

Developing Evidence- and Consensus-based Guidelines for the Management of Adolescent Depression -

Primary Care (GLAD-PC):

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Background:

Major depression in adolescents is recognized as a serious psychiatric illness with extensive acute and chronic morbidity and mortality.¹ The prevalence rate is estimated to be 6-8%, and depression is associated with a recurrence rate of 60-80% by the end of adolescence.² Research shows that only 50% of adolescents with depression are diagnosed before reaching adulthood.³ Even when diagnosed by primary care physicians, only half of these cases are treated appropriately.⁴ One of the major barriers to appropriate management in primary care is the relative lack of evidence from controlled treatment trials for this disorder.⁵ Even though some controlled clinical trials data are available, such findings cannot possibly address the many clinical management questions that occur in daily practice. Consequently, guidelines may be a useful approach to aid in the management of depression in adolescents in primary care particularly in view of access barriers to specialty mental health care and the increasing frequency with which primary care providers are tasked to manage adolescent depression. Unfortunately, there are no management guidelines developed for use in the primary care setting in the US or in Canada.

Objective:

The goal of this project is to develop North American evidence- and expert consensus-based guidelines for the treatment of adolescent depression in primary care.

Methods: There are 7 phases to the project:

- (1) A Steering Committee has been formed to act as an advisory group for the study. The Steering Committee comprises of a selected group of North American experts in the area of guideline development, and/or adolescent depression. The members include experts from different specialties including family medicine, pediatrics, nursing, psychology, and child psychiatry. Table 1 is a list of our current Steering Committee members.
- (2) In order to understand the problems and obstacles faced by primary care providers regarding the treatment of adolescent depression, we have conducted 5 focus groups with Canadian and American policy makers, primary care providers, and patients and their families to review issues pertinent to the management of depression in primary care. Questions are posed to the groups including 'What tools or supports do you need in order to treat adolescent depression?' and 'What tools/assistance would help you to treat this disorder?'. Eight additional focus groups with primary care providers, patients and family members are planned, pending additional funding support.
- (3) Working in close conjunction with the Agency for Healthcare Research and Quality, which has offered to support the review process via one of its evidence-based practice centers, an extensive literature review on

the management of adolescent depression both in primary care and specialty care is being done. Given the limited literature in this area, we will also review the adult literature for the management of depression in primary care.

- (4) Based upon the questions and issues identified during the focus groups and the literature review, we will develop a survey (draft enclosed) to answer questions regarding the management of adolescent depression in primary care that have not been answered by the literature.
- (5) Using the survey, research and clinical experts will be surveyed on their depression assessment and management recommendations. Subjects: 50-60 clinical/research experts from Canada and the U.S. will be asked to complete the study survey. Subjects will be chosen using four criteria 1) membership in child and adolescent psychiatric organizations in Canada and the U.S. including the Academies of Child and Adolescent Psychiatry, 2) recipients of federal grants for related research, 3) authors of recent clinical research in the area; and 4) key primary care clinical and research leaders with expertise in the area of guideline development and/or emotional and behavioral disorders presenting in primary care settings. The Dillman Total Design Method for survey studies will be used to ensure return of surveys at rates of 80-90%.⁶ Measurement: The survey, using a 9-point scale, is a modified survey format developed by the RAND Corporation for examining expert consensus.⁷ The survey is organized into several sections including psychosocial interventions, acute treatment, maintenance treatment, outpatient management, laboratory investigations, discontinuation treatment, and management of subtypes of depression. With each item, a subject chooses from a range of 1-9 (1 = most inappropriate treatment and 9 = extremely appropriate treatment). Analysis: Analyses will follow the methods developed by the Expert Consensus Guidelines group.⁷ The mean, standard deviation, and 95% confidence interval (CI) will be calculated for each item. To make responses more clinically applicable, a categorical tag such as "first-line", "second-line", and "third-line" treatment will be designated based on the lowest category in which the CI fell, with boundaries of 6.5 or greater for "first-line", and 3.5 or greater for "second-line".⁷ The CI will be represented graphically.
- (6) An Expert Consensus Workshop will be held with the North American experts who had participated in the survey. Published data from the literature review, unpublished high quality research currently in process of publication, and the results of the survey will guide the discussion and consensus process. Center staff (P. Jensen) have hosted numerous such conferences with nearly universal good outcomes and subsequently published "guidelines" and/or white papers with multiple organizations' input and "buy-in."
- (7) Based on feedback from the Expert Workshop, management guidelines will be developed for publication, with a draft initially authored by the investigators on behalf of the group, but with their full input and ownership of the final product.
- (8) Based on the focus group feedback and the nature of the final guidelines, provider, patient, and parent toolkits as well as other necessary aids will be developed to assist guideline dissemination in primary care settings. Once finalized, these materials will be tested and implemented within Columbia University's system of 39 primary care providers, a network supported within the framework of the Child Psychiatry

Intervention Research Center (CPIRC, David Shaffer, PI). Additional funding for this study is currently being sought.

