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Who Seeks Residential Treatment? A Report of Patient Characteristics, Pathology, and Functioning in Females at a Residential Treatment Facility

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There has been a growth in the availability and use of residential treatment for eating disorders. Yet there is a paucity of information on the individuals who seek this treatment. This study provides data on 259 consecutive patients (116 adults and 143 adolescents) entering residential treatment for their eating disorders. Upon admission all patients provided individual characteristics data and the following measures: the Eating Disorder Inventory-3 (EDI-3), the Beck Depression Inventory-II, the Beck Anxiety Inventory, the Eating Disorder Quality of Life (EDQOL), and the SF-36 Health Survey-Version 2. Findings are presented by diagnosis (anorexia nervosa, bulimia nervosa, eating disorder not otherwise specified) and age (adult and adolescent). Results show that 61% of adolescents and 80% of adults were above the clinical cutoff for depression, and 59% of adolescents and 78% of adults were above the clinical cutoff for anxiety. Scores on the EDI-3 are presented by subscale and diagnosis. Very low quality of life is reported for both adults and adolescents on the EDQOL. For both adolescents and adults the SF-36 showed average population scores for the physical scale but very low mental scores. Implications for these findings and future directions for this work are discussed.

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The majority of individuals diagnosed with an eating disorder are treated in an outpatient capacity. Similarly, almost all data on the phenomenology and effective management of these disorders are based on outpatient modalities. Although informative, there are a notable number of individuals who do not respond to an outpatient level of care, and for a variety of reasons, need to seek more intensive treatment. Generally, the initial level of care is outpatient (pharmacological or psychosocial), followed by intensive outpatient, partial residential or day treatment, residential, and inpatient (Anzai, Lindsey-Dudley, & Bidwell, 2002). The distinction between residential and inpatient is largely based on the level and type of medical care that is needed. That is, inpatient care generally occurs within a medical setting and offers greater medical services than residential. Specifically, inpatient services offer medical refeeding including nasogastric and parenteral feeding (Hart, Franklin, Russell, &, Abrahm, 2013) which are generally not offered at residential care centers, and residential focuses more on long-term therapeutic work. The duration of treatment in inpatient tends to be shorter with one study of adolescents reporting a mean stay of 15 days (Calderon, Stoep, Collett, Garrison, & Toth, 2007).

Many people are in need of more extensive care than is offered by outpatient services, but not in medical crisis therefore not requiring inpatient care in a medical facility. Residential care is an increasingly common choice for these individuals. Data on residential care are undoubtedly scarce, with the most recent published review showing 22 residential care programs in the United States (Frish, Herzog, & Franko, 2006), although that number is certainly higher now. In their survey of 22 residential eating disorders programs (19 responded), results showed that all programs offered treatment for anorexia nervosa and bulimia nervosa, with 72% also treating eating disorder-not otherwise specified, 61% treating binge eating disorder, 44% treating compulsive exercising, and 22% treating obesity. Females were accepted at all facilities, while males were only accepted at 22% of programs. The average age of patients was 22 years; the study also reports that 3 of 19 sites only accepted adolescents, implying that all other facilities included in the study accepted only adults or adults and adolescents. The average length of stay was 83 days (*SD* = 44). Average cost per day was $956 U.S.D. Even though these numbers are dated, the authors report a 44% increase in facilities between 2000 and 2004. Facilities report utilizing a variety of traditional treatment techniques including Cognitive Behavior Therapy and Dialectical Behavior Therapy, although the report suggests that residents received 5.9 hours of nontraditional therapy (e.g., arts, dance, yoga, music, equine) for every 10 hours of traditional therapy received, and that patients received 1.8 hours of individual therapy for every 10 hours of group therapy.

Even though residential care is increasingly common, little is known about patients who seek this type of care. Knowledge of patient characteristics, pathology, and the general functioning of those beginning treatment

at a residential eating disorders facility can further the understanding of the disorders, help those working at the facility know common clinical presentations, assist in the tailoring of treatment programs, and possibly orient clinicians to clients that may be presenting at a level that is consistent with residential care.

