



Screening, Brief Intervention, and Referral to Treatment Resources

Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an important service delivery model that affects many areas of healthcare today including the provision of services to people with co-occurring disorders (COD). CSAT is funding a number of grants to promote SBIRT as a way of expanding substance abuse treatment capacity. As of last year, over 500,000 individuals had been screened by SBIRT grantees. The SBIRT Web site was developed to inform grantees and others about CSAT's activities in this area and the use of SBIRT interventions in a variety of settings: <http://sbirt.samhsa.gov/>

The Web site briefly describes the core components of SBIRT and provides news, information on reimbursement codes, and links to online resources related to SBIRT. Information about grantees' specific efforts, including links to conference presentations on those efforts, is also provided.

The site provides links to resources for screening for hazardous use/substance abuse as well as a number of resources on brief interventions including CSAT's TIP 34, *Brief Interventions and Brief Therapies for Substance Abuse* (available online at <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat5.chapter.59192>) and the Brief Alcohol Screening and Intervention of College Students (BASICS) harm reduction approach (see <http://depts.washington.edu/abrc/basics.htm>).

Links are also provided to various organizations that offer additional resources. Highly useful for clinicians delivering SBIRT is the National Institute on Alcohol Abuse and Alcoholism's *Helping Patients Who Drink Too Much: A Clinician's Guide*, available online at http://pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm

CSAT has funded 11 States or tribal entities and 12 colleges and universities to support implementation of SBIRT. CSAT has also recently funded training at 10 different medical residency programs in screening, brief intervention, brief treatment, and referral to specialty treatment for people who may be at risk for a substance use disorder. These new grants also require that the teaching involves interventions that include screening and assessment of COD: see http://www.samhsa.gov/Grants/2008/ti_08_003.aspx

In other areas, SBIRT is also being expanded to take into account COD. For example, there are brief screening and intervention programs aimed at pregnant woman, such as the 4p's Plus© program, which asks about the individual's pregnancy, past substance use, family substance use, and relations with a partner in order to screen for domestic violence, potential mental disorders, and potential substance use problems. While the 4Ps screening instrument is copyrighted, a revised version (the 5Ps Screening Tool) is in the public domain and available online: see http://www.mhqp.org/mhqp_attachments/IHR%20integrated%20screening%20tool.pdf

Another SBIRT effort that is applicable to COD has been implemented by the Dartmouth Hitchcock Medical Center Department of Infectious Diseases, which used the Client Diagnostic Questionnaire (CDQ) to screen for both potential psychiatric and substance use disorders. The instrument has been validated for screening for these disorders among those who have HIV. For more information on the CDQ, see <http://hab.hrsa.gov/tools/topics/cdq.htm>

For programs interested in using brief screening instruments for COD, COCE has reviewed a number of instruments that are of potential use to screen for substance abuse, mental disorders, and COD. The results of that review are available online at http://www.coce.samhsa.gov/cod_resources/PDF/ScreeningReportRevised9-12-07.pdf

In addition, the State of New York, as one of the efforts from the State's COD Task Force, will soon be releasing a guidance memo listing mental health and substance abuse screening instruments with information that will help providers select appropriate screening instruments for the populations they serve: see http://www.omh.state.ny.us/omhweb/news/colleague_ltr_june2008.html

Some recent articles on SBIRT are abstracted in a section immediately following this page.

This Review contains revisions of abstracts and is not generally the product of an original analysis of the actual articles cited. Readers interested in finding out more about COCE should visit the Web site: <http://coce.samhsa.gov/>

COD Research

Screening, Brief Intervention, and Referral to Treatment (SBIRT) References

Désy P.M. & Perhats, C. (2008). Alcohol screening, brief intervention, and referral in the emergency department: An implementation study. *Journal of Emergency Nursing*, 34(1), 11-19.

