



Behavioral Health &
Wellness Program

University of Colorado Anschutz Medical Campus
School of Medicine

DIMENSIONS: Tobacco Free Toolkit for Healthcare Providers

SUPPLEMENT

Priority Populations: Behavioral Health



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The DIMENSIONS: Tobacco Free Toolkit for Healthcare Providers was developed by the
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Priority Populations: Behavioral Health

1. Tobacco Use and Health
2. Why do Individuals with Behavioral Health Conditions Use Tobacco?
3. Assessment and Planning for Change
4. Tobacco Cessation Treatment
5. Specific Findings Regarding Tobacco Cessation Medications and Behavioral Health Conditions

Tobacco Use and Health

Quick Facts

Tobacco Use Often Co-Occurs with Behavioral Health Conditions

- The prevalence of tobacco use (mainly smoking) among people with behavioral health conditions is startling. Over 40% of these individuals use tobacco.
- Persons with behavioral health conditions represent over 44% of the U.S. tobacco market.¹
- Persons with behavioral health conditions are nicotine dependent at rates that are 2-3 times higher than the general population.^{2,3}
- Since persons with behavioral health conditions use tobacco at greater rates, they experience greater tobacco-related medical illnesses and mortality.⁴
- Not only do more than half of patients in treatment for alcohol and drug dependence die from a tobacco-related illness, for those still living, their recovery can be negatively affected.⁵
- Individuals who use tobacco are more likely to use other substances, such as methamphetamines, cocaine, and opiates.⁶

Tobacco Cessation Is Effective

- Tobacco cessation is a key component of patient-centered, individualized treatment planning.⁷
- Persons with behavioral health conditions want to quit tobacco and want information on cessation services and resources.⁸
- Persons with behavioral health conditions can successfully stop using tobacco.^{9,10}
- Although tobacco cessation rates for individuals with mental health conditions are lower than those in the general population, these quit rates are still substantial.¹¹
- Research shows that individuals who treat their addiction to tobacco and other substances at the same time are 25% more likely to sustain their recovery, compared to individuals who do not address tobacco while in recovery from other drugs.¹²

Alarming Statistic

About 200,000 of the 435,000 annual deaths from tobacco use in the U.S. occur among people with behavioral health conditions.¹³

Why Do Individuals with Behavioral Health Conditions Use Tobacco?

Researchers believe that a combination of biological, psychological and social factors contribute to increased tobacco use among persons with behavioral health conditions.

Tobacco Use Rates by Diagnosis ¹⁴⁻²⁹	
Major Depression	36-80%
Bipolar Mood Disorder	51-70%
Schizophrenia	62-90%
Anxiety Disorders	32-60%
Post-traumatic Stress Disorder	45-60%
Attention Deficit/Hyperactivity Disorder	38-42%
Alcohol Abuse	34-93%
Other Drug Abuse	49-98%

The Tobacco Industry Targeting of Behavior Health Population

By 1977, smokers were becoming a “downscale market.” RJ Reynolds noted that less educated, lower income, minority populations were more impressionable and/or susceptible to marketing and advertising. Tobacco companies began targeting these populations. Free cigarettes were distributed to homeless shelters, mental hospitals and homeless service organizations. Cigarettes were purchased for persons with mental illness who were homeless so that these individuals would smoke “clean” cigarettes, not dirty cigarettes butts. The tobacco industry has also targeted psychiatric hospitals for sales promotions and giveaways. They have made financial contributions to homeless veteran organizations as well.

