

Effect of Dialectical Behavior Therapy on Trait-Emotional Intelligence and Emotional Regulation of Suicidal Patients in Pakistani context

¹Nazish Idrees Chaudhary & ²Shabila Sharif

Abstract

This study was intended to evaluate the effectiveness of dialectical behavior therapy for the enhancement in trait-emotional intelligence and emotional regulation among suicidal patients in clinical setting of Pakistan. The following hypotheses were formulated on the basis of previous research studies- 1. Dialectical behavior therapy would increase the level of trait-emotional intelligence among suicidal patients. 2. Dialectical behavior therapy would increase the level of emotional regulation among suicidal patients. The sample of this study was N=10, single, males and females, within the age range 20-30 years, with at least 14 years of education. The participants were diagnosed with depressive disorder with at least one suicidal attempt in the previous year. Quantitative research design, single group pre and post treatment was used. Ten sessions were conducted thrice a week for 45 minutes per session with each participant including pretest, therapy and posttest. The participants were selected by using non-probability purposive sampling. The tools of data collection were informed consent, demographic form and the following scales, Trait Emotional Intelligence Questionnaire-short form (TEI Que-SF) developed by Petrides (2003) and Emotional Regulation Questionnaire (ERQ) by Gross and John (2003). Paired sample t-test was applied to compare the difference among study variables due to dialectical behavior therapy. The differences were also significant for the increase in the level of trait-emotional intelligence at *** $P < .001$ and emotion regulation at ** $P < .01$ among the suicidal patients.

Keywords- Dialectical Behavior Therapy, Trait-Emotional Intelligence, Emotional Regulation, Suicidal, Patients, Young Adults

Introduction and Literature Review:

Suicidal ideation and suicidal attempts are increasing globally day by day, but unfortunately in recent years this trend is drastically experienced in Pakistani context too. The fact sheet of World Health Organization recently reported more than 8 million of deaths annually in the world due to suicide. However, it is predicted that the number of people who attempt suicide globally in a year is a lot more than the rate of completed suicides (WHO Fact Sheet, 2015).

In May, 2014, World Health Rankings published the information that 1.19% of deaths in Pakistan are because of suicide and reached around 14,000 deaths every year which is at the rate of 9.16 % per 10,000 of population (WHO, 2014). The reported cases for both attempted and completed suicides in Pakistan are spread across more than 35 cities of the country including major urban areas and villages among single males and females who are under the age of 30 years (Khan, 2007). Latest rates are 2.94/100,000 for men and 1.67/100,000 for women, A Non-Government Organization of Pakistan stated to The Dawn, 2006 about the occurrence of 5800 suicides only in the first nine months of a year (Khan et al., 2008). The fundamental idea of the suicide mode originated as biosocial theory from cognitive behavioral therapy for the purpose of its treatment, targets suicidal symptoms independently rather than working on a psychiatric diagnosis (Holloway et al., 2014). Koekkoek and Kaasenbrood (2008) explained the emotional reasons behind suffering from suicidal symptoms, that they are commonly used as a defense against unpleasant feelings, expression of dissatisfaction, distress and an inability to govern one's own life. Similarly, another research provided evidence through results of a study that there exists a positive relationship between lack of awareness about own emotions and the frequency of suicidal acts (Goethem, Mulders, Jong, Arntz, & Egger, 2015).

The balanced state of mind is what Dialectical Behavior Therapy mainly looks at, referred to as "Wise Mind" instead of inclination towards Logical or Emotional Mind (Evershed, 2011). Clinical studies have supplied the evidence through randomized control trials that Dialectical Behavior Therapy is successful in making significant reductions among suicidal patients. Pre-post testing was widely adopted to determine the effectiveness of the therapy even within follow-ups of six months to one year uses the repetition of this therapy cycle after treatment (Goethem et al., 2015). Dialectical Behavior Therapy is an extensively developed form of Cognitive Behavior Therapy (CBT) to treat individuals exhibiting suicidal and non-suicidal self-harm (Geddes, Dziurawiec, & Lee, 2013; Linehan, Armstrong, Suarez,

Allmon, D & Heard, 1991). Cognitive Behavior Therapy was the first treatment for depressive disorders, other mood or emotional disorders by Ellis (1962) and Beck (1967); the origin of Dialectical Behavior Therapy is

directly helpful in controlling the symptoms of self-harm, suicidal thoughts and actions. The therapy was insight oriented in its early stage but later aims to modify emotional and social responses to bring change within self and hence serves as a problem focused therapy (Evershed, 2011). As indicated in the research done by Nasizadeh, Babapour K. and Moheb (2015), Cognitive Behavior Therapy models are considered quite logical due to the strategies they apply for treatment purposes. The cognitive aspects of suicidal symptoms i.e. ideation play a role in the stability of the behavior i.e. suicidal attempt whereas there are emotions in between that can balance the existence (Evershed, 2011). The results of many studies discovered that the individuals who understand how to manage their emotions become less responsive to stressful events; their suicidal symptoms, depression and hopelessness become less intensive as well (Hansenne, 2012).