The authors examined whether a standardized SBIRT intervention could be implemented in emergency departments (EDs) by ED nurses. Training programs for site coordinators were instituted at five ED sites to teach those coordinators how to teach nurses to deliver the SBIRT intervention. Site coordinators were interviewed 3 months into the 6-month implementation and again at its conclusion. SBIRT was successfully implemented within that time-frame at two of the sites. Nurses in those programs screened 3,265 patients, 21 percent of whom were screened as being hazardous drinkers. Of those who were determined to be hazardous drinkers, 56 percent received a 3- to 5-minute brief intervention and a smaller percentage were then referred to treatment. The authors conclude that this study shows that SBIRT can be implemented by nursing staff in EDs.

D'Onofrio, G., Pantalon, M.V., Degutis, L.C., Fiellin, D.A., Busch, S.H., Chawarski, M.C., Owens, P.H., & O'Connor, P.G. (2008). Brief intervention for hazardous and harmful drinkers in the emergency department. *Annals of Emergency Medicine*, 51(6), 742-750.

The authors evaluated the effectiveness of an SBIRT intervention that used a brief negotiation interview delivered in an emergency department. They randomly assigned 494 individuals who had been screened as hazardous/harmful drinkers according to National Institute for Alcohol Abuse and Alcoholism guidelines to receive either the SBIRT intervention or written discharge instructions provided to the patient. Participants were assessed 6 and 12 months later to determine the mean number of drinks per week, the number of episodes of binge drinking in the past 30 days, negative consequences of drinking, and substance abuse treatment participation. At the 12-week assessment, those who received the SBIRT intervention were drinking a mean number of drinks per week that had decreased by 3.8 drinks from baseline, while those in the control group were drinking a mean of 2.6 drinks fewer per week. Participants in the intervention also decreased the mean number of binge drinking episodes per month by 2 from a baseline of 6, while the control group decreased by 1.5 episodes from a baseline of 5.4. However, these decreases did not mark a significant difference between the two groups.

Kypri, K., Langley, J.D., Saunders, J.B., Cashell-Smith, M.L., & Herbison, P. (2008). Randomized controlled trial of web-based alcohol screening and brief intervention in primary care. *Archives of Internal Medicine*, 168(5), 530-536.

The authors assessed 976 college students (aged 17 to 29) using the Alcohol Use Disorders Identification Test (AUDIT), 599 of whom scored as drinking in a hazardous or harmful fashion, of whom 576 agreed to participate in the intervention. Participants were randomly assigned to receive an informational pamphlet, to participate in a Web-based motivational intervention, or to participate in Web-based motivational intervention that was followed by other interventions 1 and 6 months later. Both groups participating in the Web-based motivational intervention were drinking significantly less frequently, had less total alcohol consumption, and had fewer academic problems at the follow-up assessments. There were no significant differences between those who participated in the single intervention and those who participated in the three session intervention.

Client Characteristics

Arias, A.J., Gelernter, J., Chan, G., Weiss, R.D., Brady, K.T., Farrer, L., & Kranzler, H.R. (2008). Correlates of co-occurring ADHD in drug-dependent subjects: Prevalence and features of substance dependence and psychiatric disorders. *Addictive Behaviors*, 33(9), 1199-1207.

The authors investigated the course of substance dependence disorders and the prevalence of other co-occurring mental disorders among individuals who had both a substance dependence disorder and attention deficit hyperactivity disorder (AD/HD). They used the Semi-Structured Assessment for Drug Dependence and Alcoholism to assess 1,761 individuals who had a lifetime diagnosis of cocaine and/or opioid dependence. Of their sample, 5.22 percent met criteria for a lifetime diagnosis of AD/HD, a considerably higher percentage than that found in samples without substance dependence. Having co-occurring AD/HD was associated with an earlier age of onset for substance use, a greater number of substance dependence diagnoses, a greater number of other psychiatric diagnoses, a greater number of hospitalizations, and an increased likelihood of prior suicide

attempts. The authors then analyzed their data after controlling for conduct disorder, and found significant association remained between co-occurring AD/HD and age of first use and number of substance dependence diagnoses.

Cornelius J.R., Kirisci, L., Reynolds, M., Homish, G.G., & Clark, D.B. (2008). Husbands' SUD is associated with higher levels of co-occurring but not non-co-occurring psychiatric disorders among their wives. *Addictive Behaviors*, 33(9), 1231-1234.

