

Youth Tobacco Cessation: Filling the Gap Between What We Do and What We Know

Guest Editor

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Each day, over 2000 youth under the age of 18 become daily smokers, and the age of smoking initiation is going down.¹ Although the prevalence of smoking among youth has shown encouraging downward trends in the last few years, smoking prevalence among youth remains higher than among adults. Recent data from the Youth Risk Behavior Surveillance System indicate that 28.5% of high school students reported current cigarette smoking.² Most youth smokers believe that they will not be smoking in 5 years, and over half (57.4%) report trying to quit in the previous 12 months.² Unfortunately, longitudinal studies show that among high school seniors 73% of daily smokers remained daily smokers 5 to 6 years later; most smoking cessation attempts are unsuccessful.³

In the United States, the projected costs of tobacco use are staggering, both in terms of lives lost and dollars spent. Each year more than 440,000 adults die prematurely from tobacco-related illnesses.² The annual costs resulting from medical expenses, lost productivity associated with tobacco-related disease, disability, and death are estimated at more than \$150 billion.² According to the Centers for Disease Control and Prevention, if current

tobacco-use patterns persist, at least 6.4 million persons currently under the age of 18 will die prematurely from a smoking-related disease.² Others have estimated that deaths from tobacco related diseases could be halved over the next 50 years through concerted efforts to increase cessation among current smokers.⁴

The focus of this special issue of the *American Journal of Health Behavior* is on tobacco-use cessation programs for youth. These programs, of course, are only part of a comprehensive approach to tobacco use cessation that includes population-based as well as individual-level interventions. Population-based interventions include policies to reduce exposure to secondhand smoke (ie, smoking restrictions), price increases (ie, federal and state excise taxes), and mass media campaigns.

Individual-level interventions are direct treatment services proven to increase rates of tobacco-use cessation. These interventions include behavioral counseling and pharmacological treatments. Behavioral counseling can range in intensity from individual advice and encouragement to quit from one's health care provider, to multicomponent behavioral programs delivered face-to-face in groups, through outreach telephone counseling and quit-lines or through computer-based interactive programs. Pharmacotherapies approved by the Food and Drug Administration include various forms of nicotine replacement therapy (some available over the counter and others by prescription) and bupropion-SR, an antidepressant medication approved for use as a smoking cessation aid.

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For adults, the evidence base for effective individual-level treatments of tobacco use and dependence is substantial. In 1996, the first evidence-based clinical practice guidelines for smoking cessation were published by the Agency for Healthcare Research and Quality (AHRQ). The guidelines synthesized evidence from over 3000 smoking cessation studies into over 50 meta-analyses.⁵ In 2000, a consortium sponsored by 7 Federal Government and nonprofit organizations updated the guidelines. The updated Public Health Service (PHS) guidelines reviewed an additional 3000 articles published since the original guidelines were released.⁶ The expert panel concluded that both cognitive-behavioral counseling and pharmacotherapies are effective tobacco-use cessation treatments. The public health challenge, however, is ensuring that these proven interventions reach the largest proportion of smokers. Thus, for adults we are faced with imperative to *fill the gap between what we know and what we do* (ie, getting effective treatments into practice).

For youth tobacco users, the situation is vastly different. In contrast to the extensive research to evaluate tobacco cessation treatments with adults, there is a dearth of evidence regarding effective treatment for youth tobacco users. A 1997 review identified fewer than 20 published controlled trials.⁷ Young adults (age 18-24) are underrepresented in the adult treatment outcome literature; the average age of study participants is typically in the mid-40s. Lack of evidence-based treatments, however, does not reflect a lack of concern about or commitment to increasing resources for youth tobacco users who wish to quit smoking. With rates of youth smoking increasing during the 1990s, youth cessation has become a high priority. For example, among the Healthy People 2010 goals are reducing prevalent tobacco use by adolescents by nearly 50% (from 40% in 1999 to 21% in 2010) and increasing tobacco-use cessation attempts by adolescent smokers.⁸ Consequently, more resources have been devoted to youth cessation as they became available from tobacco taxes and master settlement dollars. Unfortunately, program development, selection, and implementation have been largely unguided by evidence-based guidelines for best practices in youth cessation treat-

ment. Thus, for youth tobacco users we are faced with the imperative to *fill the gap between what we do and what we know* (ie, most interventions offered for youth have not been evaluated in clinical trials).