The trait emotional intelligence is a skill, which is tested and presented as the cure for suicidal ideation and attempts (Lynch, Cheavens, Morse, & Rosenthal, 2004;

Zlotnick, Donaldson, Spirito, & Pearlstein, 1997). The definition of trait emotional intelligence by Petrides, Pita and Kokkinaki (2007) is as follows- Trait Emotional intelligence is a constellation of emotional self-perceptions located at the lower levels of personality hierarchies and measured via the trait emotional intelligence questionnaire (Petrides, 2010). It is not a personality trait but an achieved skill (Croskerry & Norman, 2008). According to Austin, Saklofske & Egan (2005), trait emotional intelligence have a strong relationship with socially orientation, a person's life satisfaction, and lack of alcohol consumption along with limited visit to medical consultants. A study is conducted by Ahmad, Imran & Mehmood (2009), results indicate that, trait-emotional intelligence and self-esteem have positive relationship among subjects and trait-emotional intelligence have negative association with depression.

As appeared in a work by Slee et al. (2008), there is a relation between suicidal tendencies and improper regulation of emotions. A clinical trial based on the relationship between emotion regulation and suicidal tendencies highlighted the role of regulating emotions in controlling self-injurious behavior, goal directed activities and impulsivity. The effectiveness of these interventions provided evidence about the importance of focusing on the treatment specifically for suicidal ideation and behavior instead of a disorder and diagnosis. The bonding of emotion regulation is seen with dysfunctional thoughts, relationships, emotions, self-image and behaviors (Geddes et al., 2013). It is discovered

that dialectical behavior therapy is the best therapy to target balanced emotional activity to play a mediating role particularly for suicidal tendencies. The module system is an excellent mediator created by Linehan (1993). A pilot randomized control trial was performed to evaluate the effectiveness of "Dialectical behavior therapy skills for trans diagnostic emotion regulation".

They found dialectical behavior therapy group is better at using skills and had increased emotion regulation with a decrease in their depressive and anxious states with 59% less dropout rate as compared to the support group participants. For trans diagnostic adults, DBTST was assessed as a promising treatment than other forms of treatments (Neacsiu, Eberie, Kramer & Wilemann, 2014).

Rationale

Suicidal ideation and suicidal attempts are increasing globally day by day, but unfortunately in recent years this trend is drastically experienced in Pakistani context too. Mental health professionals seems highly concerned to explore the reasons of this phenomenon and collectively there are different interpretation, but this work will serve as a preliminary method for the mental health professionals to build up programs, trainings and strategies for further treatment plans to carry an efficient therapeutic process while dealing with suicidal patients for their wellbeing. Families and caretakers will attain fruitful ways to manage the suicidal symptoms of the patients hence aided them to develop as a productive member of a nation throughout their lives. The improvement in the suicidal state of the patients, their level of emotion regulation and distress tolerance skills will serve as a contribution in the field of clinical psychology.

Hypotheses

1. Dialectical behavior therapy would increase the level of trait-emotional intelligence among suicidal patients.
2. Dialectical behavior therapy would increase the level of emotional regulation among suicidal patients.

Method

Participants- Inclusion Criteria and Exclusion Criteria

Data of study is based on the suicidal patients were approached at psychiatric wards and outpatient settings from two public hospitals (Jinnah Hospital and Services Hospital) in

Lahore. Formal permission from authorities of the respective institutions was taken and only the participants with the stipulated characteristics were included. The age range of the participants was 20 to 30 years; both males and females, single were included in the sample, diagnosed only with a depressive disorder. Total sample size was (N=10) individuals; among them (N=5) were males and (N=5) females. Patients who were diagnosed with any medical illness, with any other diagnosis except depressive disorders, comorbidity and those who did not complete treatment were excluded.

Research Design, Measures and Procedure

The study followed quantitative research design, single group pre and post treatment. The assigned participants were selected through non-probability purposive sampling technique, meeting the set criteria of this study.

