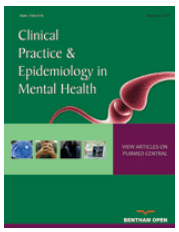

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RESEARCH ARTICLE

# The Effect of Dialectical Behavioral Therapy on Emotion Dysregulation in Couples

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**Abstract:**

***Background:***

Divorce rates have increased during the last decade, leading to a greater focus of marital scholars on the importance of understanding couple-maintaining strategies within marital life. Distresses in couples are attributable to difficulties controlling felt, experienced, and expressed emotions; thus, emotion dysregulation is a core stressor in couples with maladaptive responses.

***Objective:***

The aim of the study was to evaluate the effect of Dialectical Behaviour Therapy (DBT) on outpatient couples to treat emotion dysregulation.

***Methods:***

We recruited 20 couples with marital distress in which partners presented emotion dysregulation. We offered the couples the opportunity to join a couple DBT group at their convenience and based on the immediate availability of treatment slots. We measured the treatment efficacy using psychometric tools (the Difficulties in Emotion Regulation Scale (DERS) and the Dyadic Adjustment Ccale (DAS) at baseline and after DBT therapy.

***Results:***

Both male and female partners presented significant improvements in marital adjustment DAS and emotion regulation scores. Female partners showed significantly greater amplitude changes in both scales. Female partners showed significant improvement in most DERS subscales (except the GOALS subscale); on the other hand, male partners showed significant improvements in impulse, awareness, strategies, and clarity subscales. We found significant improvements in most DAS subscales in both sexes; only affectional expression remained unchanged before and after therapy.

***Conclusion:***

DBT for couples is an effective approach to treat emotion dysregulation.

**Keywords:** Dialectical Behaviour Therapy (DBT), Couple therapy, Emotion dysregulation, Difficulties in Emotion Regulation Scale (DERS), Marital therapy, Dyadic Adjustment Scale (DAS).

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|---|---|---|---|

## 1. INTRODUCTION

Marriage is a complex, interpersonal long-term relation, often seen as the happy ending to a love story, however, statistical figures related to divorces are alarming. Approximately one-tenth of married couples divorce within the first five years of marital life; epidemiological studies show that this figure doubles after 10 years of conjoint couple life. Such high divorce rate figures have attracted the attention of scholars, who want to understand the maladaptive couple-life-maintaining strategies that lead couples to get separated [1, 2].

Diverse conflict models have been proposed by scholars to explain the complex continuous interactions between partners in a couple. In the constructive engagement model, both partners express their feelings and ideas without moral judgments or critical attitudes but rather with mutual understanding and achieve a soothing effect due to at least partial validation of feelings and ideas; this model is mutually constructive but needs a high adaptive capacity in both

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partners. In the mutual avoidance model, both partners try to solve their conflicts and interpersonal differences through escape psychological mechanisms and get progressively withdrawn from the shared couple life, creating an inter-relational gap with an isolated life for each partner. In the mutually destructive model, both partners often exchange aggressive criticisms that increase the conflictual tone and produce devastating effects on the couple's life. Finally, in the engagement-distancing model, a dependent partner is more engaged in the shared couple's life than the other partner, who in turn uses maladaptive psychological escape mechanisms to get away from shared life events [3].

Many couple therapeutic models with different pre-assumptions, theoretical backgrounds, and specific techniques have been developed. Behavioral marital therapy is based on teaching the theory of behaviorism and inducing behavioural changes to partners with maladaptive behaviours. The therapy focuses on communication styles, problem-solving skills, and behavioral changes. But, its results are now considered poor, and the therapy has been disregarded. Couple Cognitive-Behavioral Therapy (CBT), a step further from behavioral marital therapy, aims to replace maladaptive ideations with more adaptive ones through restructuring of repetitive cognitive errors. Unfortunately, its results are not as encouraging as those of individual CBT [3, 4]. A revolutionary strategic change was achieved with the development of integrative behavioral couple therapy in which the partners strengthen skills towards better tolerating each other rather than forcing a change. Acceptance and commitment therapy, on the other hand, formulates ways out of couple conflicts based on contextual psychology and relations' reframing theories. This therapeutic approach (considered among the third wave cognitive therapies) reinforces the replacement of therapy goals by life values to teach partners to focus on the values that are already present within the relation. Emotion-focused couple therapy emphasises the importance of the emotional component among couples with a new conceptualisation of primary and secondary emotions. The results of this therapy are encouraging, and it has gained increasing interest among couple therapists. As with any newly developed couple therapy, rigorous scientific assessments (which can be technically challenging) are needed for developing an evidence-based practice based on emotion regulation-supported psychotherapy [3, 4].

