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Adolescent Depression: An Interactive Case-Based Session for Medical Students

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Adolescent Depression: An Interactive Case-Based Session for Medical Students

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Abstract

Introduction: The session was designed as part of a yearlong elective within the Association of American Medical Colleges' Education in Pediatrics Across the Continuum (EPAC) pilot at the University of California, San Francisco. The EPAC pilot aims for longitudinal pediatric education across the medical school and pediatric residency years, with specific emphasis on competency-based advancement. The goal of the elective is to cultivate students' early interest in pediatrics. **Methods:** This is an interactive case-based session for medical students on the clinical presentation and initial evaluation of adolescent depression. We developed this session based on an informal needs assessment at our local institution as well as prior research documenting the minimal time allocated to child and adolescent psychiatry in medical school curricula. The 80-minute interactive case-based format integrates knowledge and clinical experiences while requiring minimal equipment and preparation. **Results:** The session was administered at the University of California, San Francisco, in 2015 to 22 students. Fourteen participants completed evaluation questions (64% response rate). Of responders, 92%-100% thought the session was very or extremely effective at meeting the stated objectives, was interactive, had appropriate time allocated, and was very or extremely helpful at reinforcing objectives from the medical school curriculum. Thirteen participants completed postsession knowledge acquisition questions and performed better than controls (90% vs. 75%), but the difference was not statistically significant. **Discussion:** Other medical schools could easily administer this session as presented or adapt it to a different target audience or for different time constraints. It is an effective, interactive, well-paced, and helpful means of introducing to medical students a topic that is relevant for anyone going into pediatrics. Likewise, it helps to rectify the lack of child and adolescent psychiatry content in most medical school programs, and it aligns with the movement in undergraduate medical education towards more clinically integrated, inquiry-based curricula with attention to professional development.

Keywords

Depression, Adolescent, Case-Based Learning, Preclinical, Pediatrics, Psychiatry

Educational Objectives

By the end of this session, learners will be able to:

1. List at least four aspects of the epidemiology, pathophysiology, or assessment of pediatric depression.
2. List at least three ways that the presentation of pediatric depression can differ from adult depression.
3. Describe at least one rapport-building technique for getting pediatric patients to talk about mental health.
4. Demonstrate use of at least one rapport-building technique through a depression and suicidality assessment role-play.

Appendices

A. Adolescent Depression Time Line.docx
B. Adolescent Depression Facilitator Guide.docx
C. Adolescent Depression Slide Deck.pptx
D. Adolescent Depression Clinical Presentation Handout.pdf
E. Adolescent Depression Role-Play HPI.docx
F. Adolescent Depression Assessment Questions .docx
G. Adolescent Depression Session Evaluation Questions.docx

All appendices are peer reviewed as integral parts of the Original Publication.

Introduction

The purpose of this resource is to aid other facilitators in leading an interactive case-based session for medical students on the clinical presentation and initial evaluation of adolescent depression. The session was designed as part of a yearlong elective within the Association of American Medical Colleges' Education in Pediatrics Across the Continuum (EPAC) pilot at the University of California, San Francisco. The EPAC pilot aims for longitudinal pediatric education across the medical school and pediatric residency years, with specific emphasis on competency-based advancement. The goal of the elective is to cultivate students' early interest in pediatrics, develop familiarity with pediatric presentations of common conditions, develop pediatric-specific communication skills, and both complement and reinforce lessons from the adult-centric core medical school curriculum.

The target audience for this resource is medical students. The session was administered to first-year medical students at the University of California, San Francisco, and evaluated in this context, although it would also be appropriate for second- or third-year medical students. Prior to the session, students need to have foundational knowledge of adult depression, including epidemiology, pathophysiology, clinical manifestations, and assessment. In order to create a more robust differential, it is preferred that they also have familiarity with other medical conditions that can manifest with mood symptoms, but this is not required. We found the ideal context for implementation is in a classroom with one or two facilitators and 20 to 30 medical students.

