Screening, Brief Intervention and Referral to Treatment (SBIRT) in Behavioral Healthcare

I. INTRODUCTION

This report discusses the evidence supporting the effectiveness of screening, brief intervention, and referral to treatment (SBIRT) as a comprehensive approach, as well as for the implementation and effectiveness of the individual components of SBIRT for different behavioral health conditions.[1] The report describes briefly the underlying research that has been conducted in the prevention and early intervention of risky alcohol, substance abuse and tobacco consumption, as well as commonly reported mental health problems, and describes existing studies/models for specific populations and settings. Further, the report addresses the question of what a model SBIRT program is, compared to programs which include or adapt components of the comprehensive SBIRT approach. Literature reviews are included in Attachment I. This paper is intended for use by policy makers, research organizations and governmental agencies seeking to understand the complexities of the SBIRT model and/or considering the adoption and implementation of SBIRT systems change or behavioral health integration within primary care settings.

Screening, brief intervention, and referral to treatment (SBIRT) was originally developed as a public health model designed to provide universal screening, secondary prevention[2] (detecting risky or hazardous substance use before the onset of abuse or dependence), early intervention, and treatment for people who have problematic or hazardous alcohol problems within primary care and other health care settings (Babor et al., 2007; Babor & Higgins-Biddle, 2001). Based on the SAMHSA model, SBIRT is unique in its universal screening of all patients regardless of an identified disorder, allowing health care professionals to address the spectrum of such behavioral health problems even when the patient is not actively seeking an intervention or treatment for his or her problems.

Following are the key points of this paper:

- SBIRT has been defined by SAMHSA as a comprehensive, integrated, public health approach to the delivery of early intervention for individuals with risky alcohol and drug use, and the timely referral to more intensive substance abuse treatment for those who have substance abuse disorders. There is consensus that a comprehensive SBIRT model includes screening, brief intervention/brief treatment and referral to treatment. In addition to these

[1] Excludes medical conditions.

[2] There is some discussion about whether SBIRT is selective prevention (Kumpfer & Baxley, (1997) or early intervention given the overlap in SBIRT's approach and objectives.

integral components, SAMHSA defines a comprehensive SBIRT model to include the following characteristics:

- It is brief (e.g., typically about 5-10 minutes for brief interventions; about 5 to 12 sessions for brief treatments).
- The screening is universal.
- One or more specific behaviors related to risky alcohol and drug use are targeted.
- The services occur in a public health non-substance abuse treatment setting.
- It is comprehensive (comprised of screening, brief intervention/treatment, and referral to treatment).
- Strong research or experiential evidence supports the model's effectiveness.

– No standard SBIRT definition has been articulated by the U.S. Preventive Services Task Force or other authoritative/coordinating bodies. The SAMHSA definition of SBIRT is based on methodology that was developed during the implementation of a comprehensive SBIRT grant program comprised of all the integral components, and supported by research by the National Institute on Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism.

– There is substantial research on the effectiveness of SBIRT in reducing risky alcohol consumption. However, the evidence for the effectiveness of SBIRT in reducing risky drug use, although promising, is still accumulating. The results for the SAMHSA model of SBIRT for drug misuse are inconsistent depending on the characteristics of the provider, the specific setting, and the patient population that is targeted for SBIRT implementation. While there is robust evidence for screening and referral for depression in primary care, to date, little empirical evidence for the use of comprehensive SBIRT-like models for mental health problems commonly reported by health care patients. There is also no research that has demonstrated the implementation or effectiveness of SBIRT-like models in addressing trauma or anxiety disorders in clinical health settings.

II. THE SAMHSA SBIRT MODEL

SBIRT is a comprehensive, integrated, public health approach to the delivery of early intervention for individuals with risky alcohol and drug use, as well as the timely referral to more intensive substance abuse treatment for those who have substance use disorders. Primary care centers, hospital emergency rooms, trauma centers, and community health settings provide opportunities for early intervention with at-risk substance users before more severe consequences occur.

SAMHSA supports a research based comprehensive behavioral health SBIRT model which reflects the six following characteristics:

1. It is brief. The initial screening is accomplished quickly (modal time about 5-10 minutes) and the intervention and treatment components indicated by the screening results are completed in significantly less time than traditional substance abuse specialty care.

2. The screening is universal. The patients, clients, students, or other target populations are all screened as part of the standard intake process.