Dialectical Behavioral Therapy (DBT) is a complex, multi-faceted integrative psychotherapeutic approach that Professor Marsha Linehan developed with her research scholars at the University of Washington. DBT represents a unique psychotherapeutic frame to improve the poor results obtained otherwise with patients presenting borderline personality disorder. It includes individual CBT-inspired treatment, DBT skills training focusing on emotion dysregulation and problem-solving skills, phone coaching for emergencies, case management, and family intervention and therapists' consultation meetings. The evidence has shown that this therapeutic modality is particularly effective for enhancing emotion regulation among borderline patients and that it significantly decreases suicidal and self-mutilating behaviours [5].

Emotion dysregulation can be defined as an inability to change or regulate emotion attributes, experiences, and expression behavioural responses (whether verbal or non-verbal). Emotion dysregulation is an important feature, not only among patients with borderline personality disorder but also among partners in a difficult couple life context. Based on observations shared by scholars working in the field of psychological interventions for couples, it sounds appropriate to attempt addressing difficult couples by applying the integrative model of DBT [6].

This pilot study is aimed to explore the impact/effects of DBT on emotion dysregulation among couples experimenting with relational difficulties regarding this aspect.

## 2. METHODS

The research review board at Alexandria University School of Medicine approved this study. All participants signed a written consent form, and we strictly adhered to the tenets of the declaration of Helsinki.

We designed a cohort pilot study comparing responses to DBT couple therapy between men and women treated at the outpatient health facility of the Alexandria University Hospital. We recruited 20 couples with marital distress where partners presented emotion dysregulation based on the Difficulties in Emotion Regulation Scale (DERS) examination results [7]. Couples were referred to us by colleague psychiatrists and psychologists in the outpatient facilities. The study and therapy program was explained to couples fulfilling inclusion criteria. We excluded couples in which one partner had psychotic features, mental disability, substance abuse, severe domestic violence, or suicidal or self-harming behaviours. We also excluded couples with at least one partner fulfilling the criteria for borderline personality disorder or other personality disorders according to DSM V criteria [8].

### 2.1. Pre-treatment Process

We recorded data in a semi-structured interview questionnaire to collect socio-demographic data, including ages, genders, residential address, marriage duration, occupations, socioeconomic and employment statuses, number of children and their ages, and medical and psychiatric histories.

We performed clinical structured interviews SCID I and II to exclude psychiatric diagnoses for axis I and II based on DSM-V diagnostic criteria [9].

We used an Arabic version of DERS [10] to screen for emotion dysregulation at baseline and after the DBT treatment; this scale is composed of 36 self-reported items scored on a five-point scale ranging from almost never to almost always; the items are designed to assess six dimensions of emotion regulation, Non acceptance of one's negative emotions (non-acceptance), difficulties in achieving goals while experiencing negative emotions (goals), difficulties remaining in control of one's behaviours while experiencing negative emotions (impulse), lack of emotional awareness (awareness), low self-efficacy for regulating negative emotions (strategies) and finally, difficulty identifying and understanding emotions (clarity).

We only recruited couples with partners presenting emotion dysregulation for the study.

We used an Arabic version of the Dyadic Adjustment Scale (DAS) [11, 12] as a psychometric assessment tool to measure the quality of the relationship in marital or couple life with validity at 0.86 and high reliability at 0.96. The total DAS score ranges from 0 to 150 and includes four subscales. It is composed of 32 items to be answered on Likert-type scales; the four subscales are dyadic satisfaction (10 items), dyadic consensus (15 items), dyadic cohesion (5 items), and dyadic affection expression (4 items). We applied a baseline DAS to all participants.