A limited number of studies have data on patient characteristics, pathology, eating disorder severity, and quality of life of individuals in residential eating disorder facilities, highlighting the need for this information. Specifically, these studies report data on a selected sample of patients, not on the patient population as a whole. Thus, it is unclear what the entire sample presents with at the time of admission. At times, data are combined across diagnoses or age groups, thus making it difficult to determine how individuals are likely to present. Finally, the data that are available are from a limited number of measures and occasionally use outdated versions of them (for existing data see Bean & Welzin, 2001; Berner, Shaw, Witt, & Lowe, 2013; Delinsky et al., 2010; Forman & Davis, 2005; Lowe, Davis, Annunziato, & Lucks, 2003; Lowe, Witt, & Grossman, 2013).

Given that relatively little is known about those seeking treatment at a residential eating disorders facility, this study aims to shed light on those individuals. Specifically, this study had all individuals ($N = 259$) entering treatment at a residential treatment disorders facility over the course of almost 7 years undergo a clinical assessment upon admission. Assessments of participant characteristics, pathology, eating disorder severity, and related quality of life and general functioning occurred. The results are presented for two age groups (12–17 years of age, and 18+) as well as by eating disorder diagnosis. When appropriate, statistical differences between groups are reported.

METHOD

Setting

The residential eating disorder facility studied in this research is Avalon Hills Eating Disorder Programs, a for-profit organization located in Northern Utah. Patients are admitted following referrals from families, professionals, hospitals, and other outpatient treatment facilities, as well as personal searches for treatment. The program treats females with anorexia nervosa, bulimia nervosa, as well as the myriad of disorders that fit under eating disorder not otherwise specified (EDNOS) including binge eating, obesity, or other presentations that only meet partial criteria. At the time data were collected, the facility had two (one adult and one adolescent) 12 bed residences. The residential settings mirror a homelike environment, rather than a medical facility. Eligibility for admission requires that patients have passed a physical exam by a physician, as well as an intake with a psychologist. The duration

of each individual's stay varies, however patients commit to at least 45 days upon admission to the adolescent program and 60 days for the adult program. Patients are admitted under the understanding that they are treated to outcome, meaning that patients are discharged following consensus of the treatment team.

The treatment offered is multi-faceted. Approximately two to three times a week, patients receive individual therapy with a primary therapist, and once a week engage in family therapy via telephone. Patients are required to attend daily group therapy which includes body-image focused groups as well as "here and now" process oriented groups. Additionally, psychoeducational didactic groups occur four to five times per week and feature Acceptance and Commitment Therapy, Dialectical Behavioral Therapy, Mindfulness, Spirituality, and Recovery Maintenance. Treatment models include Stages of Change, Motivational Interviewing, Acceptance and Commitment Therapy, Dialectical Behavioral Therapy, Cognitive Therapy, as well as a behavioral reward system in which patients earn privileges. Patients are provided the opportunity to experience Equine assisted therapy. Other key experiential exercises include therapeutic exposures in the community. The hallmark of the treatment approach is a graded transition back into real life where patients go on increasingly longer "therapeutic leaves of absence," during which the patient returns to her primary home. In addition to their work with a primary therapist, patients receive twice weekly dietary sessions with a registered dietitian targeting their individualized nutritional needs. Additionally, each patient receives daily medical care by the primary care and nursing staff plus medication management through a psychiatric nurse practitioner.

Participants

All patients who were in their first stay at this residential home were included. If a patient returned after discharge (e.g., for a second or third stay), only the data from the initial stay were included in the analysis. All 259 patients who were admitted between July 2007 and November 2013 are included in these analyses. All patients were female and included 143 adolescents: 74 (51.7%) with a diagnosis of anorexia nervosa, 15 (10.5%) with a diagnosis of bulimia nervosa, and 54 (37.8%) with a diagnosis of EDNOS. The patients also included 116 adults: 46 (39.7%) with a diagnosis of anorexia nervosa, 31 (26.7%) with a diagnosis of bulimia nervosa, and 39 (33.6%) with a diagnosis of ED-NOS. Additional patient characteristics are provided in Table 1.

