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## **Co-occurring Disorders:**

**Integrating Tobacco Use Interventions into  
Chemical Dependence Services**

**Participant's Manual  
Module 5**



**PROFESSIONAL DEVELOPMENT PROGRAM**  
**ROCKEFELLER COLLEGE** UNIVERSITY AT ALBANY State University of New York

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# **Nelson A. Rockefeller College of Public Affairs and Policy**

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October 2009

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Recommended citation: Professional Development Program, Rockefeller College, University at Albany, State University of New York. *Integrating Tobacco Use Interventions into Chemical Dependence Services*, 2009.

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## About This Training

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### **PDP Background**

Since its founding in 1976, the Professional Development Program (PDP) has been committed to making extended learning and public engagement a reality for the public service and not-for-profit workforces through its ongoing education and training programs. The mission of the Professional Development Program is to make a difference in a changing world by linking the learning, applied research, and evaluation resources of the university with the continuing professional education needs of the public service.

Over the past 30 years, PDP has had a wide variety of partners and has secured funding in excess of \$350 million to help organizations meet their workforce development needs. Current programs and services offered by PDP include:

- Child Welfare Training
- Computer Training Services
- HIV/AIDS Training Center
- Instructional Technologies
- Temporary Assistance Training
- Tobacco Interventions Project
- Media Production

For further information on the programs and services offered by the

Professional Development Program, contact us at:

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University Administration Building, 3<sup>rd</sup> Floor  
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## About This Training, Continued

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### **About the New York Tobacco Control Program**

The New York Tobacco Control Program, located at the New York State Department of Health, envisions all New Yorkers living in a tobacco-free society and works aggressively to reduce the morbidity and mortality, and alleviate the social and economic burden, caused by tobacco use in New York State.

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### **About the Tobacco Interventions Project**

In August 2007, the New York Tobacco Control Program, in collaboration with the New York State Office of Alcoholism and Substance Abuse Services (OASAS), released a Request for Applications entitled *Integrating Tobacco Use Interventions into New York State Chemical Dependency Services*.

In January 2008, this contract was awarded to PDP to serve as the Development, Management, and Oversight Agency (DMOA). PDP oversaw the six Regional Technical Assistance and Training Centers (RTATC) across the state, and developed all classroom-based training curricula, web-based learning, technical assistance tools, and the Tobacco Recovery Resource Exchange website. Classroom training and technical assistance was completed in December 2009, and online training was continued.

The Tobacco Interventions Project provided training and technical assistance to all NYS Office of Alcoholism and Substance Abuse Services (OASAS) funded and/or certified chemical dependence service providers to implement integrated tobacco use interventions (tobacco-free environment policies, tobacco education, and tobacco dependence treatment) into existing treatment protocols.

Visit the project website: [www.tobaccorecovery.org](http://www.tobaccorecovery.org) for online learning and other resources.

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## About This Training, Continued

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### **Tobacco Use: A Serious Public Health Problem**

Tobacco use is a serious public health problem. Tobacco use is the most preventable cause of death in the United States. Over 440,000 Americans die each year from tobacco-related disease. Cigarette use alone results in 25,500 deaths in New York State.

People who breathe in second-hand smoke from cigarettes also suffer adverse health consequences. In June 2006, the US Surgeon General issued a comprehensive scientific report, which concluded that there is no safe level of exposure to secondhand smoke (US Surgeon General, 2006). In 1993 and 2006, the US Environmental Protection Agency (EPA) concluded that environmental tobacco smoke (ETS) is responsible for approximately 3,000 lung cancer deaths annually among adult U.S. nonsmokers, and contributes to the risk of heart disease. Furthermore, among infants and young children, ETS exposure causes:

- An increased risk of lower respiratory tract infections such as bronchitis and pneumonia. EPA estimates that 150,000 to 300,000 cases annually in infants and young children up to 18 months are attributable to ETS.
- An increased prevalence of fluid in the middle ear, symptoms of upper respiratory tract irritation, and small reductions in lung function.
- Additional episodes and increased severity of symptoms in children with asthma. EPA estimates that up to 1 million asthmatic children have their condition worsened by exposure to ETS.

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## About This Training, Continued

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### **The Cost of Tobacco Use**

Tobacco use is also a costly problem. Research has clearly shown that the annual health care costs in New York directly caused by smoking total \$8.17 billion, with \$5.41 billion covered by New York Medicaid funding (CDC, 2008). The state and federal tax burden to New York State amounts to \$842 per household annually for government expenditures that are related to tobacco use (Campaign for Tobacco-Free Kids, 2008).

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### **Tobacco Use and Chemical Dependence**

Nationally, approximately 19.8% of all adults use tobacco (CDC, 2009). This is a decline over the past 5 years from a tobacco use rate of over 21%. People with substance use and co-occurring mental disorders, more than other populations, are likely to be addicted to tobacco. Historically, chemical dependence treatment agencies have not treated tobacco dependence concurrently with other chemical dependencies.

Among people with drug or alcohol problems, the rate of tobacco use ranges from 75% to 100% (Campbell et al., 1998).

People with substance use disorders who smoke are much more likely to die from their tobacco use than from their drug or alcohol addiction (Hurt et al., 1996; Hser, 2001).

Until recently, many chemical dependence treatment agencies have not addressed patient tobacco use. Some agencies have expressed concern that patients who are denied access to tobacco may choose to leave treatment. Other agencies have been unsure how to institute a tobacco use policy, or how staff would react.

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## About This Training, Continued

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### **Tobacco Use and Co-occurring Disorders**

Tobacco users, especially people who smoke tobacco, are over-represented among people who have substance use and/or mental health disorders. People with psychiatric disorders are two to three times more likely to smoke tobacco than the general population. Between 70-90% of people with schizophrenia smoke. Among people with depression and anxiety disorders, between 40-50% smoke. In fact, individuals with a mental health or substance use disorder consume 44% of all cigarettes sold in the U.S. (Campbell et al., 1998, Ziedonis and George, 1997, Lasser et al., 2000).

On average, people with serious mental illness die from 8 to 25 years earlier than the general population, primarily due to smoking-related illness (National Association of Mental Health Directors, 2006, Miller et al., 2006). Approximately 200,000 people with mental illness and/or addiction die each year from tobacco-related illnesses (Williams and Ziedonis, 2004, Brown et al., 2000, Hurt et al., 1996).

Addiction professionals often express concerns about addressing patients' tobacco use, fearing the stress of stopping tobacco will impede or jeopardize recovery. There are similar concerns expressed by mental health professionals for mental health patients: "what else are people going to do if they cannot smoke?", "pushing people with mental illness to stop smoking tobacco will jeopardize their stability and raise the risk of hospitalization," or, "why take away this last pleasure/coping strategy?"

Many people who have mental health and/or substance use disorders are interested in stopping their tobacco use. Tobacco treatment medications, counseling, and monitoring psychiatric medications make stopping tobacco use achievable. Moreover, helping patients stop their tobacco use has a strong positive effect on their quality of life, improves their recovery, reduces morbidity, and increases their life span (Ziedonis et al., 2000, Lasser et al., 2000; Fiore et al., 2008).

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## About This Training, Continued

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### **Addressing Tobacco use and Co-occurring Disorders**

Current research shows that many staff and patients are in favor of tobacco abstinence. Tobacco abstinence is also associated with improved treatment completion rates and improved post-treatment abstinence from alcohol and other drugs (Prochaska et al., 2004). Tobacco relapse is shown to trigger relapse to alcohol and other drug use and vice-versa (Stuyt, 1997; Sobell et al., 1995), a concern that was also noted by early pioneers of the treatment for alcohol and narcotic dependence (White, 1998).

Tobacco dependence is chemical dependence and addiction service providers already possess much of the essential knowledge and many of the skills necessary to incorporate tobacco use interventions into chemical dependence services.

This training and technical assistance initiative was designed to help agencies use a multidisciplinary approach to integrate tobacco interventions into chemical dependence agencies. PDP supported OASAS certified and/or funded agencies as they addressed tobacco dependence treatment and recovery.

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### **Original Project Goals**

- Create and maintain a tobacco-free environment in buildings, vehicles, and on the grounds of chemical dependence service programs
  - Integrate tobacco use interventions into chemical dependence services
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## Overview of the Modules

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### Modules and Topics

#### **Module 1 - The Foundation**

Attitudes and Beliefs  
History and Rationale  
Tobacco Dependence  
OASAS Regulation Part 856

#### **Module 2 - Assessment, Diagnosis, and Pharmacotherapy**

Assessment, Screening, and Diagnosis  
Stages of Change and Readiness to Change  
Pharmacotherapy  
Case-based Applications

#### **Module 3 - Behavioral Interventions**

Counseling Techniques  
Facilitating a Tobacco Awareness Group

#### **Module 4 - Treatment Planning**

Treatment Plan Components  
Writing a Treatment Plan and Case Study

#### **Module 5 - Co-occurring Disorders**

Attitudes and Beliefs, Challenges and Barriers  
Prevalence and Basic Neurobiology  
Treatment Strategy Review and Case Studies

#### **E-Learning - All Modules ([www.tobaccorecovery.org](http://www.tobaccorecovery.org))**

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## Module 5 Agenda and Objectives

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### Module 5 Agenda

- Review and recap of prior modules
  - Explore personal attitudes and beliefs about addressing tobacco use among people with co-occurring mental health and substance use disorders
  - Prevalence and co-morbidity of co-occurring disorders
  - Basic neurobiology of tobacco dependence and interactions with co-occurring disorders
  - Review of treatment for tobacco dependence
  - Case Studies
- 

### Module 5 Objectives

- Define co-occurring disorders and co-morbidity
  - Identify attitudes and beliefs about treating tobacco use and dependence among people with co-occurring disorders
  - Identify the challenges of and barriers for addressing tobacco use and dependence among people with co-occurring disorders
  - Identify the prevalence of co-occurring disorders and the co-morbidity issues of tobacco use, other substance use disorders, and mental health disorders
  - Identify the effects of smoking tobacco on medication levels among people with co-occurring disorders
  - Identify the basic neurobiological and psychosocial factors that are common to tobacco dependence, mental health disorders, and other substance use disorders
  - Use a case study to determine the best practices and recommendations to address tobacco use by a patient with co-occurring disorders
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## Unit 1

### Attitudes and Beliefs, Challenges and Barriers

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**Purpose** This unit will provide a short review of prior modules by drawing from participants recollections of other training on tobacco. This will be followed by defining co-occurring disorders and co-morbidity, helping participants explore their personal attitudes and beliefs about addressing tobacco use and dependence among people with co-occurring disorders, and discussing the challenges of and barriers to addressing tobacco use by this population.

