Screening, Brief Intervention and Referral to Treatment (SBIRT): A Public Health Approach to the Secondary Prevention of Alcohol, Tobacco and Drug-related Problems

Janice A. Vendetti, MPH, CPH, Thomas F. Babor, PhD, MPH & Bonnie G. McRee, MPH
University of Connecticut Health Center, School of Medicine, Farmington, CT

Abstract: Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a comprehensive approach to the delivery of early intervention and treatment services through universal screening for persons with substance use disorders and those at risk. Translational research conducted during the past 25 years on SBIRT for alcohol, tobacco and drug use constitutes a prime example of a public health approach to substance use disorders. The corpus of applied research includes psychometric evaluations of new screening tests, clinical trials of brief interventions and studies of program implementation and dissemination both in the USA and throughout the world. Beginning in the 1980's, concerted efforts were made by the World Health Organization and the US National Institutes of Health to provide an evidence base for alcohol screening and brief intervention in primary health care settings. With the development of reliable and accurate screening tests, more than a hundred clinical trials were conducted worldwide to evaluate the efficacy and cost effectiveness of alcohol screening and brief intervention in primary care, emergency departments and other health care settings. Research on dissemination and implementation of SBIRT constitutes the third area of translational science supporting this public health approach to substance use disorders.

Phase I (1980's): Development of Screening Tests for At-risk Substance Use

Criteria For Using a Screening Test: 1) high prevalence of the condition; 2) the condition should not be evident to the person who suffers from it; 3) the condition must be treatable; 4) early intervention is known to be advantageous; 5) the test must be reliable; 6) the cost and burden of screening must be moderate.

- MAST, SMAST, SSAST, DAST, LAST, FAST
- CAGE, CAGE-AID
- AUDIT, ASSIST
- LAST, TWEAK, T-ACE, CUGE, REPS, MSI-X, CRAFFT, RAFFT, DUSI, SASSI, POSIT, AAIS, SWAG, Trauma Scale
- GGT, MCV, CDT, Urine drug screens, hair analysis, saliva test

Screening: What We Have Learned

- Self-report tests are reliable and valid under most clinical conditions and cost very little to administer and score
- Response bias can be predicted, detected and minimized
- Biological tests are expensive, cumbersome, insensitive, difficult to interpret, but remain useful in employment and medical settings
- Mode of administration (interview, self-report, computer) makes little difference in response accuracy, under non-threatening conditions
- A clever acronym may help dissemination and uptake as much as scientific evidence

Phase II (1985 – current): Clinical Trials of Brief Intervention (BI) with Risky Drinkers and Drug Users

Brief Intervention (BI) is a time-limited (5 minutes to 5 brief sessions) of behavioral counseling that targets a specific health behavior (e.g., at-risk drinking or drug use).

The goal of Brief Intervention is to a) reduce alcohol or drug use, and b) facilitate treatment engagement, if needed.

Alcohol BI Trials, Results and Meta-analyses

- Brief interventions can reduce risky alcohol use by about 20% for at least 12 months
- BI is effective with younger and older adults, men and women
- Results are mixed on longer-term health care utilization and reduction of alcohol-related harm
- Results are consistent across providers (professional vs. non-professional) settings (PHC, ED, Trauma, IP), and cultural groups

(Whitlock et al., 2004 and individual studies)

BI and Brief Treatment Trials with Drug Users

- Some evidence of effectiveness with at-risk drug users in Australia, India, Brazil and USA *(Humeniuk et al., 2008)*
- Some evidence of the effectiveness of brief treatments for chronic cannabis users in the USA *(MTP Research Group, 2004)*

Phase III (1990 – current): Feasibility Research on SBIRT Implementation and Dissemination

Factors influencing implementation from the Cutting Back Study: *Babor et al., 2005.*

- Predisposing Factors
  - Stable patient membership
  - Organizational stability
  - Enabling/limiting factors
  - Provider lack of time
- Competing Organizational Priorities
  - Influential leadership
  - Staff involvement in planning
  - Technical assistance
- Reinforcing Factors
  - Organizational support

Themes associated with implementation success from the SAMHSA SBIRT Cross-site Evaluation Study: *Vendetti et al., in preparation*

- Committed leaders
- Intraorganizational communication and interagency collaboration
- Provider buy-in and acceptance of the SBIRT model
- Contextual factors (space, treatment accessibility, patient characteristics, concurrent technological advances, geog. setting)
- Quality assurance training, monitoring and feedback
- Federal grant requirements