Procedure and Data Assessment

An institutional review board approved this study. All participants included in this study were required to provide consent or assent for the use of data

TABLE 1 Demographics of Residential Treatment

Characteristic	Total (n = 259)				Adolescents (n = 143)				Adults (n = 116)			
	n	%	M	SD	n	%	M	SD	n	%	M	SD
Eating Disorder Dx	259	100			143	100			116	100		
Anorexia nervosa	120	46.3			74	51.7			46	39.7		
Bulimia nervosa	46	17.8			15	10.5			31	26.7		
EDNOS	93	35.9			54	37.8			39	33.6		
Age (in years)			19.08	6.44			15.13	1.47			24.0	6.86
Highest education	255	98.5			140	97.9			115	99.1		
Grade school	30	11.6			30	21.0			0	0		
High school/GED	145	56.0			109	76.2			36	31.0		
Some college	38	14.7			1	.7			37	31.9		
Grad college	28	10.8			0	0			28	24.1		
Associate's	5	1.9			0	0			5	4.3		
Advanced degree	9	3.5			0	0			9	7.8		
Occupation	250	96.5			139	97.2			111	95.7		
Unemployed	68	26.3			39	27.3			29	25.0		
Employed	55	21.2			9	6.3			46	39.7		
Student	127	49.0			91	63.6			36	31.0		
Relationship status	257	99.2			143	100			114	98.3		
Single	243	93.8			143	100			100	86.2		
Married	14	5.4			0	0			14	12.1		
Race/ethnicity	258	99.6			142	99.3			116	100		
Caucasian	241	93.1			135	94.4			106	91.4		
African American	3	1.2			2	1.4			1	0.9		
Hispanic	4	1.5			1	.7			3	2.6		
Asian	2	.8			2	1.4			0	0		
Other	8	3.1			2	1.4			6	5.2		

Note: Percentages for education, occupation, relationship, and race are for the *n*'s of those categories minus missing data.

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collected. Upon arrival at the facility, patients are required to complete a thorough intake that in includes a medical examination by a primary care physician and a nurse, as well as a meeting with a dietician. In addition to a medical examination, an extensive demographic and clinical assessment is required. Self-report data are described in the measures section.

Measures

Demographics. The demographics collected for this study included height, weight, body-mass index, occupation, marital status, education to date, ethnicity, and eating disorder diagnosis. Diagnosis was determined by clinician at time of intake.

Beck Depression Inventory-II. The Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report measure that evaluates depression symptomatology. It has been shown to have good internal consistency (Chronbach's alpha = .91), high test-retest reliability (r = .93), and a strong correlation with the original BDI (r = .93).

Beck Anxiety Inventory. The Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1998) is a 21 item self-report measure that assesses anxiety. It has been shown to have good internal consistency (Cronbach's alpha = .85), decent test-retest reliability (rs > .75). The BAI has shown moderate to high discriminant and convergent validity.

Eating Disorder Quality of Life scale. The Eating Disorder Quality of Life scale (EDQOL; Engel et al., 2006) is a 25-item self-report measure assessing health-related quality of life in a sample diagnosed with an eating disorder. This measure has been shown to have high overall internal consistency with a Chronbach's alpha coefficient of .94. Additionally, this measure has high test-retest reliability over a 1 week period (r = .93). This measure has shown good convergent and discriminant validity (Engel et al., 2006).

SF-36 Health Survey-Version 2. The SF-36 Health Survey-version 2 (SF-36v2; Ware, Kosinski, & Dewey, 2000) is a multipurpose 36-item self-report measure assessing both physical and mental health that may be used across various populations. This measure has shown moderate test-retest reliability ranging from .60–.81 over a 2-week interval. The measure has shown good reliability in the physical composite measure (r = .93) and the mental composite measure (r = .95), as well as good validity (Ware et al., 2000).