In an interesting review of the tobacco industry research, Prochaska, Hall, & Bero (2007) concluded: “Documents indicate the tobacco industry monitored or directly funded research supporting the idea that individuals with schizophrenia were less susceptible to the harms of tobacco and that they needed tobacco as self-medication. The tobacco industry promoted smoking in psychiatric settings by providing cigarettes and supporting efforts to block hospital smoking bans.”³⁰

Biological Considerations

- Persons with mental health conditions have unique neurobiological features that may increase their tendency to use nicotine, make it more difficult to quit and complicate withdrawal symptoms.
- Nicotine affects the actions of neurotransmitters (e.g. dopamine). For example, people with schizophrenia who use tobacco may experience fewer negative symptoms (lack of motivation, drive and energy).
- Nicotine also enhances concentration, information processing and learning. This is especially appealing to individuals with psychotic disorders for whom cognitive dysfunction may be a part of their illness or a side effect of antipsychotic medications.
- Other biological factors include nicotine's positive effects on mood, feelings of pleasure and enjoyment. Some evidence also suggests that smoking is associated with a reduced risk of antipsychotic-induced Parkinsonism.

Psychological Considerations

- Tobacco use may temporarily relieve unpleasant feelings of tension and anxiety and is often used to cope with stress.
- People develop a daily habit of tobacco use and changing habits can be difficult.

Social Considerations

- Individuals with behavioral health conditions are likely to come in contact with other people using tobacco through treatment programming and this may normalize the use of tobacco as well as make individuals feel like they are “part of a group.”
- Individuals with behavioral health conditions may also live in environments (e.g., supported housing) where tobacco use is common and this may create additional challenges to living tobacco-free.
- Individuals with behavioral health conditions may have greater challenges accessing healthcare and community resources to support a tobacco-free lifestyle.

Individuals Living with Behavioral Health Conditions:

Need to quit

To assist people to lead meaningful lives, healthcare providers need to promote behaviors that lead to health. In order for individuals with behavioral health conditions to benefit from any treatment, they need to be alive. **Focusing on treating only the behavioral health condition is short-sighted.** Tobacco use is one of the most important risk factors for decreasing excess mortality and morbidity. Tobacco cessation is a key component of many individuals' recovery and should be a priority issue for every healthcare provider.

Want to quit

People with behavioral health conditions want to quit smoking and want information about cessation services and resources.³¹ In a recent survey of behavioral health consumers, 75% of current tobacco users expressed a desire to quit tobacco, and 65% made a quit attempt in the previous year.³²

Can quit

People with behavioral health conditions can successfully stop using tobacco.^{33,34} Substantial evidence demonstrates that tobacco cessation works.

Role of Healthcare Providers

Tobacco use within populations with behavioral health conditions is a critical health disparity. Individuals living with behavioral health conditions are **dying 25 years earlier** than the general population. The major causes of death are tobacco related cancer, heart disease, and lung disease.³⁵ Unfortunately, there continues to be a misconception that patients with behavioral health conditions lack the desire and ability to stop their tobacco use as well as a belief that individuals who quit tobacco will experience an increase in psychiatric symptoms.³⁶ As a result, many providers focus solely on behavioral health symptom management over preventive health measures. **Healthcare providers should be informed about the increased risk for this population and be diligent in offering treatment to this population. Evidence shows that primary care providers can help tobacco users with behavioral health disorders successfully quit.**³⁷

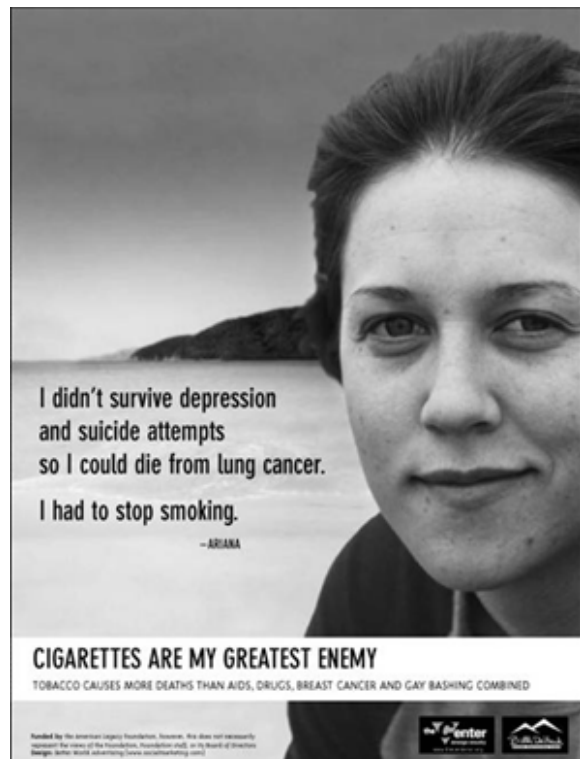
The attention and concentration benefits individuals with behavioral health conditions experience from nicotine are short-lived, lasting only a few minutes.³⁸

Nicotine does not significantly improve behavioral health symptom management. Healthcare providers need to focus on the harmful effects of tobacco use, which far outweigh the benefits.