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- Objectives**
- Define co-occurring disorders and co-morbidity
  - Identify attitudes and beliefs about treating tobacco use among people with co-occurring disorders
  - Identify the challenges of and barriers to addressing tobacco use among people with co-occurring disorders
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## Attitudes and Beliefs, Challenges and Barriers, Continued

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**Review of Prior Modules** This space is provided for you to make notes of key learning points presented in Modules 1 - 4.

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## Defining Co-occurring Disorders and Co-morbidity

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### Definition of Co-Occurring Disorder

- Co-occurring disorders refers to co-occurring substance use disorders (abuse or dependence) and mental health disorders. A patient may have one or more substance use disorders and one or more mental health disorders at the same time.
  - Common substance use disorders include tobacco dependence, and abuse or dependence for alcohol, opioids, sedatives, stimulants, and marijuana.
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### Common Examples

- The most common mental health disorders are major depression, dysthymic disorder, panic disorders, generalized anxiety disorder, post-traumatic stress disorder (PTSD), and severe personality disorders such as borderline and antisocial personality disorders.
  - Addiction professionals may also see patients who have schizophrenia or bipolar disorders along with tobacco dependence and other substance use disorders.
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### Definition of Co-morbidity

The terms “co-morbidity” and “co-occurring disorders” are often used interchangeably. More recently, the definition of co-morbidity has been more specifically defined.

- Co-morbidity is when two or more disorders exist at the same time, and the disorders interact in ways that affects the course and/or prognosis of each disorder (National Institute of Drug Abuse, 2009)
  - Co-morbidity includes situations where one disorder may have caused or negatively affected the development of another disorder, and vice versa
    - For example, a person with major depression drinks alcohol or uses opioids to try to control their depressed mood, and in time develops an alcohol or opioid dependence
    - Another example is tobacco use that negatively affects or influences the progression of another substance use disorder and/or mental health disorder
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## Setting the Context

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### Setting the Context

It is important to understand that there is little research about people who have co-occurring disorders and who are tobacco dependent.

- Most of the research has been about people with mental health disorders and non-tobacco substance use disorders, or about people with mental health disorders who are tobacco dependent
  - Currently, there are only a few studies concerning people who have co-occurring disorders and who are tobacco dependent
  - Treatment strategies for tobacco dependence have been shown to be effective for many different groups, including people with mental health and substance use disorders (Fiore et al., 2008)
  - This training draws from the existing literature and knowledge about tobacco dependence among people with mental health or substance use disorders, and will suggest that what is known about tobacco use for each group, may be applicable and effective for those with co-occurring disorders
-

## Attitudes and Beliefs Activity

### Confidence Scale and Attitudes and Beliefs Activity

Directions:

Circle the number that represents your level of confidence to treat tobacco dependence among patients with a co-occurring substance use and mental health disorder.

Low 1    2    3    4    5    6    7    8    9    10 High

Next, indicate the extent that you personally agree or disagree with each of the following statements by placing a mark in the appropriate box.

**Note:** The term co-occurring disorders is represented by COD and nicotine replacement therapy is represented by NRT.

<u>Statement</u>	<u>Strongly Agree</u>	<u>Agree</u>	<u>Ambivalent</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
Most patients with COD don't want to stop their tobacco use.					
NRT is not appropriate for people with COD.					
Tobacco dependence should be a priority when treating people with COD.					
Patients with COD should not stop their tobacco use.					

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## Patients' Perspectives of Tobacco Use and Co-occurring Disorders

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**Smoke Alarm Video** Consider the following questions while watching the video.

- Club House of Suffolk**
- What is the relationship of tobacco to people's mental health disorder?
  - What were the main fears expressed by patients about stopping their tobacco use?
  - What did people describe about how tobacco use related to their mental health and/or other substance use disorder?
  - What were the challenges and barriers these individuals expressed about stopping and maintaining abstinence from tobacco? (Consider individual, family, social, and the larger system challenges and barriers.)
  - How might treatment need to be modified or enhanced to help people with COD to stop their tobacco use?

Clubhouse of Suffolk produced this video and the vignettes are used with their permission. If you are interested in the video, please contact Clubhouse of Suffolk in Ronkonkoma, NY at (631) 471-7242 or go to their website at [www.clubhouseofsuffolk.org](http://www.clubhouseofsuffolk.org) to purchase a copy.

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## Unit Summary

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### Summary

- The key learning points from Modules 1 - 4 were reviewed and discussed
  - Co-occurring disorders was defined in this training, as being when a mental health and substance use disorder exist at the same time
  - Co-morbidity is often used interchangeably with the term co-occurring disorders, but has recently been used to define when two or more disorders interact in ways that affect the progression or course of each disorder
  - Attitudes and beliefs about tobacco use among people with co-occurring mental health and substance use disorders was examined, along with some of the challenges and barriers that exist for addressing tobacco use among people with co-occurring mental health and substance use disorders
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## Unit 2

### Prevalence and Co-morbidity Factors

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**Purpose** Unit 2 will use a small group learning exercise and large group debriefing to help participants understand the co-morbidity of tobacco use with mental health and substance use disorders. The effects of smoking tobacco on substance use disorders, mental health disorders, and psychiatric medication levels will be covered. There will then be discussion about the biopsychosocial view of tobacco dependence, substance use, and mental health disorders. The basic neurobiological and psychosocial factors that influence tobacco use are discussed using the biopsychosocial view.

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**Objectives** Identify the prevalence of co-occurring disorders and the co-morbidity of tobacco use with other substance use disorders and mental health disorders

Identify the effects of smoking tobacco on psychiatric medications among people with co-occurring disorders

Identify the basic neurobiological and psychosocial factors that are common to tobacco dependence, mental health disorders, and other substance use disorders

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## Prevalence of Tobacco Use and Co-occurring Disorders

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### **National and NYS Prevalence Data**

- Nationally from 50 - 75% of patients in chemical dependence treatment programs are reported to have a co-occurring mental health disorder and 20 - 50% of patients in mental health programs are reported to have a co-occurring substance use disorder (Center for Substance Abuse Treatment, 2005)
  - In New York State OASAS certified chemical dependence programs, the percentage of patients identified as having a co-occurring mental health disorder breaks down as follows: 26% of outpatients, 30% of residential program patients, 42% of inpatients , and 23 % of medication-assisted treatment (methadone) patients (New York State Office of Alcoholism and Substance Abuse Services, 2008)
  - A large percentage of patients who have substance use disorders and/or mental health disorders are also tobacco dependent (Lasser at al., 2000)
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## The Impact of Tobacco on Co-occurring Disorders

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### What is Your Tobacco and Co-occurring Disorders Knowledge?

In this exercise, your group's task is to review and discuss the following questions and statements, and select the answer that you believe is the most accurate. There are four multiple-choice questions followed by eleven statements for which you will select "Agree" or "Disagree." The answers will be reviewed and an explanation and citations for each will be provided during a large group discussion.

1. What is the average tobacco smoking prevalence rate for people who have a substance use disorder and/or a mental health disorder?
  - a. 30 - 40%
  - b. 70%
  - c. 20 - 25%
  - d. Less than 10%
2. In the US, what is the percentage of cigarettes that are consumed by people with mental health and/or substance use disorders?
  - a. 20 - 25%
  - b. 10 - 15%
  - c. Less than 5%
  - d. 44 - 46%
3. A 2006 study by the National Association of State Mental Health Program Directors indicated that patients with serious mental illness have a reduced life expectancy as compared to people in the general population. What is the average reduced life expectancy for these individuals?
  - a. 25 yrs
  - b. 5 yrs
  - c. 12 yrs
  - d. 10 yrs
4. Studies have shown that tobacco smokers with serious mental health disorders spend what percent of their monthly budget on tobacco?
  - a. About 15%
  - b. Less than 5%
  - c. 25 - 30%
  - d. 5 - 8%

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## The Impact of Tobacco on Co-occurring Disorders, Continued

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### What is Your Tobacco and Co-occurring Disorders Knowledge? cont'd

5. Daily tobacco smoking can be a predictor of suicidal thinking and attempts.

Agree or Disagree

6. Heavy tobacco smoking (20 or more cigarettes per day) can be a predictor of suicide risk and suicide completion.

Agree or Disagree

7. Nicotine causes cancer and is a major cause of cardiovascular disease.

Agree or Disagree

8. Nicotine can affect the metabolism (breakdown) of some psychiatric medications.

Agree or Disagree

9. When a patient stops smoking, they usually require an increase in the dosage of their psychiatric medications.

Agree or Disagree

10. The chronic use of tobacco can increase feelings of anxiety.

Agree or Disagree

11. Stopping tobacco-smoking leads to panic attacks, while maintaining smoking reduces the risk of panic attacks and panic disorder.