Eating Disorder Inventory, 3rd Edition. The Eating Disorder Inventory (EDI-3; Garner, 2004) is a 91 item self-report measure used for the assessment of individuals with eating disorders. Three eating-disorder specific scales (Drive for Thinness, Bulimia, and Eating Disorders Risk Composite) were analyzed for this study. Garner (2004) reports the test-retest reliability for Drive for Thinness at .95, for Bulimia at .94, and for Eating Disorders Risk Composite at .98. Additionally, good internal consistency exists: between .63 and .97 for these subscales (Garner, 2004).

RESULTS

Analytic Approach

The purpose of this article is to provide descriptive data of a typical patient who enters residential treatment for eating disorders. Information is provided on patient characteristic variables, levels of anxiety and depression, eating disorder severity, and multiple measures of quality of life. Because the facility has two homes, a 12 bed adolescent unit and a 12 bed adult unit, the participants are more or less equally distributed between the two age groups. The sample is heterogeneous, to provide more detailed information on the residents, the data are broken down by age (12–17 = adolescent and 18+ = adult) and diagnosis (anorexia nervosa, bulimia nervosa, EDNOS). Statistical differences by age and diagnosis are presented when appropriate. Demographic and clinical characteristics of these individuals are included in Tables 1 and 2.

Adolescents

Patient characteristics. Specific patient characteristics for the adolescents are presented in Table 1. The majority of the patients entering treatment were diagnosed with anorexia nervosa, followed by EDNOS, and finally bulimia nervosa. The average age was 15.13 years, covering the full allowed range (12–17). Not surprisingly BMI varied statistically among all three conditions with anorexia nervosa being the lowest and bulimia nervosa being the highest $F (2, 137) = 85.47, p = .001$. Similarly, most participants were enrolled in grade or high school; data are not available indicating their rates of attendance in schooling. Also, the dichotomous rating of single and married does not necessarily portray the variety of relationships that exist within this sample, but as predicted, all adolescents were not married. Finally, consistent with other research in the treatment of eating disorders, the vast majority of patients within this sample are Caucasian and from North America.

Depression and anxiety. The specific scores on all standardized measures are presented in Table 2. With regard to depression, as measured by the BDI-II, it was found that adolescents on average were experiencing moderate levels of depression ($M = 26.30$, $SD = 13.55$). Notably, 60.9% of adolescents were above the clinical cutoff for depression (score greater than 23). According to the BDI-II cutoffs, 10.5% reported mild depression, 27.8% reported moderate depression, and 42.1% reported severe depression. Results showed that individuals diagnosed with anorexia nervosa were slightly less depressed than those with the other diagnoses, although there were no statistical differences ($p = .42$). On the BAI, an anxiety measure, the average score of adolescents was in the moderate range ($M = 20.67$, $SD = 13.55$). Like with depression 59.4% were above the clinical cutoff

