Nicotine Dependence and Psychiatric Disorders in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions.

Bridget F. Grant, PhD; Deborah S. Hasin, PhD; S. Patricia Chou, PhD; Frederick S. Stinson, PhD; Deborah A. Dawson, PhD.
Archives of general psychiatry, 2004 Nov, 61(11): 1107-15

**Background:** No information is available on the co-occurrence of DSM-IV nicotine dependence and Axis I and II psychiatric disorders in the US population.

**Objectives:** To present national data on the co-occurrence of current DSM-IV nicotine dependence and other psychiatric disorders by sex and to estimate the burden of all US tobacco consumption carried by nicotine-dependent and psychiatrically ill individuals.

**Design:** Face-to-face interviews.

**Setting:** The United States.

**Participants:** Household and group-quarters adults (N = 43,093). MAIN OUTCOME MEASURES: Prevalence and comorbidity of current nicotine dependence and Axis I and II disorders and the percentage of cigarettes consumed in the United States among psychiatrically vulnerable subgroups.

**Results:** Among US adults, 12.8% (95% confidence interval, 12.0-13.6) were nicotine dependent. Associations between nicotine dependence and specific Axis I and II disorders were all strong and statistically significant (P<.05) in the total population and among men and women. Nicotine-dependent individuals made up only 12.8% (95% confidence interval, 12.0-13.6) of the population yet consumed 57.5% of all cigarettes smoked in the United States. Nicotine-dependent individuals with a comorbid psychiatric disorder made up 7.1% (95% confidence interval, 6.6-7.6) of the population yet consumed 34.2% of all cigarettes smoked in the United States.

**Conclusions:** Nicotine-dependent and psychiatrically ill individuals consume about 70% of all cigarettes smoked in the United States. The results of this study highlight the importance of focusing smoking cessation efforts on individuals who are nicotine dependent, individuals who have psychiatric disorders, and individuals who have comorbid nicotine dependence and other psychiatric disorders. Further, awareness of industry segmentation strategies can improve smoking cessation efforts of clinicians and other health professionals among all smokers and especially among the most vulnerable.
Comparative Epidemiology of Dependence on Tobacco, Alcohol, Controlled Substances, and Inhalants: Basic Findings From the National Comorbidity Survey.

Anthony, James C.; Warner, Lynn A.; Kessler, Ronald C.
Experimental and Clinical Psychopharmacology, vol. 2, no. 3, pp. 244-268, August 1994

Studying prevalence of Diagnostic and Statistical Manual (3rd ed., rev., American Psychiatric Association, 1987) drug dependence among Americans 15–54 years old, we found about 1 in 4 (24%) had a history of tobacco dependence; about 1 in 7 (14%) had a history of alcohol dependence; and about 1 in 13 (7.5%) had a history of dependence on an inhalant or controlled drug. About one third of tobacco smokers had developed tobacco dependence and about 15% of drinkers had become alcohol dependent. Among users of the other drugs, about 15% had become dependent. Many more Americans age 15–54 have been affected by dependence on psychoactive substances than by other psychiatric disturbances now accorded a higher priority in mental health service delivery systems, prevention, and sponsored research programs.

Management of smoking in people with psychiatric disorders.


Purpose of review: The rates of tobacco addiction in individuals with psychiatric disorders (mental illness and addiction) continue to remain alarmingly high despite substantial decreases in smoking in the general population. Recent findings suggest that tobacco addiction treatment can be effective for smokers with psychiatric disorders, but will require both clinical interventions and systems changes. There is both an immediate need to address tobacco in this population and to expand research agendas to include the many remaining clinical questions for this population.

Recent findings: Nearly half of all cigarettes consumed in the United States are smoked by individuals with psychiatric disorders, who are at two to three times the risk of developing tobacco-related medical illnesses. Recent international studies have found high rates of heavy smoking among those with psychiatric disorders similar to those in the United States. Under-recognition and under-treatment of tobacco addiction in this population continues to be common despite the availability of effective management approaches. Smokers with psychiatric disorders are a broad treatment population that requires treatment specificity according to subtypes. Nicotine replacement medication, bupropion, atypical antipsychotics, and modified psychosocial treatments can improve outcomes. The effective model programs and system changes that have begun to address tobacco in this population have often not been published, disseminated, or replicated.

