



Non-Medical Use of Tranquilizers and Sedatives in the US

SAMHSA's report on the 2006 National Survey on Drug Use and Health (NSDUH) has recently been released, containing epidemiological information on a variety of subjects related to mental health and substance abuse:

Office of Applied Studies (2007). *Results from the 2006 National Survey on Drug Use and Health: National Findings* (NSDUH Series H-32, DHHS Publication No. SMA 07-4293). Rockville, MD: Substance Abuse and Mental Health Services Administration. Available online at <http://www.oas.samhsa.gov/nsduh/2k6nsduh/2k6Results.cfm>

The NSDUH uses a validated, 6-question, 24-point scale known as the K6 to identify psychological distress. The K6 asks respondents about feeling nervous, hopeless, restless or fidgety, sad or depressed, unable to make an effort, and feeling worthless and then asks them to rate the severity of these feelings in the past year when they were most severe. Scores of 13 or higher are considered to represent serious psychological distress (SPD).

The most recent NSDUH data (2006) included findings on the non-medical use and abuse of tranquilizers and sedatives. During the period between 2002 and 2006, the non-medical use of tranquilizers among individuals aged 18 to 25 increased from 1.6 to 2.0 percent. Among individuals with SPD in 2006, 5.9 percent misused tranquilizers (compared to 1.6 percent of those without SPD). Rates of sedative misuse were also higher among those with SPD, with 1.3 percent reporting misuse compared to .3 percent of those without SPD.

The NSDUH data are available for researchers who wish to analyze them for their own research. A recent article focuses specifically on the non-medical use, abuse and dependence on sedatives and tranquilizers:

Becker, W. C., Fiellin, D. A., & Desai, R. A. (2007). *Non-medical use, abuse and dependence on sedatives and tranquilizers among U.S. adults: Psychiatric and socio-demographic correlates. Drug and Alcohol Dependence, 90* (2-3), 280-287.

The authors of this article use NSDUH data from 2002 through 2004 to examine the misuse and abuse of

sedatives and tranquilizers, and provide some useful information concerning the relationship of their misuse and abuse to certain co-occurring mental disorders. During the period covered, 2.3 percent of the segment of the NSDUH sample they studied (individuals age 18 and older) reported non-medical use of sedatives or tranquilizers in the prior year. Of those reporting non-medical use of these drugs, 9.8 percent met criteria for a diagnosis of tranquilizer/sedative abuse and/or dependence.

The authors also analyzed the relationship of K6 scores and particular symptoms of mental disorders to sedative/tranquilizer misuse and abuse. They found that having SPD, as determined by the K6, was related to significantly higher rates of non-medical use of sedatives/tranquilizers, as were having symptoms of a panic disorder (i.e., experiencing without apparent reason shortness of breath, a racing heartbeat, sweating, or sudden feelings of fear). The odds of sedative/tranquilizer abuse/dependence were significantly higher and twice as high for individuals who reported symptoms of agoraphobia (i.e., feeling more nervous than most people about being in a crowd, a public place, traveling, or being away from home).

The authors discuss their results in relation to findings from other major epidemiological studies (i.e., the National Comorbidity Survey and the National Epidemiologic Survey on Alcohol and Related Conditions [NESARC]), noting that one study found agoraphobia strongly associated with all drug use disorders. The authors conclude that clinicians who prescribe these medications should increase their surveillance of the use of tranquilizers and sedatives among clients with psychological distress and consider alternative treatments.

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

Epidemiology

Becker, D. F. & Grilo, C. M. (2007). Ethnic differences in the predictors of drug and alcohol abuse in hospitalized adolescents. *American Journal on Addictions*, 16 (5), 389-396.

The authors looked at a group of 58 adolescents (ages 12 to 19) hospitalized for psychiatric disorders and evaluated the demographic variables associated with substance abuse among the group. They found that age, low self-esteem, insecurity with peers, predisposition to delinquency, impulsivity, a history of child abuse, and depression were associated with drug abuse among all subjects (regardless of ethnicity). Those same factors were associated with alcohol abuse for whites and Latinos but not for African Americans.

Driessen, M. & Schulte, S. (2007). Addiction, trauma, and PTSD (Abstract of workshop presentation [OC7-3], 11th Congress of the European Society for Biomedical Research on Alcoholism [ESBRA], September 25, 2007, in Berlin). *Alcohol and Alcoholism*, 42 (supplement 1), i42

This workshop presentation presented research on 459 German clients in substance abuse treatment programs at 14 different sites—39.7 percent met criteria for alcohol dependence, 33.6 percent met criteria for drug dependence, and 26.8 percent met criteria for both. Individuals with drug dependence or combined alcohol and drug dependence were significantly more likely to have post-traumatic stress disorder (PTSD) than were those who had alcohol dependence alone. Clients with diagnosable PTSD had poorer treatment outcomes but a history of trauma without PTSD did not appear to have an effect on outcomes. After controlling for other possibly confounding factors, the researchers found that individuals with PTSD differed from others in terms of the number of prior treatment episodes, the onset of symptoms of alcohol abuse/dependence, the severity of the substance use disorder, current level of craving, and psychopathology.