3. One or more specific behaviors are targeted. The screening tool addresses a specific behavioral characteristic deemed to be problematic, or pre-conditional to substance dependence or other diagnoses.

4. The services occur in a public health, or other non-substance abuse treatment setting. This may be an emergency department, primary care physician's office, school, etc.

5. It is comprehensive. The program includes a seamless transition between brief universal screening, a brief intervention and/or brief treatment, and referral to specialty substance abuse care.

6. Strong research or substantial experiential evidence supports the model. At a minimum, programmatic outcomes demonstrate a successful approach.

As a comprehensive or model approach, SBIRT has only been demonstrated to be effective for risky alcohol use. There is substantial evidence for the effectiveness of brief interventions for harmful drinking when delivered by a physician or other qualified health professional (Bien et al, 1993; Kahan et al, 1995; Wilk et al, 1993). There is a growing body of literature showing the effectiveness of SBIRT for risky drug use (Madras et al, 2008; Saitz et al, 2010; Bernstein et al., 2005) but the results vary by the characteristics of the provider, the specific setting, and the patient population that is targeted for SBIRT implementation.

To determine the effectiveness of SBIRT beyond alcohol, a comprehensive literature review was conducted. SBIRT-like models including not only a simple screening tool, but also an appropriate and brief intervention that addressed the level of problem indicated by the screening results. Table 1 (p. 4) identifies the substance abuse and mental health conditions where SBIRT or components of SBIRT have been employed. The literature review did not include studies that employed SBIRT or approaches that are similar to SBIRT for general medical conditions such as blood pressure, HIV/AIDS, or other behavioral issues such as domestic violence.

As shown in Table 1, the comprehensive SBIRT model has not been consistently demonstrated as effective in addressing harmful or risky drug misuse, depression, trauma, or anxiety problems. Findings showing the effectiveness of SBIRT for drug misuse are accumulating, and there is some programmatic data from the SAMHSA State SBIRT programs showing promising findings for depression among primary care patients. Public health approaches that are consistent with the SBIRT model have also been demonstrated for tobacco use. They are described in the latter sections of this paper. Table 1 presents a brief analysis of the evidence for the effectiveness of SBIRT for various behavioral health conditions.

Table 1. EFFECTIVENESS OF SBIRT AND ITS COMPONENTS FOR BEHAVIORAL HEALTH CONDITIONS

	Screening	Brief Intervention[1]	Brief Treatment[2]	Referral to Treatment	Evidence for Effectiveness of SBIRT
Alcohol Misuse/Abuse	✓	✓	✓	✓	Comprehensive SBIRT effective (Category B classification, USPSTF)
Illicit Drug Misuse/Abuse	✓	*	*	✓	Growing but inconsistent evidence
Tobacco Use	✓	✓	✓	✓	Effective brief approach consistent with SBIRT (USPSTF; 2008 U.S. Public Health Service (PHS) Clinical Practice Guideline
Depression	✓	—	✓	✓	No evidence to date for depression
Trauma/Anxiety Disorders	✓	*	—	✓	No evidence to date for trauma/anxiety disorders

Key: ✓ Evidence for effectiveness/utility of component

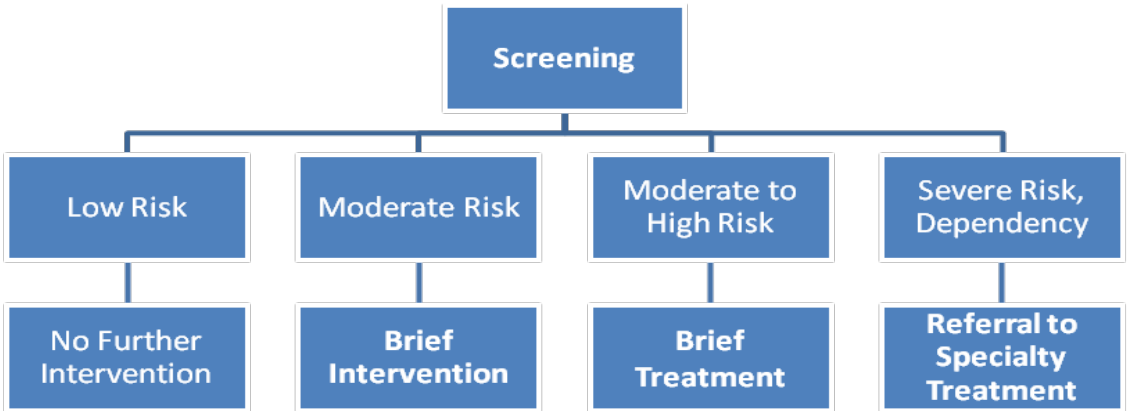
* Component Demonstrated to show Promising Results

— Not Demonstrated and/or Not Utilized

[1]Brief intervention as defined by the SAMHSA SBIRT program involves 1-5 sessions lasting 5 minutes to an hour. Among SBIRT grantees funded by SAMHSA, about 15% of patients receive scores that indicate a brief intervention.