### 2.2. Psychological Intervention Phase

Couples who met the study's initial eligibility criteria were scheduled for further screening, which consisted of two interviews. We sequentially assigned eligible couples to one of four treatment groups until each group was full; each group included five couples.

Each couple received a one-hour-a-week individual psychotherapy session; the couples in each intervention group met for 13 sessions (2-hours per session); the sessions followed a format based on DBT skills training groups. Skills-coaching phone calls with the primary therapist were available whenever needed. Finally, all therapists met once a week to reduce therapist burnout and improve therapist capabilities to treat these couples.

### 2.3. Description of the DBT Group Training Therapy

General organization of the session: It lasted 2 hours, beginning with 15 min mindfullness exercise; the rest of the session was equally divided into 2 parts, the first half for discussion of homework, while the other half was for new skills training. A brief 10 min break was given between both parts.

Mindfulness skills (sessions 1 and 2): The first session focused on understanding emotional vulnerability, the effect of emotional arousal on relationships and conflict patterns in relationships. The second session focused on mindfulness as a state of mind with exercises on mindfulness of both the partners.

Distress tolerance skills (sessions 3 to 6): The third session focused on skills to stop things from getting worse, pros and cons, stop skills, and behavioral exercises to decrease emotional arousal. The forth session was conducted with the theme of 'being together when you're together' through conditioning and re-conditioning. The fifth session focused on teaching skills to reactivate relationships through sharing time and expériences. The sixth session considered more depth in distress tolerance skills, including Acceptance, improvement and self-soothing skills.

Interpersonal effectiveness (sessions 8 to 12): The Eighth session included teaching validation skills. The ninth session focused on the validation of partners, including FAST techniques. The tenth session shed light on recovery from invalidation. The eleventh session focused on emotional regulation, understanding émotions, problem-solving skills, problem definition and chain analysis, and finally, the duality change versus acceptance. The twelvth session included skills to transform conflicts into closeness.

The last session went through skills acquired during the therapy program. Following therapy, we applied both DERS and DAS questionnaires and compared the scores with those at baseline for the total and the subscales.

### 2.4. Statistical Analysis

We entered the data onto a computer and analysed them using the IBM SPSS software package version 20.0 [13]. Qualitative data are presented as numbers and percentages. We applied the Kolmogorov-Smirnov test to assess the normality of distributions. Quantitative data are presented as ranges (minimum and maximum), means, standard deviations, and medians. We deemed data as significant at the 5% level ($P < 0.05$). The present study used a 2x2 repeated measures design with two repeated factors, treatment status (before v. after) and gender (male v. female partner). We used Student *t*-tests for normally distributed quantitative variables to make comparisons between the two studied groups, paired t-tests for normally distributed quantitative variables to make comparisons between two periods, Pearson coefficients to find correlations between two normally distributed quantitative variables and Mann Whitney tests for abnormally distributed quantitative variables to make comparisons between two groups.

## 3. RESULTS

### 3.1. Descriptive Statistical Analysis of the Sample

The mean ages among men and women were 34.05 ± 6.24 and 29.90 ± 3.73, respectively. All husbands were regularly employed and half of the women in our sample were housewives.

Most couples (85%) lived in urban areas; 95% of the couples belonged to the middle class socioeconomic status, and their average couple life duration was 6.25 ± 4.22 years. One-quarter of the couples did not have children and the rest had less than three children with a mean age of 4.09 ± 2.57 years.

#### *3.1.1. Inferential Statistical Analysis*

Both male and female partners showed significant improvement after DBT therapy for the Dyadic Adjustment Scale (DAS) in the total score as well as consensus, satisfaction and cohesion subscales (Table **1**).

The total score of Difficulty in Emotions Regulation (DERS) showed a significant decrement in both male and female partners after DBT therapy. This significant difference has been observed in subscales of lack of emotional clarity, limited emotional regulation strategies and impulse control difficulties (Table **2**).