Assessment and Planning for Change

Considerations for Timing of Tobacco Cessation

- Is the patient about to undergo a new therapy?
- Is the patient presently in crisis, or is there a problem that is so pressing that time is better spent on this problem than on cessation at this visit?
- What is the likelihood that cessation would worsen the non-nicotine psychiatric disorder? And can that possibility be diminished with frequent monitoring, use of nicotine replacement therapy or other therapies?
- What is the individual's ability to mobilize coping skills to deal with cessation? If the coping skills are low, would the patient benefit from individual or group behavior therapy?
- Is the patient highly nicotine dependent or does the patient have a history of relapse due to withdrawal symptoms or increased psychiatric symptoms? If so, which medications may be of help?



Tobacco Cessation Treatment

The primary treatment components of medication, supportive services, and behavioral interventions for tobacco cessation apply for individuals with behavioral health conditions. However, there are a few additional considerations for tobacco cessation treatment with this priority population.

Interactions Between Psychiatric Medications and Tobacco

Tobacco interacts with many psychiatric medications, decreasing the effectiveness of these medications. This is a result of the way in which the body metabolizes tobacco. The liver recognizes tobacco as a toxin, and subsequently responds by increasing productivity to clear the body of toxins. This increased function causes the liver to process out of the body medications being taken for behavioral health symptom reduction. This reaction necessitates a need for higher dosages of psychiatric medication to achieve therapeutic blood levels for people who use tobacco.³⁹ Tobacco use may also affect the number of medications a person needs to manage behavioral health symptoms.⁴⁰

It is important that healthcare providers understand how tobacco interacts with psychiatric medications so that appropriate adjustments and monitoring of medication levels occur as an individual quits tobacco. Previous dosages of psychiatric medications that had been therapeutic and stable may need to be adjusted as tobacco consumption is discontinued. This helps to ensure the individual does not have psychotropic medication levels that are too high as a result of a return to normal liver processing. **Healthcare providers need to carefully monitor cessation efforts with individuals on psychiatric medications and coordinate with the behavioral health provider if they are not prescribing the psychiatric medications.**

Specific psychiatric medications require more intensive monitoring due to the risk of increasing medication to the point of toxic levels as tobacco is removed from the body. Medications requiring more careful monitoring for toxicity include Clozapine and Olanzapine.^{41,42} Other medications that may be impacted by tobacco, and thus need further monitoring during cessation, are reviewed in the following table:

Medications Known or Suspected To Have Their Levels Affected by Smoking and Smoking Cessation			
ANTIPSYCHOTICS	Chlorpromazine (Thorazine) Clozapine (Clozaril) Fluphenazine (Permitil)	Haloperidol (Haldol) Mesoridazine (Serentil) Olanzapine (Zyprexa)	Thiothixene (Navane) Trifluoperazine (Stelazine) Ziprasidone (Geodon)
ANTIDEPRESSANTS	Amitriptyline (Elavil) Clomipramine (Anafranil) Desipramine (Norpramin)	Doxepin (Sinequan) Duloxetine (Cymbalta) Fluvoxamine (Luvox)	Imipramine (Tofranil) Mirtazapine (Remeron) Nortriptyline (Pamelor) Trazodone (Desyrel)
MOOD STABILIZERS	Carbamazepine (Tegretol)		
ANXIOLYTICS	Alprazolam (Xanax) Diazepam (Valium)	Lorazepam (Ativan) Oxazepam (Serax)	
OTHERS	Acetaminophen Caffeine Heparin	Insulin Rasagiline (Azilect) Riluzole (Rilutek)	Ropinirole (Requip) Tacrine Warfarin