[2]Brief treatment as part of SBIRT involves 5-12 sessions, lasting up to an hour. Among State SBIRT grantees funded by SAMHSA, about 3% of patients receive a score that dictates a brief treatment.

Chart 1. FLOW CHART FOR SBIRT PROCESS



Screening

Universal screening helps identify the appropriate level of services needed based on the patient's risk level. Patients who indicate little or no risky behavior and have a low screening score may not need an intervention. Those who have moderate risky behaviors and/or reach a moderate threshold on the screening instrument may be referred to brief intervention. Patients who score high may need either a brief treatment or further diagnostic assessment and more intensive, long term specialty treatment. Screening typically takes 5-10 minutes and can be repeated at various intervals as needed to determine changes in patients' progress over time. Some commonly used screens for the implementation of SBIRT for alcohol and drug use are the Alcohol Use Disorders Identification Test (AUDIT), Drug Abuse Screening Test (DAST), Alcohol, Smoking, Substance Involvement, Screening Test (ASSIST), and the Cut Down, Annoyed, Guilty, Eye-Opener (CAGE). In addition, a recent study found a single question related to drug use to be effective in detecting drug use among primary care patients (Smith et al., 2010).

Prescreening, which is not a core component of SBIRT but is frequently used, reduces the time needed by busy clinic staff to identify patients with risky behavior. Examples of validated pre-screens are the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C), which consists of the first three alcohol consumption questions from the full 10-item AUDIT questionnaire, and the NIAAA prescreening question ("On any single occasion during the past 3 months, have you had more than 5 drinks containing alcohol?", Taj et al., 1998). If a patient scores high on any domain in the pre-screen, a full screen is conducted.

Brief Intervention (BI) and/or Brief Treatment

Patients are provided with BI, brief treatment, or referral to intensive specialty treatment depending on their level of risk using a validated pre-screen and/or screening tool (Babor & Higgins-Biddle, 2001). With respect to substance abuse, in general only a small proportion of patients in primary care settings screened positive for some level of substance misuse, abuse or dependency. This is usually 5%-20%, but may be as high as 40% in some clinical settings. The majority of patients report minimal or no problems with alcohol or drugs and as such may be an ideal group for primary or universal prevention activities for maintenance of non-risky use or abstinence. The goal of a BI (which usually involves 1-5 sessions lasting about 5 minutes to one hour) is to educate patients and increase their motivation to reduce risky behavior.

The goal of brief treatment (which usually involves 5-12 sessions) is to change not only the immediate behavior or thoughts about a risky behavior but also to address long-standing problems with harmful drinking and drug misuse and help patients with higher levels of disorder obtain more long term care. Based on performance data from state SBIRT grantees funded by SAMHSA, only about 3% receive a score that indicates a brief treatment. Patients referred to a brief treatment often have higher risk factors than those referred to a BI. Brief treatment may also require a manualized course of (advanced) motivational enhancement and cognitive behavioral approaches to help patients address unhealthy cognitions and behaviors associated with current use patterns and adopt change strategies. If patients report greater risk factors than what brief treatment can address, they are referred to specialty substance abuse care. In some cases, a patient may receive a BI first and then move on to a brief treatment or longer term care**.** Although the time required to execute BI/BT is generally considered brief, it is far too lengthy for physicians to do. Also, physicians cite concerns about angering or insulting patients by bringing up sensitive issues such as alcohol and/or drug use. While these concerns are understandable, when SBIRT is implemented properly, the time commitment is reasonable and acceptably low given the demonstrated success in identifying persons requiring referral to treatment (RT). Similarly, concerns about patient reactions can be neutralized by proper training for the providers and ensuring that access to referral services is available. In addition, SBIRT is frequently implemented by allied health professionals such as nurses, social workers, or health educators, with results and actions noted in the patient chart for physician notification and oversight.