Agree or Disagree

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## The Impact of Tobacco on Co-occurring Disorders, Continued

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### What is Your Tobacco and Co-occurring Disorders Knowledge? cont'd

12. The majority of people with mental health and/or substance use disorders are not interested in stopping their tobacco use.

Agree or Disagree

13. Most people with mental health and/or substance use disorders cannot stop using tobacco.

Agree or Disagree

14. Varenicline (Chantix) reduces the effects of some psychiatric medications.

Agree or Disagree

15. Smoking tobacco increases the risk for developing a substance use disorder and/or a mental health disorder.

Agree or Disagree

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## The Impact of Tobacco on Co-occurring Disorders, Continued

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### **Tobacco and Co-occurring Disorders Knowledge**

Question 1: Average rate of tobacco use by people with mental health and/or substance use disorders.

- About 70% of people who have a mental health and/or substance use disorder use tobacco (Lasser et al., 2000).

Question 2: Amount of cigarettes consumed by people with mental health and/or substance use disorders.

- Of all cigarettes consumed in the US, 44 - 46% is consumed by people with mental health and/or substance use disorders (Lasser et al., 2000; Grant et al., 2004).
- Of the 435,000 annual smoking-related deaths, at least 200,000 are by people with mental health and/or substance use disorders (Maurer, 2006; Schroeder, 2009; Williams and Ziedonis, 2004).

Question 3: Average reduced life span for people with serious mental health disorders.

- Patients with chronic mental health disorders live on average 25 fewer years than the general population (National Association of State Mental Health Program Directors, 2006; Miller 2006; Colton and Manderscheid, 2006).
- While obesity and diet are contributors, the primary cause of death is cardiovascular disease (CVD) and diabetes. Tobacco is a key factor in diabetes onset and the main cause of CVD.
- This population has significantly elevated risk for respiratory and cardiovascular diseases and cancer, compared to age-matched controls (Brown et al., 2000; Dalton et al., 2002; Himelhoch et al., 2004; Lichtermann et al., 2001; Sokal, 2004).

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## The Impact of Tobacco on Co-occurring Disorders, Continued

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### Tobacco and Co-occurring Disorders Knowledge, Cont'd

Question 4: Percentage of monthly income spent on tobacco.

- 85% of people with mental health disorders are on public assistance and spend one fourth of their monthly income on tobacco or \$142 using 2000 - 2002 costs (Mechanic, Bilder, et al., 2002; Kouzis and Eaton, 2000). People with schizophrenia may spend as much as 27% of their monthly disability income on tobacco (Steinberg et al., 2004).

Statement 5: Daily tobacco smoking can be a predictor of suicidal thinking and attempts.

- Daily tobacco smoking is a strong predictor of suicidal thinking and attempts, even when taking into account those who have a history of depression, substance use disorder, and prior suicide attempts (Breslau et al., 1995).
- Daily tobacco smoking increases the risk of suicide for people with bipolar illness and schizophrenia (Oquendo et al., 2004; Potkin et al., 2003).

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## The Impact of Tobacco on Co-occurring Disorders, Continued

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### **Tobacco and Co-occurring Disorders Knowledge, Cont'd**

Statement 6: Heavy tobacco smoking (20 or more cpd) can be a predictor of suicide risk and completion.

- Heavy tobacco smoking is highly associated with greater suicide attempts among adolescents, especially females. Heavy tobacco smoking is also highly associated with increased suicide completion (Moriya et al., 2006; Cho et al., 2007; Oquendo et al., 2007).

Statement 7: Nicotine causes cancer and cardiovascular disease.

- Non-nicotine components of smoke, especially the tar, benzene, and other chemicals in smoke are the major carcinogens. Nicotine is not a carcinogen and it is not a major risk factor for cardiovascular disease (Benowitz and Gourley, 1997).

Statement 8: Nicotine can affect the metabolism (breakdown) of some psychiatric medications.

- Nicotine does not affect the metabolism of psychiatric medications (Williams and Hughes, 2003, Zevin and Benowitz, 1999).
- Tobacco smoke, especially the tar, induces the liver 1A2 enzyme and that can increase the metabolism of some antipsychotics, some antidepressants, caffeine, theophylline (similar to caffeine) and other medications. This effect can reduce the blood levels of some antipsychotics and antidepressants (Kroon, 2007; Williams and Ziedonis, 2004; Zevin and Benowitz, 1999; Desai et al., 2001).

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## The Impact of Tobacco on Co-occurring Disorders, Continued

### Tobacco and Co-occurring Disorders Knowledge, Cont'd

Statement 9: When a patient stops smoking, they usually require an increase in psychiatric medications.

- Many patients will be able to stop smoking without any effect on their medication dosages. However, smokers taking medications metabolized by the liver 1A2 enzyme (see Table 1), can be affected when they stop smoking and need close monitoring. Stopping tobacco smoking could cause some medication blood levels to rise, resulting in medication toxicity (Desai et al., 2001; Williams and Ziedonis, 2004; Zevin and Benowitz, 1999).
- Patients taking antipsychotics such as clozapine or olanzapine may need a dose reduction when not smoking to prevent serious medication side effects (Zullino et al., 2002). After stopping smoking, the blood levels of some antidepressants, theophylline (similar to caffeine) medications, and caffeine may increase. Side effects of antidepressants may occur and excess caffeine and theophylline may cause anxiety, restlessness, irritability, and insomnia.

Table 1: Some Common Drugs Affected by Tobacco Smoke

Anafranil	Clomipramine	OCD
Clozaril	Clozapine	Antipsychotic
Coffee, Colas, many OTC meds, Soft drinks and Tea	Caffeine	Cognitive Stimulant
Elavil	Amitriptyline	Antidepressant
Haldol	Haloperidol	Antipsychotic
Luvox	Fluvoxamine	OCD, Anxiety
Pamelor/Aventyl	Nortriptyline	Antidepressant, Anxiety
Prolixin	Fluphenazine	Antipsychotic
Theo-24, Theo-Dur, Theobid, Theovent	Theophylline	Asthma, Bronchitis, Emphysema
Thorazine	Chlorpromazine	Antipsychotic
Tofranil	Imipramine	Antidepressant
Zyprexa	Olanzapine	Antipsychotic

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## The Impact of Tobacco on Co-occurring Disorders, Continued

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### **Tobacco and Co-occurring Disorders Knowledge, Cont'd**

Statement 10: The chronic use of tobacco can increase feelings of anxiety.

Regular or chronic use of tobacco increases feelings of anxiety (Breslau and Klein, 1999; Isensee, et al., 2003; Zvolensky et al., 2005, 2005b). Users feel anxiety, restlessness, and tension from nicotine withdrawal, and often mistakenly assume that since these symptoms are relieved when they smoke, that tobacco and nicotine are providing general anxiety control and relief. Smoking tobacco stops the anxiety related to nicotine withdrawal symptoms. Tobacco use actually increases general feelings of anxiety.

Statement 11: Stopping tobacco-smoking leads to panic attacks, while maintaining tobacco use reduces the risk of panic attacks and panic disorder.

- Tobacco use, especially in the form of daily tobacco smoking, is a significant risk factor for panic disorder, agoraphobia, and generalized anxiety disorder (Breslau, 2004b; Amering et al., 1999). When stopping tobacco use, patients often confuse the symptoms of nicotine withdrawal with the general anxiety, panic attacks, or other symptoms of their mental health disorder(s). Many consume excess levels of caffeine, which can mimic feelings of anxiety or even trigger panic attacks in some people.

Statement 12: People with mental health and/or substance use disorders are not interested in stopping tobacco use.

- People with mental health and/or substance use disorders express an interest in stopping tobacco use about as often as the general population. About 70% state an interest in stopping, and about 40% have tried to stop in the prior year (Lasser et al., 2000).
- Many mental health and substance use patients report that no addiction or mental health professional has ever asked if they would like to stop using tobacco nor advised them to stop.

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## The Impact of Tobacco on Co-occurring Disorders, Continued

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### **Tobacco and Co-occurring Disorders Knowledge, Cont'd**

Statement 13: People with mental health and/or substance use disorders cannot stop using tobacco.

- People with mental health and/or substance use disorders can successfully stop and remain abstinent from tobacco. They often require more engagement efforts about their tobacco use, more frequent/repeat treatment episodes, and more intensive treatment, as compared to the general population (Williams and Ziedonis, 2004; Prochaska et al., 2008; Williams and Foulds, 2007).
- A meta-analysis of 15 studies showed no effect of having a history of major depression on smoking abstinence rates (Hitsman et al., 2003). Moreover, a history of alcohol dependence is not associated with reduced ability to quit smoking (Covey et al., 1994; Hughes and Kalman 2005).

Statement 14: Varenicline reduces the effects of some psychiatric medications.

- Varenicline is excreted 92% unchanged in the urine and has no clinically meaningful drug-drug interactions (Tonstad, 2006). Varenicline is not recommended for patients under 18 years of age, and should be used with caution in patients with renal impairment. Patients and clinicians should be alert to changes in mood or behavior during treatment with varenicline; these should be immediately reported to a healthcare provider.