The authors analyzed whether husbands with substance use disorders had wives who more likely to have substance use disorders, mental disorders, or COD. They evaluated wives of 342 men who had a lifetime history of a substance use disorder and 350 men who had no lifetime diagnosis for a substance use disorder. The authors found that wives who had husbands with substance use disorders were five times more likely to have a substance use disorder themselves, and seven times more likely to have a co-occurring substance use and depressive disorder or a co-occurring substance use and anxiety disorder. However, independent (i.e., not co-occurring) anxiety and depressive disorders were no more common among women with husbands who had substance use disorders than among those whose husbands did not.

Gao, K., Verduin, M.L., Kemp, D.E., Tolliver, B.K., Ganocy, S.J., Omar Elhaj, O., Bilali, S., Brady, K.T., & Findling, R.L. (2008). Clinical correlates of patients with rapid-cycling bipolar disorder and a recent history of substance use disorder: A subtype comparison from baseline data of 2 randomized, placebo-controlled trials. *Journal of Clinical Psychiatry*, 69, 1057-1063.

The authors used baseline data from two randomized, placebo-controlled trials to evaluate differences between individuals with rapid-cycling bipolar I disorder (n=191) or rapid-cycling bipolar II disorder (n=54) who also had a recent history of substance use disorders. They found that participants with rapid-cycling bipolar I disorder were significantly more likely to have a co-occurring panic disorder than were those with rapid-cycling bipolar II disorder and had a significantly higher Addiction Severity Index psychiatric composite score. There were no significant differences between the two groups in terms of prior suicide attempts, prior hospitalizations, childhood abuse histories, lifetime substance use disorders, or on other measures used in the assessment.

Goldstein, B.I. & Levitt, A.J. (2008). The specific burden of comorbid anxiety disorders and of substance use disorders in bipolar I disorder. *Bipolar Disorder*, 10(1), 67-78.

Using data from the National Epidemiologic Survey on Alcohol and Related Conditions for 1,411 individuals who met criteria for a diagnosis of bipolar I disorder at some point during their lifetimes, the authors evaluated whether also having a co-occurring anxiety disorder affected the likelihood of having a co-occurring substance use disorder. They found that for women only, having a co-occurring anxiety disorder significantly increased the odds of also having a substance use disorder (increasing the odds by .41 times). For women, a co-occurring substance use disorder was also associated with significantly more mixed episodes, while for men a co-occurring substance use disorder was also associated with a significantly greater likelihood of depression in the past year.

Hedtke, K.A., Ruggiero, K.J., Fitzgerald, M.M., Zinzow, H.M., Saunders, B.E., Resnick, H.S., & Kilpatrick, D.G. (2008). A longitudinal investigation of interpersonal violence in relation to mental health and substance use. *Journal of Consulting and Clinical Psychology*, 76(4), 633-647.

The authors interviewed by phone a household sample of 4,008 women (aged 18 to 89) in order to determine rates and correlates of exposure to violence. Follow-up interviews were conducted 1 and 2 years later. The interviews addressed experiences of violence, mental health, and substance use problems. The authors found that lifetime exposure to violence was associated with increased rates of posttraumatic stress disorder (PTSD), depression, and substance use problems; that exposure to a greater number of different types of violence was associated with incremental increases in the odds of PTSD, depression, and substance use problems; and that new incidents of exposure to violence after the baseline interview were associated with increased rates of PTSD, depression, and substance use problems.

Krug, I., Treasure, J., Anderluh, M., Bellodi, L., Cellini, E., di Bernardo, M., Granero, R., Karwautz, A., Nacmias, B., Penelo, E., Ricca, V., Sorbi, S., Tchanturia, K., Wagner, G., Collier, D., & Fernández-Aranda, F. (2008). Present and lifetime comorbidity of tobacco, alcohol and drug use in eating disorders: A European multicenter study. *Drug and Alcohol Dependence*, 97(1-2), 169-179.