TABLE 2 BMI and Measure Scores by Age and Eating Disorder Diagnosis

	Total (n = 259)				Adolescents (n = 143)				Adults (n = 116)			
N = 259	AN 120	BN 46	EDNOS 93	Total	AN 74	BN 14	EDNOS 55	Total	AN 48	BN 31	EDNOS 38	Total
BMI (n = 252)	16.70	22.30	20.66	19.12	16.78	22.53	19.95	18.57	16.58	22.19	21.64	19.79
SD	1.67	3.89	3.90	3.84	1.46	2.43	2.07	2.71	1.97	4.46	5.39	4.81
EDI-III												
DT (n = 244)	18.98	19.41	19.03	19.08	17.39	18.07	18.23	17.79	21.43	20.06	20.19	20.65
SD	7.63	8.09	8.35	7.95	8.12	9.71	8.57	8.42	6.13	7.26	8.01	7.06
Bulimia (n = 244)	5.08	19.91	5.88	8.14	3.30	16.80	4.11	5.11	7.82	21.42	8.44	11.82
SD	6.77	7.22	6.38	8.77	6.10	7.12	4.49	6.99	6.90	6.88	7.78	9.32
ED risk (n = 244)	51.25	66.54	53.51	54.92	45.57	61.00	50.13	49.04	60.02	69.23	58.39	62.06
SD	21.55	22.15	22.16	22.51	21.63	26.15	22.41	22.78	18.43	19.85	21.14	20.08
BDI-II (n = 240)	28.80	28.04	29.54	28.92	24.82	26.73	28.13	26.30	35.02	28.68	31.60	32.12
SD	13.19	14.03	14.48	13.77	12.41	13.45	14.97	13.55	12.03	14.49	13.71	13.44
BAI (n = 233)	23.19	22.91	22.35	22.84	21.46	22.33	19.08	20.67	25.81	23.21	26.83	25.46
SD	12.28	12.78	13.89	12.91	12.90	12.51	13.60	13.08	10.90	13.14	13.19	12.26
EDQOL (n = 244)	46.39	49.20	50.11	48.23	38.66	39.47	46.15	41.58	58.52	53.90	55.72	56.32
SD	19.33	19.84	20.02	19.66	16.00	19.86	21.36	18.82	17.96	18.34	16.67	17.60
SF-36												
Physical (n = 243)	48.85	52.46	50.76	50.20	51.51	53.54	51.27	51.65	44.68	51.94	50.02	48.42
SD	9.70	7.57	9.72	9.41	7.77	6.53	9.10	8.15	10.97	8.08	10.65	10.53
Mental (n = 243)	26.44	23.55	24.15	25.09	29.77	27.38	26.03	28.09	21.21	21.70	21.41	21.42
SD	12.87	12.61	14.37	13.37	13.13	10.34	14.95	13.61	10.63	13.33	13.21	12.16

Note: BMI = Body Mass Index; EDI-3 = Eating Disorders Inventory-III; BDI-II = Beck Depression Inventory-II; BAI = Beck Anxiety Inventory; EDQOL = Eating Disorder Quality of Life; SF-36 = Short Form Health Questionnaire.

for anxiety on the measure (clinical cutoff = 16). Of the adolescent sample 15.6% reported minimal anxiety, 25.0% reported mild anxiety, 24.2% indicated moderate levels of anxiety, and 35.2% severe anxiety.

Eating disorder severity. The EDI-3 was used to assess eating disorder symptom presentation. Specifically, this study examined the Drive for Thinness, Bulimia, and the Eating Disorder Risk subscales. Adolescents in this sample reported scores in the typical clinical range for individuals with eating disorders on the Drive for Thinness scale, indicating that the sample experienced a notable desire to be thinner and a significant concern about weight and weight gain. As expected, adolescents diagnosed with bulimia nervosa were in the extreme clinical range on the Bulimia subscale, and those diagnosed with anorexia nervosa were in the low clinical range. Adolescents with anorexia nervosa had an average score of 3.30 on the Bulimia subscale which is common for 57% of individuals diagnosed with anorexia nervosa (Garner, 2004). Finally, on the Eating Disorder Risk scale, adolescents diagnosed with anorexia nervosa and EDNOS fell into the typical clinical range, while those diagnosed with bulimia nervosa were in the extreme or severe clinical range indicating an extreme preoccupation with eating and weight gain. This represents a near significant difference between groups F (2, 132) = 2.99, p = .05, with bulimia nervosa having a higher score than anorexia nervosa, but not EDNOS.

Quality of life and general functioning. Results from the EDQOL show that on average, these participants report very low quality of life, across domains, although no statistical differences between groups exist F (2, 132) = 2.48, p = .087. With regard to general quality of life, there is an important distinction between reported physical and mental quality of life. The SF-36 has two scales, physical and mental, and uses standardized scores where the average score is 50 with standard deviations of 10. Adolescents had an average physical score of 51.65 (SD = 8.15), slightly above the population average, whereas their average mental score was 28.09 (SD = 13.61), which is greater than two standard deviations below the population mean. This represents a statistically significant difference between physical and mental scores and was consistent across diagnoses t (134) = −17.16, p = .001.