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## The Impact of Tobacco on Co-occurring Disorders, Continued

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### **Tobacco and Co-occurring Disorders Knowledge, Cont'd**

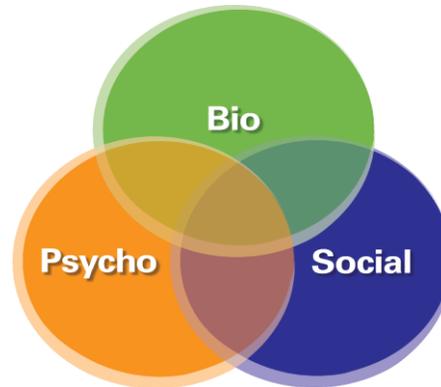
Statement 15: Smoking tobacco increases the risk for developing a substance use disorder and/or mental health disorder.

- Tobacco use in adolescence is the main “gateway drug” to alcohol and other illegal substance use (Giovino et al., 1994; Everett et al., 1998; Rohde et al., 2001; Kandel et al., 1992; Wagner and Anthony 2002).
  - Tobacco use during adolescence is predictive of increased risk for mental illness. Tobacco use during adolescence doubles the risk for major depression, and it is a strong predictor of other risk behaviors (Breslau, et al., 2004; Durant, 1999; Hanna and Grant, 1999).
  - Smoking in adolescence is associated with increased risk for psychiatric disorders in adulthood, including panic disorder, general anxiety disorder, agoraphobia, depression, suicidal behavior, substance use disorders, and schizophrenia (Breslau, et al., 2004; Weiser, et al., 2004; Goodman, 2000; Johnson, et al., 2000).
  - Active psychiatric disorders are associated with daily smoking and progression to tobacco dependence (Breslau, et al., 2004).
  - For women, smoking increases the risk of major depression by 93% (Pasco, et al, 2008).
-

## Biopsychosocial Factors for Tobacco Use and Dependence

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### Biopsychosocial View of Chemical Dependence



This is a review of content presented in Modules 1 and 2:

- Chemical dependence is a biopsychosocial disease
- The manifestation, maintenance, and course of addiction are influenced by biological vulnerabilities, psychological predispositions, and pervasive social factors (Erickson, 2007)
- Nicotine is the main psychoactive drug in tobacco that is highly reinforcing and causes physical dependence
- Tobacco use and tobacco smoke are highly reinforcing and this leads to compulsive (addictive) use, which is supported by biological, psychological, behavioral, and social factors
- Tobacco dependence is chemical dependence and it is a biopsychosocial disease

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## Biopsychosocial Factors for Tobacco Use and Dependence, Continued

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### Neuro-biological Factors for Tobacco Dependence

- Neurobiological factors for tobacco use and dependence are complex, and predisposition probably involves various genes
- It is believed that different genes have different effects on the use of nicotine, use of tobacco, and dependence (Lerman and Berrettini, 2003; Lerman, et al., 2003)
  - Tobacco initiation and reasons for first use
  - Nicotine dependence and withdrawal severity
  - Tobacco dependence and withdrawal severity
  - Ability or inability to stop using tobacco
- People with serious mental health and/or substance use disorders have lower long-term tobacco abstinence rates and higher tobacco relapse rates, as compared to tobacco users without these disorders (Hagman et al., 2008)
  - This effect is believed to be related to genetic predisposition, and could suggest common factors for mental health and substance use disorders

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## Biopsychosocial Factors for Tobacco Use and Dependence, Continued

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### Neuro-chemical Effects of Nicotine

Nicotine, and possibly other chemicals in tobacco smoke, alters the levels of certain neurotransmitters in the brain, resulting in increased attention, increased speed of simple mental processes, and mood modulation. Scientists speculate that changes in the following brain chemical systems are linked to the feelings associated with using nicotine:

- Increases dopamine - increases pleasure, reward
- Increases norepinephrine - increases arousal and less appetite
- Increases acetylcholine - increases arousal and cognition
- Increases glutamate - helps learning and memory enhancement
- Increases vasopressin - controls memory, blood pressure
- Increases beta-endorphin - reduces anxiety and tension
- Increases GABA - reduces anxiety and tension
- Increases serotonin - mood modulation and appetite suppression

(Benowitz, 1992)

Problems or deficiencies in these brain chemical pathways are believed to cut across people who have tobacco dependence, mental health disorders, and substance use disorders.

Given the perceived benefits from using tobacco, the high rates of use, and high relapse rates for people with substance use and/or mental health disorders, it is no surprise why so many are tobacco dependent and have such difficulty stopping, despite a desire to become abstinent.

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## Biopsychosocial Factors for Tobacco Use and Dependence, Continued

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### Psychological Factors

- Positive reinforcement includes the pleasurable effects, plus modest increase in cognitive focus and attention span
  - Negative reinforcement is use of tobacco to stop withdrawal symptoms and alleviate withdrawal anxiety, and use helps lift depressed mood
  - Belief in tobacco's ability to ward off mental health symptoms
  - Tobacco use as a self-reward
- 

### Behavioral Factors

- Tobacco use is part of daily routine and a way to structure the day
  - Tobacco use is "something to do" when talking, eating, using alcohol or other drugs, working
  - Tobacco use as something to do to dispel excess energy when anxious, stressed, bored or lonely
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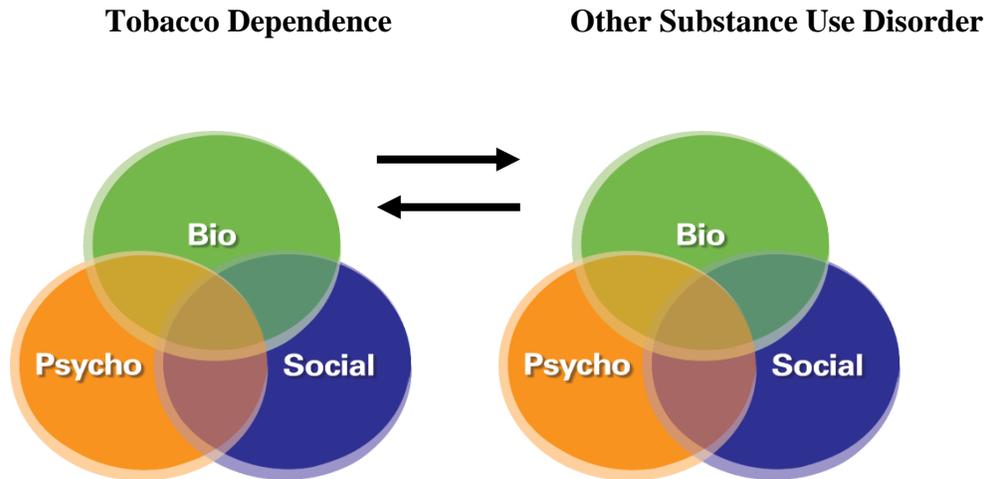
## Biopsychosocial Factors for Tobacco Use and Dependence, Continued

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- |                       |  |
|-----------------------|--|
| <b>Social Factors</b> | <ul style="list-style-type: none"> <li>• Tobacco use is a key facilitator of social interactions</li> <li>• Tobacco use is ingrained in psychiatric and addiction treatment “culture”</li> <li>• Tobacco use may be part of person’s family practices and culture</li> <li>• Tobacco use is viewed as a patient’s “only pleasure”</li> <li>• Tobacco is given as a reward or withheld as punishment</li> <li>• Tobacco use is encouraged by patients, family members, and staff</li> <li>• Tobacco use adds to social stigma, as patients end up associating primarily with other tobacco users</li> </ul> |
|-----------------------|--|
- 
- |  |   |
|--|---|
| <b>Treatment and Recovery System Factors</b> | <ul style="list-style-type: none"> <li>• Tobacco use is not seen as a problem by staff, especially by those who smoke</li> <li>• Tobacco abstinence is believed to be disruptive to treatment or it is assumed that abstinence causes symptoms to increase</li> </ul> |
|--|---|
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- |                                |  |
|--------------------------------|--|
| <b>Larger Systemic Factors</b> | <ul style="list-style-type: none"> <li>• The tobacco industry has a documented history of targeting people with mental health disorders (Apollonio and Malone, 2005)</li> <li>• Tobacco industry funding research to support the notion that tobacco use “helps” mental health patients and that stopping use will aggravate their psychiatric symptoms (Apollonio and Malone, 2005; Prochaska, et al. 2008b)</li> <li>• Tobacco industry lobbying against bans on smoking tobacco in mental health facilities (Apollonio and Malone, 2005)</li> <li>• Health care regulators succumbing to pressure to allow “smoking areas” for psychiatric and addiction patient</li> <li>• Lack of policy to recognize and treat tobacco dependence</li> </ul> |
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## Interaction of Tobacco Dependence and Other Substance Use Disorder

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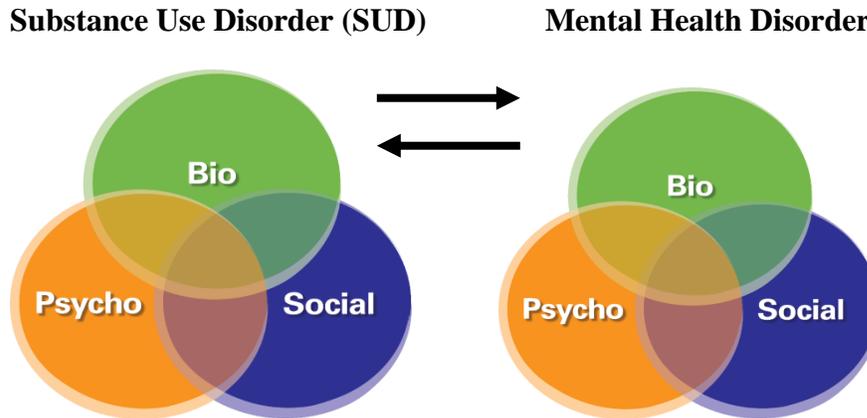
### Interaction of Tobacco and Other Substance Use Disorder