Gilder, D. A., Lau, P., Gross, A., & Ehlers, C. L. (2007). A co-morbidity of alcohol dependence with other psychiatric disorders in young adult Mexican Americans. *Journal of Addictive Diseases*, 26 (4), 31-40.

The authors investigated DSM-III-R diagnoses among a group of 240 Mexican American young adults in the San Diego area, paying particular attention to the presence of COD. They found high rates of alcohol dependence and co-occurring anxiety, affective, and conduct/antisocial disorders. Of the anxiety disorders found, 8 percent were substance-induced and 26 percent of affective disorders were determined to be substance-induced.

Goldstein, R. B., Compton, W. M., Pulay, A. J., Ruan, W. J., Pickering, R. P., Stinson, F. S., & Grant, B. F. (2007). Antisocial behavioral syndromes and DSM-IV drug use disorders in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Drug and Alcohol Dependence*, 90 (2-3), 145-158.

The authors evaluated data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) to determine relationships of antisocial behavioral syndromes and drug use disorders in a general population sample. Specifically the authors evaluated the presence of an antisocial behavioral syndrome (i.e., antisocial personality disorder [ASPD], syndromal adult antisocial behavior [AABS] without conduct disorder [CD] before age 15, and CD without progression to ASPD) among the 4,068 survey respondents who had a drug use disorder. They found that ASPD and AABS were associated with more severe presentations of drug use disorders, but that CD alone was not.

Goodwin, R. D., Keyes, K., & Simuro, N. (2007). Mental disorders and nicotine dependence among pregnant women in the United States. *Obstetrics Gynecology*, 109 (4), 875-883.

The authors used data from NESARC, specifically concerning 1,516 women who had been pregnant in the year prior to the survey, to determine the relationship between nicotine dependence and co-occurring mental disorders. In this population, 21.7 percent reported using cigarettes while pregnant and 12.4 percent were nicotine dependent while pregnant. Among those who used cigarettes while pregnant, 45.1 percent had at least one mental disorder. Among those who were nicotine dependent while pregnant, 57.5 percent had at least one mental disorder. After adjusting for demographic factors and comorbidities, the authors determined that nicotine dependency during pregnancy was associated

with significantly higher rates during the prior year of having a mental disorder, of having a mood disorder specifically, and/or of having a panic disorder. However, cigarette use in the absence of nicotine dependence was not associated with significantly higher levels of mental disorders.

Hurtig, T., Ebeling, H., Taanila, A., Miettunen, J., Smalley, S., McGough, J., Loo, S., Jarvelin, M. R., & Moilanen, I. (2007). ADHD and comorbid disorders in relation to family environment and symptom severity. *European Child & Adolescent Psychiatry, 16* (6), 362-369.

The authors interviewed 457 adolescents (age 16 to 18) who had participated in a large Northern Finland Birth Cohort study (N=6,622). Those youth that met diagnostic criteria for attention-deficit/hyperactivity disorder (AD/HD) were more likely than those who did not have AD/HD to have a conduct disorder, oppositional defiant disorder, substance use disorder, and mild depression. Among those youth who had AD/HD, co-occurring disorders were more common when the youth came from a low income family, a non-intact family, a family where parents showed little interest in the child's activities, and families in which mothers were dissatisfied with life.

Mikulich-Gilbertson, S. K., Salomonsen-Sautel, S., Sakai, J. T., & Booth, R. E. (2007). Gender similarities and differences in antisocial behavioral syndromes among injection drug users. *American Journal on Addictions, 16* (5), 372-382.

The authors studied the relationship of antisocial behavioral syndromes to gender among injection drug users. Among the injection drug using sample studied, women were more likely to have adult antisocial behavior syndrome (AABS) and men were more likely to have antisocial personality disorder (ASPD). Regardless of the individual's gender, cases of ASPD were more severe than cases of AABS.

Monuteaux, M. C., Wilens, T. E., & Biederman, J. (2007). Does social class predict substance problems in young adults with ADHD? *American Journal on Addictions, 16* (5), 403-409.

The authors evaluated the relationship of social class to AD/HD using a sample of 69 young adult males with AD/HD and a control group of 78 young adult males without the disorder. They found a relationship between both high and low socio-economic status and AD/HD that was not seen among individuals in the middle of the socio-economic scale. They describe this as a U-shaped association.

Pasic, J., Russo, J. E., Ries, R. K., & Roy-Byrne, P. P. (2007). Methamphetamine users in the psychiatric emergency services: A case-control study. *The American Journal of Drug and Alcohol Abuse, 33* (5), 675-686.