We developed this session based on an informal needs assessment that included consulting senior students, faculty, and clerkship directors in pediatrics and psychiatry regarding clinical and didactic exposures. Stakeholders indicated that pediatric psychiatry is not adequately addressed during preclinical courses on adult psychiatry or pediatrics. They also indicated that third-year psychiatry clerkships involve only adult patients for the vast majority of students and that students do not get consistent, formal teaching or exposure to psychiatric issues during the third-year pediatric clerkship. Due to this limited exposure, students often feel unprepared when encountering mood or behavior complaints in upper-level pediatric clerkships and are not familiar with what a career in pediatric psychiatry could include. These findings have been replicated in other studies on exposure to child and adolescent psychiatry curricula in medical schools. Pediatric psychiatry is a low-curriculum priority with minimal time allocation that limits medical student competency and development of the child and adolescent psychiatry profession.[1,2]

In this session, we chose to focus on adolescent depression and suicidality assessment because depression is one of the most common psychiatric complaints seen by pediatricians and adolescents are at particularly high risk. Furthermore, students generally feel uncomfortable screening for suicidality and self-harm among patients of any age and would benefit from additional practice with this potentially lifesaving skill. We included a child psychiatrist guest speaker in the session in order to increase student awareness of the pediatric subspecialty and because guest speakers have been very highly rated aspects of prior sessions based on learner satisfaction surveys. Finally, case-based learning has been an effective and well-received modality for other topics in pediatric medical education, both for other sessions of the EPAC pilot elective and for other curricula available on MedEdPORTAL.[3]

For this session, we selected an interactive case-based approach. Guided inquiry through case-based learning is an effective and efficient means of enhancing learning that is well received by learners and faculty.[4,5] It also aligns with recommendations to integrate knowledge and clinical experience as well as to emphasize habits of inquiry and improvement.[6] We also deliberately included practices that cater to adult learners, such as integration of learners' prior experiences and wisdom, collaborative work, immediate application of knowledge, opportunities for learners to shape the content and direction of a session through question and answer, and inviting learners to participate in improving the material for the future.[7] Because the session is an elective, which generally has no pre- or postsession required, it builds instead on the prior and concurrent required medical school curriculum. There also is an optional postsession assessment with a detailed answer key designed both to evaluate the course and to provide formative feedback for the learners. The case content was designed to be as relevant, practical, and authentic as

possible based on our collective experiences with the medical school didactic curriculum, pediatric clerkships, and pediatric residency. The session is designed to be delivered with minimal preparation by an educator with pediatric clinical experience and access to a pediatric psychiatrist.

Methods

The session is designed to take 80 minutes. There is a sample time line (Appendix A) for a session running from 12:10 pm to 2:00 pm that includes the amount of time that should be spent on each activity. For this session, we recommend one or two facilitators. They need to be familiar with pediatrics and pediatric psychiatry but do not need to be experts and can refer to the pediatric psychiatrist for more complex topics and discussion.

The session includes a child psychiatrist as a guest speaker. This person needs to be in attendance for at least 30 minutes, which is divided into 15 minutes of informal presentation to the learners and 15 minutes of question and answer. Prior to the session, facilitators would need to identify a speaker and advise him or her to prepare informal talking points on how pediatric depression is different from adult depression and tips for getting young adults to talk about mental health symptoms or concerns.

The session needs to occur in a room with a projector and computer capable of displaying a PowerPoint presentation, although audio capabilities are not required.

Materials

Facilitators should utilize the step-by-step guide (Appendix B) while preparing for and implementing this session. The facilitator guide includes the amount of time the facilitators should spend on each section and key talking points. It also elaborates on the implementation information provided here.

As indicated in the facilitator guide, the PowerPoint presentation (Appendix C) should be projected on a screen in presenter mode in order to have appropriate images appear at the correct time on each slide.

The presentation handout (Appendix D) is a copy of slide 10 from the PowerPoint presentation. Facilitators should bring one handout per learner and should distribute them prior to the second think-pair-share for students to have as a reference for the activity and for future clinical work.

The sample role-play history of present illness handout (Appendix E) should be distributed prior to the role-play session. It includes two brief narratives for students to use as a reference when playing the patient role.

