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Assessment and Treatment of Co-occurring Eating Disorders in Privately Funded Addiction Treatment Programs

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Abstract

Privately-funded addiction treatment programs were surveyed to increase understanding of assessment and current treatment options for patients with co-occurring substance use and eating disorders. Data were collected from face-to-face interviews with program administrators of a nationally representative sample of 345 private addiction treatment programs. Although the majority of programs reported screening for eating disorders, programs varied in screening instruments used. Sixty-seven percent reported admitting cases of low severity. Twenty-one percent of programs attempt to treat eating disorders. These results highlight the need for education of addiction treatment professionals in assessment, referral and treatment of eating disorders.

Introduction

The latest estimates of lifetime prevalence of the major eating disorders (anorexia nervosa, bulimia nervosa, binge-eating disorder) in the general population are approximately 4%, with binge-eating disorder followed by bulimia nervosa being the most prevalent. Eating disorders and substance use disorders commonly co-occur.[1–3] In a recent study, individuals with bulimia nervosa were 4.6 times more likely to have any lifetime substance use disorder. Other eating disorders were 2 to 3 times more likely to have any lifetime substance use disorder.[1] The purging subtypes of bulimia nervosa (i.e. self-induced vomiting, misuse of laxatives, diuretics or enemas) are most commonly associated with co-occurring substance use and eating disorders.[3,4] In substance abusing samples, the prevalence of eating disorders is also higher than in the general population, with alcohol being the substance more commonly associated with co-occurring eating and substance use disorders.[5,6] The co-occurrence of both eating and substance use disorders can result in severe consequences,

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such as more severe forms of eating disorder behaviors (e.g. laxative abuse, self-induced vomiting and food restriction).[5] Women with bulimia nervosa and substance use disorders also have higher rates of other co-occurring psychiatric disorders, including depressive, anxiety, posttraumatic stress (PTSD), and personality disorders, than women with bulimia nervosa without substance use disorders.[7–9] There are increased rates of sexual abuse history associated with both eating and substance use disorders and individuals with bulimia nervosa and substance abuse are more likely to have a history of sexual abuse than women with bulimia nervosa alone.10 There is some evidence that the presence of an eating disorder can adversely affect recovery from alcohol use disorders.11

Much like substance use disorders, there is a social stigma associated with eating disorders. Individuals with eating disorders experience shame and guilt and tend to keep their compensatory eating behaviors secretive. Thus, screening to determine who to target for further assessment can be difficult.12 Many individuals with eating disorders, particularly bulimia nervosa, seldom display outward signs of the disorder and assessing only if suspected is insufficient to detect the disorder. Experts in the field agree that structured assessments are warranted.13 Questions regarding clearly defined behavioral patterns associated with eating disorders can preliminarily detect which patients to target for further evaluation.[14] In a recent treatment study involving women with substance abuse and trauma history, women were screened with one question which defined binge eating episodes and asked about the number of binge eating episodes in the past month. Women who endorsed at least one binge eating episode in the past month (29%) scored significantly higher on the Eating Disorder Examination Questionnaire than women who did not endorse any past month binge eating episodes. In addition, women who endorsed binge eating episodes in the past month had significantly higher PTSD and depression symptoms at baseline and showed significantly less improvement at posttreatment in terms of abstinence and PTSD symptoms.[15]

Despite the high prevalence, increased severity of co-occurring eating and substance use disorders, and potential impact on treatment outcomes, it is not known if and how eating disorders are screened, what screening and/or assessment instruments are used, and whether treatment services are available in addiction treatment programs. Identifying the prevalence of comorbid eating and substance use disorders in addiction programs can help programs determine whether there is a need to tailor treatment for this difficult population or develop referral relationships with eating disorder programs.

An earlier National Treatment Center Study (NTCS) study exploring eating disorder assessment and treatment in publicly-funded addiction treatment programs found that only half of the programs screen patients and few programs attempt to treat patients with eating disorders.[16] The present study was conducted in privately-funded substance abuse treatment centers to gain a broader understanding of screening and/or assessment practices and current treatment resources available to patients with co-occurring substance use and eating disorders who present for addiction treatment. Secondly, a comparison between privately- and publicly-funded addiction treatment programs that screen and/or assess, admit and treat co-occurring eating disorders is presented.