- Tobacco dependence and other types of substance dependence negatively interact. These co-morbid conditions.
  - Tobacco is the common “gateway” for alcohol and other drug use.
  - Using tobacco prompts or “cues” people to use other psychoactive substances.
  - Tobacco use is part of the ritual for alcohol and other drug use and becomes a part of daily activities.
  - People tend to use more tobacco when drinking or when using other psychoactive drugs; when people use tobacco, they tend to drink more and use greater amounts of other drugs.
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## Interaction of Substance Use Disorder and Mental Health Disorder

### Interaction of Other Substance Use Disorder and Mental Health Disorder



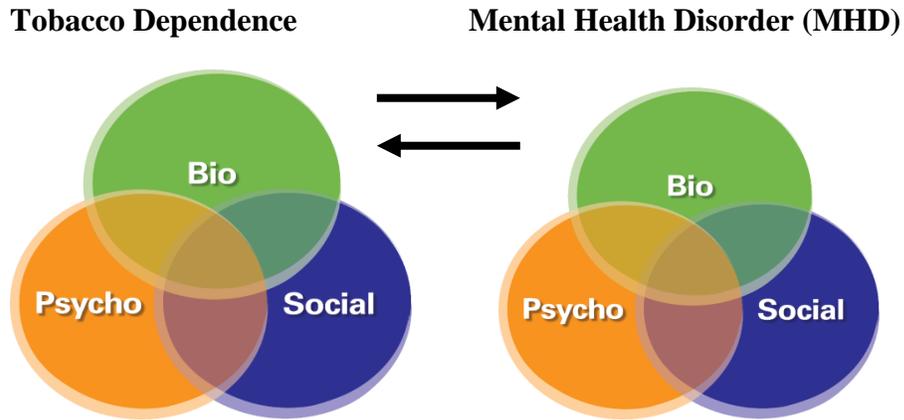
- Substance use disorders and mental health disorders negatively interact. They are co-occurring and co-morbid conditions
- The effects of psychoactive substances and the addiction process will often magnify the symptoms of a mental health disorder
- The symptoms of a mental health disorder can help support substance use and worsen symptoms of a substance use disorder
- Some common effects of both disorders are anxiety, depression, lack of concentration, occupational and social problems, and increased risk of suicidal ideation and suicidal behavior

Both substance use disorders and mental health disorders often present with problems of judgment and cognitive functioning.

## Interaction of Tobacco Dependence and Mental Health Disorder

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Interaction of Tobacco Dependence and Mental Health Disorder



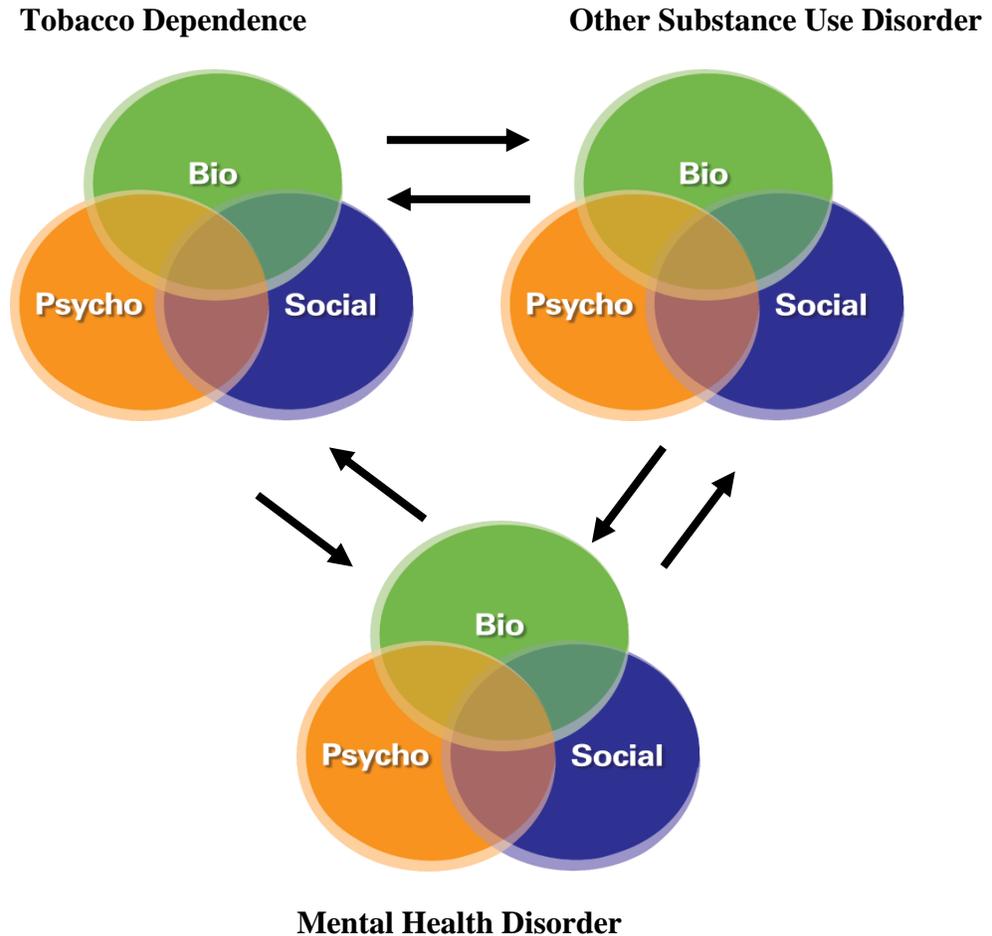
- A negative interaction occurs even if a person with a mental health disorder only uses tobacco. Tobacco dependence and mental health disorders are co-occurring and co-morbid conditions
- Tobacco dependence influences the development and progression of mental health disorders
- Tobacco use makes anxiety and panic disorders worse, increases the risk of suicidal ideation and suicidal behavior, and aggravates existing mental health disorders

Tobacco smoke impedes many areas of cognitive functioning and tobacco smoke interferes with some psychiatric medications.

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## Interaction of Tobacco Dependence, Other Substance Use Disorder, and Mental Health Disorder

Interaction of Tobacco, SUD, and MHD



When all three disorders are present, they interact and exacerbate each other.

## Common Factors between MHD, SUD, and Tobacco Dependence

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### **Common Factors Activity**

Think about your own patients who have co-occurring mental health and substance use disorders, and who are tobacco dependent.

Now read the list of factors on the next page of your manual.

What common connections between mental health disorders, substance use disorders, and tobacco dependence do you recognize when thinking about your patients?

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## Common Factors between MHD, SUD, and Tobacco Dependence, Continued

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### **Factors Affecting MHD, SUD, and Tobacco Dependence**

- Chronic disease affecting the brain and neurobiology
  - Genetic predisposition is believed to be a factor
  - Involve common chemical pathways
  - Disorders that affect cognition, emotions, and behavior
  - Often require periods of intensive treatment
  - Recovery is possible and relapse is common
  - Require life-long management to keep the disease under control
  - Treatment requires addressing the whole person
  - Affected by psychological, behavioral, and social issues
  - Cognitive Behavioral Therapy, Motivational Interviewing, and Relapse Prevention Therapy are effective
  - Require life style changes for recovery to occur
  - Often require medication, sometimes for long periods or for life
  - Requires compliance with medication, therapy, and other activities
  - Social and peer support systems are important to recovery
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## Unit Summary

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### Summary

- Mental health disorders, substance use disorders, and tobacco dependence involve common brain chemical pathways involving dopamine, acetylcholine, serotonin, and many others
  - The use of tobacco does not help improve the symptoms of mental health disorders or substance use disorders
  - Tobacco use magnifies the symptoms of mental health disorders and substance use disorders, and it has significant negative effects on a patient's stability and recovery
  - Tobacco dependence, mental health disorders, and other substance use disorders are all chronic, biopsychosocial diseases
  - Tobacco dependence, other substance use disorders, and mental health disorders each have their own course and progression
  - Each disorder adds to and complicates the symptoms and course of another disorder, resulting in co-morbidity
  - When a person has all three disorders, the co-morbid effects can be multiplied
  - Treatment and recovery for a person with a substance use disorder, mental health disorder, and tobacco dependence, requires recognizing the interactions between the disorders
  - Effective treatment and recovery needs to address the biological, psychological, and social areas of all three disorders
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## Unit 3

### Treatment Strategy Review and Case Studies

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**Purpose** This unit will include a brief review of treatment strategies for tobacco dependence, including nicotine and non-nicotine medications and evidenced-based counseling strategies.

Participants will then apply this information to three case studies, which involve co-occurring substance use and mental health disorders and tobacco use.