The three assessment questions (Appendix F) are mapped to session objectives and Bloom's taxonomy level. They can be distributed after the session as a formative assessment for learners and can also be used by facilitators to assess the effectiveness of the session. We distributed the questions electronically via online survey within 1 week of the session, along with a link that took learners to the answer key with explanations upon survey completion. Alternately, one could administer the questions in paper format at the end of the session.

Session evaluation questions (Appendix G) can be distributed after the session to assess learner satisfaction and collect ideas for improvement. We distributed them via online survey at the same time as the content assessment questions, but they also could be administered in paper format at the end of the session.

Part One: Adolescent Depression Case

Start with a think-pair-share. To do this, display the case from PowerPoint slide 4 and ask one student to read it aloud. Next, ask students to spend 1 minute thinking on their own, then a few minutes discussing with their neighbor the following questions:

- Is there something "wrong" with Joseph, or is this just "normal" teen behavior? How could you decide?
- If there is something "wrong," what would be on your differential?
- What else do you want to know?

Ask a few students to volunteer what they were discussing. Note that there is no single correct answer to the above questions and that the facilitator does not need to emphasize particular topics at this point. The purpose of this think-pair-share is to engage the students and get them working with the material as they think about adolescent depression from a clinical perspective.

Next, go through the PowerPoint slides on presentation and assessment of adolescent depression. Emphasize epidemiology, pathophysiology, clinical presentation, and assessment.

Follow up by repeating the think-pair-share. Pass out one handout to each student to be used as a reference. In the same pairs as before, ask students to reread the case description and prompt to see if their ideas have changed. Ask a few students to volunteer what they were discussing. Again, there is no single correct answer to these questions.

Part Two: Pediatric Psychiatrist Guest Speaker
Have the guest speaker conduct a discussion covering how pediatric depression is different from adult depression as well as giving tips for getting pediatric patients to talk about mental health symptoms and concerns. Next, allow 10-15 minutes for questions from the group.

Part Three: Depression and Suicidality Assessment Role-Play
Using tips from the guest speaker, have students practice depression screening questions and assessing for suicidality and self-harm.

Students return to their pairs from the previous think-pair-share exercise. One student is the interviewer while the other acts as an adolescent patient using a sample patient history of present illness. In case of uneven numbers, one student can do the role-play with the facilitator. The interviewer should spend 3-5 minutes asking questions regarding SIG E CAPS (sleep, interest, guilt, energy, concentration, appetite, psychomotor, suicide) symptoms, with particular focus on suicidality and self-harm.

Debrief as a large group regarding what went well and what students would change next time. Common themes might be that asking questions directly felt uncomfortable, that words came out jumbled, and that students did not know what follow-up questions to ask. It is important to emphasize that all these are common whenever learning a new skill, especially one that addresses such a private and typically taboo topic, and that this is why practice is helpful.

Participants may also express sadness or concern about young people experiencing depression and suicidal thoughts. If this comes up, we recommend sharing principles from one's own work about how to manage sadness while practicing medicine. Further tips may include that one should remember to always look for the helpers in any tragedy, that meaning can be found in guiding others through and out of their suffering, and that helping patients identify a problem is the first step to healing.

Conclusion and Questions
Go through the Platinum Points on slide 21, emphasizing the most important clinical points from the session. Two points are listed on the slide, with space to add two additional points that have come up during the role-play or guest speaker segments. Discuss resources for students to learn more about mood disorders and pediatric psychiatric disease; two articles from the journal *Pediatrics in Review* are referenced in the PowerPoint presentation as suggestions. Use remaining time to solicit comments or questions about the material or clinical pediatrics in general.

Results

Twenty-two first-year medical students attended the session in May 2015. We facilitated the session with an additional pediatric psychiatrist as a guest speaker. The primary author was a fourth-year medical student at the time, and the second author is an attending physician in pediatrics. We both have clinical experience with pediatric patients who have psychiatric conditions, but we have no subspecialty training in pediatric psychiatry.