The papers in this volume provide a rich summary of the efforts, challenges, successes, and future needs in establishing youth tobacco cessation treatment guidelines in the face of a limited evidence base. These efforts started with the formation of the Youth Tobacco Cessation Collaborative (YTCC), which is an exemplary model of collaboration among public and private organizations with a commitment to increasing the rate of discovery, development, and delivery of effective youth cessation strategies. The paper by Orleans and colleagues provides an inspiring overview of the YTCC's work to develop an overall action plan, the *National Blueprint for Action: Youth and Young Adult Tobacco-Use Cessation*. The blueprint outlines short- and long-term goals related to identifying effective interventions and then implementing and building demand for proven treatments. The synergies created through organizational cross-collaborations are evident in the substantial efforts that have been launched in each of these areas over the past few years.

Key among the YTCC activities are efforts to synthesize the existing research literature and distill a set of evidence-based recommendations for youth cessation treatment. The paper by Hopkins and colleagues provides a detailed summary of the methods and conclusions of 7 evidence reviews that address youth tobacco cessation in their recommendations in addition to the review conducted by the YTCC. No review found a sufficient number of studies to conduct a meta-analysis. The main conclusion has been that there is insufficient evidence on which to make definitive recommendations for any treatment. The paper notes that the evidence review conducted by the YTCC is the only one to focus exclusively on youth cessation treatment. The YTCC review methods compare favorably to those used in other state-of-the-art reviews. The review is described as systematic, using an expert panel, clearly reporting the methods used, conducting a systematic search for studies, having clearly articulated study-inclusion criteria and quality requirements, and summarizing the out-

comes from the review.

The systematic methods used in the YTCC review derive from a better practices model that was developed by a Canadian collaboration. The paper by Maule and colleagues describes the development and initial implementation of the model, which combines the rigor of a systematic review of research with multidisciplinary expert opinion. This model provides a valuable template for a continuous quality improvement approach to identifying better practices in youth tobacco cessation treatment. In the initial application of the better practices model, the expert advisory panel was dissatisfied with the conclusions of an evidence review and recommended more stringent criteria for including treatment outcome studies in a systematic evaluation.

The paper by McDonald and colleagues provides a detailed account of the revised and more stringent review process. The comprehensive criteria for the internal validity of studies that were developed as part of this process can help program providers and policy makers in their own evaluations of emerging evidence. It is notable that only 30% (20/66) of the studies that were examined in the initial review met the stricter criteria for inclusion in the second assessment. The main conclusion from these 20 studies is that promising methods for youth tobacco cessation have been developed. Most recommended are cognitive-behavioral treatment models.

The findings from the expert panel of reviewers along with the collective experience of a multidisciplinary advisory panel have been distilled into a set of guidelines for the essential elements for selecting, planning, delivering, and evaluating youth cessation interventions. The paper by Milton and colleagues provides an abridged version of the forthcoming *Youth Tobacco Cessation: A Guide for Making Informed Decisions*. The comprehensive guide emphasizes that effective treatment for youth tobacco cessation involves more than simply providing the right treatment components. Program planners need to engage in a strategic planning process that takes into account community context, organizational capacities and support, planned criterion-driven program selection and implementation, and a commitment to careful record keeping and tracking of program participants for pro-

cess and outcome evaluation.

Although we can begin to close the gap between what we do and what we know by extracting general treatment principles and models from the existing meager evidence base, and by applying better practice models and planning to the development, selection and implementation of treatment programs, we must continue to invest in rigorous research to evaluate promising youth cessation treatment programs. The final paper by Backinger and colleagues outlines the methodological features that are crucial for an informative evidence base. Equally important is to report study methods, treatment content, and treatment outcomes with sufficient detail for evidence review panels to determine the quality of the research and to enable meta-analyses and other cross-study comparisons. Over 50 studies related to youth cessation treatment are in progress. One hopes that the investigators, peer-reviewers, and journal editors follow the 13 recommendations for research reporting for these studies that emerged from the challenges encountered in current evidence reviews. ■

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