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**Objective** Use a case study to determine the best practices and recommendations to address tobacco use by a patient with co-occurring disorders

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## Tobacco Treatment Review

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### **Tobacco Medication Review**

First-line medications (FDA approved, wide safety margin, and effective):

Three over-the-counter (OTC) nicotine replacement medications:

- Nicotine gum (2 and 4 mg)
- Lozenge (2 and 4 mg)
- Patch (7, 14, and 21 mg)

Two prescription nicotine replacement medications:

- Nicotine nasal spray
- Nicotine inhaler

Two non-nicotine prescription medications:

- Varenicline (trade name, Chantix)
- Bupropion (trade names, Wellbutrin and Zyban)

Second line medications (Not FDA approved for treating tobacco dependence, are effective and have more side effects) are:

- Nortriptyline (an antidepressant) is less commonly used due to it causing weight gain and have a number of side effects
- Clonidine (an anti-hypertensive)
- Some small recent studies suggest nortriptyline is as effective as bupropion for people who struggle with depressed mood after stopping tobacco smoking (Hughes, 2007)

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## Tobacco Treatment Review, Continued

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### **Tobacco Treatment Medication Review, cont'd**

- Nicotine is well tested as a medication and has a high margin of safety (Benowitz, 1998; Joseph et al., 1996; McRobbie and Hajek, 2001)
  - Over-the-counter nicotine medications and the nicotine inhaler have very low risk for causing dependence
  - Compared to smoking, using nicotine medications lowers the risk of cardiac events (Murray, 1996; Mahmarian, 1997; Working Group for Study of Transdermal Nicotine, 1994)
- Many patients do not use enough NRT and/or use it incorrectly, and experience withdrawal symptoms
  - As a result, many patients do not think these medications work
  - Patient education about how to use medications is important and should be repeated to ensure correct use
- The nicotine patch, varenicline, and bupropion are “controller medications” providing steady relief from nicotine withdrawal
- Nicotine gum, lozenge, inhalers, and nasal spray are “rescue medications” to control “break-through withdrawal and cravings”

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## Tobacco Treatment Review, Continued

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### **Tobacco Treatment Medication Review, cont'd**

- New information suggests NRT dosages need to be individualized given the severity of tobacco dependence (Bars, et al., 2006; Kozlowski, et al., 2007; Sachs, 2006; Fiore, et al., 2008)
- For some patients, especially heavy smokers, dosages of NRT need to be higher than what is recommended (Fiore et al., 2008; Bars, et al., 2006; Kozlowski, et al., 2007; Sachs, 2006)
- Tobacco dependence is a chronic illness, and severely dependent patients may need to use NRT for six to 12 months, or even longer (Fiore et al., 2008; Bars, et al, 2006; Kozlowski, et al., 2007; Murray, 1996; Mahmarian, 1997)
- Combinations of two or more medications are recommended (Fiore et al., 2008)
  - A person using the patch and/or bupropion to provide steady relief, can also use the gum, lozenge, and/or inhaler
- Combining supportive counseling such as motivational interviewing or cognitive behavioral therapy along with medications enhances success (Fiore et al., 2008)
- Some smokers report a preference for the inhaler, because it simulates using a cigarette
- Some people with schizophrenia may do better with the nicotine nasal spray, which provides a higher nicotine dose and the fastest craving relief (Williams and Foulds 2007; Williams et al., 2008)
  - The nasal spray does have some potential for producing physiological dependence if used long-term
- Patients who smoke tobacco and take atypical antipsychotics such as Clozaril or Zyprexa, often report a reduction in their tobacco smoking (George et al., 1995, 2000; McEvoy et al. 1995, 1999)
  - The tobacco abstinence rate for this group was about equal to non-psychiatric smokers, when the nicotine patch was used

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## Tobacco Treatment Review, Continued

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### **Tobacco Treatment Medication Review, cont'd**

- Nicotine medications are classified by the Food and Drug Administration (FDA) as Category D drugs, which indicates risk of adverse effects on fetal development in humans
  - The benefits of NRT generally outweigh the many negative effects of smoking on fetal development (Fiore et al., 2008)
- Bupropion can provide a dual benefit for people who develop depressed mood after stopping tobacco. It is contraindicated for people with a history or risk of seizures, eating disorders, or those recently taking MAOI antidepressants
  - There is insufficient evidence to show bupropion is effective for pregnant women who smoke (Fiore et al., 2008)
  - The FDA lists bupropion as a Category C drug, meaning animal studies have shown adverse effects on fetal development, but this effect has not been adequately determined for humans
- Varenicline (Chantix) can be used successfully by many people and preliminary studies indicate it may be more effective than other tobacco treatment medications
  - It should be used with caution in people with renal impairment
  - Varenicline has not been shown to be effective for pregnant women who smoke (Fiore et al., 2008)
  - The FDA lists varenicline as a Category C drug, meaning animal studies have shown adverse effects on fetal development, but this effect has not been adequately determined for humans

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## Tobacco Treatment Review, Continued

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### **Psychosocial Tobacco Treatment Review**

- Knowing a patient's stage of change regarding their tobacco use is important to choosing the best counseling intervention
- Motivational Interviewing is effective for people in the precontemplation or contemplation stage of change with respect to their tobacco use. Psychoeducation groups focused on healthy behavior are also effective (Fiore et al., 2008)
- Cognitive Behavioral Therapy (CBT), stress management skills, and problem solving skills training work better for patients in the preparation, action, or maintenance stages of change with respect to their tobacco use (Fiore et al., 2008)
- Relapse Prevention Therapy is effective to help patients in recovery from tobacco use and helps them learn to manage day-to-day stresses and prevent a return to use (Fiore et al., 2008)
- Individual and group peer-based tobacco counseling appears to be useful for some people with mental health disorders
  - Peer counseling has been used successfully by mental health programs in New Jersey, New York, and other states to address tobacco use
  - Some patients with mental health disorders report they feel more willing to discuss their tobacco use and how to stop their use with a peer who understands tobacco dependence

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## Tobacco Treatment Review, Continued

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### Important Reminders

- Tobacco dependence is a chronic disease
  - Successful tobacco abstinence often takes multiple attempts and multiple treatment efforts
  - If a patient shows a reduction in the amount of tobacco used, when they use, where they use, or how often they use, that shows some success and should be affirmed
  - Due to prior failures to stop, many patients need lots of encouragement
  - Not assessing and treating tobacco use gives an unhealthy and incorrect message to patients
    - It incorrectly implies that patients are not capable of stopping
    - It incorrectly implies that they are not willing to stop
    - It incorrectly suggests that tobacco “helps them with their illnesses”
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## Case Studies

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### **Case Study Instructions**

In this section, there are three case studies, followed by a set of questions specific to that case.

All of the case studies include at least one mental health disorder, at least one non-tobacco substance use disorder, and tobacco dependence.

Within your groups, read the case study you were assigned and answer the questions on the next page.

A review chart of some common medications that interact with tobacco smoke is listed after the third case study as an easy reference.

The case studies and responses to each questions will be debriefed as a large group

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## Case Study 1 - Kathy

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Kathy is a 40-year-old single woman in an outpatient program for alcohol dependence, and receives regular sessions and medication from a mental health provider for depression and anxiety. She has mild anxiety in social situations after experiencing a panic attack in a public setting. She asks if she should try to stop using tobacco.

- She has no suicidal ideation, no history of seizures, and has been abstinent from alcohol for over five months.
- She was not ready to stop tobacco 2 months ago, but the high cost of cigarettes and strong recommendation of her OB/GYN physician caused her to now consider stopping. She also must leave the building and grounds to smoke during work hours, which is becoming very inconvenient.
- Members of her fellowship group told her not to stop smoking for at least a few years, as it will jeopardize her sobriety. Her psychiatrist is concerned if she stops smoking, thinking that it may re-trigger symptoms of depression and anxiety.
- She started using tobacco at age 15, because it “kind of lifted my spirits”. Within a year, she was using a pack a day and now smokes 25 to 30 cpd. She states, “I smoke to help keep calm.” She is a regular coffee drinker, often having six or more cups a day.
- She began drinking alcohol at 18 and progressed until she began recovery five months ago. As her drinking increased, she noticed that she smoked more.
- About 3 months ago, she began taking Pamelor (nortriptyline) to control her depression and anxiety, and she sees a psychiatrist twice a month.
- Her only tobacco abstinence was during her pregnancy 20 years ago, but she started smoking soon after giving birth. She has cut down to about 15 cpd several times, but could not stop altogether and returned to her 25 - 30 cpd.
- She lives in the family-owned home with her brother, who smokes heavily.

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## Case Study 1 - Kathy, Continued

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### Questions for Kathy

What challenges and barriers does Kathy have to overcome to stop her tobacco use?

What strengths/resources does she have to help her stop tobacco use?

What nicotine replacement medications might be helpful?

Would you recommend that she talks to her psychiatrist about using Chantix (varenicline) or Zyban/Wellbutrin (bupropion)? Why or why not?

If she stops using tobacco, are there any other medications she is taking that might be affected? (See Medication and Drug Chart after Case Study Questions.)

Kathy is in the contemplation stage of change with respect to her tobacco use. What counseling strategies might be helpful to use at this point?

If Kathy prepares to stop or stops using tobacco, what strategies might you use to help manage her symptoms of depression and anxiety?

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## Case Study 2 - John

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John is a former patient who called for an appointment to discuss how he could stop using tobacco. He is a 42-year old man with bipolar disorder and a history of alcohol dependence, which is in remission. He has been employed for several years.