Referral to Treatment (RT)

Referral to treatment can be a complex process involving coordination across different types of services. As such, the absence of linkages to treatment referrals can be a significant barrier to the adoption of SBIRT. Referral is recommended when patients meet the diagnostic criteria for substance dependence or other mental illnesses as defined by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV).[3] In these cases, a referral to a specialized treatment provider is often made. Referral requires the primary care system to establish new and complex linkages with the traditional specialty care system to connect clients who score in the problematic range to recognized, evidence based treatment in a timely manner. Although only 3% to 4% of screened patients in primary care settings typically need to be referred, the absence of a proper treatment referral will prevent the patient from accessing appropriate and timely care that can impact other psychosocial and medical issues. Research findings suggest that motivational-based BIs can increase patient participation and retention in substance abuse treatment (Hillman et al., 2001; Dunn and Ries, 1997). Strong referral linkages are critical, as well as tracking patient referrals. SAMHSA requires SBIRT grantees to have a comprehensive referral to treatment and follow-up system in place for the duration of the program. In the case where RT is incorporated into an integrated care model, this may require shifts in provider allocation and hiring.

[3] The diagnostic criteria are likely to change when DSM V is released in 2012 or 2013.

The following characteristics of SBIRT identified in the research literature (see Reference section) have been shown to be important in effectively addressing behavioral health problems. They have therefore formed the foundation for the SAMHSA SBIRT programs.

1) Use of brief, validated, universal pre-screening/screening tools. These tools allow health care professionals to address the problem behavior even when the patient is not actively seeking treatment for his or her problem. Prescreening/screening tools accurately and quickly identify individuals with problematic conditions in as little time as 2-4 minutes. Because of its briefness and its universal application (that is, can be used with all patients), SBIRT may be more generally accepted by health care professionals working in busy practices.

2) Relatively easy to learn by diverse providers. The SBIRT approach is easy to learn relative to other behavioral treatment techniques that may require lengthy specialized training. As such, it can be implemented by diverse health professionals who work in busy medical settings such as physicians, nurses, social workers, health educators and paraprofessionals.

3) Incorporation of strong referral linkages to specialty treatment. Approaches that are effective integrate comprehensive strategies that include referral to specialty treatments (Gentillelo, Donavan, Dunn & Rivara, 1999). While RT may be difficult in underserved areas, this should not deter programs from engaging in developing SBI activities as they have beneficial effects separate from the referral. However, the goal is to provide a quick handoff for dependent patients to specialty treatment if the primary care site cannot provide more intensive services for substance abuse. Establishing linkages with specialty care through identification of local treatment service contracts, an MOU agreement between sites, or dedicated central referral services has been a major barrier for many providers in their decision to adopt SBIRT. The availability of well established referral linkages to specialty care is essential to the uptake and maintenance of SBIRT, and closely tracking to confirm patient compliance with treatment is critical to good health care provision. Primary care locations engaged in referral to specialty care make efforts to determine the patient's engagement and participation in treatment, as this may also affect the course of treatment in the general medical practice.

III. ALCOHOL MISUSE, ABUSE, AND PREVENTION

There is substantial evidence from review studies (Babor, 2007; Bein et al, 1993; Kaner, et al., 2009) and meta-analyses of randomized clinical trials (Beich et al., 2003; Bertholet et al, 2005) that show the effectiveness of SBIRT in reducing hazardous drinking in patients presenting in primary care and other health care settings. The U.S. Preventative Services Task Force (USPSTF) has recommended that "behavioral counseling interventions for risky/harmful alcohol use among adult primary care patients can provide an effective public health approach to reducing problematic drinking" (USPSTF, 2004). The USPSTF also concluded that counseling for risky drinkers should include advice to reduce current drinking; feedback about current drinking patterns; and explicit goal-setting, usually for moderation and assistance in achieving the goals.

Research also indicates that despite the robustness of the evidence for SBIRT's effectiveness for unhealthy alcohol drinking, other factors can impact its effects. For example, studies have shown that multiple contacts or sessions (in contrast to a single contact) with a provider can increase the impact of SBIRT in reducing risky alcohol consumption (Brown et al., 2007; Longabaugh et al., 2001). Moreover, demographic factors and psychosocial conditions also have been shown to influence SBIRT's effects on alcohol misuse (Saitz et al., 2006). For example, homelessness makes SBIRT less effective due to the challenges involved in working with this population, and brief interventions have improved linkages with those who can provide assistance to younger men and hospitalized women.

