulties in emotion regulation scale in the control group. Since both the experimental and control groups saw within-group differences, it is essential to inspect the magnitude of the treatment effects (Karlsson & Bergmark, 2015).

When the domain wise differences within the experimental group were studied, it was observed that only one domain had a significant difference. This suggests that the participants had learned to use adaptive emotion regulation strategies. Individuals use fewer maladaptive strategies to regulate emotions when they're introduced to adaptive emotion regulation strategies (Conklin et al., 2015) and DBT-ST provided them with the opportunity to apply adaptive coping strategies to regulate emotions. The findings are consistent with previous studies indicating that emotion regulation strategies improve significantly post DBT-ST and indirect effects of improved emotion regulation is seen in addictive behaviours (Cavicchioli, Ramella, Vassena, et al., 2020). The control group did not see any change within any of the domains of the test.

Hypothesis 2

The second hypothesis stated the following there will be no-significant difference for the ability to regulate emotion among the control group and the experimental group following DBT-ST. This hypothesis was rejected. The experimental group (Mdn = 110) and the control group (Mdn = 109) had no difference significantly prior to intervention, suggesting that the two groups were similar in their ability to regulate emotions before the intervention. Further the post-test measures between the control and experimental groups were compared with each other, it was found that the experimental group scored much less on DERS (Mdn = 79) than the control group (Mdn = 107). The difference was found to be statistically significant, $U = 22.5$, $z = 2.083$, $p < 0.05$. This suggests that the intervention was useful in enlarging patients' capacity to regulate emotions. Findings of the research are consistent with previous literature. Maffei et al. (2018) found a significant improvement in the emotion regulation skills among patients with alcohol dependence post DBT-ST sessions. Cavicchioli et al. (2019) also found that DBT-ST as a stand-alone out treatment measure significantly improved emotional regulation in patients with alcohol use disorders.

Significant difference was found among two groups or categories in the realm of 'non-acceptance' of

emotions. Individuals who had received the DBT-ST seemed to have increased acceptance of their emotional responses. This change can be attributed to the component of 'radical acceptance' which is taught in order to help participants manage difficult emotions. The DBT module states that radical acceptance is helpful when one cannot change the emotions and by accepting negative emotions as a part of human experience, one can choose to love and accept the emotions that they are experiencing. A study done by Maffei et al. (2018) observed similar findings among individuals with alcohol dependence. They found that individuals who underwent DBT-ST were better able to accept negative emotional responses post-intervention. This is an important finding as enhancement of the ability to accept and tolerate negative emotions is an important predictor of abstinence while treating individuals with alcohol dependence (Berking et. al., 2011).

In the current research, difference was found to be significant and at the same time was also found in domain named 'difficulties in engaging in goal directed behavior' with the experimental group having a much lesser mean rank on the domain than the control group. The participants reported that DBT-ST helped them focus on the present moment which in turn helped them focus on their activities. Similar findings were reported in other studies which indicated that the mindfulness component in the DBT-ST module is critical in helping individuals engage in goal directed behaviour despite experiencing negative emotions (Blackford & Love, 2011).

No significant difference found in the groups on the domain of 'difficulty controlling impulses'. The intervention did not appear to be effective in tackling these impulse control difficulties. Some studies have made similar observations. When recently abstinent patients with alcohol dependence were evaluated on their ability of impulse control, it was found that impulse control difficulties persisted after discharge despite undergoing treatment for five weeks (Fox, Hong & Sinha, 2008). Individuals with alcohol dependence have less activity in cortical and subcortical structures which include the putamen, insula, and amygdala which are responsible for impulse control. This altered neural processing requires deliberate efforts and a significant amount of time to change which could be the reason behind the persistent impulse control difficulties (Li et al., 2009). No significant difference was found in the domain of 'emotional clarity' as well.

A difference again which was significant was found for the categories or groups was found in the realm of 'emotional awareness' post DBT-ST intervention. Other studies have supported this finding wherein a significant increase in emotional awareness along with a decrease in overall difficulties in emotion regulation was seen among outpatients who received DBT sessions (Osborne et al., 2017).

Conclusions:

There existed a significant difference on the capacity to control emotions among samples from the controlled and experimental groups. This current study fills the gap in the available literature. One of the important aspects of this study is that this skills training programs are not only economic, but are also helpful in cutting off the resource strains. And hence these can be effectively used to make changes in the society

Limitations of the present Research and Directions for Future Research

The obtained results of the research have to be viewed along with certain restrictions. Sample size taken for the study was very limited. Therefore, in order to conclude the findings, this study can be replicated with a larger sample size. The current study was conducted in an inpatient setting, hence the results obtained among the participants could be not be completely associated with the fact that a controlled environment has on detoxification and abstinence. Consequently, it is recommended that studies which will be conducted in the future should be studied in an outpatient setting to examine whether the results of study are replicated. In the current study, a self-report measure was employed to measure the ability to regulate emotions. As a result, it is undetermined if the samples in the study literally used the skills they approved to and whether they are using the skills as directed to them. Therefore, it is recommended that the studies which will be carried out in the future should have an assessment which could be performance based along with the self-report measure to more accurately analyse the utilization of skills. Future Researches too can compare effectiveness of DBT-ST with other third-wave therapies

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