Methods

Data for these analyses are derived from the National Treatment Center Study (NTCS), a longitudinal group of interview surveys of American addiction treatment providers.17 A two-stage stratified sampling was utilized which took into consideration population size in all US counties. Within sampled counties community programs were selected from Single State Agencies and Federal Facilities Register directories, privately published directories,

web searches and yellow pages. A random sample of these programs was selected proportional to the number of programs in the sampled counties. Based on an estimated population of 16,733 substance abuse treatment facilities,17 data were collected from 345 private substance abuse treatment centers, which results in a confidence level of 95% (± 5%).17 The 345 privately-funded programs included in the sample represent a 67% response rate. In another study utilizing this sample, a logistic regression analysis was conducted using twelve organizational characteristics common to the responding and non-respondent centers to predict whether or not a center responded. None of the variables were significant predictors of response, suggesting that the private centers in our sample did not differ significantly from non-respondent centers.18 As such, we believe this to be a Nationally representative sample of private addiction treatment centers. Specific details on the sampling procedures used in the selection of the sample are available in prior publications.19–21 Private centers were defined as those that receive less than 50% of their annual operating revenues from federal, state, or local government sources (i.e., block grants). Eligibility included programs providing treatment for alcohol and drug problems at a level of care at least equivalent to structured outpatient as defined by the American Society of Addiction Medicine (ASAM) patient placement criteria. Exclusion criteria included programs that offered only detoxification, prevention or methadone maintenance services, as well as halfway houses, programs within the criminal justice system and federally owned agencies. Face to face interviews with program administrators or directors were completed during on-site visits conducted between February 2007 and July 2008. The interview protocol included a wide range of questions designed to explore the center's operations, organizational structure, and services offered. Study protocols were reviewed and approved by the University of Georgia's Institutional Review Board. After describing the study to the participating program directors/administrators, written informed consent was obtained.

The on-site face to face interviews with program administrators/directors included a series of questions regarding the extent to which the programs assessed and treated patients with or at risk for eating disorders. Questions were standardized and interviewers were trained by the researchers in interviewing techniques. The interviewers were provided with notes and prompts for items that required such. In the rare case that a respondent provided an answer that did not fit within existing response categories, interviewers noted the response verbatim and consulted with the researchers prior to entering the data.

The term “eating disorders” was defined as referring to any or all of the DSM-IV diagnostic categories (e.g. bulimia nervosa, anorexia nervosa, and a category of eating disorders not otherwise specified (EDNOS) including binge-eating disorder). We combined the categories in order to limit the number of queries added to this lengthy interview. Directors/ administrators were asked about intake screening and/or assessments, as well as admission policies for patients with eating disorders. Among programs admitting eating disorder patients, information was collected on the percentage of patients with eating disorders, whether patients can be admitted for eating disorder treatment, and whether the program has access to eating disorder treatment services.

Programs providing on-site services were asked about staff training in eating disorders treatment and how eating disorder services are delivered. An open-ended question asked the director/administrator to describe how treatment services for eating disorder patients differs from the program's standard addiction treatment.

Analyses were conducted using SPSS statistical software and included descriptive statistics (means and standard deviations, and percentages) to describe the sample. The initial analyses consisted of determining the proportion of programs that did or did not admit or treat eating disorders. All programs were classified as not admitting eating disorder patients

(Not admit), admitting eating disorder patients, but not treating the eating disorder (Admit but not treat), and admitting and treating eating disorder patients (Admit and treat).

Analyses were conducted to be congruent with a previously similar study of publicly funded programs.[16] The three groups were compared on a number of variables selected from the larger set of NTCS items to identify distinguishing characteristics of programs that provide eating disorder services. The selected variables reflect organizational, clinical and patient characteristics that may be related to eating disorder treatment. Analyses of variance (ANOVAs) for continuous and chi-square for categorical variables were conducted to determine differences among the three treatment categories. Some of the cases had incomplete data and were not available for all analyses resulting in totals less than 345 cases. Open ended questions were asked regarding the specific eating disorder treatment practices. Using descriptive statistics, responses were collated to create categories of services most specific to eating disorders treatment. Differences in screening, admission and treatment of eating disorder in privately versus publicly funded substance abuse programs were also analyzed.