The authors evaluated medical records from 120 patients admitted to an urban Psychiatric Emergency Services unit, comparing patients who had positive urine screens for methamphetamine use to those who did not. Those patients who were determined to be methamphetamine users were significantly more likely to be younger, male, and to have been referred by the police. They were also more likely to have hypertension, tachycardia, symptoms of psychosis, dysphoria, and a history of substance use; but they were less likely to be diagnosed with Schizophrenia, have a history of psychiatric hospitalization or a history of suicide attempts. Patients who were methamphetamine users were more likely to accept a referral to substance abuse treatment if they were treated with medications in the unit.

Seifert, J. & Schneider, U. (2007). Comorbid anxiety and affective disorder in alcohol dependent patients seeking treatment: The first multicenter study in Germany (Abstract of workshop presentation [OC7-1], 11th Congress of the European Society for Biomedical Research on Alcoholism [ESBRA], Oct 1, 2007, in Berlin). *Alcohol and Alcoholism, 42* (supplement 1), i42

The authors presented research conducted in Germany on demographic factors, drinking history, and COD among individuals with alcohol dependence. The study they described involved 556 individuals who were assessed with the Mini-DIPS (a German version of the Anxiety Disorders Interview Schedule) and a standardized psychosocial interview, which determined that 53.1 percent of the sample had a co-occurring Axis I disorder in the prior 6 months. The researchers found a relationship between having a co-occurring stress disorder and an early return to drinking after treatment, an early start of withdrawal symptoms after drinking, a greater number of episodes in detox, and an increased

rate of alcohol consumption. Among females, a co-occurring anxiety disorder was also associated with greater amounts of alcohol consumption and an earlier start to drinking after treatment.

Tang, Y. L., Kranzler, H. R., Gelernter, J., Farrer, L. A., & Cubells, J. F. (2007). Comorbid psychiatric diagnoses and their association with cocaine-induced psychosis in cocaine-dependent subjects. *American Journal on Addictions*, 16 (5), 343-351.

The authors assessed individuals who were cocaine dependent using the Semi-Structured Assessment for Drug Dependence and Alcoholism, the Cocaine Experience Questionnaire, and the Scale for Assessment of Positive Symptoms for Cocaine-Induced Psychosis. They found high rates of other substance use disorders (90 percent of the sample had at least one other substance use disorder), antisocial personality disorder (ASPD), adult ASPD, major depression, and attention deficit-hyperactivity disorder (AD/HD). After taking into account other variables, the authors found that individuals who had a diagnosis of AD/HD during their lifetime were significantly more likely to also have had cocaine-induced psychosis.

Urbanoski, K. A., Cairney, J., Adlaf, E., & Rush, B. (2007). Substance abuse and quality of life among severely mentally ill consumers : A longitudinal modelling analysis. *Social Psychiatry and Psychiatric Epidemiology*, 42 (10), 810-818.

The authors assessed 133 individuals upon entry into a community mental health facility in Ontario, Canada and again 9 and 18 months afterward. Participants continued to receive services (either comprehensive case management or assertive community treatment) during the entire study. Of the sample, 55 percent met criteria for substance abuse/dependence. Those individuals who met substance abuse criteria at the initial assessment had greater levels of psychiatric symptoms, greater distress from such symptoms, and poorer overall quality of life, and those effects continued even after 18 months of treatment.

Viner, R. M. & Taylor, B. (2007). Adult outcomes of binge drinking in adolescence: Findings from a UK national birth cohort. *Journal of Epidemiology and Community Health*, 61 (10), 902-907.

The authors used data from the British Birth Cohort Study, which first surveyed participants at age 16 (in 1970) and again 16 and 30 years later (11,261 subjects were available at the 30-year assessment). At the initial assessment, 17.7 percent of the sample reported binge drinking (defined as drinking four or more drinks on two or more occasions in the 2 weeks prior to the survey). After adjusting for socioeconomic status and baseline status on the variable being evaluated, participants who reported binge drinking at age 16 were significantly more likely to report at follow-up, alcohol dependence, excessive regular drinking, illicit drug use, psychological symptoms (as measured by the Malaise Inventory), criminal convictions, homelessness, having a lack of qualifications for a job, and having lower social class. The authors conclude that binge drinking in adolescence may have a significant effect on adult mental and social development.

Services & Service Systems

Screening & Assessment

Horgan, C. M., Garnick, D. W., Merrick, E. L., & Hoyt, A. (2007). Health plan requirements for mental health and substance use screening in primary care. *Journal of General Internal Medicine*, 22 (7), 930-936.

