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Mood Disorders Team-Based Learning Exercise

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TITLE OF MODULE: MOOD DISORDERS TEAM-BASED © LEARNING EXERCISE

Resource Type: Team Based Learning ©

Description: This exercise is used in a 2nd year medical curriculum “The Mind” course. The purpose of “The Mind” course is to provide an introduction in understanding of psychiatric illnesses, psychiatric diagnoses, neuroscience correlates and basic treatments for psychiatric illnesses, including psychopharmacology. The authors of this exercise have extensive experience developing and facilitating TBL modules. This team-based learning (TBL) © session focuses on case vignettes with the following subject matter: a bipolar woman on an inpatient psychiatric ward who is actively manic; and a young woman, also on an inpatient psychiatric ward, who has been hospitalized for major depression. This TBL is well suited to the second year medical student curriculum. Learning involves pre-class reading by students, lectures by faculty, as well as application exercises that include case analysis and discussion of clinical scenarios. Assessment of student learning includes an in-class quiz and class discussion. Materials include 1) citations for the pre-class readings, 2) a facilitator description of the cases, 3) Readiness Assurance Test (RAT), 4) application exercise, and 5) the DVD containing the videos of the simulated patients. This session works well with up to about 100 students organized in groups of about 6-7 students.

Context: This module is one of three TBL modules for the 3-week course entitled “The Mind” which is a second year psychopathology course that includes psychopharmacology and population health issues. Besides TBLs, the other teaching and learning activities in this course include Peer Instruction, Patient Reflection exercises and a number of on-line modules in addition to reading assignments. This TBL module on depression and bipolar disorder (including treatments) is intended for second year medical students learning about psychopathology and psychopharmacology. Other TBL modules in this course include Dementia and Substance Use Disorders.

Purpose of Module: By the conclusion of this TBL module, students will be able to describe and compare diagnostic criteria, the biological theories, the common treatments, and the societal impact of the various mood disorders.

Educational Objectives: By the end of this session, the learner will be able to:

1. Define mood disorders
2. Describe and compare the diagnostic criteria for
 - a. Major depressive disorder
 - b. Bipolar disorder
 - c. Persistent depressive disorder (Dysthymia)
 - d. Cyclothymic disorder
 - e. Disruptive mood dysregulation disorder
 - f. Premenstrual dysphoric disorder
 - g. Substance induced mood disorder
 - h. Mood disorder secondary to medical condition
3. Describe the biologic theories behind the various mood disorders
4. Describe basic pharmacologic and non-pharmacologic treatments for depression and bipolar disorder

Pre-Readings:

- Andreasen N & Black D. *Introductory Textbook of Psychiatry* (6th Ed). American Psychiatric Publishing, Inc., Arlington, VA, 2014. Chapters 6, 18, 20 and 21

Readiness Assurance Questions: Ten Multiple Choice Questions were administered as the *Individual Readiness Assurance Test* and the *Group Readiness Assurance Test* (see attached).

Group Application Exercise:

Two videos are shown to illustrate two major types of mood disorders. The first video involves a young woman currently hospitalized for major depression. The second video shows a bipolar woman hospitalized for a manic episode. The characters in these videos demonstrate classic characteristics of their disorders, and help students visualize the diagnostic criteria for these disorders. The videos were produced at Wright State University Boonshoft School of Medicine (BSOM), using psychiatry faculty, medical students and standardized patients as the actors. Questions regarding the simulated patients in the video are then asked. These questions allow the students to discuss the best treatment options, as well as extrapolate what may happen to these patients like these in the future.

Facilitation Schema:

15 minutes IRAT

20 minutes GRAT

20-25 minutes class discussion of RAT

60 minutes team and class discussion of APPLICATION

Special Implementation Requirements or Guidelines:

1. The space within which student teams can work together.
2. Equipment to show the videos to the students.

Lessons Learned:

1. We developed this TBL module about 10 years ago, using videos of patient interviews completed by the first author. The students felt that the videos helped them understand mood disorders in a way that they were unable to do so simply by reading. Since the videos were of real patients, scripts were written by the second author to depict the essential features of these patient interviews, and then produced at BSOM with actors.
2. The RATs were originally developed using earlier editions of the Black and Andreason textbook; these have been updated to reflect the most recent edition.
2. Course evaluation data for the TBL sessions on Mood Disorders for the last four years have averaged 4.31 (with 5 being the highest). The overall topics on Mood and Bipolar Disorders overall rated 4.44, meaning how confident they felt in their ability to master the objectives for these topics.

Instructions to Faculty:

1. Advance preparation for this TBL should take approximately 3-4 hours to do the reading. Students may also review other course materials on the topics, including on-line modules and readings from their pharmacology textbook;

however they are not necessary in order to prepare for this TBL; rather any additional study will assist in their mastery of these topics.