Often individuals with behavioral health conditions experience significant withdrawal symptoms. Therefore, it is important that tobacco cessation medications be a component of treatment. **It is critical to note that nicotine replacement therapy does not stabilize the medication changes previously reviewed because it is the toxins in tobacco that impact liver functioning.**

Specific Findings Regarding Tobacco Cessation Medications and Behavioral Health Conditions

In addition to the use of tobacco cessation medications, behavioral interventions are strongly encouraged for all tobacco users, particularly those with a behavioral health condition.

General Findings on Medications and Behavioral Health Conditions:

1. Varenicline can improve success rates over those achieved with nicotine replacement therapy as it may impact cravings more effectively, at least in the short-term.⁴³

Depression

1. Consider bupropion and nortriptyline for patients with diagnoses of depression. Bupropion-SR has been demonstrated to be the most effective in depressed patients. Patients who use bupropion-SR during a tobacco cessation program are more likely to be abstinent at the quit date. However, relapse is high following the discontinuation of treatment.^{44,45}
2. **Bupropion-SR has had adverse effects on patients with bipolar disorder and/or a history of eating disorders. It should not be used in these populations.**⁴⁶
3. Additional research on tobacco users with a history of depression suggests the usefulness of the nicotine transdermal patch⁴⁷ and nicotine gum⁴⁸ for short-term tobacco cessation.

Bipolar Disorder

1. Glassman (1993) found that persons with bipolar disorder may also be at risk for recurrence of depressive symptoms during tobacco cessation.⁴⁹ However, other research shows that abstinence from tobacco is not associated with worsening of symptoms of depression or mania in the short-term for individuals with a diagnosis of Bipolar Disorder.⁵⁰
2. **It is important to note that use of bupropion should be avoided for this population as it may lead to a worsening or recurrence of manic symptoms.**

Anxiety Disorders

1. Although patients report that tobacco use reduces depression and anxiety, chronic nicotine use in animal studies are positively correlated with increased anxiety.⁵¹ If a patient reports increased symptoms of anxiety after stopping tobacco use, it is important to determine whether these symptoms are related to withdrawal symptoms or the individual's anxiety disorder.
2. Cinciripini and colleagues (1995) found that tobacco users with high levels of trait anxiety receiving buspirone (BuSpar) versus placebo were more likely to have remained abstinent at the end of the trial, but not at follow-up.⁵²
3. A placebo-controlled study by Hertzberg and associates (2001) of bupropion SR for smokers with post-traumatic stress disorder (PTSD) found that bupropion was well tolerated and resulted in higher rates of smoking cessation (60%) as compared to the placebo (20%).⁵³
4. Also, in a study of veterans with PTSD who were using tobacco, McFall and colleagues (2005) found that those using tobacco who received cessation treatment integrated with their psychiatric care were five times more likely than tobacco users who received separate treatment to report abstinence from smoking nine months after the study.⁵⁴ The tobacco users receiving the integrated treatment were more likely to use nicotine replacement therapy and to receive more smoking cessation sessions. Additionally, cognitive behavioral therapy techniques that incorporate cognitive restructuring and exposure therapy to help people learn to tolerate and become more comfortable with physical sensations may be helpful to individuals with anxiety disorders.⁵⁵