In a multi-site study involving participants from five European countries, the authors assessed differences in substance use patterns for individuals with and without eating disorders. The study involved 879 participants with eating disorders who were entering treatment and a matched control group of 785 individuals who had never had an eating disorder. Those who had an

eating disorder had higher rates of both lifetime and current tobacco and drug use. There were no significant differences in terms of alcohol use and cultural differences between participants from different countries were minimal.

McKetin, R., McLaren, J., Lubman, D.I., & Hides, L. (2008). Hostility among methamphetamine users experiencing psychotic symptoms. *American Journal on Addictions*, 17(3), 235-240.

The authors evaluated the level of past year hostility using the Brief Psychiatric Rating Scale (BPRS) hostility subscale for 71 methamphetamine users who had also experienced psychotic symptoms, determined by having a score of 4 or more on the BPRS' subscales of suspiciousness, unusual thought content, and/or hallucinations. During their most severe episode of psychotic symptoms, 27 percent of the sample had pathological levels of hostility, defined by having a score of 4 or greater on the hostility scale. Those participants who had the most severe levels of psychotic symptoms (i.e., had scores of 7 or 8 on the BPRS) and/or had psychotic symptoms that continued for at least 2 days were significantly more likely to have pathological levels of hostility. Being a daily heroin user and/or having less education were also associated with pathological levels of hostility.

Stinson, F.S., Dawson, D.A., Goldstein, R.B., Chou, S.P., Huang, B., Smith, S.M., Ruan, J., Pulay, A.J., Saha, T.D., Pickering, R.P., & Grant, B.F. (2008). Prevalence, correlates, disability, and comorbidity of DSM-IV narcissistic personality disorder: Results from the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry*, 69, 1033-1045.

The authors used data from the second wave of the National Epidemiologic Survey on Alcohol and Related Conditions to evaluate (N=34,653) the prevalence, correlates, and disability associated with narcissistic personality disorders. They found that the lifetime prevalence of the disorder was 6.2 percent, with higher rates for men (7.7 percent) than for women (4.8 percent). A lifetime diagnosis of narcissistic personality disorder was associated with significantly higher rates of co-occurring substance use, mood, anxiety, and other personality disorders. After controlling for other co-occurring disorders, there was still a significant association between narcissistic personality disorder and alcohol abuse, alcohol dependence, and drug dependence for men but not women. Narcissistic personality disorder was also associated with increased disability for men but not women.

Timko, C., Sutkowi, A., Pavao, J., & Kimerling, R. (2008). Women's childhood and adult adverse experiences, mental health, and binge drinking: The California Women's Health Survey. *Substance Abuse Treatment, Prevention, and Policy*, 3(15). Available online at <http://www.substanceabusepolicy.com/content/3/1/15>

The authors used data from the California Women's Health Survey, which sampled 6,942 women aged 18 and older using a random-digit-dial method to evaluate the relation of adverse/traumatic experiences to mental illness and binge drinking. They found that 9.3 percent of their sample engaged in binge drinking, and that poor physical health and symptoms of anxiety and/or depressive disorders were associated with higher rates of binge drinking after controlling for demographic factors. Having histories of traumatic or potentially traumatic events in childhood or adulthood (including intimate partner violence, physical or sexual assault, the death of someone close, or having a mother who was the victim of domestic violence as a child) were also associated with increased rates of binge drinking. After controlling for symptoms of mental disorders in adulthood and adverse/traumatic experiences, as a child living with someone who had a substance use or mental disorder was also associated with binge drinking.

Upadhyaya, H.P. & Carpenter, M.J. (2008). Is attention deficit hyperactivity disorder (ADHD) symptom severity associated with tobacco use? *American Journal on Addictions*, 17(3), 195-198.

The authors investigated the relationship of attention deficit hyperactivity disorder (AD/HD) symptoms and tobacco use in a convenience sample of 334 college students. The Current Symptom Scale was used to evaluate symptoms of AD/HD, conduct disorder, and antisocial personality disorder and the Core Alcohol and Drug Survey was used to evaluate substance use. They found that having a greater number of current AD/HD symptoms was associated with more frequent, past-month use of tobacco, alcohol, and marijuana.