II.3 Measures

A demographic information form was used in which the following respondent's information was obtained: age, gender, family income, education, marital status, occupation, number of siblings, birth order, total number of family members, family system, parent's education and occupation, history of the present psychological symptoms, duration of the illness, triggering event, family psychiatric history, information about any medical issue and medication if present. The following scales were used to measure the variables of this study: Trait Emotional Intelligence

Questionnaire – Short Form (TEIQue-SF;

Petrides, 2003) and Emotion Regulation

Questionnaire (ERQ- Gross and John, 2003). Firstly, the permission was taken from the higher authorities responsible to grant for research studies in the respective public hospitals. The benefit of the therapy was briefed and they were requested to assign required sample of the study. The request approved and patients were assigned, and then selected according to the criteria of the study. Every patient was asked to sign an informed consent independently after reading all the terms included in the form related to the therapy. Fifteen patients were recruited in the process for the purpose of therapy. Two of the assigned patients were not fulfilling the criteria and three of them left after initial sessions. In this way, five patients were excluded from this study. Ten of the selected patients completed the therapy. All the participants were given an introduction about the therapeutic process, rapport was built and confidentiality was discussed. After the consent of participants, a demographic form was

given to collect patient's personal information. Detailed history of each of the patient was taken. Information about presenting problem was discussed. This treatment allowed the patients to identify and understand their own thoughts, emotions and behaviors. The patients practiced crises survival strategies during the whole process of ten sessions, thrice a week for 45 minutes per session. The material used for the training purpose incorporated worksheets, demonstrations of the concepts and exercises for practice between the duration of sessions.

Initial Phase (1-3 sessions)	History Taking, Rapport Building (Validation), Pretesting, Distract yourself from self-destructive behaviors, List of coping thoughts, Radical acceptance coping statements
Middle Phase (4-7 sessions)	Distract yourself with pleasurable activities, Cutting/self-mutilation (identify rewards and consequences), Distract yourself by paying attention to someone else, Recognizing your self-destructive behaviors, Distract yourself by counting, Create a distraction plan, The way emotions work, Relax and soothe yourself (using five senses), Create a distraction plan to use at home/away from home, Finding willingness, Reality acceptance, Distress tolerance pro's and con's
Termination Phase (8-10 sessions)	Opposite to emotion action, Urge management, Mastering my world, Post-testing, Discussion/Feedback/Summarizing therapy, Termination

Statistics

Descriptive analysis presented the characteristics of the participants. Then inferential statistics were sought to compare the pretest and posttest scores of the study variables to test the hypotheses. For this purpose, the paired sample t-test displayed the differences between the level of emotional intelligence and emotion regulation of suicidal patients.

II.7 Ethical Considerations

The patients were included in the study after voluntary consent. The data was kept confidential, otherwise discarded immediately. In addition, the principles provided by American Psychological Association were considered.

Results and Discussion:

An effort was made to view the mean ages and demographic variables (shown in Tables 1 and 2) of the participants.

The frequency of suicidal attempts has been increased in the recent decade among young adults, the participants' ages spread within the criteria but majority of them fall into 21-23 years old. This age range of young adulthood is determined as the critical time period for experiencing distress and difficulties in emotion regulation. Adequate level of emotional intelligence is also required at this stage of life to handle the adversities of life in these years of an individual's development. Most of the patients were ignorant of their achievements and happiness they gathered in the past. They were focused on their negative events of life without seeing their present opportunities or planning for their future goals and success. Some of them completed higher education equivalent to post graduation but still they suffered from lack of emotional intelligence and emotion regulation. They respond well on the therapeutic intervention. It shows that general intelligence is not a predictor of emotional intelligence among suicidal patients. Training is most important to prevent certain population from becoming a victim of emotional distress, suicidal ideation and attempts. Emotional intelligence is a newly adopted variable and serving as an ability to use emotions intellectually within different situations. Thoughts and emotions direct an individual's behavior. Low emotional intelligence among suicidal patients is closely related to contribute in making an individual prone to suicide. Family of a suicidal patient is a strong factor in an

Table 1
Mean and Standard Deviation of the ages of the Suicidal Patients (N=10)

Variable	M	SD
Age	25.20	3.04

Note: M=Mean, SD= Standard Deviation

Table 2
Characteristics of the group of suicidal patients with the summary and RCI of emotional intelligence and emotion regulation.