2. Immediate Feedback Assessment Technique, (“IF-AT”) forms are preferable for use during the Group Readiness Assurance Test (GRAT). These forms allow the student groups to receive immediate feedback about whether their answer is correct. The “IF-AT” forms also allow for partial point allocation for second and third attempts at selecting the correct response. These forms are available at: <http://www.epsteineducation.com/home/>
3. *Three of the questions on the Readiness Assurance Test garnered more student debate and discussion:*
 - a. *Question 1 is about a college student who presents in the midst of a major depressive episode; however further history elicits a history of hypomania. While the majority of groups get the correct diagnosis, a number of individual students incorrectly focus on the fact that since he is currently having depressive symptoms, then it must mean that he has major depression as a diagnosis. This allows for clarification about the importance of a thorough history in making the proper diagnosis. Other students do not feel his hypomanic symptoms are severe enough to be deemed “abnormal”; again, this is a good teaching point about how easy it is to miss the proper diagnosis. Further teaching points can focus on the fact that if the proper diagnosis is not made, then an antidepressant may be prescribed, instead of a mood stabilizer.*
 - b. *Question 3 presents a case of an elderly woman with symptoms of major depression, and then asks “Which of the following is most important to inquire about?” with suicidality being the best answer. This question tends to garner much debate, with students arguing that “all options are important” and many arguing that “without knowing a person’s psychiatric history, that one can’t make a diagnosis,” or “must know about substance use history.” After letting students argue their points, faculty acknowledge that all options are important for a thorough evaluation, but in the emergency room setting or even primary care setting, one often is forced to be very efficient, and if given time constraints, doing a thorough suicide assessment is indeed the most important aspect of her history, given that up to 15% of individuals with major depression commit suicide.*
 - c. *Question 7 describes a case of a 19-year-old woman with bipolar disorder, and asks what the treatment would be for the disorder? While three of the options are mood stabilizers (lithium, valproic acid and lamotrigine) lithium is still the best option, as lamotrigine is not indicated for acute presentation of mania, and valproic acid so should be avoided in women of child-bearing age, given the much greater risk of neural tube defects (over the relatively small risk of Epstein’s anomaly with lithium). In the discussion, students can also be prompted to discuss the risks of polycystic ovarian disease that can happen in young women who have been on valproic acid.*

4. *In the Application Exercise, students enjoy watching the videos that are used to then answer the questions. In the various administrations of this TBL, the Application has not been graded, as we feel it fosters the greatest opportunities for learning. While there tends to be discussion on all the questions (meaning that no question has 100% correct group response rates), after students debate the points, most groups are convinced of the correct answers. The following questions often precipitate further discussion:*
 - a. *Question 1 asks the student to best describe the assessment of speech and thought. This is a great opportunity to discuss not only the meaning of poverty of speech, but also the definitions of the other terms. In addition, this is an opportunity to discuss the importance of observation in the mental status examination, as well as how to interview someone with such poverty of speech.*
 - b. *Question 2 asks about treatment of major depression; while students generally select the selective serotonin re-uptake inhibitor as the correct option, we often ask if “that medication does not work, then what would you next try of the options?” to facilitate discussion about TCAs and MAOIs.*
 - c. *Question 4 asks about treatment of severe major depression with significant suicide risk and poor self-care (not eating), with ECT being the best option. While students generally select the correct answer, there tends to be much discussion about ECT, with many students asking about safety, side effects and possible misperceptions from media.*
 - d. *Question 5 asks the students to make the diagnosis, based on the symptoms observed, elicited in the video interview, plus the additional information about not having psychotic symptoms when mood symptoms are controlled. While the majority of students arrive at the correct answer, there generally are some groups that answer schizoaffective disorder, and even schizophrenia, as they have a difficult time comprehending that someone with bipolar disorder can have such severe symptoms, including psychotic symptoms; thus this is a great opportunity to clarify diagnostic questions.*
 - e. *Question 7 asks the students to once again select the best answer for someone with treatment resistant bipolar disorder, with the best answer being ECT, given the severity and lack of improvement. This allows for discussion about ECT being effective for the acute treatment of mania also.*
5. *This TBL inevitably leads to discussion about the stigma of mental illness, including questions from students like, “How do you keep from laughing when a patient is so bizarre?” After asking the medical students how they anticipate they might respond, faculty generally remind the students that the delusions are “real” to the patient, so laughing can be a detriment to the physician-patient relationship. The authors also let the students know that such communication skills are developed over time, and that it is most important for the physician to be empathic. Depending on the time available and the kinds of questions asked by students, discussions about interviewing patients with challenging symptoms, prognosis of depression and bipolar disorder, and stigma may all be addressed.*