Improving Management of Depression in Bipolar I Disorder Through Continuing Medical Education

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Study Objectives

Bipolar disorder affects 10.4 million people in the United States, yet gaps exist in distinguishing unipolar and bipolar depression and selecting appropriate treatments for the depressive phase. This study assessed effects of online continuing medical education (CME) on improving clinical performance of psychiatrists and primary care physicians (PCPs) who provide care for adults with bipolar I disorder (BP-I).[1]

Methods

Instructional Method

- The instructional method consisted of an online CME intervention presented as a video-based panel discussion on Medscape Education.[1]

Assessment Methods

- Assessment was done via an online survey that was administered to measure effectiveness of the online CME program.
- Participants were exposed to archived enduring expert perspectives in managing depression in BP-I.
- Linked participants (ie, the learners), who served as their own controls, were pre-assessed with a set of 3 case-based performance questions and 1 self-efficacy question (ie, difficulty in clinical decision-making) from patient cases before exposure to CME.
- Effectiveness of knowledge transfer/exchange was evaluated immediately after CME, and again in 30 to 60 days on a smaller subset of linked learners.
- McNemar's chi-squared test was used to determine statistical significance. Cramer's V was used to calculate the effect size of the intervention, based on the strength of association between the pre- and post-CME performance. Effect sizes (*V*) range from 0 to 1, and values closer to 0 indicate less similarity in the responses chosen for each assessment as compared with those chosen for the next assessment (pre- to post-, and post- to follow-up).

Results

Online CME in BP-I with depression improved the percentage of physicians who answered all 3 clinical performance questions correctly immediately post-CME, for psychiatrists **(n = 411, from 28% pre-CME to 55% post-CME, P <.001)** and PCPs **(n = 324, from 6% pre-CME to 42% post-CME, P <.001)**, with moderate educational effect sizes (*V*=0.45 for psychiatrists; *V*=0.32 for PCPs) (Figure 1; Figure 2).

- Follow-up 30 to 60 days after CME was performed on smaller linked participant samples. Psychiatrists retained performance on correct responses to 3 out of 3 questions **(n=51; from 55% post-CME to 57% follow-up)** while PCPs declined in retention **(n = 28; from 42% post-CME to 25% follow-up)**, but still performed better on follow-up than pre-CME (*V* = 0.278; *P* =.001) (Figure 1; Figure 2).

Figure 1

Performance by psychiatrists on clinical questions on pre- and post-CME (n=411), and on follow-up 60 days later (n=51).

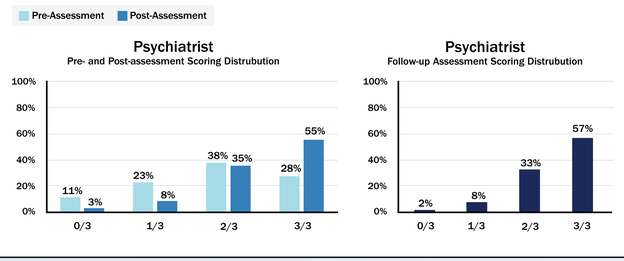
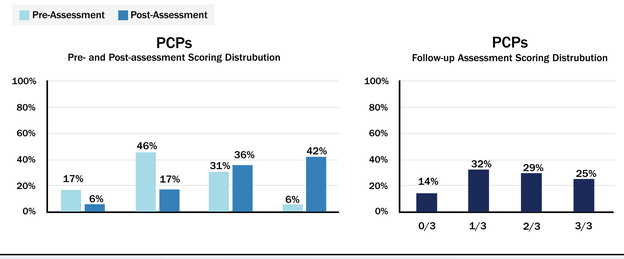


Figure 2

Performance by PCPs on clinical questions on pre- and post-CME (n=324), and on follow-up 60 days later (n=28).



Case Scenario 1:

AB is a 30-year-old woman with a history of grandiosity, racing thoughts, and excessive spending, diagnosed with depression 1 year ago, but not responding to 2 different selective serotonin reuptake inhibitors (SSRI). Her depression is getting worse, and she has averaged 3 hours of sleep per night in the last month, despite following the doctor's instructions.

Question #1:

Your decision on a diagnosis for AB would be based on which clinical symptom(s)? (Correct answer: Presence of 3 manic/hypomanic symptoms concurrent with depression)

Question #2:

Which of the following therapeutic options would you recommend as the most appropriate for this patient? (Correct answer: Atypical antipsychotics: lurasidone; olanzapine/fluoxetine (OFC); quetiapine)

Case Scenario 2:

BL is a 42-year-old man with a history of bipolar I disorder (family history of diabetes) and complaints of recent symptoms of depression, and a 15-pound weight gain in 2 months. He is taking the mood stabilizer divalproex, which he says has "evened out" his manic symptoms, but his recent weight gain has made his depression worse.

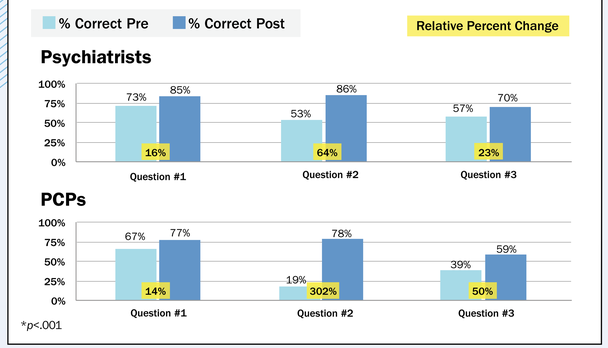
Question #3:

Given this history, which of the following is the most important consideration as you select a treatment for this patient's bipolar I depression? (Correct answer: Choosing an effective treatment for bipolar I depression with low risk for metabolic side effects)

- CME was particularly effective at elevating skills on use of recently approved antipsychotics for BP-I depression – psychiatrists demonstrated a 34% improvement while PCPs demonstrated a 60% improvement in knowledge from pre- to immediate post-CME assessment (Figure 3).

Figure 3

Case scenarios and performance by psychiatrists (n=411) and PCPs (n=324) on pre- and post-CME questions.



*p<.001

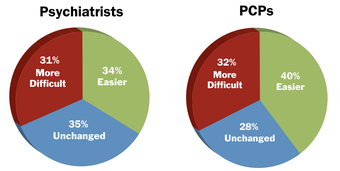
- PCPs reported that clinical decision-making was 40% easier on follow-up despite declining in knowledge retention, while 31% psychiatrists rated clinical decision-making more difficult from post- to follow-up assessment (Figure 4).

Figure 4

Self-reported clinical performance analysis by psychiatrists (n=51) and PCPs (n=28) 30-60 days post-CME.

Question #4:

How difficult was this patient management decision for you?
(Select ranking from 1 [Easy} to 7 [Difficult])



Performance and Retention Assessment

A comparison of individual respondents' post-and follow-up assessment answers to a self-efficacy question as it relates to ease of decision making surrounding the patient management decision related to case scenario 2, question #3.

Conclusions

Online CME intervention presented as a video-based panel discussion was successful in improving practice performance on diagnosis and management of BP-I with depression. Psychiatrists and PCPs would benefit from additional tailored education on diagnostic strategies and new agents to drive knowledge transfer and retention with the overarching aim of improving health outcomes in patients with BP-I.

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Reference Reviewed

1. McIntyre RS, Suppes P, Mattingly GW. Managing depression in bipolar I disorder. Medscape Education Psychiatry. February 19, 2014. http://www.medscape.org/viewarticle/819775. Accessed April 8, 2015.

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