**Table 1. Dyadic adjustment scale (DAS) total and subscales scores before and after therapy in both male and female partners**

| Psychometric Scales | Couples | | | |
|---|---|---|---|---|
| | Male Partners (n=20) | | Female Partners (n=20) | |
| DAS total | Baseline | After therapy | Baseline | After therapy |
| | 80.15 ± 8.06 | 118.6 ± 2.50 | 61.80 ± 9.71 | 117.4±4.78 |
| *P* | < 0.001* | | < 0.001* | |
| Dyadic consensus subscale | 36.70 ± 3.70 | 50.60 ± 1.88 | 30.05 ± 4.68 | 51.80 ± 1.20 |
| *P* | < 0.001* | | < 0.001* | |
| Dyadic satisfaction subscale | 26.90 ± 3.11 | 41.30 ± 1.08 | 20.30 ± 4.55 | 41.60 ± 1.35 |
| *P* | < 0.001* | | < 0.001* | |
| Dyadic cohesion subscale | 11.80 ± 2.80 | 17.85 ± 1.42 | 7.50 ± 2.59 | 19.05 ± 1.0 |
| *P* | < 0.001* | | < 0.001* | |
| Affectional expression subscale | 4.75 ± 2.05 | 5.50±2.40 | 3.95 ± 2.06 | 4.50±2.96 |
| *P* | 0.339 | | 0.442 | |

*P* value for paired *t*-test after comparing pre and post treatment scores in each group.
*Statistically significant at p < 0.05.

**Table 2. Difficulty in emotion regulation scale (DERS) total and subscales scores before and after therapy in both male and female partners**

| Psychometric Scales | Couples | | | |
|---|---|---|---|---|
| | Male Partners (n = 20) | | Female Partners (n = 20) | |
| DERS total | Baseline | After therapy | Baseline | After therapy |
| | 104.8 ± 16.54 | 74.0 ± 5.62 | 121.2 ± 20.77 | 75.65 ± 5.91 |
| *P* | < 0.001* | | < 0.001* | |
| Non-acceptance of emotional responses | 13.75 ± 6.02 | 11.0 ± 2.36 | 20.25 ± 3.61 | 12.90 ± 2.27 |
| *P* | 0.120 | | < 0.001* | |
| Difficulty engaging in goal-directed behaviours | 16.20 ± 2.63 | 15.30 ± 3.83 | 18.15 ± 3.75 | 15.40 ± 4.77 |
| *P* | 0.397 | | 0.077 | |
| Impulse control difficulties | 16.75 ± 4.13 | 10.70 ± 1.53 | 20.95 ± 4.87 | 11.10 ± 1.83 |
| *P* | < 0.001* | | < 0.001* | |
| Limited emotion regulation strategies | 23.40 ± 3.15 | 14.25 ± 1.92 | 27.30 ± 5.99 | 10.90 ± 1.62 |
| *P* | < 0.001* | | < 0.001* | |
| Lack of emotional clarity | 14.55 ± 3.56 | 9.0 ± 1.84 | 16.25 ± 3.31 | 9.50 ± 1.61 |
| *P* | < 0.001* | | < 0.001* | |

*P*-value for paired *t*-test after comparing pre- and post- treatment scores in each group.
*Statistically significant at $p < 0.05$.

After DBT therapy, female partners showed more improvement than male partners in both Dyadic Adjustment Scale (DAS) and Difficulty in Emotions Regulation Scale (DERS), which points to a better response in female partners (Table **3**).

**Table 3. Absolute and percentage change of total scores for both DERS and DAS after therapy in reference to the baseline scores.**

| Psychometric Parameter | Men (n = 20) | Women (n = 20) | *U* | *P* |
|---|---|---|---|---|
| **Total score of DAS dyadic adjustment scale** | | | | |
| Absolute change (points) | ↑38.40± 8.57 | ↑59.65± 10.04 | 31.0* | < 0.001* |
| Percentage change (%) | ↑48.89±14.73 | ↑72.87±10.86 | 32.0* | < 0.001* |
| **Total score of DERS difficulty in emotion regulation** | | | | |
| Absolute change (points) | ↓30.75±17.27 | ↓45.50±22.61 | 121.5* | 0.033* |
| Percentage change (%) | ↓27.67±12.55 | ↓35.50±13.75 | 130.0 | 0.058 |

*U*: Mann Whitney test.
*P*-value for comparisons between the two categories.
*Statistically significant at $p \leq 0.05$.

