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An Examination of the Workflow Processes of the Screening, Brief Intervention, and Referral to Treatment (SBIRT) Program in Health Care Settings☆,☆☆,★

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ABSTRACT

Introduction: Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a public health program used to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs that has been adapted for implementation in emergency departments and ambulatory clinics nationwide.
Methods: This study used a combination of observational, timing, and descriptive analyses from a multisite evaluation to understand the workflow processes implemented in 21 treatment settings. Direct observations of 59 SBIRT practitioners and semi-structured interviews with 170 stakeholders, program administrators, practitioners, and program evaluators provided information about workflow in different medical care settings.
Results: The SBIRT workflow processes are presented at three levels: service delivery, information storage, and information sharing. Analyses suggest limited variation in the overall workflow processes across settings, although performance sites tailored the program to fit with existing clinical processes, health information technology, and patient characteristics. Strategies for successful integration include co-locating SBIRT providers in the medical care setting and integrating SBIRT data into electronic health records.
Conclusions: Provisions within the Patient Protection and Affordable Care Act of 2010 call for the integration of behavioral health and medical care services. SBIRT is being adapted in different types of medical care settings, and the workflow processes are being adapted to ensure efficient delivery, illustrating the successful integration of behavioral health and medical care.

1. Introduction

Substance abuse and dependence is widely recognized as a widespread societal problem, but most people who engage in risky substance use do not recognize it as a problem. The Substance Abuse and Mental Health Services Administration (SAMHSA) launched the Screening, Brief Intervention, and Referral to Treatment (SBIRT) grant program in 2003 to identify, reduce, and prevent problematic use, abuse, and dependence on alcohol and illicit drugs among individuals who would not typically seek treatment. SBIRT programs were implemented in medical care settings, with the aim of integrating behavioral health services in locations in which patients who engage in risky behaviors can be identified and provided with an appropriate level of treatment. SBIRT services – a screen, delivered to all patients who initially prescreen positively for abuse or dependence, followed by a brief intervention or a referral depending on the patient's screening status – are delivered to patients at the time they present for medical care.

Since 2003, SAMHSA has funded successive cohorts of discretionary grantees to implement SBIRT programs in selected U.S. sites (ONDCP, 2012). Since its initiation, almost 1.6 million patients have been screened as part of the SBIRT program (SAIS, 2014). To date, SBIRT programs have been implemented in emergency departments (EDs) (Bernstein et al., 2009; Dési & Perhats, 2008; Higgins-Biddle, Hungerford, & Cates-Wessel, 2009; Mello et al., 2009; Parker, Libart, Fanning, Higgs, & Dirickson, 2012), inpatient clinics (Cruz, 2013; Groves et al., 2010), ambulatory clinics (Fleming, 2004; Padwa et al., 2012), and school-based settings in urban and rural areas (Gonzalez et al., 2012; Gryczynski et al., 2011).

The SBIRT program is a public health model that incorporates clinically tested screening and brief intervention practices with a referral component for patients needing specialized substance abuse treatment. Several reviews and meta-analyses have been conducted on the effectiveness of screening and brief intervention for alcohol and other

Abbreviations: ASSIST, Alcohol, Smoking and Substance Involvement Test; BI, brief intervention; BT, brief treatment; ED, emergency department; EHR, electronic health record; HE, health educator; RT, referral to treatment; SAMHSA, Substance Abuse and Mental Health Services Administration; SBIRT, Screening, Brief Intervention, and Referral to Treatment.

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drugs across medical care settings. Within primary care settings, the effectiveness of the screening and brief interventions for curbing alcohol consumption is primarily positive (Bertholet, Daeppen, Wietlisbach, Fleming, & Burnand, 2005; Bien, Miller, & Tonigan, 1993; Kahan, Wilson, & Becker, 1995; Kaner et al., 2009). However, results have indicated otherwise when considering the severity of alcohol consumption (Beich, Thorsen, & Rollnick, 2003; Saitz, 2010). Likewise, brief interventions were not effective at curbing drug use when delivered in primary care settings (Saitz et al., 2014). Mixed results are also reported when examining the effectiveness of brief interventions delivered in EDs or other hospital inpatient settings. Some studies have shown that brief interventions delivered in EDs can lead to decreased alcohol consumption (Dési, Howard, Perhats, & Li, 2010; Liu et al., 2011) and reduced recidivism (Gentilello et al., 1999), while other studies have shown no effect in consumption (Havard, Shakeshaft, & Sanson-Fisher, 2008; McQueen, Howe, Allan, Mains, & Hardy, 2011; Nilsen et al., 2008; Saitz et al., 2007). Results on the effectiveness of brief interventions delivered to patients presenting in EDs for illicit drug use are also mixed. Some ED studies have provided evidence for reductions in illicit drug use (Bernstein et al., 2005), whereas other studies report no change in drug use (Otto et al., 2009; Zahradnik et al., 2009). These differential findings support the need to further understand the implementation and delivery of screening and brief intervention procedures across different treatment settings. This paper examines the implementation and service delivery of the SBIRT program operating in different medical settings through an investigation of observed workflow in current practice.

