

# Integrating Tobacco Treatment Into Mental Health Settings

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INDIVIDUALS WITH SERIOUS MENTAL ILLNESS ARE DYING 25 years prematurely, and the major causes of death are tobacco-related cancer, heart disease, and lung disease.<sup>1</sup> With a smoking prevalence 2 to 4 times greater than the general population and a greater likelihood of heavy smoking, an estimated 44% of cigarettes sold in the United States are sold to smokers with mental illness or substance use disorders.<sup>2</sup>

In clinical mental health settings, beliefs prevail that these patients do not want to or cannot quit smoking, or would decompensate if they were to quit smoking.<sup>3</sup> More than 40 years after the US surgeon general's first report on the deadly consequences of tobacco use, some mental health sites continue to provide cigarettes to patients for adherence with taking their medications, despite the well-documented evidence that tobacco smoking induces the metabolism of a number of psychiatric medications, resulting in reduced therapeutic blood levels.<sup>4</sup> In a national survey in 2006 of 801 psychiatrists in practice, few reported providing tobacco cessation treatment (23%) or referrals (11%), and psychiatrists were the least likely to treat tobacco dependence relative to other medical specialists.<sup>5</sup>

Evidence of effective strategies for addressing the disproportionate rate of tobacco use among smokers with co-occurring mental illness is lacking. The 2008 update of the US Clinical Practice Guidelines for treating tobacco dependence was informed by more than 8700 tobacco control studies<sup>6</sup>; however, fewer than 2 dozen randomized controlled trials have focused on smokers with mental illness. Furthermore, smokers with mental illness or substance use disorders are among the most likely to be excluded from clinical trials because they are viewed as too complicated.

The study by McFall and colleagues<sup>7</sup> in this issue of *JAMA* is a major contribution in several respects. It is the first multisite, randomized tobacco treatment trial funded by the US Department of Veterans Affairs (VA), the largest published clinical trial of tobacco cessation treatment with smokers with mental illness, and only the second randomized tobacco treatment study conducted with smokers with post-traumatic stress disorder (PTSD); the first was a pilot study, by the same research team, that demonstrated a 5-fold increase in abstinence rates relative to usual care.<sup>8</sup>

The large effectiveness trial by McFall et al<sup>7</sup> engaged 10 VA medical centers across the United States with substantial heterogeneity in treating clinicians, patient populations, and usual care tobacco cessation services. Patients with PTSD were randomized to either an integrated smoking cessation treatment provided by their mental health clinician or to referral to a VA smoking cessation clinic. The integrated tobacco cessation treatment significantly increased the likelihood of biochemically verified prolonged abstinence between 6 and 18 months (adjusted odds ratio, 2.26; 95% confidence interval, 1.30-3.91), with consistent treatment effects across demographic and mental health severity subgroups. Highlighting the unique needs of patients with PTSD, the prolonged abstinence rate at 18 months in the integrated care treatment group (8.9%) was approximately half that reported in the general population (18%) for individual counseling and nicotine replacement.<sup>9</sup> Consistent with a growing body of literature,<sup>10</sup> neither treatment of tobacco dependence nor cessation of smoking had adverse effects on psychiatric symptoms and did not result in greater rates of serious adverse events (ie, deaths, hospitalizations). Study retention was impressive, with 90% of patients completing all assessments through 18 months. Point prevalence abstinence rates increased over time, with patients in integrated care twice as likely to achieve 7- and 30-day abstinence as those referred to smoking cessation clinics.

The study by McFall et al<sup>7</sup> signifies an important advance in conceptualizing tobacco dependence treatment from an extended, chronic care framework, providing 5 initial sessions before the quit date, then by 3 follow-up visits, and monthly booster sessions thereafter. In the late 1990s, the VA health care system covered only a single trial of nicotine replacement per patient per lifetime for quitting smoking; if this therapy failed, there was no second chance. The VA now provides ongoing availability of cessation medications, which is more akin to management of other chronic diseases such as diabetes or depression. Treatment of tobacco dependence, at least in the VA health care system, has come a long way.

Consistent with US Clinical Practice Guidelines, the study by McFall et al<sup>7</sup> found that combined pharmacological and

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psychological support mediated the treatment effect. The number of counseling sessions received accounted for a 3-fold greater amount of the treatment effect (29.5%) than medication use (9.6%). Previous trials have found that psychosocial support may be particularly helpful for smokers with a recurrent history of depression.<sup>11</sup>

The train-the-trainer model (in which clinic leaders received integrated care smoking cessation training at a national meeting and subsequently trained their site clinicians) used by McFall et al is cost-effective and ideal for future dissemination efforts. The finding that only 85% of treatment clinicians (66 of 78) were deemed performing at a competent level, however, suggests the need for greater supervision and ongoing training. Analyses were adjusted for site, but differences by site in competency, sessions completed, medication received, and treatment outcome were not reported. Examination of site differences can inform considerations for future dissemination efforts.

Biochemical verification of abstinence is recommended for clinic-based tobacco treatment studies with special populations.<sup>12</sup> The study by McFall et al had a fairly high rate (41%) of nonconfirmation of prolonged abstinence status, although 30% of those patients had urine cotinine-confirmed abstinence but exhaled carbon monoxide levels suggesting tobacco smoke exposure at 1 or more visits. Some of the discordance between expired carbon monoxide and urinary cotinine levels may have been due to environmental tobacco smoke exposures or cannabis use.

The study by McFall et al<sup>7</sup> included patients with substance use disorders in partial remission, important for generalizability given the high prevalence of lifetime alcohol (51.9%) and drug (34.5%) abuse or dependence among male patients diagnosed with PTSD.<sup>13</sup> Based at the VA, the sample included only 6% female patients. The study reported lower enrollment and greater dropout among veterans who served in Afghanistan and Iraq and among younger patients, suggesting the need for innovative strategies to engage and retain the younger generation, perhaps through the use of technology and online media.

The VA health care system is advanced in addressing tobacco use, with automatic computer reminder systems to prompt clinician identification and reassessment of patient tobacco use, coverage of cessation pharmacotherapies, and onsite availability of tobacco treatment service referrals. VA staff clinicians also are less likely than community mental health professionals to be smokers themselves or report negative attitudes about treating tobacco dependence.<sup>14</sup> In light of these unique characteristics, it is important to consider what system-level forces would need to be in place to replicate the findings of the study by McFall et al in broader mental health settings—namely, the need for training and ongoing supervision and reimbursement of clinician time and coverage of cessation medications. Notably, coverage for tobacco cessation treatments remains less than adequate for most patients. Among Med-

icaid programs, only 8 US states provide coverage for all US Food and Drug Administration–approved cessation medications and counseling.<sup>15</sup>

In conclusion, the tobacco cessation trial by McFall et al demonstrated a significant treatment effect in a diverse group of patients with PTSD for a treatment delivered at VA medical centers. This multisite trial, with the advantages of large sample size and enhanced external validity, represents a significant advance in the evidence base on the effectiveness of treating tobacco dependence in smokers with mental disorders and integration of tobacco treatment services into mental health care settings. Critically, integrated care treatments are needed to reverse the clinical practices that have served to maintain the high rates of tobacco use and tobacco-related morbidity and mortality among individuals with mental illness. Future study needs include application in broader community mental health care settings and diagnostic patient groups. The study by McFall et al represents a major step forward on the path to abating the previously overlooked epidemic of tobacco dependence that has plagued persons with mental illness.

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