Results

Twenty-nine percent (N = 100) of the privately funded programs offer inpatient, 17% (N = 59) residential treatment and 67% (N = 232) intensive outpatient services. Three-quarters of the programs (N=253, or 74%) screen admissions for eating disorders at intake assessment, with 44% (N=150) screening all patients and 30% (N=103) screening patients only if an eating disorder is reported or suspected (i.e. low weight). Over one-quarter of the programs (N=73, or 29%) that conduct screenings and/or assessments reported using a standardized interview (21% of the total sample). When asked which standardized interview or questionnaire is used, most reported using assessment instruments that were either developed by the agency or were questions embedded in their standard intake assessment protocols. One program reported using the Eating Disorder Symptom Checklist and one program reported using the SCOFF Eating Disorder assessment. The remaining programs rely on an informal evaluation by a clinical staff member or the clinical history provided by the patient's primary care physician. Approximately 7% ± 9% of the patient population in programs that do screen are reported to have an eating disorder. One-fifth (N=69, or 20%) of programs admit all patients who screen positive for an eating disorder regardless of severity, whereas 67% (N=228) admit patients whose eating disorder is not deemed severe enough to interfere with addiction treatment. Almost all programs require a primary drug or alcohol use problem, with less than 12% (N=40) of programs admitting patients solely for eating disorder treatment. One in five programs (N=70, or 20%) attempt to treat eating disorders on site. Only 11% (N=25) have a formal referral arrangement to address eating disorders. The remaining programs do not offer any services to address eating disorders.

The programs were categorized into three groups based on eating disorder treatment: does not admit (N=45), admit but does not treat (N=223), and admits and treats (N=70). These categories included all programs that do and do not screen for eating disorders. Thus, patients with undetected eating disorders may unknowingly be admitted to the not admit category. Results indicated that the three types of programs are organizationally very similar. Table 1 describes the program characteristics, which are displayed as either the percentage of programs or the average percentages (M/SD) reported for each of the three groups. The primary differences were between Admit and treat programs and the other programs. Admit and treat programs have more full-time equivalent employees than programs that do not admit and those that admit and do not treat (39 versus 16 for Not admit and 28 for Admit but not treat). The Admit and treat programs are significantly more likely to address patients' needs from a psychiatric perspective, as seen by their use of psychiatric

assessments, use of selective serotonin reuptake inhibitors and admission of patients with other co-occurring psychiatric disorders. Also, Admit and treat programs have significantly higher caseloads of female patients.

Nearly all of the programs in this sample treat men and women (N=324, or 95%), whereas 4% (N=12) are women-only programs and 2% (N=5) are men-only programs. Due to the small number of women-only (N=3) and men-only programs (N=0) among the programs that treat eating disorders, we were not able to compare single gender and mixed gender programs in this regard. All but 4% (N=3) Admit and treat programs report having at least one staff member trained in eating disorders treatment, including a psychiatrist or other physician (N=36, 51%) or an addiction counselor trained to treat eating disorders (N=40, 57%). Thirteen programs (19%) reported employing a “certified” eating disorder specialist, although the type of certification was not reported. In most of the Admit and treat programs (N=58, or 84%) patients with eating disorders are integrated with other addiction treatment patients. Only eleven programs (16%) offer a separate track for treatment of eating disorders. Nearly all programs (N=66, 97%) use individual counseling, 71% (N=50) use group therapy, 69% (N=48) use family therapy, and 44% (N=30) use pharmacotherapy to address the eating disorders.

The 70 Admit and treat programs provided additional information on how they addressed eating disorders. There were several distinct ways in which the treatment of patients with co-occurring eating disorders differs from standard addiction treatment. Approximately 17 programs identify having some eating disorder protocol which includes food consumption behavior such as meal planning, meal observation, one-on-one supervision, bathroom monitoring following meals, weighing and/or keeping food diaries/journals. Ten programs provide dietary and/or nutritional services and eight programs have medical monitoring. Other components include providing education and cognitive-behavioral approaches focusing on food and triggers.

Several differences between privately versus publicly funded programs are noted. The privately funded programs (N=253) reported screening nearly three-quarters of patients for eating disorders compared to half the patients (N = 173) in the publicly funded programs (χ^2 = 42.37, $p < .001$). Interestingly, approximately the same proportion of private and public programs (25%) use standardized instruments for screening and both types of programs identified approximately the same number of eating disorder patients (6–7%). However, privately funded programs appear more likely to admit patients with low severity eating disorders (67%) compared to publicly funded programs (48%)(χ^2 = 22.85, $p \leq .001$). Similarly, privately funded programs are more likely to treat eating disorders (20%) compared to publicly funded programs (15%) (χ^2 = 4.02, p =.045). Characteristics of privately and publicly funded Admit and treat programs are presented as average percentages (SD) reported for each group in Table 2. The privately funded Admit and treat programs reported that on average 39% of patients have inpatient stays of less than 30 days versus 16% of patients in publicly funded Admit and treat programs. The private programs also reported that on average 67% of patients are admitted to intensive outpatient programs versus 49% of patients in publicly funded Admit and treat programs. When asked about the use of specific medications, privately funded Admit and treat programs were more likely to report using selective serotonin reuptake inhibitors than public Admit and treat programs (100% versus 63%, respectively).