ID	A	B	C	D	E	F	G	H	I	J
Qualification	CA	MBA	BA	BA	MA	BA	BA	MA	BCS	MA
Gender	M	F	F	F	M	M	F	F	M	M
Number Of Siblings	2	1	7	3	4	4	3	0	2	6
Birth Order	2 nd	4 th	2 nd	3 rd	2 nd	2 nd	4 th	3 rd	2 nd	3 rd
Monthly Income (in PKR000)	50	150	100	90	80	33	30	40	60	70
Occupation	SA	SI	X	X	Te	Sh	X	X	X	X
Total Family Members	4	7	4	14	4	7	10	11	0	8
Family System	J	N	N	J	J	J	J	N	J	N
Father Occupation	S	Te	S	Dr	Te	Pa	Sh	S	Sh	S
Mother Occupation	Te	Se	Ho	Ho	Ho	Ho	Ho	Ho	Ho	Ho
Fathers Education (in years)	0	16	0	16	16	16	0	0	14	14
Mothers Education (in years)	12	16	0	0	12	10	0	0	12	10
Duration Of Illness (in months)	19	30	72	24	96	36	12	24	18	7
Triggering Event	D	S	M	A	H	S	M	A	S	S
Family Psychiatric History	P	S	S	S	P	S	S	S	S	P
On Medication	N	N	Y	N	N	N	N	N	N	N
Medical Disease	S	P	P	P	P	S	S	P	S	S
Emotional Intelligence (pre)	2.77	3.55	3.6	3	1.8	3.5	2.67	4.4	3.5	3.7
Emotional Intelligence (Post)	3.7	4.27	3.9	5.2	3.2	4.1	3.27	5.1	4.13	4.8
RCI	1.70	1.35	0.45	4.03	2.56	1.09	1.09	1.28	1.15	2.01
ERQ-CH (pre)	23	23	33	19	18	24	12	28	28	29
ERQ-CH (post)	27	29	38	28	17	23	20	22	28	28
RCI	1.66	1.66	1.38	2.49	0.27	0.93	2.21	0.53	0	0
ERQ-ES (pre)	23	20	10	28	22	24	22	18	32	12
ERQ-ES (post)	23	21	12	23	24	27	23	18	17	14
RCI	0	0.65	1.30	1.05	1.30	1.05	0.65	0	0.65	0

Note: ERQ-Emotional Regulation Questionnaire, CR-Cognitive Reappraisal, ES-Expressive Suppression

Note: *RCI>=+1.94 (pre) > 0.5 = Pre-test, <= -0.5 = Post-test, Y=Yes, N=No, M=Male, F=Female, S=Student, Te=Teacher, Sh=Shopkeeper, Dr=Doctor, En=Engineer, Pa=Parent

D=Death, M=Medical Illness, S=Stressor by family

A=Abuse, H=Harassment, G=Gift

individual's ability to control intense emotions. Within our society the trend of appreciating and accepting someone's emotions is considered a sign of cowardice. The patients often reported that they were not allowed to be emotionally expressive with their family members not even with the parents (Kumara, 2013). The awareness about their emotional state while suicidal ideation and attempts helped them thinking realistically about their behaviors.

They recognized all the primary and secondary emotions they feel when any stressful situation arises and as a result they performed suicidal attempt. Radical acceptance statements worked well for the patients. Every patient memorized at least one statement they usually repeated the statement they found most soothing. In the middle of the treatment, most of the patients convinced that it is no use fighting over past, their past memories shadowing their present life. Emotional intelligence is found to be an important factor, modifies through the given treatment (Cha & Nock, 2009; Gmitrowicz et al., 2012; Mahajan et al., 2014). In the present study, dialectical behavior therapy increased emotional intelligence. This hypothesis was accepted (see Table 3).

Table 3

Paired Sample t-test of the level of emotional intelligence among suicidal patients who received dialectical behavior therapy treatment

Variable	Pretest		Posttest		t-value	P-value	95% CI	
	M	SD	M	SD			LL	UL
EI	3.246	.713	4.160	.683	5.387	.000	1.296	5.297

Note: CI=Confidence Interval, LL=Lower Limit, UL= Upper Limit

EI=Emotional Intelligence

Note: *p<.05; **p<.01; ***p<.001.

The mean scores were compared and paired sample t-test appeared significantly different at ***p<.001 (posttest-Mean=4.160, SD=.683;pretest-Mean=3.246, SD=.713). The findings of this study have reported a marked increase in trait-emotional intelligence.

