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Integrating Evidence-Based Interventions for Adolescents Into Primary Care

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Preventing problem behaviors such as substance use, sexual risk behaviors, and violence, as well as promoting positive health behaviors such as physical activity and quality dietary intake, is critical to improving the nation's health. This is particularly true in adolescence, a developmental period when these behaviors tend to cluster together.¹ Behaviors such as substance use, physical inactivity, violence, and unsafe sexual behaviors are among the leading causes of preventable death among youth and tend to begin in adolescence.^{1,2}

Youth with behavioral health challenges such as these face the sequelae of increased risk that include lifelong health and social problems; the prevention of behavioral health disorders can avert a negative developmental trajectory. Although there is a need for prevention, the research literature has documented a lack of focus on prevention and a concentration on treatment within mental health systems. Involving multiple systems within the community, beyond mental health systems, is necessary.³

Increasingly, primary care settings are becoming the entry point through which parents bring youth with behavioral health concerns; these settings are potentially less stigmatizing for youth and families and may more openly facilitate exploration of behavioral health issues than a mental health setting.³ Internet-based (i.e., e-health) interventions within these settings offer the needed flexibility to eliminate barriers for both the participant and primary care staff. Innovative modalities such as those provided by e-health interventions may help reach youth and families. Further, e-health interventions for which efficacy and effectiveness is well established offer the opportunity of providing evidence-based practices to families who otherwise would not receive them, in a cost-effective and convenient manner.

Behavioral preventive interventions, including family-based and community-level interventions, are highly efficacious in preventing or reducing risk behaviors and promoting positive health behaviors among adolescents. Unfortunately, consistent with the intent of efficacy trials, the effects of these interventions are limited to laboratory settings and generally do not translate well to community practice. The reasons for this are complex but

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are at least partially attributed to (1) the fact that interventions are not rigorously evaluated for effectiveness in real-world settings prior to wide adoption by community agencies (e.g., community health centers); (2) when the interventions are disseminated widely, they are not implemented with high fidelity—that is, the manner by which they were intended to be delivered; and (3) a lack of adoption by community agencies once efficacy and effectiveness has been demonstrated. Reasons for lack of adoption by community agencies despite the proven effects of a behavioral intervention include¹ but are not limited to (1) time and resource commitments by providers; (2) ability to reimburse for the behavioral services; and (3) ability to deliver with high fidelity.

Behavioral preventive interventions delivered within primary care settings are no exception to these three reasons given that physicians, although highly interested in preventing risks associated with disease and promoting positive health behaviors, do not have the time or resources to deliver evidence-based behavioral interventions to youth.⁴ Physicians, including pediatricians and family medicine doctors, often focus visits with adolescent patients on obtaining vitals and standard recommended screenings. It is not surprising that these services are the focus of adolescent wellness visits given that they are reimbursable by both Medicaid and private insurance. With the passage of the Patient Protection and Affordable Care Act, it is likely that evidence-based behavioral preventive interventions, completely or partially delivered in primary care settings, will be more widely reimbursable, particularly if the U.S. Preventive Task Forces recommends that such behavioral preventive interventions be delivered by physicians or other health-care professionals such as nurses or physician assistants.

Even if evidence-based preventive interventions delivered in primary care settings are more reimbursable in the future because of legislation such as the Patient Protection and Affordable Care Act and the Mental Health Parity and Addiction Equity Act, issues of fidelity are likely to continue limiting the proper implementation of evidence-based preventive interventions in primary care settings—as they have in other settings, including schools and community centers. Low fidelity of evidence-based interventions conducted outside of research-controlled settings has historically been a barrier that needs to be addressed in real-world settings, particularly because low fidelity leads to less favorable outcomes than those observed during the testing of preventive interventions in research settings. One possible solution to these fidelity challenges is to minimize, or eliminate, the need for facilitator-led interventions through development or adaptation of evidence-based interventions that are delivered via an Internet-based platform. E-health preventive interventions delivered through computers, tablets, smartphones, or other mediums bypass the challenges of poor fidelity that are common in face-to-face preventive interventions, yet are so critical to the success of preventive interventions in community practice, including primary care settings. If properly designed, e-health interventions also can assuage the burden of time and resources necessary for intervention delivery in primary care settings. For example, an e-health intervention could be delivered partially or entirely in a primary care setting while a patient sits in the waiting room, minimizing disruption of patient flow. In a family-based preventive intervention, where the parent is the target of the intervention and the agent of change, a parent could participate in the intervention (e.g., by watching the intervention on a tablet) while the adolescent is seen by the physician. Thus, e-health