The conduct of universal screening, brief intervention and treatment, and referral to treatment for alcohol disorders has been found to be effective in various healthcare settings for diverse patient populations including primary care (Babor et al., 2007), emergency departments (Gentilello et al., 1999), as well as schools and colleges (O'Brian et al., 2006). Data are currently being collected that suggest that SBIRT may also be effective in addressing alcohol problems in employee assistance programs (McPherson and Goplerud, 2008). Recent research also has demonstrated the efficacy of conducting screenings and BIs using innovative strategies such as the use of personalized feedback via the internet (Cunningham, 2010), as well as web-based outcomes monitoring to assist with treatment decisions and cognitive behavioral techniques (Roy-Bryne, 2010).

Also promising is the utilization of computerized interventions which has been shown to be effective in augmenting and complementing the gains made through the initial face to face brief interventions. The Veterans Administration, for example, examined the use of electronic clinical reminders with patients following screening with the AUDIT-C and showed such approaches reinforced moderate drinking reductions at follow up (Williams, 2010). Other research reviews indicate that electronic methods can enhance brief interventions with substance users by offering assessment and feedback in brief motivational interviewing; monitoring individual treatment patient's progress; tracking patients in aftercare; and providing educational opportunities for clinicians (Cucciare, 2009). Electronic intervention can also help bridge the treatment capacity gap by providing another source of assistance for women who do not complete traditional substance abuse treatment (Van DeMark, et al., 2010). In addition, the cost savings offered by the implementation of SBIRT in primary care are significant. One study (Gentilello, 2005) showed that for every one dollar spent on providing SBIRT approximately $3.81 is saved. The Washington State SBIRT program cost study also reflects similar savings.

The concept of SBIRT can be applied across the continuum of care for alcohol problems. Based on the severity of the problem indicated by the screening results, interventions ranging from universal prevention to brief interventions to traditional specialty treatment can be provided to health care patients. For individuals who are abstinent, universal prevention practices can be implemented to sustain alcohol abstinence. For moderate risky drinking, the first two components of SBIRT – screening and brief interventions (SBI)– may be implemented which can address inappropriate expectancies (beliefs about substance use effects and social norms of acceptable behavior) and lack of motivation to change risk factors that contribute to substance abuse (Dimeff et al., 1999).

Extensive research supports screening and brief intervention as effective universal and selective prevention strategies for alcohol problems. Universal screening with educational content has measurable prevention effects with accompanying feedback (Kunz et al., 2004). The prevention approach may also be successful for abstainers and non-risky drinkers by providing behavioral support and normative information to maintain healthy behaviors. For at-risk individuals, early identification and brief intervention around false expectancies, normative use misperceptions and skills acquisition can prevent progression to severe drinking problems. For example, the BASICS program, which is consistent with the SBIRT approach, has been shown to be effective in addressing problematic or risky drinking in college age groups (Dimeff et al., 1999). SBIs also incorporate motivational interviewing components (Miller and Rollnick, 2002) that are also integrated in brief treatment for higher risk patients. SBIs have proven effective in decreasing overall consumption and binge drinking (Casset et al., 2008; Hanewinkel & Wiborg 2005; Kunz Jr. et al., 2004; Martens et al., 2007; Heather et al., 2004; Toumbourou et al. 2007; Murphy et al., 2001), as well as increasing productivity (Osilla et al., 2010). Evidence further demonstrates that strengthening resiliency, competencies, and social connectedness supports recovery for those individuals who show early symptoms of alcohol misuse.

Extensive reviews of the effectiveness of SBI (Babor et al., 2007, 2008) have found that there are "irrefutable" improvements in short-term health benefits as well as indications of "substantial" long-term benefits. Follow up at three, six or nine month intervals can help document the effectiveness of SBI and reinforces normative ideation and skills enhancement for individuals with minimal risk behaviors. To achieve long term effects, SBI must be implemented with fidelity through targeted training for providers (Cameron et al., 2010; Seale et al., 2005; Christensen et al., 2004; Bray et al., 2009; Ronzani et al., 2008; Furtado et al., 2008; Heather et al., 2004; Tollison et al., 2008; Babor et al., 2004; Brown & Fleming, 1998). In many instances providers implementing SBI may not necessarily be physicians but allied health professionals such as nurses, counselors, health educators, and peers (Mastroleo, 2009; Blume & Marlatt, 2004), who may experience fewer barriers in service provision than physicians (Babor et al., 2004). Also, SBI can be conducted individually or with groups (Shellenberger et al., 2009; Henslee, 2009), with web-based instruments (i.e. college oriented E-Chug and E-Toke or Alcohol Skills Training Programs), or online feedback (Blume & Marlatt, 2004), and applied through strategic planning by communities or providers.