Phase IV (2000 – current): Development and Evaluation of National Plans for SBIRT Training &Program Implementation

- **Finland:** 2 nation-wide projects ongoing *(Seppä & Kuokkanen, 2008)*
- **Norway:** Not a big hit among GPs *(Aasland & Johannesen, 2008)*
- **Denmark:** Implementation not successful *(Barfod, 2008)*
- **Catalonia:** Extensive training and support *(Funk et al., 2005)*
- **South Africa:** Difficult to implement in PHC *(Peltzer et al., 2008)*
- **Brazil:** Some success in PHC *(Souza-Formigoni et al., 2008)*
- **USA:** SBIRT underway in 15 states/tribal orgs. *(Madras et al., 2009)*

Summary of SAMHSA SBIRT Process Evaluation to Date

- SBIRT programs across the US have screened over 1.2 million patients who would otherwise have not received services (974,854 screened with feedback; 181,184 provided a BI; 29,915 provided BT; 37,478 provided with a referral to specialty treatment)
- Many sites have implemented a complex public health program in a variety and range of settings
- Screening for risky substance use has greatly improved the organizational and clinical connections between medical settings and substance abuse treatment agencies
- Important factors related to implementation and sustainability (barriers and facilitators) have been identified
- Migration from research-based models has occurred in response to real-world challenges

Implications of 25 Years of ATOD Research on SBIRT

- SBIRT is a successful example of translational research
- SBIRT meets the requirements of a public health approach to secondary prevention, but needs to focus on high risk groups in high volume settings for a maximum effect
- ATOD SBIRT could serve as a major feeder to the US specialized alcohol and drug treatment system, *and* is also an additional secondary prevention component
- Alcohol & tobacco SBIRT is feasible as a way to introduce drug SBIRT into a wide variety of health care settings

References Cited:

Aasland, O. & Johannesen, A. (2008). Screening and brief intervention for alcohol problems in Norway. Not a big hit among general practitioners. *Nordic Studies on Alcohol and Drugs, 25,* 515-521.

Babor, T., Higgins-Biddle, J., Dauser, D., Higgins, P. & Burleson, J. (2005). Alcohol screening and brief intervention in primary care settings: Implementation models and predictors. *Journal of Studies on Alcohol, 66*(3), 361-368.

Barfod, S. (2008). A GP's reflections on brief intervention in primary health care in Denmark. *Nordic Studies on Alcohol and Drugs, 25,* 523-527.

Funk, M. et al. (2005). A multicountry controlled trial of strategies to promote dissemination and implementation of brief alcohol intervention in primary health care: Findings of a WHO Collaborative Study. *Journal of Studies on Alcohol, 66*, 379-388

Humeniuk, R., Dennington, V. & Ali, R. on behalf of the WHO ASSIST Phase III Study Group. (2008). The effectiveness of a brief intervention for illicit drugs linked to the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) in primary health care settings: A technical report of Phase III findings of the WHO ASSIST randomized controlled trial. World Health Organization, Geneva.

Madras, B.K. et al. (2009). Screening, brief interventions, referral to treatment (SBIRT) for illicit drug and alcohol use at multiple healthcare sites: Comparison at intake and 6 months later. *Drug and Alcohol Dependence, 99*, 280-295.

Marijuana Treatment Project Research Group. (2004). Brief treatments of cannabis dependence: Findings from a randomized multi-site trial. *Journal of Consulting and Clinical Psychology, 72,* 455-466.

Peltzer, K., Matseke, G. & Azwihangwisi, M. (2008). Evaluation of alcohol screening and brief intervention in routine practice of primary care nurses in Vhembe district, South Africa. *Croatian Medical Journal, 49*(3), 392-401.

Seppä, K. & Kuokkanen, M. (2008). Implementing brief alcohol intervention in primary and occupational health care. Reflections of two Finnish projects. *Nordic Studies on Alcohol and Drugs, 25,* 505-513.

Souza-Formigoni, M.L.O., Boerngen-Lacerda, R., & Vianna, V.P.T. (2008) Implementing screening and brief intervention in primary care units in two Brazilian states: a case study. *Nordic Studies on Alcohol and Drugs, 25,* 553-564.

Whitlock, E. et al. (2004). Behavioral counseling interventions in primary care to reduce risky/harmful alcohol use by adults: A summary of the evidence for the U.S. Preventive Services Task Force. *Annals of Internal Medicine, 140*, 557-568.