Discussion

This interview survey of a nationally representative sample of privately funded substance abuse treatment programs explored the screening and/or assessment practices and treatment

of co-occurring substance use and eating disorders, and types of eating disorder services provided in addiction treatment programs. We found that approximately three quarters of the private programs conduct any screening for co-occurring eating disorders, with only about one-quarter of these programs (N=73, or 29%) reporting use of a standardized interview instrument which consisted mostly of instruments developed by the agency or questions embedded in the intake assessment.

Eating disorder prevalence was obtained by asking program administrators the question, “approximately what percentage of your patients have an eating disorder?” In general, the programs report a lower prevalence of patients with co-occurring eating disorders (7%), compared to earlier cited estimates of 17%.[22] The prevalence of eating disorders in the programs surveyed is most likely an underestimation given the low rate of standardized assessment techniques used, coupled with the denial, shame and secrecy surrounding eating disordered behavior. As such, individuals with eating disorders are unlikely to report their eating disorder even if they are asked about eating disorder symptoms in the intake assessment. Several programs reported that they screen for eating disorders only if it was suspected or if the diagnosis was obtained from the patient's primary care physician. Aside from low weight, there are few outward signs and symptoms of eating disorders, which make it difficult to query only “suspected cases.” Primary care physicians also face the same problem when obtaining a clinical history. Thus, unless there are medical conditions directly related to eating disorders, getting this information from the primary care physician is also problematic.

There is the possibility that the two disorders are not active at the same time. For example, patients may not be experiencing eating disorder symptoms at the time of admission to substance abuse treatment but may relapse to eating disordered behavior in the absence of substance use. This may be particularly true for individuals who use substances for appetite suppression and weight control or individuals with eating disorders who use alcohol and/or other substances to cope with negative affect.[23–25] As such, assessing for a lifetime history in addition to current symptoms of eating disorders is important to consider. There are brief self-report screening instruments available such as the Eating Disorder Examination Questionnaire (EDEQ), Eating Attitudes Test (EAT-12), Eating Disorder Inventory (EDI) and the SCOFF clinical prediction guide, which have been reliably used to screen for eating disorder symptoms and do not require extensive staff training or time commitment, especially given that in certain programs standardized clinical interviews would not be realistic.[13,26]

Caucasian women are more likely to experience anorexia nervosa or bulimia nervosa, while African-American women are more likely to experience binge-eating disorder, which is not fully recognized in DSM-IV but rather in the category of Eating Disorders Not Otherwise Specified (EDNOS).[27] As such, eating disorders in African-Americans or individuals who are in the category of EDNOS may be under-represented in the substance abuse treatment programs.

Eating disorder treatment, particularly for anorexia nervosa, requires a multidisciplinary treatment approach, which may be difficult for most addiction treatment programs to provide given the limited resources.[28,29] Also, patients with co-occurring eating and substance use disorders often have more severe eating disorder symptoms as well as other co-occurring Axis I and II disorders that increase the complexity of treatment as well as the resources needed to provide adequate care.[7–9,30,31] The Admit and treat programs reported having more full time employees, more staff trained in the treatment of eating disorders and were also more likely to treat other psychiatric disorders. Although evidence-based integrated treatment for eating disorder is not yet available, most of these programs attempt

to integrate substance abuse and eating disorder treatment. About a quarter of the Admit and treat programs implement eating protocols that include meal planning, observing meals, weighing, bathroom monitoring after meals and/or keeping food journals, which is a vital component of eating disorder treatment.

Compared with public programs, a greater proportion of privately funded programs reported screening patients at admission for eating disorders. Privately funded programs are more likely to admit and treat eating disorders than the publicly funded programs (20% versus 15%). Among some of the differences between publicly and privately funded substance abuse treatment programs, it has been noted that privately funded programs have a greater availability of psychiatric services than publicly funded programs.[17] In the present study, more privately funded Admit and treat programs conduct psychiatric assessments at intake, which increases the likelihood of detecting an eating disorder. Private for profit substance abuse facilities receive much of their revenues from private insurance claims, which tend to be more likely to reimburse for psychiatric services.17

This survey was restricted to privately funded treatment programs and results are limited by the inability to accurately identify the actual proportion of eating disorder patients admitted to the programs given the limited screening and/or assessment measures. It is also important to note that some programs think that they do not admit eating disorder patients even though they do not screen for them. This highlights the need for programs to use scientific/clinical evidence based screening and/or assessments instruments.