Summary: There continue to be relatively few treatment studies for this population, and the existing studies have small sample sizes. Research should test whether effective treatments used in the general population will work for this population. Program development and system changes should be described and evaluated.
Smoking bans in psychiatric inpatient settings? A review of the research.

Sharon Lawn & Rene Pols.

Objective: This paper reviews the findings from 26 international studies that report on the effectiveness of smoking bans in inpatient psychiatric settings. The main aim is to identify which processes contribute to successful implementation of smoking bans and which processes create problems for implementation in these settings.

Method: After performing an electronic search of the literature, the studies were compared for methods used, subjects involved, type of setting, type of ban, measures and processes used and overall results. Total bans were distinguished from partial bans. All known studies of smoking bans in psychiatric inpatient units from 1988 to the present were included.

Results: Staff generally anticipated more smoking-related problems than actually occurred. There was no increase in aggression, use of seclusion, discharge against medical advice or increased use of as-needed medication following the ban. Consistency, coordination and full administrative support for the ban were seen as essential to success, with problems occurring where this was not the case. Nicotine replacement therapy was widely used by patients as part of coping with bans. However, many patients continued to smoke post-admission indicating that bans were not necessarily effective in assisting people to quit in the longer term.

Conclusions: The introduction of smoking bans in psychiatric inpatient settings is possible but would need to be a clearly and carefully planned process involving all parties affected by the bans. Imposing bans in inpatient settings is seen as only part of a much larger strategy needed to overcome the high rates of smoking among mental health populations.

A Placebo Controlled Trial of Bupropion for Smoking Cessation in Schizophrenia.

Tony P. George, Jennifer C. Vessicchio, Angelo Termine, Thomas A. Bregartner, Alan Feingold, Bruce J. Rounsaville, & Thomas R. Kosten.

Background: Schizophrenic patients have high rates of cigarette smoking compared with the general population. We compared sustained-release (SR) bupropion with placebo for smoking cessation in patients with schizophrenic disorders. We also examined how antipsychotic class predicts smoking cessation outcomes with bupropion. Methods: Thirty-two subjects meeting DSM-IV criteria for schizophrenia or schizoaffective disorder and nicotine dependence were randomized to bupropion SR (BUP, 300 mg/day) or placebo (PLA). Outcomes included treatment retention, smoking abstinence rates, expired breath carbon monoxide (CO) levels, psychotic symptoms, and medication side effects.

Results: Bupropion significantly increased trial endpoint 7-day point prevalence smoking abstinence rates compared with placebo [BUP, 8/16 (50.0%), PLA, 2/16 (12.5%); \( \chi^2 = 5.24, df = 1, p = .05 \)], and reduced CO levels during the trial [Medication × Time interaction; \( Z = 3.09, p < .01 \)]. Positive schizophrenia symptoms were not altered by BUP, but negative symptoms were significantly reduced. Atypical antipsychotic drug treatment enhanced smoking cessation.
responses to BUP. Major side effects were dry mouth, gastrointestinal symptoms, headache, and insomnia.

**Conclusions:** Our results suggest that 1) BUP enhances smoking abstinence rates compared with PLA in nicotine dependent schizophrenic smokers; 2) BUP is well-tolerated and safe for use in these patients; and 3) atypical antipsychotics may enhance smoking cessation outcomes with

---

**Serious Mental Illness and Tobacco Addiction: A Model Program to Address This Common but Neglected Issue.**

Ziedonis, Douglas MD., MPH; Williams, Jill M, MD., & Smelson, David PsyD.

**Abstract:** Tobacco addiction among persons with serious mental illness (SMI) has been largely ignored. About 75 to 85% of persons with schizophrenia, bipolar disorder, and other SMI use tobacco; most will either die and/or have reduced quality of life because of tobacco caused medical diseases. Tobacco addiction is the most common co-occurring disorder for the SMI population. A dramatic reduction in tobacco use in the general population has occurred during the past 40 years; however, there has been almost no reduction for smokers with SMI. The University of Medicine and Dentistry of New Jersey program targets smokers with SMI and provides outreach services, clinical treatment and research, and consultation to other community-based mental health treatment agencies in New Jersey. Clinical and research evidence supports motivation-based treatment, blending mental health and addiction treatment approaches, and integrating tobacco dependence treatment within mental health settings. The unique barriers and clinical issues for this population are described.