IV. DRUG MISUSE, ABUSE, AND PREVENTION

In 1995, based on the scant availability of published research on SBIRT for drugs, the USPSTF (1995) determined that there was "insufficient evidence to recommend for or against" the effectiveness of using an SBIRT approach for drugs. Some researchers have cited the relative scarcity of validated brief drug screening tools (Smith PC**,** et. al**.,** 2010) and the low prevalence rates of drug use (Saitz, 2010) in primary care settings, as two reasons for the comparatively small number of studies showing SBIRT's effects with drugs (De Micheli D, et. al**.,** 2004). Nevertheless, since 1995, there has been a growing body of investigator-initiated research as well as findings from SAMHSA-funded SBIRT projects that have shown promising results for the use of the comprehensive SBIRT approach, as well as selected use of individual components, in reducing risky drug use (Copeland et al., 2001). For instance, a randomized controlled trial indicated that BIs can reduce cocaine and heroin use (Bernstein et al., 2005). Motivational

interviewing coupled with a self-help booklet given to regular amphetamine users also resulted in reduced levels of drug use (Baker, Lee, Claire, Lewin, Grant, & Pohlman, 2005). BIs for patients screening positive for cocaine, heroin, and amphetamine are also showing promising results in various settings beyond emergency departments (Cunningham et al., 2009). In small sample sizes, screening and BIs have been linked with reductions in the use of marijuana, amphetamine-type stimulants, cocaine, and heroin (Madras et al., 2008). The World Health Organization (2008) sponsored a multi-national study demonstrating that screening and brief interventions resulted in short-term reductions of a wide variety of illicit drugs, including marijuana, cocaine, amphetamine-type stimulants, and opioids.

As with alcohol consumption, universal and selective prevention efforts may also be targeted to those with minimal or mild drug misuse. Like with alcohol, identified abstainers can benefit from supportive and normative information to maintain healthy lifestyles. For individuals at risk for drug problems, early identification and brief intervention around false expectancies and skill acquisition can prevent progression to more severe drug problems. In addition, tools that can be used for universal screening of drug use in health settings such as the DAST and the ASSIST as well as on-line tools such as E-TOKE (Electronic – THC Online Knowledge Experience) are prevention-ready applications designed to detect the presence of drug use.

V. SBIRT AND TOBACCO USE

The utility of SBIRT approaches for all forms of tobacco use, especially smoking, has been endorsed by the USPSTF and has elicited interest in primary care and hospital personnel. Cigarette smoking continues to be the leading cause of preventable disease and death in the United States (USDHHS, 2004) and is attributed to approximately 443,000 deaths per year (CDCP, 2010) from lung cancer: ischemic heart disease, chronic obstructive pulmonary disease, strokes, and other diagnoses. Smoking also affects health outcomes of people other than the smokers, with smoking during pregnancy resulting in premature births, spontaneous abortions, stillbirths, and intrauterine growth retardation. In addition, research has shown that psychiatric disorders and cigarette smoking are frequently co-morbid conditions (Dome et al, 2010; Brown et al, 2008; Brown et al, 2002; Degenhardt & Hall, 2001; Grant et al, 2004). A recent study using data from the 2005-2006 National Survey on Drug Use and Health reported that adults with lifetime depression, anxiety, anxiety with depression, or major depressive episodes were more likely to be "current smokers, smoke with higher intensity and frequency, have more dependence, and have lower success at quitting" when compared to individuals without these psychiatric conditions (Trosclair & Dube, 2010).

However, despite smoking's established risks and the health benefits of quitting, 23 percent of adults in the United States continue to smoke and more than 2,000 adolescents become regular tobacco users daily (NSDUH, SAMHSA). Nearly 90 percent of smokers start by age 18, and 25 percent of teen smokers remain addicted as adults. Because 70 percent of smokers see a physician each year (Fiore, Bailey, Cohen, et al., 2000) clinicians have a unique opportunity to intervene and implement tobacco SBIRT in primary care settings and emergency departments.

