

EATING DISORDER EXAMINATION QUESTIONNAIRE AS A PREDICTOR OF TREATMENT RESPONSE IN ADOLESCENTS WITH EATING DISORDERS

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INTRODUCTION

- Eating disorders have been proven to have severe consequences for females and males as evidenced by elevated rates of role impairment, medical complications, comorbidity, mortality and suicide (Swanson, Crow, Le Grange, Swendsen, & Merikangas, 2011).
- In the United States, 20 million women and 10 million men suffer from a clinically significant ED at some time in their life (Wade, Keski-Rahkonen, & Hudson, 2011).
- While recovery is the aim of most treatment for diseases, there is currently no standard in how to best define recovery in eating disorders, as well as no standard in what type of outcome data to collect for comparison (Lock et al., 2013).
- The treatment of eating disorders has changed over time from a focus on physical criteria to including behavioral components of recovery, but did not yet include psychological aspects (Bardone-Cone et al., 2010)
- Including physical, behavioral, and psychological indices into a definition of recovery is still far from the norm and is not being done in any standardized way across studies (Bardone-Cone et al., 2010).



[Untitled illustration of measuring waist.] Retrieved May 9, 2015 from <http://www.telegraph.co.uk/women/womens-life/10323519/Former-model-What-young-girls-can-learn-from-my-anorexia.html>

PICOT question:

In females and males ages 10 to 24 years (P), how does score on the Eating Disorder Examination-Questionnaire at discharge (I) from an inpatient eating disorder treatment program predict maintenance of body weight and decrease psychosocial impairment (O) at three-month follow-up (T)?

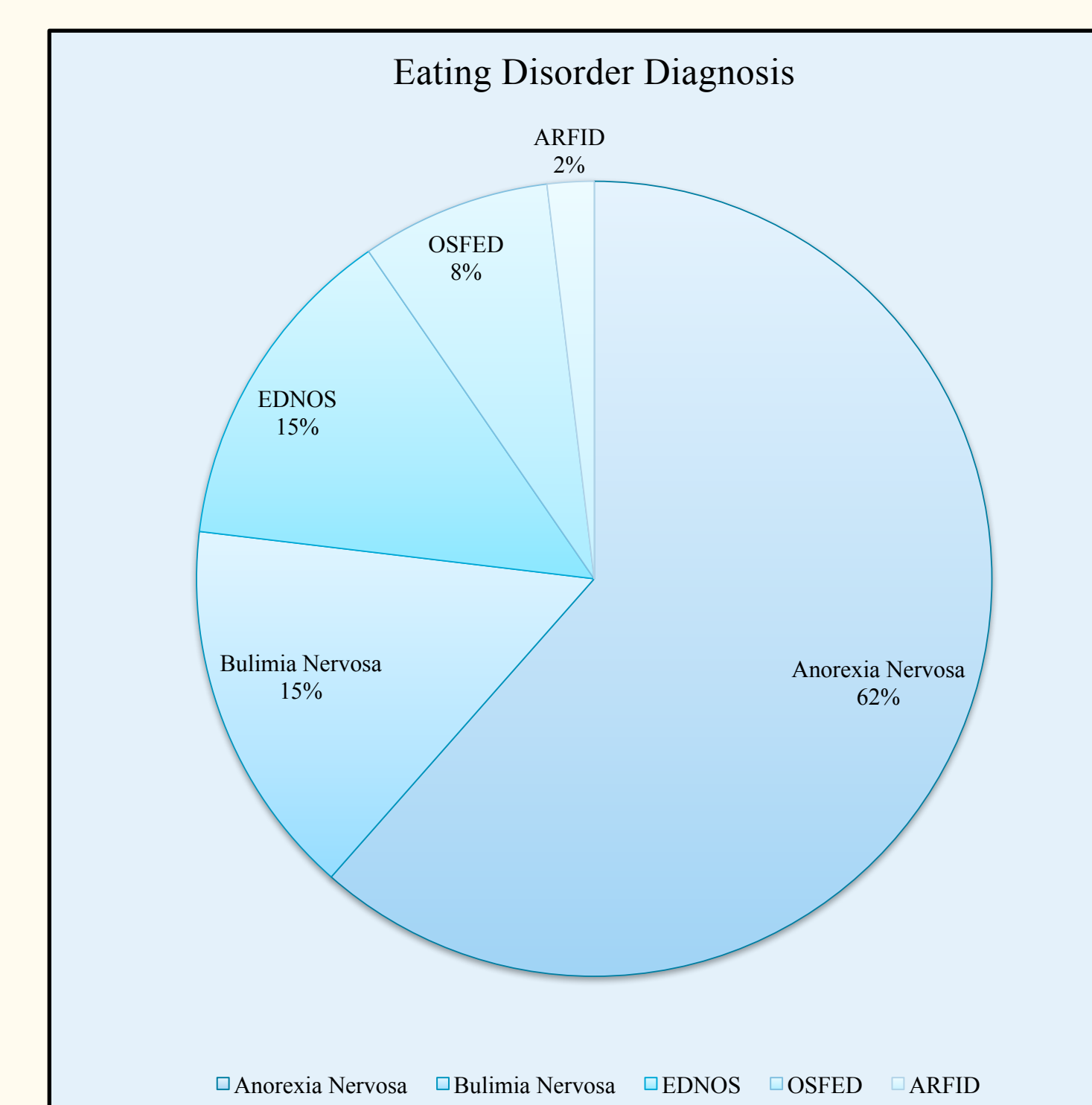
The primary objectives were to determine:

- If patients with an Eating Disorder Examination-Questionnaire (EDE-Q) score less than 2.17 at discharge will maintain body weight at 3-month follow-up.
- If patients with an Eating Disorder Examination-Questionnaire (EDE-Q) scores less than 2.17 at discharge will have decreased Clinical Impairment Assessment (CIA) score at 3-month follow-up.
- Predictor variables of CIA and BMI at 3-month follow-up.