- He has bronchitis and was diagnosed with bipolar disorder at age 29. He has experienced four past episodes of depression, resulting in three hospitalizations. He has no history of seizures and is not suicidal.
- He is taking Neurontin (gabapentin, an anticonvulsant for bipolar disorder) and Celexa (citalopram - a SSRI for depression). His symptoms are under control. He is also taking Theo-Dur for his bronchitis.
- He began smoking at age 14 “to be cool.” Smoking helps him stay focused and he feels it stops his anxiety. His tobacco use increased after he started drinking at 19.
- He entered an inpatient treatment center for alcohol dependence, then attended outpatient group therapy for three months, and now has six months of continuous abstinence.
- He attends AA regularly and a dual-recovery fellowship meeting once a week, where most members smoke before and after the meeting. Many of his friends smoke.
- He tried to quit smoking “cold turkey” several times and got down to 12 cigarettes a day, before returning to his usual two packs a day. He also drinks several large cups of coffee and some cola beverages throughout the day.
- He once used a 21 mg patch, 2 mg nicotine gum, and tobacco cessation class. The gum was uncomfortable, but he cut down to only a few cigarettes a day and stopped altogether for a few weeks. However, after a 12 week recommended program on the patch, he stopped using it and relapsed.
- When he tries to stop using tobacco, he becomes preoccupied with cigarettes. His mood fluctuates and he becomes anxious and distracted. While using the patch, his anxiety and distractibility were not as hard to manage.
- He dislikes the costs of smoking and the feeling of being controlled by tobacco. While an inpatient he wanted to quit, but his counselor told him not to quit until he had a year of recovery. He wants to quit now, which his internal medicine physician supports.
- His psychiatrist is willing to support his decision to stop tobacco, but has concerns that this might destabilize his mood.

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## Case Study 1 - Kathy, Continued

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### Questions for John

Given that, John is in active recovery from a mental health disorder and a substance use disorder, how would you respond to his wanting to stop his tobacco use?

What are John's major challenges and barriers for stopping tobacco use?

How would you work with his psychiatrist, who appears hesitant to support his becoming tobacco abstinent?

If he stops using tobacco, are there any other medications he is taking that might be affected? (See Medication and Drug Chart after Case Study Questions.)

What nicotine replacement medications might be helpful?

Would you recommend that he talks to his primary care physician or psychiatrist about using Chantix (varenicline) or Zyban/Wellbutrin (bupropion)? Why or why not?

What counseling strategies might be helpful in combination with tobacco medication?

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## Case Study 3 - Alvin

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Alvin is a 44-year-old male who is being treated at your inpatient treatment facility. He was admitted for marijuana and alcohol dependence.

- Alvin began using alcohol and marijuana at age 19 and has been a daily user for the past 17 years. His wife does not currently smoke tobacco or marijuana. She used to smoke marijuana with him but stopped many years ago. Alvin reports that she criticizes him about his marijuana use and asks him to stop.
- Despite his efforts to control his drinking, over the years his alcohol use increased from an occasional beer to “five or six a night, sometimes more.”
- His daily routine includes smoking cigarettes first thing in the morning and several before going to work. He also smokes marijuana before going to work and smokes cigarettes on work breaks as often as he can. He then smokes cigarettes before and after dinner, smokes a joint or two, and drinks several beers before going to bed.
- He began using tobacco at age 15 and now smokes almost two packs a day. He has been counseled at work about taking too many smoke breaks.
- At admission, he stated he was a National Guard veteran and honorably discharged in 1995. At 3 weeks into treatment, he stated, “pot and drinking were clearly causing me lots of problems” and then revealed that he was on active duty in the Gulf War in 1992. He saw active combat, with “lots of death and destruction.”
- He tries hard not to think about war memories and rarely discusses it. Smoking cigarettes helped to “occupy my mind and keep my spirits up.” After returning to the US, his marijuana and alcohol use steadily increased.
- He knows tobacco is not good, but does not like feeling “down in the dumps and jittery” when he tries to stop or cut down. He is on a 21 mg patch and gum while an inpatient, but he reports feeling “down in the dumps,” “generally worried, why I do not know,” and is thinking about “a lot of memories I’d like to forget.”
- After returning home from Iraq, he was prescribed Tofranil (imipramine) by the military doctor, which he took for several months. It helped some, but he stopped this medication after discharge and wonders if he could take it again.

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## Case Study 3 - Alvin, Continued

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### Questions for Alvin

What are some of Alvin's challenges and barriers to stop his tobacco use?

If he starts using Tofranil or a similar medication, and then later stops smoking, will his medication dosage need to be adjusted? (See Medication and Drug Chart after Case Study Questions.)

What strengths and resources can he use to help stop using tobacco?

Given that Alvin is in the precontemplation stage of change about his tobacco use, what counseling strategies would be helpful?

If Alvin decides to stop using tobacco, what nicotine replacement medications might be helpful?

Would you recommend that he talks to the facility physician or psychiatrist about using Chantix (varenicline) or Zyban/Wellbutrin (bupropion)? Why or why not?

If Alvin decides to stop using tobacco, even if using NRT, do you expect an increase in any of the symptoms he is reporting? What other services would you recommend?

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## Medications and Drugs Affected by Tobacco Smoke

Trade Names	Generic Name	Purpose
Anafranil	Clomipramine	OCD
Clozaril	Clozapine	Antipsychotic
Coffee, Cola, Soft drinks, some OTC medications, Tea	Caffeine	Cognitive Stimulant
Elavil	Amitriptyline	Antidepressant
Haldol	Haloperidol	Antipsychotic
Luvox	Fluvoxamine	OCD, Anxiety
Pamelor/Aventyl	Nortriptyline	Antidepressant, Anxiety
Prolixin	Fluphenazine	Antipsychotic
Theo-24, Theo-Dur, Theobid, Theovent	Theophylline	Asthma, Bronchitis, Emphysema
Thorazine	Chlorpromazine	Antipsychotic
Tofranil	Imipramine	Antidepressant
Zyprexa	Olanzapine	Antipsychotic

## Unit Summary

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### Summary

- The treatment for people with co-occurring disorders does not generally differ from those methods used to treat people with or without substance use or mental health disorders
  - The main differences are often higher intensity of treatment, more frequent treatment efforts, and more effort to engage patients to address their tobacco use
  - Treatment includes nicotine medications, which have a wide margin of safety and non-nicotine medications, including bupropion and varenicline
  - Many medications can be used in combination and neither nicotine nor varenicline cause drug-to-drug interactions
  - The use of evidenced-based counseling strategies, such as motivational interviewing, cognitive behavioral therapy, and relapse prevention therapy are effective
  - Psychoeducation groups about tobacco are effective
  - The use of medication plus counseling is more effective than either method alone; peer counseling may also be of benefit
  - Treatment also requires anticipating how stopping tobacco use may affect other medication levels and monitoring where indicated
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## Module Closure

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### **Attitudes and Beliefs**

Revisit the newsprint pages of the five statements and place their new selections.

Did your ratings on the confidence scale change?

In reviewing your earlier response to the attitudes and beliefs activity, did your answers change?

What changed and why?

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## Resources

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**Resource Directory**      **Tobacco Recovery Resource Exchange** (<http://www.tobaccorecovery.org>) can be used to access e-learning opportunities, technical assistance, resources, web tools, and more.

**New York State Office of Alcoholism and Substance Abuse Services Tobacco Independence** <http://www.oasas.state.ny.us/tobacco/index.cfm>

**New York State Tobacco Dependence Resource Center**  
<http://www.tobaccodependence.org>. A wealth of resources including sample policies, research articles, and more.

**Treating Tobacco Use and Dependence: Clinical Practice Guideline 2008 Update:** call to order a copy at 1-800-358-9295 or go to <http://www.surgeongeneral.gov/tobacco/default.htm>.

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## Resources, Continued

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**Resource  
Directory,  
cont'd**

### **NYS Medicaid Policy Smoking Cessation Policy**

- Smoking cessation therapy consists of prescription and non-prescription agents. Covered agents include nasal sprays, inhalers, Zyban (bupropion), Chantix (varenicline), over-the-counter nicotine patches and gum.
- Two courses of smoking cessation therapy per recipient, per year are allowed. A course of therapy is defined as no more than a 90-day supply (an original order and two refills, even if less than a 30 day supply is dispensed in any fill).
- If a course of smoking cessation therapy is interrupted, it will be considered one complete course of therapy. Any subsequent prescriptions would then be considered the second course of therapy.
- Some smoking cessation therapies may be used together. Professional judgment should be exercised when dispensing multiple smoking cessation products.
- Duplicative use of any one agent is not allowed (i.e., same drug and same dosage form and same strength).
- For all smoking cessation products, the recipient must have an order. A prescription is the terminology for an order of a prescription product. A fiscal order refers to an order, which looks just like a prescription - written on a prescription blank, for an over-the-counter product.
- NYS Medicaid reimburses for over-the counter nicotine patches. Prescription nicotine patches are not reimbursed.
- Name brand Zyban requires a prior authorization, but generic bupropion does not.

NYS Smokers Quitline (866) NY-QUITS (866-697-8487)

American Cancer Society 1-800-227-2345

American Lung Association 1-800-586-4872

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## Glossary

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**Agonist:** A medication that stimulates an action on a given receptor

**Ambivalence:** Uncertainty or inability to make choices caused by having thoughts or feelings that oppose or contradict each other

**Antagonist:** A medication that acts against or blocks an action on a given receptor

**AOD:** Alcohol and Other Drugs

**Articulate:** Clearly explain, describe, or talk about

**ASAP:** Alcoholism and Substance Abuse Providers of New York State ([www.asapnys.org](http://www.asapnys.org))

**ATC:** New York State Office of Alcoholism and Substance Abuse Services (OASAS) Addiction Treatment Centers (<http://www.oasas.state.ny.us/atc/index.cfm>)

**ATOD:** Alcohol, Tobacco, and Other Drugs

**Autonomy:** Personal capacity to consider alternatives, make choices, and act without undue influence or interference from others.