As such, the USPSTF strongly recommends that clinicians screen all adults for tobacco use and provide brief interventions, including screening, brief behavioral counseling (less than 3 minutes), and pharmacotherapy delivered in primary care settings. The USPSTF also strongly

recommends that clinicians screen all pregnant women for tobacco use and provide augmented pregnancy-tailored counseling to those who use tobacco products. These interventions have been shown to be effective in increasing the proportion of smokers who successfully quit smoking and remain abstinent after 1 year.

The USPSTF advises that the clinical interventions for tobacco cessation that are cited in the 2008 U.S. Public Health Service (PHS) Clinical Practice Guideline, *Treating Tobacco Use and Dependence* (Fiore et al, 2008), become integrated in standard clinical practice. The PHS Guideline also recommends that clinicians use the screening instrument known as the 5A's of tobacco use intervention, which provides a useful strategy for engaging all medical patients in smoking cessation discussions. The 5A's are consistent with the SBIRT approach and parallel the screening and brief intervention or counseling components of the SBIRT model.

1. ***Ask*** about tobacco use.
2. ***Advise*** to quit through clear personalized messages.
3. ***Assess*** willingness to quit.
4. ***Assist*** to quit.
5. ***Arrange*** follow-up and support.

The Guideline's behavioral treatments include counseling, social support, problem solving, and cessation skills training offered in face-to-face individual or group formats or via telephone quit lines. Medication assisted treatments for tobacco use/dependence have also been suggested and include seven FDA-approved, first-line medications (i.e., bupropion SR, nicotine gum, inhaler, lozenge, nasal spray, and patch), and two second-line medications (clonidine and nortriptyline).

The Agency for Healthcare Research and Quality (AHRQ) also reviewed tobacco guidelines developed in England in 2006 and supports recommendations for brief interventions for patients who use tobacco products, including: simple advice to stop, assessment of the patients' commitment to quit, an offer of pharmacological or behavioral support, and provision of self help materials or referral to supportive resources such as Quit lines.

VI. DEPRESSION

The USPSTF supports screening for adult depression where accurate diagnosis, effective treatment, and follow-up are available. The USPSTF also recommends screening adolescents (12-18 years of age) for major depressive disorder (MDD), again with accurate diagnosis, psychotherapy (cognitive behavioral or interpersonal), and follow-up. There are many commonly used screening tools for depressive symptoms, such as the Patient Health Questionnaire 2 (PHQ-2) (Kroenke, et al., 2003) and the Patient Health Questionnaire 9 (PHQ-9) (Kroenke, et al., 2001) which both have established validity and reliability.

Primary care physicians are the providers most likely to see patients when they first become depressed and are most capable of initiating and monitoring treatments with pharmacologic agents (McNaughton, 2009). Previous studies, however, have shown that at least half of patients with active depression seen by primary care physicians remain undiagnosed (Spitzer et al, 1994; Schulberg et al., 1988; Ormell et al, (1991). Depression is particularly prevalent among "high

utilizers" of medical care resources, of whom as many as 40% have been found to have a current depressive illness (Katon et.al., 1990). Due to time constraints and training issues, physicians in primary care are often unable to provide effective behavioral interventions and treatments for the patients with mental disorders (McNaughton, 2009).

Promising but preliminary data are available from SBIRT grantees funded by SAMHSA that indicate that the SBIRT approach may be adapted for depression treatment. For example, the State of Wisconsin incorporated depression screening into a Wisconsin Initiative to Promote Healthy Lifestyles (WIPHL) pilot program. Patients with mild or moderate depression were provided behavioral activation by health educators using specific protocols developed by the program.

Behavioral activation also offers promise as a strategy for brief intervention and there is some evidence that it would fit an SBIRT-like approach. Behavioral activation assists individuals to identify and engage in daily activities and situations they find positively reinforcing and consistent with their long-term goals (Dimidjain et al., 2006). Behavioral activation as a brief intervention has been demonstrated in three meta-analyses, one randomized control trial, and one follow-up study of a previous randomized control trial, to be an effective intervention for the treatment of depression (Sturmey, 2009).

VII. ANXIETY DISORDERS AND TRAUMA

Anxiety disorders are among the most common mental health problems seen in primary care settings and as many as one-third of primary care patients have been found to have significant anxiety symptoms (Fifer, 1994). Approximately 15% of primary care patients have a current anxiety disorder, and 24% have had a lifetime anxiety disorder, as assessed by diagnostic interviews (Nisenson et al., 1998). Primary care patients with anxiety disorders typically have considerable disability and impairment in functioning (Roy-Byrne et al., 1999; Sherbourne et al., 1996) and high utilization rates of general medical services which ultimately result in higher health care costs (Simon et al., 1995). Screening tools are also available for anxiety such as the Brief Symptom Checklist-18 (Derogatis, 2001) which provides a measure of both anxiety and depression. The My Mood Monitor (M-3) (Gaynes et al., 2010) screening is a valid and efficient one page tool for screening multiple common psychiatric illnesses in primary care and other settings. The M-3 can function both as a screen for specific anxiety and mood disorder diagnoses, as well as a general screen for the presence of any mood or anxiety disorder in addition to bipolar disorder and PTSD.