The results are limited by the self-report responses of the directors/administrators who may not be aware of the practices and skill levels of staff. Without the use of standardized instruments, it is possible that programs do not consider the less recognized disorders such as binge-eating disorder or other eating disorders, which are classified as EDNOS. Given that binge eating disorder is the most prevalent eating disorder diagnosis in the general population, it is also potentially more prevalent in addiction programs, thereby underestimating co-occurring eating disorders in the addiction treatment programs surveyed.[1]

Conclusion

Most privately funded addiction treatment programs attempt to screen and/or assess, and admit but do not attempt to treat co-occurring eating disorders. Primary eating disorders are most often treated in psychiatric facilities with resources dedicated to providing this treatment. However, there may be a substantial number of patients with co-occurring eating and substance use disorders admitted to addiction treatment programs and prognosis for both disorders when they co-occur is worse than that of either disorder alone. These patients may be better served if addiction treatment programs increase their ability to screen and/or assess those at risk for eating disorders using standardized instruments. Those who are at increased risk may be formally evaluated for diagnostic criteria, and if indicated either treated within the program or through appropriate referral. Those programs that are unable to provide eating disorder treatment may develop referral relationships with appropriate mental health care providers for these services. These results underscore the need for implementing valid and reliable standardized assessments.

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Table 1

Comparison of addiction treatment programs based on admission and treatment of patients with eating disorders.

Program Characteristics	Not Admit Not Treat (N = 45)	Admits, Treats (N = 223)	Admits, (N = 70)
Full-time equivalent employees, M (SD)	16 (17)	28 (49)	39 (54)
Funding received, M (SD)			
Medicaid revenues	17 (28)	14 (22)	16 (23)
Private insurance revenues	31 (31)	35 (31)	37 (28)
Client fees	31 (30)	25 (29)	21 (26)
Type of treatment offered, %			
≤ 30 days of inpatient treatment	20	29	39
≥ 30 days of residential treatment	11	18	22
Intensive outpatient treatment	69	67	67
Formally screens for eating disorders, %[b,2,3]	62	72	89
Uses ASAM patient placement criteria, %	63	62	64
Uses the Addiction Severity Index, %	21	13	15
Uses the Global Appraisal of Individual Needs, %	8	6	7
Uses selective serotonin reuptake inhibitors, %[c,1,2]	72	93	100
Proportion of patients who are women, M (SD)[a,2]	32 (18)	39 (23)	43 (18)
Proportion of patients who are African American, M (SD)	18 (18)	17 (22)	16 (18)
Proportion of patients receiving psychiatric assessment, M (SD)[c,3]	31 (43)	22 (35)	44 (42)
Proportion of patients with co-occurring disorder, M (SD)[c,2,3]	41 (30)	48 (25)	63 (24)

NOTE: Variables for which mean and standard deviation are displayed (those variables followed by M (SD)) were reported by respondents as percentages. We therefore reported the mean and standard deviation of percentages reported for such variables. The remaining variables (followed by %) were reported by respondents as dichotomous responses (yes, no). We therefore reported the percentage of respondents who answered in the affirmative.

[a] $p < .05$

[b] $p < .01$

[c] $p < .001$

[1] Significant difference between does not admit and admits, does not treat.

[2] Significant difference between does not admit and admits and treats.

[3] Significant difference between admits, does not treat and admits and treats.

Table 2

Characteristics of Privately Funded and Publicly Funded "Admit and Treat" Programs.

Program Characteristics	Private (N = 70)	Public (N = 51)	p-value
Full-time equivalent employees, M (SD)	39 (45)	28 (34)	.79
Type of treatment offered, %			
≤ 30 days of inpatient treatment	39	16	< .001
≥ 30 days of residential treatment	21	36	.09
Intensive outpatient treatment	67	49	.05
Uses the Addiction Severity Index, %	15	25	.18
Uses the Global Appraisal of Individual Needs, %	7	15	.13
Uses selective serotonin reuptake inhibitors, %	100	63	< .001
Proportion of patients who are African American, M (SD)	16 (18)	23 (24)	.07
Proportion of patients receiving psychiatric assessment, M (SD)	44 (42)	25 (38)	.02
Proportion of patients with co-occurring disorder M (SD)	63(24)	60 (26)	.51

NOTE: Variables for which mean and standard deviation are displayed (those variables followed by M (SD)) were reported by respondents as percentages. We therefore reported the mean and standard deviation of percentages reported for such variables. The remaining variables (followed by %) were reported by respondents as dichotomous responses (yes, no). We therefore reported the percentage of respondents who answered in the affirmative.