BINGE EATING DISORDER MANAGEMENT: CAN MEDICAL EDUCATION IMPROVE PHYSICIAN KNOWLEDGE?

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STUDY OBJECTIVES

Binge eating disorder (BED) is the most prevalent eating disorder in the United States, affecting approximately 2% of individuals at some point during their lives.[1,2] However despite the high prevalence, it is more common for persons with BED to seek treatment for psychological and medical factors strongly associated with the disorder, rather than BED itself.[3] Also, clinicians are not adequately identifying the disorder in their patients, as evidenced by low screening rates, lack of recognition of BED as a distinct disorder, and subsequent lack of treatment – despite the existence of BED as a distinct entity in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) and despite the availability of approved treatments.[4] This study assessed whether online continuing medical education (CME) in the form of an interactive case-based activity can improve clinically relevant knowledge and competence of psychiatrists and primary care physicians (PCPs) who manage patients with BED.[5]

INSTRUCTIONAL METHOD

- The instructional method consisted of an interactive, online, text-based CME activity which included 2 patient cases of BED. Each case challenged clinicians to apply the most recent clinical data and evidence-based recommendations to their everyday clinical practices
- Interactive multiple-choice questions prompted the learners to determine the appropriate steps for the patient, including diagnosis of eating disorders and associated comorbidities, selection of evidence-based treatments, and patient counseling. Clinical feedback was provided following each response[5] [Figure 1]

ASSESSMENT METHOD

- Linked participants (ie, the learners) served as their own controls and were assessed with a set of 4 identical pre- and post-CME assessment questions to determine the effectiveness of knowledge transfer following participation in the online CME program [Figure 1]
- A paired, 2-tailed t-test was used to assess whether the mean post CME-assessment score was different from the mean pre-CME assessment score. McNemar's chi-squared statistic was used to determine statistical significance
- Effect of education was calculated using Cramer's V by determining the change in proportion of participants who answered questions correctly from pre- to post-CME assessment.
- Cramer's V of <0.06 represents no effect, 0.06-0.15 represents a small effect, 0.16-0.30 represents a medium effect, and >0.30 represents a large effect
- The CME activity was made available online February 23, 2016, and data were collected through April 11, 2016

RESULTS

- Data were collected for the 1125 psychiatrists and 785 PCPs who answered all pre- and post-CME assessment questions during the study period
- Psychiatrists demonstrated significant improvement in knowledge of diagnostic criteria for BED and competence in tailoring evidence-based treatment options (P <.05; V=0.257; medium educational effect) [Figure 1; 2]
- While only 32% of psychiatrists answered 4 out of 4 questions correctly on pre-assessment, this improved to 84% on post-CME assessment (P <.05) [Figure 2]
- PCPs demonstrated significant improvement in knowledge of diagnostic criteria for BED and competence in tailoring evidence-based treatment options (P <.05; V=0.266; medium educational effect size) [Figure 1; 3]
- While only 12% of PCPs answered 4 out of 4 questions correctly on pre-assessment, this improved to 70% on post-assessment (P <.05) [Figure 3]

FIGURE 1. Survey Assessment Tool Pre- To Post-CME Cases, Questions, and Answers (correct answer is highlighted)

QUESTION 1. Maria is a 45-year-old single Hispanic woman with a history of hypertension and a BMI of 31 kg/m^2. She had been successfully treated with citalopram for MDD approximately 10 years ago and is no longer taking any medication other than amlodipine for hypertension. At a routine office visit, Maria tells her family doctor that she has put on "a few extra pounds" due to extensive work-related travel, during which she eats more than usual. Despite her best efforts at exercise, weight loss efforts have been unsuccessful. Maria adds that she feels bad about her weight, "guilty about eating," and "embarrassed to talk about it"; otherwise, she says she is not depressed like she was in the past.

What features of Maria's presentation would be part of the diagnostic criteria for BED?

A	Obesity (her BMI is >30)
B	Comorbidity with hypertension
C	Efforts at exercise have not been successful in producing weight loss
D	Feeling "guilty about eating"

QUESTION 2. What test or questionnaire may be useful in assessing Maria specifically for BED?

A	Patient Health Questionnaire-9
B	SCOFF
C	Binge Eating Disorder Screener-7 (BEDS-7)
D	Hamilton Depression Rating Scale

QUESTION 3. Which of the following treatment options should be considered?