To improve the understanding of SBIRT, several studies have also outlined challenges and general recommendations related to the rollout and sustainability of screening and brief intervention programs (Barbosa, Cowell, Bray, & Aldridge, 2015; Bernstein et al., 2009; Davoudi & Rawson, 2010; Johnson, Seale, Shellenberger, Hamrick, & Lott, 2013). In response to such findings, the Centers for Disease Control and Prevention issued a step-by-step guide for implementing SBIRT within emergency settings for unhealthy alcohol use (Higgins-Biddle et al., 2009). To further promote successful implementation of SBIRT in medical care settings, the SAMHSA-HRSA Center for Integrated Health Solutions has provided online tools (SAMHSA, 2014), which include workflow charts and additional guidance for implementing SBIRT across performance sites. Although studies have shown that SBIRT can be adapted successfully in different settings, detailed guidance on making such adaptations is still needed (Agerwala & McCance-Katz, 2012). Furthermore, SBIRT integration into routine health care delivery has not been examined extensively. To date, no known source has provided a detailed discussion of the various SBIRT workflow processes in medical care settings or the processes by which clients interact with the health care system to obtain SBIRT services.

With the push to integrate behavioral health services with traditional medical care (Buck, 2011), understanding SBIRT workflow processes is important for performance site administrators and practitioners who consider implementing SBIRT in their health care facilities.

Understanding SBIRT workflow adaptations across a variety of settings enables administrators and practitioners to better select models best suited to the unique features of their particular medical care setting. Information on workflow systems includes details on the processes and coordination of activities within an organization, specifically handoffs between staff, scoring of screening instruments, collection and recording of key information in electronic health records, and the coordination of behavioral and medical care.

In 2008, SAMHSA sponsored an evaluation of the SBIRT grant program. One focus of the evaluation was to understand the SBIRT workflow process. This paper presents findings from the SAMHSA evaluation and examines the implementation, workflow, and integration of SBIRT programs as observed in 21 EDs and ambulatory clinics from across the country.

2. Materials and methods

This study used qualitative methods to understand the workflow processes across treatment settings using three sources of data: direct observations of SBIRT practitioners, staff and stakeholder interviews, and review of grantee and performance site documents. Fifty-nine SBIRT practitioners were observed at 21 SAMSHA-funded SBIRT performance sites characterized as EDs or ambulatory clinics across four grantees. The four grantees represent three states and one tribal organization. Performance sites were selected systematically from each grantee based on type of setting, patient flow, staffing arrangements, and patient population characteristics. Practitioners were selected based on anticipated patient flow and staffing schedules. Table 1 presents the distribution of the entire sample of observed practitioners and sites.

Teams of two evaluators trained in the recognition and timing of SBIRT service delivery components observed a typical SBIRT health educator shift. For each event, one observer recorded the workflow process, including patient engagement, service delivery, service documentation, information storage, and information sharing, and collected copies of screening instruments and other patient forms. The second observer recorded the time spent by the SBIRT practitioner delivering each component of the SBIRT process and while performing other roles. Observation instruments were developed by the evaluation team to monitor and record SBIRT activities. All observers were trained on how to use the observational instruments prior to observing the SBIRT health educator shift, the evaluators reviewed and assimilated notes into a comprehensive description of SBIRT workflow at each site, including a detailed picture of how the SBIRT workflow processes were established and estimates of time spent delivering each component. Table 2 presents the average time to complete each SBIRT service as observed in this evaluation. These timing estimates are from an unpublished time and motion study of SBIRT-practitioner activities; see Cowell, Dowd, Landwehr, Barbosa, and Bray (2015, unpublished data) for additional details on these results.

To enhance the understanding about variations in the workflow processes within and across settings, semi-structured interviews were conducted with key stakeholders, program administrators, SBIRT and general medical practitioners, and local evaluators. Semi-structured interview guides were used, and interviews lasted 60–90 minutes. Interview guides included specific questions regarding patient and service delivery flow, as well as data documentation and management. A total of 170 interviews were conducted, and each interview was transcribed verbatim. The transcribed text was reviewed for quality by an evaluation team member, who clarified names and acronyms and ensured consistent use of terms. The text files were then entered into ATLAS.ti (v. 6.2), a qualitative data analysis software package, for coding and data analysis. A team of three qualitative analysts conducted an inductive, or inferential/interpretive, analysis of the coded semi-structured interview data and inductively applied themes to the text passages following the guidelines provided in the analysis plan. Descriptive analysis of the coded passages was used to uncover themes mentioned frequently by respondents regarding SBIRT workflow. The coded themes related to SBIRT workflow were reviewed to understand patient and service delivery flow, contextual variations across settings, and factors that influenced workflow.

Team members also collected official grantee paperwork (e.g., grant applications, annual reports) to review protocols and service delivery procedures. Data from the observation forms, the qualitative interviews, and the grantee documents were combined to provide a comprehensive

Table 1
Distribution of observed SBIRT practitioners and performance sites.

Grantee	Type of performance site		
	Emergency departments	Ambulatory clinics[a]	Total
Total observed practitioners	24	35	59
Total observed performance sites	**7**	14	21

[a] Ambulatory clinics include Federally Qualified Health Centers, private practice internal medicine, dental clinics, gynecological clinics, and community health centers.