Of the 22 participants, 13 completed the postsession assessment questions (response rate of 59%), with an average score of 89.7%. As a control, 17 first-year medical students who did not participate in the

session also volunteered to complete the postsession assessment questions. The control questions were identical and were distributed electronically at the same time as for the participant group. The control group had an average score of 75%. The difference between groups was not statistically significant (unpaired *t* test, $p = .07$).

Fourteen participants completed the session evaluation questions (response rate of 64%). Of responders, 100% believed the session was very effective or extremely effective at meeting the stated objectives (average 4.75 out of 5.00 on a Likert scale). Based on a yes/no question, 100% indicated the session was interactive. Ninety-two percent stated that time allocation was just right for the material, although one student stated the time was too long. Finally, 92% felt the session was very or extremely helpful at reinforcing objectives from the core medical school curriculum (average 4.17 out of 5.00 on a Likert scale).

Seven students responded to the free-text question "What was the single most valuable part of the session?" Students identified the case vignette, the comparison of adult and pediatric presentations of depression, the pediatric psychiatrist guest speaker, the reinforcement of the importance of screening for suicidality, and the role-play activity as valuable.

As potential areas for improvement, five students surveyed suggested more case vignettes about depression in different age groups, more information about the how different psychiatric disorders can present in childhood, more clinical pearls about treating pediatric patients with mood symptoms, and more focused talking points with the pediatric psychiatrist.

Discussion

The results of the postsession learner assessment and evaluation questions indicate that this session was an effective, interactive, well-paced, and helpful means of introducing a clinically relevant topic within pediatric psychiatry to medical students. Although there were only three knowledge assessment questions, participants performed very well on the pediatric-specific depression questions, better, in fact, than controls did. The difference was not statistically significant, likely because of the small number of responders and the small number of questions. A better method of evaluation may be administering the questions as a pre-post knowledge assessment tool to participants, which we plan to adopt for future sessions.

The fact that 92% of responders felt that the time allocation was just right for the material suggests that the case has the appropriate amount of content and the appropriate pace for an 80-minute elective session. This was initially a challenge for us; our tendency was to put more content and more activities into each session to make them as robust as possible. We learned from feedback from prior sessions in the elective, however, that most students wanted depth rather than breadth and preferred a more relaxed and slower-paced learning environment. This is not true of all learners. As reflected in the identified areas for improvement and the one respondent who felt the session was too long, some students desired more content breadth to include more psychiatric disorders or manifestations of depression in patients of varying ages. One way to provide additional content for such learners while maintaining the current pace of the elective could be by directing students to review articles for further reading, which we subsequently included as a slide in the PowerPoint presentation. Additionally, assigning clinical vignettes for students as reading prior to the session could allow for increased time for discussion in a 5-minute small-group session or in a 5-minute discussion with the pediatric psychiatrist. The latter possibility could also narrow the focus of the guest speaker, which was an area for improvement identified by one respondent.

The results regarding the most valuable part of the session were consistent with what we have found in prior sessions of the clinical elective. Students generally appreciate when a session reinforces principles from the adult-centric core medical curriculum, and they felt that this session was particularly helpful. Students also highly value meeting pediatric subspecialists and learning about their careers. This likely reflects the minimal access to pediatric subspecialties elsewhere in medical school. Finally, students consistently value learning tips and tricks for working with pediatric patients, reflecting the pediatric

interests of the students who chose to take this elective and the desire to learn and practice communication skills just as we learn and practice other aspects of medicine.

Other medical schools could easily administer this session for groups of students who are interested in general pediatrics or pediatric psychiatry. Although used initially with first-year medical students, this session could be easily integrated into pediatric or psychiatry clinical rotations for upper-level medical students. Our understanding is that in dense medical school curricula, it is rare to address pediatric psychiatry. Furthermore, additional training in adolescent depression would be highly relevant for anyone pursuing a career in pediatrics. The included materials would be easy to adapt to a different target audience or different time constraints. Components of the time line, facilitator guide, and slide deck could be easily rearranged, expanded, or eliminated. Finally, the session aligns with many medical schools' movement towards a more clinically integrated, inquiry-based curriculum with attention to professional development.

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