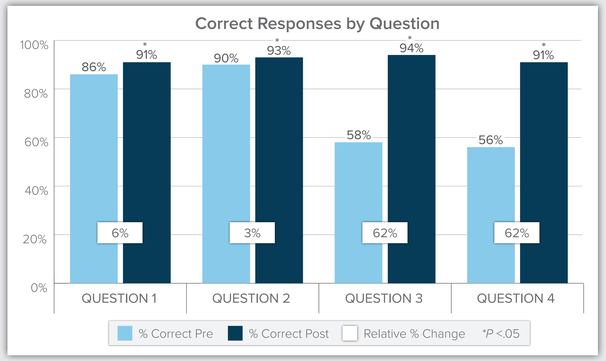
A	Antidepressants and cognitive behavioral therapy
B	Antidepressants and interpersonal therapy
C	Lisdexamfetamine, cognitive behavioral therapy, or interpersonal therapy
D	Lorcaserin or liraglutide

QUESTION 4. Stanley is a 52-year-old black married man with type 2 diabetes mellitus who is taking hypoglycemic medications. His BMI is 26, his blood pressure is elevated, and he complains of frequent headaches and daytime fatigue. He typically consumes 3 to 4 alcoholic drinks every night. In a conversation with his diabetes counselor, Stanley admits to often eating past feeling full and eating very quickly. He is also somewhat tearful and dysphoric and complains of poor concentration, is sleeping less than he used to, is more irritable with his spouse, and has been having feelings of guilt. He is referred to a psychiatrist, Dr Jones, who establishes a diagnosis of MDD and prescribes paroxetine 20 mg/d. Months later, Stanley's eating habits are assessed and BED is diagnosed. Stanley is started on lisdexamfetamine.

After 3 months of treatment with lisdexamfetamine 50 mg/d, Stanley's episodes of binge eating have decreased to less than once per month. Which of the following should be considered?

A	Discontinue lisdexamfetamine because of unknown long-term effects
B	Substitute cognitive behavioral therapy or interpersonal therapy for lisdexamfetamine
C	Continue lisdexamfetamine
D	Discontinue fluoxetine

FIGURE 2. Psychiatrists' (n=1125) Pre- to Post-CME Summary Statistics



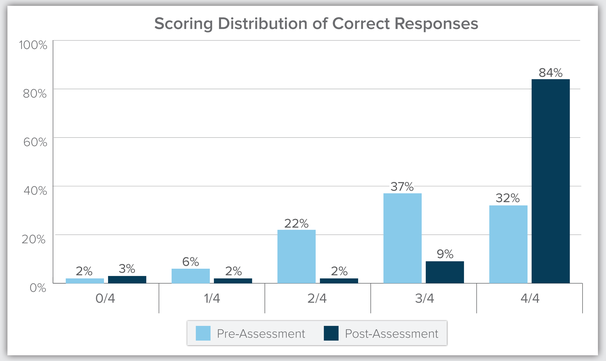
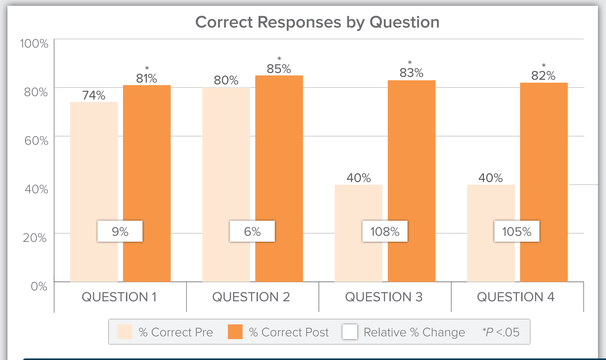
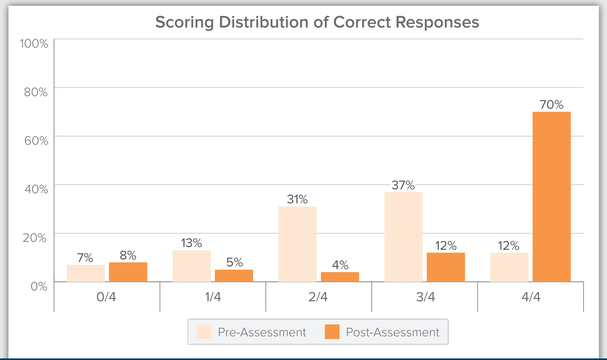


FIGURE 3. PCPs' (n=785) Pre- to Post-CME Summary Statistics





CONCLUSIONS

Participation in online, interactive, case-based CME significantly increased understanding of key clinical concepts and competence of physicians in treating BED, which has the potential to translate to direct patient benefits. Future education can be designed in case-based formats to further test and educate physicians on diagnosing BED, and increasing familiarity and confidence with tailoring evidence-based treatments.

Acknowledgments

The educational activity and outcomes measurement were funded through an independent educational grant from Shire.

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