---

**Co-Morbidity of Smoking in Patients with Psychiatric and Substance Use Disorders.**

David Kalman, Ph.D., Sandra Baker Morissette, Ph.D., & Tony P. George, M.D.

This article reviews cigarette smoking in patients with psychiatric disorders (PD) and substance use disorders (SUD). Rates of smoking are approximately 23% in the U.S. population but approximately two- to four-fold higher in patients with PD and SUD. Many remaining smokers have had repeated smoking cessation failures, possibly due to the presence of co-morbid PD and SUDs. There is modest, evidence-based support for effective treatment interventions for nicotine addiction in PD and SUD. Further research is needed to increase our understanding of nicotine addiction in PD and SUD and develop more effective treatment interventions.
**Development of the Smoking Cessation Quality of Life Questionnaire**

Abayomi O. Olufade, PharmD, MS, James W. Shaw, PharmD, Shonda A. Foster, PharmD, MS, Scott J. Leischow PhD, Ron D. Hays, PhD, and Stephen Joel Coons, PhD. CLINICAL THERAPEUTICS VOL. 21, NO. 12, 1999

**ABSTRACT**

This paper describes the development of the Smoking Cessation Quality of Life (SCQoL) questionnaire, a self-reported measure designed to quantify the impact of smoking cessation on perceived functioning and well-being in adults. In addition to incorporating the Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36) as a generic core, the SCQoL contains 5 multi-item cessation-targeted scales: social interactions, self-control, sleep, cognitive functioning, and anxiety. The draft SCQoL was developed through a series of focus groups and was pilot-tested in a sample of 101 adults. Respondents were predominantly male (59.2%), with a mean (SD) age of (48.6) (12.7) years and a mean (SD) smoking history of 29.3 (14.7) years. Of the respondents, 76.5% identified themselves as current smokers and 23.5% indicated that they were former smokers. The majority of former smokers (82.6%) reported being abstinent for 22 weeks. Multivariate analysis of variance was used to compare scale scores between smokers and former smokers who had been abstinent for 22 weeks. Former smokers reported significantly higher scores than did current smokers on 3 of 8 SF-36 scales and 3 of 5 cessation-targeted scales (P < 0.05). In no case did current smokers report significantly higher scale scores than did former smokers. The internal-consistency reliability of the SCQoL scales ranged from 0.68 to 0.96, exceeding 0.70 on 12 of 13 scales. These findings provide preliminary evidence for the reliability and construct validity of the SCQoL. Key words: health-related quality of life, nicotine withdrawal, smoking, smoking cessation, SF-36.

**Responsiveness of the Smoking Cessation Quality of Life (SCQoL) Questionnaire**

James W. Shaw, PharmD, MS., Stephen Joel Coons, PhD., Shonda A. Foster, PharmD, MS., Scott J. Leischow, PhD., and Ron D. Hays, PhD. CLINICAL THERAPEUTICS VOL. 23, NO. 6, 2001

**Background:** The Smoking Cessation Quality of Life (SCQoL) questionnaire was developed to quantify changes in self-reported functioning and well-being associated with the smoking cessation process and to facilitate comparisons among smokers, former smokers, and nonsmokers. The SCQoL includes 5 cessation-targeted scales and the 8 multi-item scales of the Medical Outcomes Study 36-Item Short-Form Health Survey.

**Objective:** This study was conducted to assess the responsiveness of the SCQoL by analyzing associations between SCQoL scale scores and duration of smoking abstinence.

**Methods:** The SCQoL was administered at a screening visit and 2 to 6 weeks after screening as part of a longitudinal study. Study participants included smokers who intended to quit smoking. Subjects were required to purchase nicotine inhalers and were prompted to quit smoking before
follow-up. Based on self-reported duration of abstinence at follow-up, subjects were categorized as recidivists (0 days smoke free), short-term abstainers (1-7 days smoke free), or longer-term abstainers (>7 days smoke free). Kruskal-Wallis tests were used to compare changes in scale scores from screening to follow-up among the 3 groups.

**Results:** The internal consistency reliability of the 13 SCQoL scales ranged from 0.67 to 0.92. Subjects who maintained abstinence for longer periods experienced smaller declines in health-related quality of life between the screening and follow-up assessments. Differences among the 3 groups were driven primarily by differences between recidivists and longer-term abstainers.