



# Outcomes of Residential Treatment for Female Adolescents with an Eating Disorder



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## Introduction

- Average inpatient hospital length of stay for eating disorders has decreased from 150 days in 1984 to 24 days in 1998 (Wiseman et al., 2001)
- Residential and partial hospital treatments bridge the gap between acute medical stabilization and outpatient management, offering fiscal and therapeutic advantages in the current care environment
- The number of residential programs doubled between 2000 and 2004 (Frisch, Herzog, & Franko, 2006)
- Little data is available on the effectiveness of residential treatment for eating disorders (EDs). Extant studies offer preliminary support that residential treatment improves weight, eating pathology, depression, and quality of life (Bean & Weltzin, 2001; Geller, Zaitsoff, & Srikaneswaran, 2005; Leonard, 2007; McHugh, 2007; Weltzin, Weisensel, Comella-Carlson, & Bean, 2007)
- Objectives:**
  - To describe the course of residential treatment (i.e., length of stay, premature termination, readmissions);
  - To examine the effectiveness of residential treatment in promoting weight gain, changes in disordered eating attitudes and behaviors, depression, and quality of life

## Method

**Setting:** An open-door residential treatment facility for females ages 13-23 with EDs. Treatment is multi-disciplinary and includes individual and group therapy, family therapy, psychopharmacology, medical management, nutritional counseling, expressive therapy, and academics

**Participants:** Consecutively admitted females ages 16-23 were asked to participate in this study from April 2006 through August 2007. 70% agreed ( $N = 80$ ); 96% were Caucasian. Mean age = 18.66 ( $SD = 1.95$ )

**Procedures:** Prospective cohort design  
 •Baseline assessment: ED diagnosis (SCID-IV); self-report measures (Eating Disorder Examination Questionnaire 4.0 [EDE-Q], Beck Depression Inventory-II [BDI-II], and Quality of Life Enjoyment and Satisfaction Questionnaire [QLESQ])  
 •Same questionnaires at 2 weeks, 4 weeks, and discharge  
 •% expected body weight (EBW), length of stay, reason for discharge, and readmissions to this facility derived from medical records

**Data Analysis:** 68 of 80 participants provided both interview and self-report data at intake; Of these, 36 participants provided self-report data at both intake and discharge. Significant change from intake to discharge was evaluated two ways using Repeated Measures ANOVA: (1) the subset with discharge data ( $n = 36$ ) only; and (2) Last observation carried forward (LOCF); Completer analyses are reported here

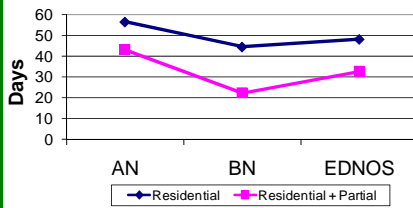
## Results

**ED Diagnoses:** 19% AN-Restricting  
 17% AN-Binge/Purge  
 33% BN-Purging  
 31% EDNOS

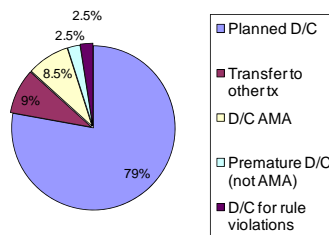
## Comorbidity

- 83% had current axis I disorder
- 68% had mood disorder
- 55% had anxiety disorder
- 30% had substance abuse or dependence
- No differences in rate of mood or anxiety disorders across diagnostic groups
- Significant difference in rate of substance disorders, with BN more likely than AN or EDNOS to have abuse or dependence

## Length of Stay



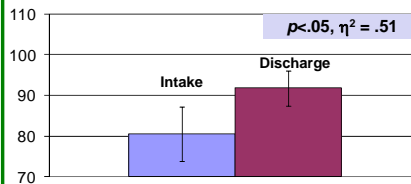
## Majority of Patients Completed Treatment as Planned



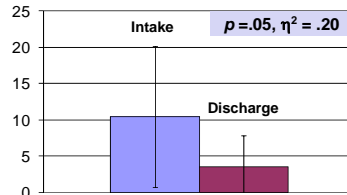
## Readmissions

- 20 participants (25%) were readmitted over the next 23 months
- We observed 0.24 readmissions per patient-year of study follow-up

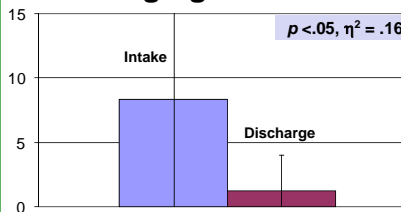
## % EBW Increased (AN only)



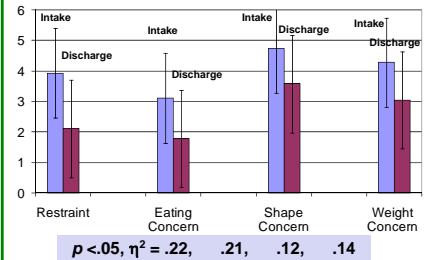
## Frequency of EDE-Q Objective Bulimic Episodes Decreased



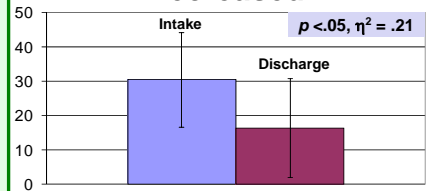
## Frequency of EDE-Q Purging Decreased



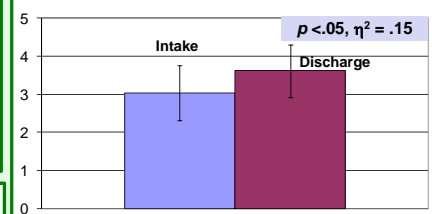
## EDE-Q Subscales Decreased



## Depression (BDI) Decreased



## Quality of Life (QLESQ) Increased



## Conclusions

- All significant effects in completer analysis were maintained in LOCF analysis
- Over the course of residential treatment, patients show:
  - Less disordered eating behaviors
  - Improved attitudes about body shape and weight
  - Weight gain from 80% EBW to 91% of EBW (patients with AN)
  - Reduction from severe to mild range of BDI
  - Better quality of life
- Residential treatment is acceptable, as 80% of patients complete treatment as planned
- Patients still ill at discharge; important to step down to comprehensive outpatient treatment program
- Readmissions indicate episodic nature of residential care, especially with chronicity and comorbidity of these patients

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