Understanding Research Gaps and Priorities for Improving Behavioral Counseling Interventions

Lessons Learned From the U.S. Preventive Services Task Force

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Behavioral counseling interventions can address significant causes of preventable morbidity and mortality. However, despite a growing evidence base for behavioral counseling interventions, there remain significant research gaps that limit translating the evidence into clinical practice. Using U.S. Preventive Services Task Force (USPSTF) examples, we address how researchers and funders can move the research portfolio forward to achieve better application of behavioral counseling interventions to address substantial health burdens in the U.S. This paper describes the types of gaps that the USPSTF encounters across its behavioral counseling intervention topics and provides suggestions for opportunities to address these gaps to enhance the evidence base for primary care–based behavioral counseling recommendations. To accomplish this, we draw from both the USPSTF experience and issues identified by researchers and clinicians during the USPSTF-sponsored Behavioral Counseling Intervention Forum. We also discuss the dilemma posed by having "insufficient" evidence with which to make a behavioral counseling intervention–related recommendation, and describe two case examples (screening for alcohol misuse in adolescence and screening for child maltreatment), detailing the research gaps that remain. Recommendations are outlined for researchers, funders, and practice implementers to improve behavioral counseling intervention research and application.

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Introduction

The contribution of health behaviors to preventable morbidity and premature mortality in the U.S. is significant; therefore, scaling efficacious behavioral counseling interventions (BCIs) to enhance healthy behaviors for the U.S. population is critical. Recently, Curry and colleagues[1] described challenges in applying the methodology of the U.S. Preventive Services Task Force (USPSTF) to BCIs with the goal of encouraging researchers, clinicians, and funders to support research that optimizes the ability to make evidence-based recommendations on BCIs for primary care, based on research that can usefully inform these decisions. They focused on challenges that had hindered previous research from being relevant, such as the choice of study populations, intervention protocols, and behavioral and health outcomes. Additional major research gaps in making evidence-based recommendations on BCIs were further defined during the USPSTF-sponsored Behavioral Counseling Forum (hereafter noted as the "Forum" and described in further detail by Curry and Whitlock[2] in this supplement) held on November 6, 2013. The USPSTF evidence review process provides insights to key research gaps, which are described both in the evidence reviews as well as in summary form in the USPSTF recommendation statements. Despite this, the field often does not fill these gaps or systematically compare gaps that have been identified across topics. As a result, the same unaddressed themes of missing or under-described data or design elements are repeated over time. Therefore, the goal of

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this paper is to describe the types of gaps that the USPSTF encounters across its BCI topics and to provide suggestions for opportunities to fill them in order to facilitate research agendas that will enhance the evidence base for primary care–based behavioral counseling recommendations. To do this, we draw from both the USPSTF experience and the issues identified in the Forum.

Establishing the Effectiveness of Behavioral Counseling Interventions

To address the USPSTF Analytic Framework,[1] the USPSTF first examines the evidence to determine if there is direct evidence that changes in a patient's health behavior lead to reduced morbidity or mortality (Key Questions, Figure 1). If direct evidence of effectiveness is not available, the USPSTF then examines the evidence to determine if there are sufficient links in indirect evidence to make a recommendation (Key Questions 1–5, Figure 1). For example, does a BCI lead to a patient's sustained health behavior change, which in turns leads to improvements in intermediate and final health outcomes? The likely benefits and harms are assessed, and a net benefit is estimated, in evaluating the contribution of the clinical service (counseling intervention).

When the USPSTF is unable to find direct or indirect evidence to demonstrate the effectiveness of a clinical preventive service, it issues an "I" statement indicating that "the current evidence is insufficient to assess the balance of benefits and harms of the service."[3] Currently, there are four behavioral counseling topics for which the USPSTF has found the current evidence to be insufficient to make a recommendation. These include screening and BCIs in primary care to reduce alcohol misuse in adolescents, behavioral interventions to prevent or reduce illicit drug or nonmedical pharmaceutical use in children and adolescents, behavioral counseling to prevent sexually transmitted infections in non–sexually active adolescents and in adults not at increased risk for sexually transmitted infections, and counseling adults older than age 24 years about minimizing risks to prevent skin cancer.

Despite an established field of research with a number of rigorous studies that are funded and adequately reported in reputable journals, many USPSTF recommendations in these areas remain as an "Insufficient" or "I" recommendation. Here, we briefly present two such cases.

Example of "I" or Insufficient Behavioral Counseling/Behavioral Screening Recommendations

Screening for Alcohol Misuse in Adolescence

All would agree that early and accurate identification of those asymptomatic for, but already engaging in, alcohol misuse early in the life span is a critical preventive service. The lifetime burden of alcohol misuse, alcohol abuse, or both is estimated at $223.5 billion in 2006 or about $1.90 per drink.[4] However, the USPSTF recommendations issued in 2004 and again in 2013 remained at an "I," despite the prevalence and seriousness of this problem, the fact that validated screening tools for alcohol misuse and abuse for adolescents exist,[5] and that multiple studies use these tools.[6] How can this be?

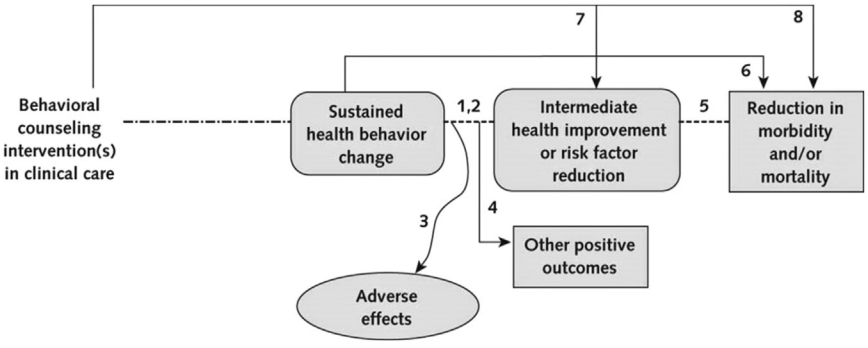

Figure 1. Analytic framework for behavioral counseling interventions.

Note: Key questions: (1) Do changes in patients' health behavior improve health or reduce risk factors? (2) What is the relationship between duration of health behavior change and health improvement (i.e., minimum duration, minimum level of change, change/response relationship)? (3) What are the adverse effects of health behavior change? (4) Does health behavior change produce other positive outcomes (e.g., patient satisfaction, changes in other healthcare behaviors, improved function, and decreased use of healthcare resources)? (5) Is risk factor reduction or measured health improvement associated with reduced morbidity and/or mortality? (6) Is sustained health behavior change related directly to reduced morbidity and/or mortality? (7) Are behavioral counseling interventions in clinical care related directly to improved health or risk factor reduction? (8) Are behavioral counseling interventions in clinical care related directly to reduced morbidity and/or mortality?