Interventions such as passive psychoeducation, including bibliotherapy, have been shown to reduce symptoms of anxiety, psychological distress, and depression (Donker et al., 2009). These approaches may be offered as a brief intervention to patients who screen positive for mild or moderate levels of anxiety. Passive psychoeducational interventions are cost-effective and can be easily put into practice by non medical professionals and may have a less-stigmatizing impact on consumers, especially when delivered through a Web site, e-mail or a brochure (Donker et al., 2009) .

Evidence of emotional trauma is also common in primary care. Walker et al.(1993) report that rates as high as 37% for childhood sexual abuse and 29% for adult sexual assault are evident in primary care settings. Walker et al. found that 61% of women reported that they believed that it was appropriate for their primary care physician to ask about previous victimization, but only 4 percent had been actually asked. In the Adverse Childhood Experiences (ACE) Study (Dube et al., 2004), patients received an assessment using the Family Health History and Health Appraisal questionnaires as measures. The authors found the reliability statistics of the ACE study support the use of these questionnaires for retrospective reports of adverse childhood experiences such as childhood maltreatment, household dysfunction, and other socio-behavioral factors. Other tools for screening trauma and anxiety include: the Trauma Symptom Inventory (Briere, 1995), the PTSD-8 (Hansen, et al., 2010), and the Primary Care PTSD Screen (PC-PTSD) (Prins, et al., 2003).

The National Child Traumatic Stress Network has developed an evidence-based practice which may be suitable for use in a BH SBIRT program. The Trauma Adaptive Recovery Group Education and Therapy for Adolescents and Pre-Adolescents (TARGET-A) has been evaluated in 248 clinical trials with control groups and can be completed in as little as 4 sessions. This intervention is designed for groups and/or individual children, adolescents and their parents that is easily adapted to settings where youth or families enter and leave services rapidly (NCTSN, 2008).

The prevalence of issues such as depression, anxiety, and trauma among primary care patients call for further exploration to determine if certain SBIRT components may be applied to symptoms of these disorders among medical patients. These findings also highlight the value of universal screening, a principal component of SBIRT, in addressing mental health issues in primary care and other health care settings.

VIII. IMPLICATIONS FOR FUTURE PROGRAMS

While there is substantial research for the effectiveness of SBIRT in reducing unhealthy alcohol use and tobacco use/misuse, the evidence for similar models in addressing drug abuse and mental health conditions such as depression, anxiety and trauma is still being developed. As such, SAMHSA would recommend investment in developing SBIRT-like models for most common behavioral health conditions, for use in public health settings. This would involve services research, demonstrations, and conducting rigorous comparative effectiveness evaluations of behavioral health SBIRT programs beyond those already proven effective for alcohol or tobacco, in possible collaboration with NIMH, NIAAA and/or NIDA.

Numerous screening and intervention programs in a variety of settings and populations have recently defined themselves as “SBIRT programs.” Most often these programs do not meet the criteria established in this paper to be designated as a comprehensive SBIRT model. Both a strong research base and more consistent terminology and definitions for what constitutes a true SBIRT model are lacking. Although SBIRT and its components have been utilized across programs, the effectiveness of SBIRT programs can vary in their fidelity, application, and comprehensiveness.

In considering the future of SBIRT program implementation, some or all of the following could be pursued:

- Partnership with one or more external, authoritative bodies. This may involve approaching the US Preventative Services Task Force to develop an SBIRT definition and/or taxonomy which reflects the latest science-base approach and is vetted with the field.

- Collaboration with NIH (NIDA, NIMH) and/or AHRQ to conduct more research on SBIRT approaches for drug abuse, depression, anxiety, trauma, etc., to help establish parameters that are critical to effective implementation.

- Diversifying the SAMHSA SBIRT program portfolio and dedicating increased evaluation resources to examine the value of complementing SBIRT for alcohol and drugs with screening and intervention for other behavioral health conditions.

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