The authors surveyed (in 1999 and again in 2003) a national sample of healthcare plans to determine what mental health and substance abuse screening activities they required from primary care doctors in their plans. In both 1999 and 2003, only 34 percent of plans required primary care doctors to screen for mental health or substance abuse. Between 1999 and 2003 there was a decline in the number of plans requiring the use of standardized mental health screening instruments but an increase in the number of plans requiring the use of standardized substance abuse screening. Plans that contracted with managed behavioral healthcare organizations were more likely to require screening than were other plans.

West, S. L., Mulrow, M., & Arredondo, R. (2007). An examination of the psychometric properties of the Attention Deficit Scales for Adults with outpatient substance abusers. *The American Journal of Drug and Alcohol Abuse*, 33 (5), 755-764.

The authors evaluated the use of the Attention Deficit Scales for Adults (ADSA) as an assessment instrument for adults entering an outpatient substance abuse treatment program. They compared results from the ADSA to DSM-IV diagnoses based on clinical interviews and found the ADSA had strong reliability, sensitivity, and specificity; and that it correlated well with DSM-IV diagnostic criteria.

Treatment Planning & Services

Bogenschutz, M. P. (2007). 12-step approaches for the dually diagnosed: Mechanisms of change. *Alcoholism: Clinical and Experimental Research*, 31 (s3), 64s-66s.

The author reviewed literature on the use of 12-Step programs by individuals with COD. According to the research he evaluated, people with COD attend 12-step groups at rates comparable to individuals with substance use disorders alone, and experience comparable benefits from that attendance. He does conclude, however, that 12-Step programs specifically designed for people with COD may have additional benefits for these clients.

Ford, J. D., Hawke, J., Alessi, S., Ledgerwood, D., & Petry, N. (2007). Psychological trauma and PTSD symptoms as predictors of substance dependence treatment outcomes. *Behaviour Research and Therapy*, 45 (10), 2417-2431.

The authors studied the relationship between psychological trauma and post-traumatic stress disorder (PTSD) in 142 individuals seeking treatment for cocaine or heroin dependence. For six of the eight types of psychological trauma evaluated, there was no relation to treatment outcomes. However, they did find a significant relationship between poorer substance abuse treatment outcomes and the witnessing of assaults and with experiences of emotional abuse. The authors also found a relationship between PTSD symptoms and substance abuse treatment outcomes.

Nielsen, P., Røjskjær, S., & Hesse, M. (2007). Personality-guided treatment for alcohol dependence: A quasi-randomized experiment. *American Journal on Addictions*, 16 (5), 357-364.

The authors tested a manualized treatment intervention, Personality-guided Treatment for Alcohol Dependence (PETAD), for clients with co-occurring substance use and personality disorders. Study participants were individuals with alcohol dependence and co-occurring personality disorders who entered a Danish, inpatient treatment program and were randomly assigned to receive a manualized cognitive therapy approach or PETAD. Participants completed a follow-up survey (sent by mail) 6 months after finishing treatment. The authors found that participants who received PETAD stayed in treatment longer, took a longer time before using after treatment, and spent fewer days drinking after treatment—however, differences were, for the most part, not statistically significant. The differences were most prominent in individuals who had more severe personality disorders.

Nordstrom, B. R. & Levin, F. R. (2007). Treatment of cannabis use disorders: A review of the literature. *American Journal on Addictions*, 16 (5), 331-342.

The authors present a comprehensive review of the literature on the treatment of cannabis use disorders. Included in this review is a description of a small number of trials of pharmacologic interventions for individuals with co-occurring cannabis use disorders and psychiatric disorders.

Ostlund, A., Hensing, G., Jakobsson, A., Sundh, V., & Spak, F. (2007). A cross-sectional study of personality traits in women previously treated or untreated for alcohol use disorders. *Substance Abuse Treatment, Prevention, and Policy*, 2 (24), Available online at <http://www.substanceabusepolicy.com/content/pdf/1747-597X-2-24.pdf>

The authors used data on Danish women from three general population samples and one clinical sample. Among women who had alcohol use disorders, they found no significant association between personality disorders and treatment seeking for alcohol problems. In comparing the presence of COD among women who were treated for alcohol use disorders to

COD Research and Resources Monthly Review

those who were not treated, the authors only found one significant association, which was between lifetime diagnoses of anxiety disorders and having attended substance use disorder treatment.

Sullivan, C. J., Veysey, B. M., Hamilton, Z. K., & Grillo, M. (2007). Reducing out-of-community placement and recidivism: Diversion of delinquent youth with mental health and substance use problems from the justice system. *International Journal of Offender Therapy and Comparative Criminology*, 51 (5), 555-577.

The authors present results from New York State's criminal justice diversion program for youth with COD. They look at data from 2,309 youth who had participated in the program. Factors that had a significant association with recidivism for youth in the program were a prior criminal justice record, prior placement in out-of-community settings, and serious mental illness.