## 4. DISCUSSION

Our results show improved emotion regulation (according to DERS results) and quality of relationship (according to DAS results) of the couples after treatment, proving the positive effect of DBT. We carried out both psychometric measurements before (at baseline) and after therapy for comparative purposes.

Couple therapy has continued to gain ground as a vital component of mental health services. The association between relationship distress and disruption of individual emotional and physical well-being emphasises the importance of improving and extending evidence-based psychological interventions for treating couples. Testing DBT as a potential therapeutic approach for couples is important given that it has proven particularly effective for treating emotion dysregulation in patients with borderline personality disorder (one of the most challenging psychopathologies) [14].

Marital scholars generally report that men and women experience marriage differently. A prominent family scholar, Jesse Bernard, famously quoted, "There are two marriages in every marital union, his and hers. And his is better than hers" [15]. On the basis of Bernard's arguments, family scholars have assumed that women consistently experience significantly less marital satisfaction than men. For instance, some authors of a national survey reported that women had lower marital quality than men [16]. Other studies have found that female partners report poorer marital satisfaction than their male partners [17, 18]. However, such findings have not been consistent, and other scholars have found no gender differences, possibly due to methodological differences in participant selection criteria and in measurement tools and patterns [17, 18]. In our study, the pre-treatment assessment results agreed with Bernard's assumption; the mean DAS score of the male partners was significantly higher than that of female partners. However, we found no significant gender differences in the post-treatment assessment, which may be due to the effects of the couple DBT intervention for improving marital satisfaction among wives and the direct improvements on emotion dysregulation (which was higher in women during the pre-treatment assessment.

Regarding DAS subscales, during the pre-treatment assessment, the mean dyadic consensus, satisfaction, and cohesion scores of the male partners were significantly higher than those of female partners, which agrees with the results of the above-mentioned studies. On the other hand, our results showed no significant gender differences in the affectional expression subscale (neither pre nor post-therapy). There are multiple explanations for this finding. Other authors have raised this same issue, and they found that the reliability of the affective expression subscale scores demonstrates borderline acceptable internal consistency [19].

The affective expression subscale consists of only four items, and its reliability is partially dependent on the scale length; therefore, we expected the longer scale to be correlated to greater internal consistency, and we were not surprised to find that the shortest subscale of the DAS produced scores with the least reliability. In addition, the affective expression subscale consisted of items assessed on two different scoring scales (two items scored on 2-point scales, and two items scored on 6-point scales). It is likely that Cronbach's alpha is an underestimate of the scores' true reliability [20, 21].

During the pre-treatment assessment, the mean female partner DERS score was significantly higher than the mean male partner score, which means that women had more difficulties regulating their emotions. Men are known for being less emotionally expressive than women during daily communication, and men engage in more emotion-expression suppression than women, as supported by a number of empirical studies [22 - 24].

According to several studies, women experience longer-term and more frequent stress than men.. Women use predominantly emotional and avoidance coping strategies, while men use predominantly rational coping and emotion-expression suppression [25].

Some scholars recorded the participants' brain activity as a functional radiological assessment during the completion of an emotion regulation appraisal task; men showed fewer amygdala firings during emotional reactions to negative emotional stimuli than women, which confirms that women are better at regulating negative emotional responses. Moreover, men did not put in action prefrontal networks implicated in emotion regulation [26]. In our study, we hypothesised that this gender-sensitive difference might disappear with DBT couple therapy because skills acquired through therapy might induce neurobiological changes in subcortical structures as seen with other psychological interventions [27].

All couples in our study showed significant emotion regulation improvements, as evidenced by their lower mean DERS score after DBT. These results are consistent with those in the literature, confirming that better control of emotions among patients with borderline personality results in the reduction of behavioural impulsivity, decreasing the frequency of maladaptive responses, such as substance abuse, self-mutilation, and suicidal behaviours [28, 29].