- (9) Following determination of the usefulness, palatability, feasibility, and apparent effectiveness of the guideline and toolkits within the CPIRC, these materials will be disseminated to other primary care settings for implementation. To facilitate eventual dissemination, key policy makers have been invited to participate early on in guideline and toolkit development, as well as the eventual guidelines dissemination strategies. For example, New York State's Office of Mental Health has agreed to participate in the dissemination and implementation of the guidelines, and further, strong support for this project is expected, based on preliminary discussions with key opinion leaders in the US and Canada. In addition, given the relative lack of knowledge concerning effective and cost-effective dissemination strategies, priority will be given to experimentally testing alternative strategies for deploying guidelines, with an eventual NIMH R01 submission. The principal investigator has substantial experience in this area, and is testing alternative guideline deployment strategies for treatment guidelines for youth aggression in New York State, a project that involves over 100 child & adolescent psychiatrists randomly assigned to 3 different guideline dissemination strategies.

Limitations:

In the development of guidelines, researchers must also consider the implementation aspect of the project. Previous literature has shown little improvement in quality of care with the implementation of guidelines in the primary care setting.⁸ However, there is emerging evidence that a multifaceted approach with mental health consultation may improve the uptake of clinical guidelines in primary care settings.⁹ Therefore, a component of this project is to work with Dr. D. Davis, a primary care physician and leader of the Knowledge Translation Program at the University of Toronto, and chair of the Guideline Advisory Committee of Ontario, to develop and evaluate effective methods of guideline implementation. Likewise, from the U.S., Allan Dietrich, M.D., key architect of the MacArthur Foundation-funded multi-state implementation project for treatment of adult depression in primary care, has agreed to bring his team's expertise, toolkits, and other areas of potential support to assist in the development of adolescent primary care dissemination strategies in U.S. settings. In addition, key developers of practice guidelines in adolescent primary care settings (e.g., American Academy of Pediatrics) have agreed to participate in the initiative.

Implications:

Although the seriousness of adolescent depression is known, available evidence indicates that it is not recognized and not inappropriately treated in the primary care setting in both Canada and the U.S. Until additional research from controlled trials becomes available, evidence- and expert consensus-based guidelines may be a useful approach to guide the treatment of adolescent depression in primary care. This strategy, coupled with effective means of providing assistance to providers, patients, and parents, offers the promise of improving adolescent depression care and outcomes in the interim.

Table 1
Steering Committee Members

Family Medicine	Pediatrics	Psychiatry/Psychology
<p>Dave Davis, MD University of Toronto</p> <p>Allen Dietrich, MD Dartmouth Hitchcock Medical Center</p> <p>Bernard Ewigman, MD Department of Family Medicine, University of Chicago</p> <p>Michael Malus, MD McGill University</p>	<p>Angela Diaz, MD Mt. Sinai School of Medicine</p> <p>Charles Homer, MD National Initiative on Children's Healthcare Quality</p> <p>Miriam Kaufman, MD University of Toronto</p> <p>Kelly Kelleher, MD Ohio State University</p> <p>Danielle Laraque, MD Mt. Sinai School of Medicine</p> <p>Jim Perrin, MD Harvard Medical School</p> <p>Diane Sacks, MD President, Canadian Society of Pediatrics</p> <p>Ruth E. K. Stein, MD Albert Einstein School of Medicine</p> <p>Brenda Reiss-Brennan, RN, PhD Intermountain Health Care (IHC), Salt Lake City, UT</p>	<p>Boris Birmaher, MD Western Psychiatric Institute & Clinic, University of Pittsburgh</p> <p>Greg Clarke, PhD Center for Health Research, Kaiser Permanente</p> <p>Graham Emslie, MD University of Texas Southwestern Medical School</p> <p>Eric Fombonne, MD McGill University</p> <p>Kimberly Hoagwood, PhD Office of Mental Health, New York State, & Columbia University</p> <p>Stan Kutcher, MD Dalhousie Medical School</p> <p>Harold Pincus, MD Western Psychiatric Institute & Clinic, University of Pittsburgh</p> <p>Bruce Waslick, MD, Columbia University</p>
<p>Economics</p>		
<p>Sherry Glied, PhD Columbia University</p>		

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