Schizophrenia

1. Tobacco cessation programs that use the nicotine transdermal patch (NTP) demonstrate the highest quit rates for patients with schizophrenia as it aids in withdrawal symptoms.⁵⁶
2. Also, use of nicotine nasal spray, which produces higher plasma levels of nicotine, is associated with the reduction of withdrawal and craving.⁵⁷
3. In controlled trials, pharmacological treatment with sustained-release (SR) bupropion has been efficacious in promoting abstinence for people with schizophrenia. Tobacco users who are seeking treatment have shown success (with short-term abstinence rates of 11 percent to 50 percent) with a combination of bupropion SR and cognitive-behavioral therapy (CBT) at both the 150 mg/day⁵⁸ and the 300 mg/day doses.^{59,60}
4. Bupropion treatment also seems to reduce the negative symptoms of schizophrenia.⁶¹ Additionally, the combination of bupropion and nicotine replacement therapy is more effective than nicotine replacement therapy alone.^{62,63}
5. In a review of research, studies found varenicline to be more effective than placebo and bupropion with higher continuous abstinence rates in the short-term and at one year follow up. In addition, varenicline appears to be more effective at reducing cravings, and withdrawal symptoms, and increasing satisfaction compared to nicotine replacement therapy.⁶⁴
6. There is some evidence that patients treated with atypical antipsychotic agents, such as clozapine (Clozaril), smoke less⁶⁵⁻⁶⁷ and have an easier time quitting^{68,69} than those treated with typical antipsychotic medications. It is important to closely monitor blood levels of clozapine when tobacco cessation begins. The reduction in tobacco can cause a change in therapeutic level, and toxicity is a concern.⁷⁰



Substance Use Disorders

1. In a review, Mackowick et al. (2012) found that despite the high rate of co-occurrence between tobacco use and substance use disorders, the research on cessation in this population is sparse.⁷¹
2. Between 70-80 percent of patients receiving treatment for alcohol and other drug problems want to stop using tobacco.⁷² **Moreover, recent studies indicate that treating tobacco use actually helps patients to address their alcohol and other drug problems.** Stopping tobacco use does not appear to negatively affect treatment of alcohol and other drugs^{73,74} and may even help patients with their alcohol and other drug use.⁷⁵
3. Long-term quit rates of tobacco users in early recovery from substance use disorders (SUDs) are low, at approximately 12%.^{76,77} However, persons with a past history of alcoholism do not differ significantly from control subjects in tobacco treatment outcomes.⁷⁸ There are few studies of pharmacotherapeutic interventions for smoking in substance abusers, but some evidence exists suggesting that nicotine replacement and behavioral approaches are effective.^{79,80}
4. In individuals early in recovery from alcohol dependence, research on bupropion SR has not demonstrated a clear benefit of use for tobacco cessation. There is early evidence, however, that varenicline may be a promising treatment, especially due to associations with a reduction in alcohol craving and heavy drinking.⁸¹



Behavioral Interventions for Tobacco Cessation

Individuals with behavioral health conditions may need more intensive behavioral therapy to assist with social supports and development of coping skills, particularly early on in a quit attempt.⁸² Healthcare providers should ask individuals if they have preferences for group or individual interventions or even encourage a combination to address concerns regarding living a tobacco-free life.

Peer Services

Peer interventions have become a central part of the behavioral health recovery movement and can be used to augment provider-driven cessation strategies. The “recovery movement” suggests that adjuncts and alternatives to formal treatment, involvement in self-help groups, and social opportunities in community and institutional settings foster empowerment and self-efficacy.^{83,84} Peer-run services can provide a sense of empowerment and mutual benefit for the peer provider, as well as the recipient. Many public behavioral health systems already employ peer specialists for wellness initiatives. Tobacco cessation and prevention may be wrapped into these services.

The Behavioral Health and Wellness Program’s DIMENSIONS: Tobacco Free Program is designed to train peers and providers to assist people to live a tobacco-free life. The DIMENSIONS: Tobacco Free Program Advanced Techniques training supports tobacco cessation through motivational engagement strategies, group process, community referrals, and educational activities. Contact the Behavioral Health and Wellness Program at bh.wellness@ucdenver.edu for more information.

End Notes

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The Behavioral Health and Wellness Program's DIMENSIONS: Tobacco Free Program is designed to train peers and providers to assist people to live a tobacco-free life. The DIMENSIONS: Tobacco Free Program Advanced Techniques training supports tobacco cessation through motivational engagement strategies, group process, community referrals, and educational activities. Contact the Behavioral Health and Wellness Program at bh.wellness@ucdenver.edu for more information.



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