interventions for youth delivered in a primary care setting may be both feasible to implement with high fidelity and effective in improving youth outcomes.

Although e-health interventions may help circumvent the aforementioned, they may not be appropriate for all families; some families may require more intensive care or treatment. One approach is to use a triage system based on level of patient need wherein families receive a behavioral preventive intervention based on the extensiveness of behavior problems being experienced. For example, a family with mild to moderate difficulties would receive an e-health intervention in combination with an interpersonal component, which could include web-based family sessions with a clinician (e.g., nurse, mental health counselor). By contrast, a family without active difficulties, but at risk, could be targeted with only the e-health intervention component. The Triple P Program—Positive Parenting Program Online—is an exemplar of such a model. Triple P utilizes a multilevel system with five intervention levels, with the aim of delivering the minimally sufficient intervention to optimize positive youth development.⁵ This tiered system allows for a certain degree of intervention customization to address the different levels of risk experienced by youth and may permit parent intervention selection, which also can help increase participant attendance in the intervention—a pervasive challenge in prevention programs.

Although there are clear advantages to integrating e-health adaptations of evidence-based preventive interventions into primary care settings, one challenge is the less-than-optimal rates of participation in e-health interventions. Indeed, the NIH has described poor engagement (i.e., initial attendance) and retention (i.e., continued attendance) as a challenge to the success of evidence-based interventions.⁶ Despite the challenges in engaging and retaining individuals in e-health interventions, a review of the literature suggests that there is high satisfaction and consistent support for e-health interventions from youth, families, and practitioners.⁷ Moreover, youth tend to prefer interventions that are delivered through the use of technology.⁷ Additionally, to enhance engagement and retention, research points to the importance of designing e-health interventions with interactive components and providing participant support throughout the intervention.⁸ For example, an e-health adaption of *Familias Unidas*, an evidence-based preventive intervention, was feasible via Internet delivery utilizing computers, iPads, and smartphones. By developing and producing (1) a series of culturally syntonic telenovelas; (2) a simulated parent group in a talk-show format; and (3) interactive participant exercises, researchers created an interactive and engaging intervention that resulted in 29 families participating in a pilot study with an 80% completion rate of the online sessions. Similar rates are being observed in an ongoing randomized trial of 256 families. Another study, involving Project CATCH-IT, utilized an e-health intervention to prevent depression among adolescents within a primary care setting.⁹ All participants received the 14-module Internet program in addition to either a physician-provided motivational interview component or a brief advice component. Study findings indicated high participation rates with the intervention for both conditions. As these studies and others demonstrate, it is possible to have study participants complete the majority of sessions in an online intervention if the sessions are engaging and interactive. Thus, integrating e-health evidence-based preventive interventions where patients can obtain all or

part of the intervention dosage in a primary care visit may be a viable approach in the promotion of adolescent health.

In an era where our healthcare system has begun to shift from a “sick care system” to one focused on prevention and wellness, the expanded healthcare coverage offered by the Patient Protection and Affordable Care Act is predicted to increase primary care visits by approximately 65% by 2019.¹⁰ With this large increase in primary care visits, prevention and public health scientists are presented a key opportunity to build collaborative relationships with primary care physicians. Such partnerships are needed in order to integrate evidence-based interventions for the prevention of behavioral and emotional disorders among young people in primary care settings.

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