Adults

Patient characteristics. Specific patient characteristics for adults are presented in Table 1. The majority of patients entering treatment were diagnosed with anorexia nervosa, followed by EDNOS, and finally bulimia nervosa. The average age was 24 years old (SD = 6.86) and the average BMI was 19.79 (SD = 4.81), with anorexia nervosa having a statistically lower BMI than the comparison conditions F (2, 113) = 23.27, p = .001 (BMI by

diagnosis is provided in Table 2). There was considerable variability in education levels with greater than half of patients having attended some college or graduated college. The participants were generally not married. Finally, the vast majority of patients were Caucasian and from North America.

Depression and anxiety. The specific scores on all standardized measures are presented in Table 2. With regard to depression, it was found that adults on average were experiencing severe levels of depression. These findings are notable, as 79.8% were above the clinical cutoff (score greater than 21) for the BDI-II. Depression scores in adults showed that 5.5% reported mild depression, 22.0 % reported moderate depression, and 60.6 % reported severe depression. Unlike adolescents, individuals diagnosed with anorexia nervosa were more depressed than those with the other diagnoses, although the difference was not statistically significant $F (2, 108) = 2.09, p = .13$. With regard to anxiety, the average score of adults was in the moderate range ($M = 25.46, SD = 12.26$) with 78.3% being above the clinical cutoff. Of the adult sample 7.5% reported minimal anxiety, 14.2% reported mild anxiety, 29.2% indicated moderate levels of anxiety, and 49.1% severe anxiety. Finally, those diagnosed with anorexia nervosa were slightly more anxious than those with bulimia nervosa, although the difference was not significant, $F (2, 105) = .70, p = .50$.

Eating disorder severity. Results on the EDI-3 Drive for Thinness subscale were similar to those seen in the adolescent sample, with the majority of the sample in the typical clinical range. As with adolescents, adults with a diagnosis of bulimia nervosa were in the extreme clinical range on the Bulimia subscale, however, those diagnosed with anorexia nervosa and EDNOS were in the typical clinical range rather than the low clinical range. This represents a statistical difference between those diagnosed with bulimia nervosa and the other two diagnoses $F (2, 110) = 38.4, p = .001$ on the Drive for Thinness subscale. Finally, on the Eating Disorder Risk scale, the means for all adults, despite diagnosis, were in the severe clinical range, although a finding that approached significance showed that those diagnosed with bulimia nervosa had higher scores than the comparison conditions $F (2, 110) = 2.90, p = .059$.

Quality of life and general functioning. Results from the EDQOL show that on average, these participants report very low quality of life, across domains. With regard to general quality of life, the same pattern that was seen for adolescents was found for adults showing that there was no statistical difference between diagnoses $F (2, 110) = .65, p = .522$. Adults had an average physical score of 48.53 ($SD = 10.97$) which is just below the population average, whereas their average mental score was 21.42 ($SD = 12.16$), which is greater than 2.5 standard deviations below the population mean. This represents a statistically significant difference between physical and mental scores $t (109) = -18.12, p = .001$.

DISCUSSION

The primary goal of this study was to provide a broader description of females entering a residential eating disorders facility. Specifically, patient characteristics, pathology (depression and anxiety), eating disorder severity, and quality of life and general functioning were presented and analyzed. Because this facility serves adolescents and adults, as well as all diagnosable eating disorders, data were presented by age (12–17 and 18 + years of age) as well as eating disorder diagnosis. Data were presented on 259 individuals who entered residential treatment. Patient characteristic results show that most are involved in education or have sought higher levels of education, a relatively small percentage of adults are married, and the majority are Caucasian. As would be expected, patients diagnosed with anorexia nervosa had statistically lower BMIs than those diagnosed with bulimia nervosa and EDNOS. On average, the adolescents suffered from moderate depression; although 60.9% were above the clinical cutoff for depression. On average adults were in the severe range for depression with 79.8% above the clinical cutoff. Adolescents and adults were in the moderate range for anxiety with 59.4% of adolescents and 78.3% of adults being in the clinical range.