Infrastructure

Financing

Banerjee, R., Sambamoorthi, U., Smelson, D., & Pogach, L.M. (2008). Expenditures in mental illness and substance use disorders among veteran clinic users with diabetes. *Journal of Behavioral Health Services & Research*, 35(3), 290-303.

The authors analyzed data from Veteran Health Administration and Medicare fee-for-service claims databases collected in 1999 and 2000 in order to evaluate client expenditures for patients with diabetes and how they varied according to the presence or absence of mental and/or substance use disorders. They found that average yearly expenditures were lowest for those who had

no mental or substance use disorder (averaging \$6,185 per person for 2000) and highest for those with co-occurring psychotic spectrum and substance use disorders (averaging \$19,801 per person).

Services & Service Systems

Screening & Assessment

Chung, S., Domino, M.E., Jackson, E.W., & Morrissey, J.P. (2008). Reliability of self-reported health service use: evidence from the women with co-occurring disorders, and violence study. *Journal of Behavioral Health Services & Research*, 35(3), 265-278.

The authors investigated test-retest reliability of self-reports concerning health service use by 186 women who participated in the Women, Co-occurring Disorders, and Violence Study. The reliability of those self-reports varied for the type of questions asked and was strongest on responses concerning any use, less so on response of quantity of use, and poorest on service content. The reliability of responses, however, was unaffected by psychiatric symptom severity.

Nidecker, M., DiClemente, C.C., Bennett, M.E., & Bellack, A.S. (2008). Application of the Transtheoretical Model of change: Psychometric properties of leading measures in patients with co-occurring drug abuse and severe mental illness. *Addictive Behaviors*, 33(8), 1021-1030.

The authors assessed the use of the Transtheoretical Model with five separate measures (the University of Rhode Island Change Assessment, Processes of Change Scale, Decisional Balance Scale, Abstinence Self-Efficacy Scale, and Temptation to Use Drugs Scale) with individuals who have co-occurring serious mental illness and substance use disorders (N=240). Participants had either schizophrenia/schizoaffective disorder or non-psychotic affective disorder and cocaine dependence (either current or in remission). The five subscales all showed good reliability and validity with this population, although the five subscales showed somewhat poorer reliability and validity with those who had affective disorders or remitted cocaine dependence.

Treatment Planning & Services

Demarce, J.M., Lash, S.J., Stephens, R.S., Grambow, S.C., & Burden, J.L. (2008). Promoting continuing care adherence among substance abusers with co-occurring psychiatric disorders following residential treatment. *Addictive Behaviors*, 33(9), 1104-1112.

Prior research has demonstrated that interventions aimed at improving adherence to continuing care can positively affect treatment outcomes. The authors sought to determine if this would remain true for clients with COD. They randomly assigned 150 individuals with substance use disorders (51 percent of whom also had co-occurring Axis I and/or Axis II disorders) to receive either a behavioral continuing care adherence intervention or standard aftercare. For participants with COD, receiving the adherence intervention was associated with a greater duration of continuing care attendance and better abstinence rates at a 1-year evaluation. While individuals who only had a substance use disorder (not COD) also showed greater improvements if they participated in the intervention, the extent of the improvements was greater for participants who had COD.

Fischer, E.P., McSweeney, J.C., Pyne, J.M., Williams, D.K., Naylor, A.J., Blow, F.C., & Owen, R.R. (2008). Influence of family involvement and substance use on sustained utilization of services for schizophrenia. *Psychiatric Services*, 59(8), 902-908.

The authors analyzed data from an existing database on 258 individuals, ages 18 to 67 who had schizophrenia and had been previously recruited from mental health care settings. They looked at patterns of service use, client-reported substance abuse, and client-reported family support to determine the relationship of those factors. After controlling for gender, cognitive functioning, place of residence, and insight into one's disorder, the authors found that co-occurring substance abuse and the interaction of substance abuse and family support were both significantly related to patterns of service use. Having a co-occurring substance use disorder was associated with less frequent use of mental health services. However, having weekly family support was associated with increased use of services (especially for those living in rural areas) and significantly reduced the negative effect associated with substance abuse.