

# EFFECTIVENESS OF MAUDSLEY THERAPY WITH DIALECTICAL BEHAVIORAL THERAPY IN AN INTENSIVE OUTPATIENT PROGRAM

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## Introduction

Eating disorders pose a considerable risk to the physical and psychological health of adolescents, and can become a chronic, potentially fatal illness (Le Grange & Lock, 2005).

In stark contrast to the gravity of eating disorders is the lack of empirically supported treatment options for adolescents (Lock & Gowers, 2005). No clear consensus has been reached as to which type of treatment is most effective, nor which treatment setting allows for the most successful delivery of interventions. There has been a recent trend away from inpatient services and a call for the development of outpatient and day treatment services for adolescents (Bryant-Waugh, 2006).

In response, research on outpatient treatment options for adolescents, most notably family therapy, has increased, but systemic data about residential or day treatment is more limited (Lock & Gowers, 2005). Thus, while there is recognition of the need to develop day treatment service options, as of yet there is little information to guide such development.

Some researchers have advocated flexibility in day treatment programs, and recommend combining different theoretical and clinical approaches in order to meet the unique and variable needs of each presenting patient (Schaffner & Buchanan, 2008). However, few investigations have assessed such multimodal interventions (Chavez & Insel, 2007).

It would seem that there is a need for programs that do combine clinical approaches to document and report their outcomes in order to provide direction to program development and additional research. Towards that end, we describe a possible model of intensive outpatient (IOP) therapy for adolescents and families combining the Maudsley approach to family therapy and Dialectical Behavior Therapy skills training.

### Maudsley family therapy

Randomized controlled studies indicate that family therapy may be the most effective treatment yet studied for adolescent anorexia nervosa and bulimia nervosa (Lock & Gowers, 2005; Le Grange et al. 2007). The Maudsley approach, as described by Dare & Eisler (1997), focuses on family management of the symptoms and consequences of anorexia nervosa, and prioritizes behavioral change around eating and weight gain over development of insight into causes of the illness.

### Dialectical Behavior Therapy (DBT)

DBT group therapy was chosen as an ancillary treatment approach to help parents and children tolerate distress, manage their emotions, and interact with each other more effectively during this difficult time of illness. DBT skills groups include mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness (Linehan, 1993).

## Methods

### Participants

47 female adolescents (Age = 14.7 years, Age Range: 12 -17.5 years) attended the Adolescent Intensive Outpatient (IOP) program at Walden Behavioral Care (WBC) for an average of 21.5 days (SD 4.3 days). Parents of these adolescents chose to be contacted three months, six months, and one year after discharge for follow up.

### Program Description

The Adolescent IOP eating disorder program at WBC meets three evenings a week for three to four hours. The stated goals of the IOP program are weight restoration/healthy weight maintenance and the elimination of eating disorder behaviors. Each family meets once a week for forty-five minutes with a trained family therapist. These family sessions follow the format of Phase I treatment of the family based approach as described in the recently published treatment manuals for Anorexia Nervosa and Bulimia Nervosa (Lock et al., 2001; Le Grange & Lock, 2007). Multi-family coached family meals occur three nights a week, and parents and adolescents attend DBT skills groups weekly.

	4:05pm – 4:50pm		5:15pm – 6:00pm		6:00pm – 6:45pm
Monday	Snack	DBT Skills Integration	DBT for Parents**	Multi-Family Group**	Family Dinner**
Wednesday	Snack	DBT I		CBT-Body Image	Family Dinner**
Thursday	Snack	DBT II		Problem Solving	Family Dinner**

\* One Maudsley family therapy session once a week before or after program

\*\* Parent participation required

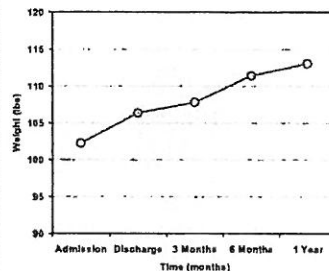
### Measures

Program efficacy was evaluated by patient improvement in physiological and psychological indicators of eating disorder pathology. The physiological measures used were weight and menstruation status. Psychological improvement was measured by global scores from the eating disorder examination questionnaire (EDE-Q). Parents were contacted three months, six months, and one year after discharge and reported their child's weight, menstruation status, utilization of outpatient services, and frequency of eating disorder behaviors. Adolescents were sent an EDE-Q in the mail six months and one year after discharge. Paired samples T-Tests were performed for both weight and global EDE-Q scores to determine significance.

## Results

### Weight Change

Patients gained a significant amount of weight during the program ( $t(46) = 5.57, p < .001$ ), and continued to make significant weight gains in the next three months ( $t(36) = 2.97, p < .01$ ), six months ( $t(23) = 3.31, p < .01$ ), and twelve months ( $t(12) = 3.53, p < .01$ ). Difference scores were examined in relation to treatment services utilized post treatment with a 2 x 2 x 2 (Individual therapist [y, n] x nutritionist [y, n] x family therapist [y, n] x physician [y, n] x psychiatrist [y, n]) analysis of variance (ANOVA). This ANOVA revealed no significant main effects for these variables.



### Average Weight Gain

#### Admission

Average BMI = 17.89 (SD = 2.09)

Average % (IBW) = 89.43% (SD = 8.76%)

#### Discharge

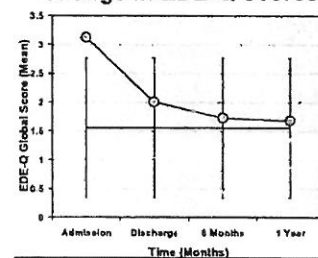
Average BMI = 19.56 (SD = 1.59)

Average % IBW was 100.54% (SD = 8.06%)

### EDE-Q scores

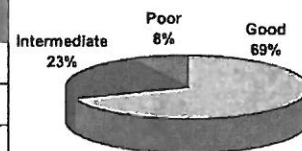
Upon admission, the average global EDE-Q score was 3.13 (SD = 1.52), outside the community norm of 1.25 (SD = 1.32). At discharge, the average global EDE-Q score (MEDE-Q = 2.01; SD = 1.4) had decreased significantly ( $t(41) = 5.04, p < .001$ ) to within one standard deviation of the community norm. Scores continued to decline six months (MEDE-Q = 1.73; SD = 1.20) and one year (MEDE-Q = 1.68; SD = 1.69) after discharge. Difference scores were then examined with a 2 x 2 x 2 (individual therapist [y, n] x family therapist [y, n] x psychiatrist [y, n]) ANOVA which revealed no significant main effect.

### Change in EDE-Q Scores



### Morgan Russell Outcome Categories

	Weight Restoration	Menstrual Cycle
Good	☺	☺
Intermediate	☹	☹
Poor	☹	☹



## Conclusions

Results suggest that the combination of DBT and Maudsley therapy is effective at the intensive outpatient level of care. Patients completing the Adolescent IOP program at Walden Behavioral Care gained a significant amount of weight and experienced a decrease in eating disorder thoughts, attitudes, and behaviors as measured by the EDE-Q. Patients continued making significant gains in weight and maintained improvement in eating disorder psychopathology up to one year post-treatment. At the one year follow-up, sixty-nine percent of patients had fully weight restored and resumed normal menstrual cycles. These improvements occurred regardless of type of treatment services utilized after discharge.

Additional research is needed to determine whether other multi-modal approaches would result in similar improvements in weight and eating disorder psychopathology, or whether these results are particular to the combination of DBT and Maudsley. Moreover, it is possible that outpatient services alone, without an eight week IOP, could be equally effective, thus negating the need for more intensive programs.

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