Emotion regulation skills are one of the Modules from dialectical behavior therapy, involves the capacity of an individual to control one's emotions when an individual faces any stress from environment. The patients were struggling to have control over their stressful situations before the treatment phase. The inability to do so was leading them to frustrate and show aggression towards own life. High level of emotion regulation is effective for the prevention of suicide. Unfortunately, in our culture from early childhood the management of

emotions is ignored within families. Majority of the parents do not train their children about how to communicate and express their emotions. The patients rarely accepted their emotions, majority were from the families where anger and other negative emotions are forced to suppress by the elders. Emotional expression is considered a taboo in Pakistan. For this purpose, they were given information about how emotions work; they learned to manage their emotions through the process of sensing their feelings, managing negative emotions through a pause or a distraction skill. They grabbed the concept that using coping strategy will delay their suicidal thoughts and behavior triggered by a negative emotion i.e. anger. They practiced opposite to emotion action as a motivational task for the patients in order to stop their negative emotional outburst. They learned to change their emotions into pleasant ones this way i.e. when they feel sad, they tried to make a smiling face with the help of their fingers and smile for a while. This practice broke the chain of their gloomy moments. They gratefully recalled achievements and cheerful times they spend. Emotion regulation has two separate parts to measure and calculate. One is cognitive reappraisal and the other is expressive suppression. Both of them were presented in the Table 4 after the scores were calculated.

Table 4

Paired Sample t-test of the level of emotion regulation among suicidal patients who received dialectical behavior therapy treatment

ER(facets)	Pretest		Posttest		t-value	P-value	95% CI	
	M	SD	M	SD			LL	UL
CR	22.70	6.111	26.50	5.797	3.413	.008	6.319	1.280
ES	18.10	5.174	20.00	4.921	3.943	.003	2.990	10.98

Note: CI=Confidence Interval, LL=Lower Limit, UL= Upper Limit,

ER=Emotion Regulation CR=Cognitive Reappraisal, ES=Expressive Suppression

Note: *p<.05; **p<.01; ***p<.001

The results of this study are significant at *p<.05 for both of the facets of emotion regulation scale (posttest-Mean=26.50, SD=5.797; pretest-Mean=22.70, SD=6.111 for cognitive reappraisal facet). The findings of this hypothesis showed significant differences in the scores (posttest-Mean=20.00, SD=4.921; pretest-Mean=18.10, SD=5.174 for expressive suppression facet). Table 2 shows the case wise statistical analysis of all the patients included in the study. The change in patients' pretest and posttest scores for all the study variables are presented individually, they are mostly significant and coherent with the t-test results. Reliable change index (RCI) developed by Jacobson and Truax (1991) is used for this purpose (Zahra & Hedge, 2010).

Limitations, Implications and

Recommendations

A limitation was the controlled environment of the treatment given to the patients, they were living in a clinical setting where stress level was minimal and sedatives were used to provide them a restful sleep. Out of the limitation, results may appear differently.

In the light of significant findings based on this research, here is some recommendations- this study highlighted the importance of trait-emotional intelligence and emotion regulation. Families of the suicidal patients must be included into emotional regulation training to increase social support for the distressed patients and to develop understanding about this mental health problem. The skill training components of dialectical behavior therapy can be tested independently as an integral intervention to treat suicidal ideation and attempts among patients. Positive outcomes will be expected among suicide prevention and treatment by introducing trait-emotional intelligence and emotion regulation training. Resources shall be arranged based on this effective treatment strategy to train emotionally distressed individuals in all public and private organizations of Pakistan. Trait-Emotional training must spread around our society commonly to overcome the rate of major social evils which might contribute towards distress and leads to suicide. Emotion based activities are planned for individuals through all kinds of health services. Regular assessment of emotional distress must be conducted among the at risk population along with treatment to control the alarming rate of suicide around the world. Caregivers of depressed or suicidal patients must be given adequate training about handling emotional distress to help suicidal patients in improving their psychological symptoms. Short courses about emotional intelligence and regulation information must be planned for students and taught in all the institutions to all age groups. The course must be compulsory as a part of academic curricula. Emotions based and dialectical behavior therapy skill trainings should be introduced within clinical settings for professional staff and vulnerable population as well in order to enhance their tolerance. The given strategies will be helpful in the promotion of mental health. Suicidal ideation and attempts can be controlled with the provision of special attention to the survivors of suicidal attempts. In this way, the rate of suicidal attempts will be reduced around the globe.

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