MATERIALS AND METHODS

- Data was collected from one Midwestern eating disorder center that provides on-site medical and psychiatric management and care combined with individualized psychotherapy.
- Target population was a purposive, convenience sample of males and females aged 10-24 years admitted for inpatient eating disorder treatment.
- The design for this study was a retrospective chart review.
- The following information was collected from discharge data:
 - pencil and paper assessment of Eating Disorder Examination-Questionnaire
- The following information was collected from 3-month follow-up data:
 - online Clinical Impairment Assessment score
 - reported height and weight to calculate BMI
- Primary outcome variables were score on the CIA and the BMI at 3-month follow-up.
- Secondary outcome variables included: age, gender, race, length of stay, times in treatment, duration of eating disorder, and eating disorder diagnosis.

Demographics			
Variable	N	Range	Mean ± SD
Age	52	13-24	19.38 ± 3.01
Length of Inpatient Stay	52	15-210	70.98 ± 46.41
Number of Times in Treatment	52	1-20	2.35 ± 2.92
Duration of Eating Disorder in Years	52	0-16	4.89 ± 4.07
Variable	N	Range	Percentage
Gender			
Female	49		94.2
Male	3		5.8
Race			
White	48		92.3
Black	2		3.8
Hispanic	2		3.8
Eating Disorder Diagnosis			
Anorexia nervosa (AN)	32		61.5
Bulimia nervosa (BN)	8		15.4
Eating Disorder Not Otherwise Specified (EDNOS)	7		13.5
Other specified feeding or eating disorder (OSFED)	4		7.7
Avoidant/restrictive food intake disorder (ARFID)	1		1.9



RESULTS

Summary of Multiple Regression Analysis for CIA at Three-Month Follow-Up

Variable	B	SE _B	β	p
EDE-Q DC Global	6.074	1.026	.648	.000
Age	.962	.754	.206	.209
Gender	9.612	6.548	.161	.149
Race	4.217	3.525	.128	.238
Length of Stay	-.002	0.35	-.007	.948
Times in Treatment	.336	.588	.070	.571
Duration of ED	.338	.593	.098	.572
ED Diagnosis	-.010	.060	-.018	.872

Summary of Multiple Regression Analysis for BMI at Three-Month Follow-Up

Variable	B	SE _B	β	p
EDE-Q DC Global	-0.73	.493	-.023	.883
Age	-.298	.362	-.187	.415
Gender	3.344	3.144	.164	.293
Race	.202	1.692	.018	.905
Length of Stay	.015	.017	.150	.359
Times in Treatment	-.087	.282	-.053	.759
Duration of ED	.237	.285	.201	.410
ED Diagnosis	-.010	0.29	-.054	.736

Note. B = unstandardized regression coefficient. SE_B = Standard error of the coefficient. β = standardized coefficient. Statistical significance was defined at p ≤ .05. EDE-Q DC Global is the EDE-Q Global Score at discharge.

RESULTS

- The multiple regression model did not statistically significantly predict the BMI at 3-month follow-up, $F(8,43) = .446, p = .883, \text{adj. } R^2 = .077$. The EDE-Q score at discharge is not a statistically valid predictor of BMI at 3-month follow-up.
- The multiple regression model statistically significantly predicted the CIA at 3-month follow-up, $F(8,43) = 6.115, p < .000, \text{adj. } R^2 = .532$.
- While not statistically significant, there was a small clinically significant decrease in BMI at 3-month follow-up with a lower EDE-Q score at discharge, $t(50) = 1.24, p = 0.22, 95\% \text{ CI } [-1.05, 4.47], d = .20$
- There was a statistically and clinically significant large decrease in scores on the CIA at 3-month follow-up with a lower EDE-Q score at discharge, $t(50) = -4.54, p < .000, 95\% \text{ CI } [-22.49, -8.69], d = .80$

CONCLUSIONS

- The EDE-Q was found to predict psychosocial impairment, but did not predict body weight.
- A score of 2.17 or less was found to predict psychosocial impairment, but did not predict body weight.
- There were not statistically significant interactions for age, gender, race, length of stay, times in treatment, duration of eating disorder, or eating disorder diagnosis on psychosocial impairment or weight at three-month follow-up.
- Recommendations were made regarding the use of the EDE-Q at discharge to determine psychosocial impairment at three-month follow-up. Using a cut-off score of 2.17 on the EDE-Q at discharge may better psychosocial outcomes.
- More research will need to be performed to determine predictors of BMI at follow-up. Including physical, behavioral, psychological, and psychosocial components into the discharge and follow-up assessments would provide important information (Couturier & Lock, 2006).

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