The Drive for Thinness subscale was in the typical clinical range across all conditions and ages. On the Bulimia scale, adults and adolescents diagnosed with anorexia nervosa and EDNOS had scores in the typical clinical range but those diagnosed with bulimia nervosa were in the severe clinical range. For the Eating Disorder Risk scale, adolescents diagnosed with anorexia nervosa and EDNOS fell into the typical clinical range and those diagnosed with bulimia nervosa were in the extreme clinical range. For adults, all groups were in the severe clinical range on the Eating Disorder Risk scale, but those diagnosed with bulimia nervosa showed a trend to have higher scores over the comparison conditions. On an eating disorder based measure of quality of life, on average, all participants reported low quality of life. Finally, results on the SF-36, a general measure of functioning, showed that on average, patients reported that their physical functioning was consistent with the population average. Interestingly, on average, the patients reported scores that were greater than two standard deviations below the population mean for mental functioning.

Regarding patient characteristics, these data tell us what can be expected in terms of the types of patients that might be entering residential treatment. Notably, while these individuals are entering treatment for their eating disorders, the comorbidity with anxiety and depression is striking. This is a finding that is even more severe in adults—with nearly 80% being in the clinical range for depression and anxiety. This has important implications for the tailoring of treatment for these individuals, as it appears treatment should also focus on these patients' struggles with anxiety and depression as well as their eating disorders.

Additionally, individuals in this study have a marked decrease in quality of life, which may be a useful avenue to explore in treatment. Treatment of eating disorders can be met with resistance, therefore, addressing quality of life issues rather than eating disorder symptoms *per se* might be a useful initial place to start therapy. Patients may be more interested in working on quality of life issues over eating disorder reduction, which might assist with patient engagement. It is likely obvious to the therapist that eating disorder severity and quality of life are heavily related, but the manner in which therapy is presented to the patient might make a difference. Making therapy about improving quality of life could produce the treatment engagement needed to work on the eating disorder issues. Treatments such as Acceptance and Commitment Therapy and Motivational Interviewing have large portions of their protocols that address quality of life issues and could be useful in the treatment of eating disorders for this reason.

Finally, the findings on the SF-36 are surprising in that patients suggest high quality of life in terms of physical functioning but poor functioning in terms of emotional issues. Again, this could be useful clinically in that patients might be more motivated to work on their emotional issues versus their physical issues. These suggestions will hopefully help form stronger alliances between the therapists and their patients.

There are also some experimental implications that are important to consider. Elevated scores, over eating disorder population means, were found for some subscales of the EDI-3, across diagnoses. These findings suggest that for some individuals a level of care between outpatient and residential would be appropriate. Intuitively, this makes sense as all patients were not improving sufficiently at lower levels of care. Future research would benefit from determining, experimentally, if there are levels of care that are appropriate for certain presentations.

In addition to the positive aspects of this study there are limitations that should be addressed in future research. First, patients were not selected for inclusion based on set criteria; they selected the facility for treatment. Thus, there exists a variety of confounding variables as to why individuals are seeking residential treatment with disorder severity only being one of them. Second, these data were collected at a single facility, and therefore study data is limited to individuals who chose this program. Nevertheless, the patients in this study were from across North America, and given the growing number of residential treatment facilities, and the nonresponse rate for outpatient care, knowledge about who is treated is important. A third limitation is that this study is largely descriptive. We were able to compare across age groups and diagnoses, but cross sectional data is limited in that certain variables are not controlled for and there are many unexpected relationships that can influence the findings. Still, these findings tell us quite a lot about those who seek treatment for eating disorders at a residential treatment facility.

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