Scholars have even shown the efficacy of DBT for emotion regulation in a patient with a challenging dual diagnosis of borderline personality and substance abuse dual disorders [29]. Such a finding highlights the clear efficacy of DBT for emotion regulation among patients with difficult to treat diagnoses [29].

In this paper, only the 'Non acceptance of emotional responses' subscale of the DERS did not show a significant difference before and after DBT therapy in male partners. This can be explained by its low score in male partners before treatment. This observation comes in agreement with marital scholars, who show that men use predominantly rational coping and emotion-expression suppression to cope with stress during married life [25]. The significant decrease in the mean DERS score after treatment was also true of all other DERS subscale means. These significant changes confirm the efficacy of DBT again as a potential transdiagnostic treatment approach for individuals with defective emotion regulation features [30, 31].

The efficacy of DBT on other emotion regulation disorders is evident in college students with emotion dysregulation or attention-deficit/hyperactivity disorder, in elderly individuals with depression, and those with bulimia nervosa or binge eating [31 - 33]. DBT was also tried in a small-sized study to

test its efficacy in reducing pathological gambling. The results showed no statistically significant improvements in thegambling addictive behaviour, but more than 80% of the participants were abstinent or their gambling expenditure after the treatment was reduced, and most also reported significant and clinical improvements in psychological distress symptoms, mindfulness, and distress tolerance. Moreover, no increases in alcohol or substance use were found during the study [32].

Our results suggest that DBT is effective for individuals with defective marital adjustment and relationship distress. Moreover, our results agree with those reported by scholars, who carried out pioneering studies to tackle emotion dysregulation as a core stressor in couple relationships [34 - 36]. Researchers have highlighted that improving the capacity for emotion regulation decreases individual stress and increases the relational satisfaction level as assessed by DAS [37].

In a study on DBT-inspired couple interventions in which at least one partner presented emotion dysregulation, couples were taught strategies to improve emotion regulation, communication, and problem-solving skills; the participants were evaluated on their relational satisfaction and well-being, and the results showed a positive effect, suggesting the efficacy of DBT for couple interventions [38, 39].

## CONCLUSION

DBT for couples is a potentially efficacious therapeutic modality. Its effects may be largely attributed to its evident efficacy in improving emotion regulation, a major core stressor in couple marital life.

## LIMITATIONS

A major limitation of the present study is the lack of a comparison group with structured couple therapy, which limits our ability to assess the efficacy of DBT for couples in reference to other evidence-based psychological therapy. Our findings are limited by the small sample size in our study, which impacts the power of the results and increases type II statistical errors. In addition, we did not have a comparative psychotherapy group as a control (couple interventions with strong evidence-based efficacy do not exist). In the present study, couples with partners who have psychiatric or personality disorders were not included, therefore, it did not assess the effect of DBT on couples where one of the partners has psychopathology related to emotional dysregulation. A future study should assess the long-term efficacy of DBT for couple therapy with prolonged follow-ups.

## LIST OF ABBREVIATIONS

| | | |
|---|---|---|
| **CBT** | = | Cognitive Behavioral Therapy |
| **DAS** | = | Dyadic Adjustment Scale |
| **DBT** | = | Dialectical Behavior Therapy |
| **DERS** | = | Difficulties in Emotion Regulation Scale |

## AUTHORS' CONTRIBUTION

All authors equally contributed to conceptualization, study design, data analysis, arrangement of tables, analysis and interpretation of data, writing and reviewing the manuscript draft.

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study was approved (#0201001) by the ethics committee and research review board at Alexandria University School of Medicine, Egypt (IRB No. 00012098 expires Oct. 2022; FWA No. 00018699 expires Jan. 2026).

## HUMAN AND ANIMAL RIGHTS

No animals were used in this research. All human research procedures followed were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national) and with the Helsinki Declaration.

## CONSENT FOR PUBLICATION

All participants signed a written consent form.

## AVAILABILITY OF DATA AND MATERIALS

The data sets used during the current study can be provided from the corresponding author [A.R], upon reasonable request.

## FUNDING

None.

## CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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Declared none.

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