**Blended Learning:** The combination of multiple approaches to learning, for example, a combination of technology-based materials and classroom sessions to deliver instruction

**Bupropion (Zyban® or Wellbutrin ®):** A first-line non-nicotine medication used in the treatment of tobacco dependence

**CASAC:** New York State Credentialed Alcoholism and Substance Abuse Counselor (<http://www.oasas.state.ny.us/sqa/credentialing/CASACCover.cfm>)

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## Glossary, Continued

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**CBT:** Cognitive-Behavioral Therapy. CBT is a form of counseling that emphasizes the important role of thinking in how we feel and what we do

**CDC:** Centers for Disease Control, U.S. Department of Health and Human Services

**Cessation Centers:** Funded community partners that provide technical assistance, training, and follow-up to health care institutions in their catchment areas in implementing the Clinical Practice Guideline, 2008 Update (CPG). The main task is to help screen patients for tobacco use and prompt health care providers to offer brief interventions for stopping tobacco use ([http://www.health.state.ny.us/prevention/tobacco\\_control/community\\_partners/tobacco\\_cessation\\_centers.htm](http://www.health.state.ny.us/prevention/tobacco_control/community_partners/tobacco_cessation_centers.htm))

**Change Talk:** Patient statements (e.g., desire, ability, reasons, and need to change) that indicate a patient's beginning to commit to change

**CIAA:** NYS Clean Indoor Air Act, in effect July 24, 2003  
([http://www.health.state.ny.us/nysdoh/clean\\_indoor\\_air\\_act/general.htm](http://www.health.state.ny.us/nysdoh/clean_indoor_air_act/general.htm))

**Cognitive:** The use of mental activities such as perception, thinking, remembering, reasoning, mental images, and taking information to create new ideas

**CO Monitor:** A carbon monoxide (CO) monitor is a non-invasive device that estimates the amount of carbon monoxide in a person's blood, providing evidence of one of the harmful consequences of smoking

**Co-morbid Condition:** Two or more disorders or illnesses occurring in the same person, simultaneously or sequentially (example: opiate dependence and HIV)

**Co-morbidity:** Describes the negative interaction between the two or more illnesses, which affects the progression and prognosis of each disorder

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## Glossary, Continued

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**Competency:** The required knowledge, skills, and attitudes of addiction professional practice. (See Technical Assistance Publication (TAP) Series 21, which is available online at <http://www.kap.samhsa.gov/products/manuals/pdfs/TAP21.pdf>)

**Co-occurring Disorders:** Co-occurring substance use (abuse or dependence) and mental health disorders (example: alcoholism and depression)

**CPD:** Cigarettes Per Day

**CPG:** Clinical Practice Guideline, *Treating Tobacco Use and Dependence*, U.S. Department of Health and Human Services, Public Health Service, 2008 Update ([http://www.surgeongeneral.gov/tobacco/treating\\_tobacco\\_use08.pdf](http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf))

**CPP:** New York State Credentialed Prevention Professional

**CPS:** New York State Credentialed Prevention Specialist

**Craving:** An urgent, seemingly overpowering desire to use a substance, which often is associated with tension, anxiety, or other dysphoric, depressive, or negative affective states

**DARN-C:** An acronym for how to increase change talk. Used to encourage patients to make statements that tell about their **D**esire, **A**bility, **R**easons, and **N**eed to change, which leads to stronger language for making a **C**ommitment to change

**Discrepancy:** A variance or difference between present behavior and a desired goal, or the difference between what is happening now and how one wants things to be. The larger the discrepancy, the greater the importance of change

**DMOA:** Development, Management, and Oversight Agency

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## Glossary, Continued

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**DOH:** NYS Department of Health ([www.health.state.ny.us](http://www.health.state.ny.us))

**Dopamine:** An important neurotransmitter (messenger) in the brain that can trigger feelings of pleasure

**DSM-IV-TR:** Diagnostic and Statistical Manual of the American Psychiatric Association, Fourth Edition, Text Revision

**Effectiveness:** The outcome achieved from a treatment that is provided in a “real-world setting” (in a clinic or community)

**Efficacy:** The power to produce a desired effect. Efficacy is the outcome achieved from a treatment provided under near-ideal circumstances of control (for example treatment provided during a controlled research study)

**E-Learning:** Self-paced instruction or professional development activities provided over the Internet

**Empathy:** Nonjudgmental understanding, compassion, and acceptance of the patient's experience. Empathy requires understanding another person’s experience and effectively communicating that understanding

**ETS:** Environmental Tobacco Smoke, also known as second hand smoke

**Evidence-Based Practice:** Interventions that have been repeatedly documented in the scientific literature as effective in treating tobacco dependence

**Expectancy:** A learned anticipation of an effect from a cause

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## Glossary, Continued

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**FDA:** U.S. Food and Drug Administration ([www.fda.gov](http://www.fda.gov))

**First-Line Medications:** Medications approved by the FDA for a specific use and which have an established empirical record of effectiveness

**Functional Analysis:** A behavior analysis (or assessment) problem-solving process that identifies why a person behaves in a certain manner. It identifies triggers for the behavior, patterns of the behavior, and the consequences or benefits from the behavior

**Individualized Intervention:** Tailoring an intervention to fit the needs of a particular patient. For example, relapse prevention can be individualized based on information obtained about problems the patient has encountered in maintaining abstinence

**Intervention:** An action or program that aims to bring about identifiable outcomes. In tobacco dependence treatment, the intervention generally is clinical in nature and may consist of counseling and the use of medications. Also referred to as "treatment"

**LCSW:** Licensed Clinical Social Worker

**LGBT:** Lesbian/Gay/Bisexual/Transgender

**Medication Assisted Treatment:** The use of medications, in combination with counseling and behavioral therapies, to provide a whole-patient approach to the treatment of substance use disorders

**Metabolism:** The chemical processes occurring within a living cell or organism that are necessary for the maintenance of life

**MI:** Motivational Interviewing. Motivational interviewing is an effective evidence-based approach to overcoming the ambivalence that keeps people from making desired changes in their lives (<http://motivationalinterview.org>)

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## Glossary, Continued

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**Modality:** A treatment modality is any specific treatment method or procedure used to relieve symptoms or motivate behaviors that lead to recovery

**Modulate:** To alter the function or status of something in response to a drug effect

**Module:** A self-contained component of an instructional system. PDP instruction is broken into modules to make the instruction easy to access and deliver

**Negative Reinforcement:** A behavior is reinforced when a negative condition is stopped or avoided as a consequence of the behavior (example: use of tobacco to avoid withdrawal symptoms). Negative reinforcement should not be confused with punishment, which weakens a behavior when a negative condition is introduced

**Neuron:** A cell specialized to conduct and generate electrical impulses and to carry information from one part of the brain to another

**Neurotransmitter:** A natural chemical in the body released by one neuron to influence or communicate with another. Examples include dopamine, serotonin, norepinephrine, and acetylcholine, GABA, glutamate, beta-endorphin, and others

**New York State Clean Indoor Air Act:** Effective July 24, 2003, the New York State Clean Indoor Air Act (Public Health Law, Article 13-E) prohibits smoking in virtually all workplaces, including restaurants and bars

**Nicotine:** The psychoactive and highly addictive substance found in tobacco products

**NIDA:** The National Institute on Drug Abuse (NIDA), part of the National Institutes of Health (NIH) organized within the U.S. Department of Health and Human Services

**NRT:** Nicotine Replacement Therapy, including the nicotine patch, gum, lozenge, inhaler, and nasal spray

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## Glossary, Continued

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**NYS Smoker's Quitline:** A free statewide helpline through which tobacco users can obtain information, services, and nicotine medication to support an attempt at tobacco abstinence ([www.nysmokefree.com](http://www.nysmokefree.com))

**OARS:** An acronym from Motivational Interviewing that refers to the counseling micro-skills of Open Questions, Affirmations, Reflective Listening, and Summarizing

**OASAS:** NYS Office of Alcoholism and Substance Abuse Services ([www.oasas.state.ny.us](http://www.oasas.state.ny.us))

**OASAS Regulation Part 856:** Requires all New York State OASAS funded and/or certified providers of prevention, treatment, or recovery services for chemical dependence and/or gambling to implement tobacco-free policies as of July 24, 2008 (<http://www.oasas.state.ny.us/tobacco/providers/reg856.cfm>)

**OTC:** Over the Counter, a medication for which a prescription is not needed

**Partial Agonist:** Bind and activate a given receptor, but have only partial efficacy at the receptor relative to a full agonist

**PDP:** Professional Development Program, Rockefeller College, University at Albany ([www.pdp.albany.edu](http://www.pdp.albany.edu))

**Pharmacotherapy:** The treatment of disease using medications

**Positive Reinforcement:** A behavior is reinforced as a consequence of experiencing a positive response from the behavior (example: use of tobacco provides a pleasurable effect, increasing the likelihood that the behavior will be repeated)

**PPD:** Packs Per Day (of cigarettes)

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## Glossary, Continued

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**Promising Interventions Partners:** Funded community partners who worked to demonstrate the effectiveness of promising, but not yet established, tobacco control interventions

**Rapport:** The degree to which trust and openness are present in the relationship between counselor and patient; an essential element of the therapeutic relationship

**Readiness:** A person's stage of awareness of the need and willingness to change. Can be influenced by external pressure (family, legal system, employer) or internal pressure (physical health concerns)

**Receptor:** A structure on the surface of a neuron (or inside a neuron) that selectively receives and binds a specific substance

**Recovery:** Achieving and sustaining a state of health or actively working to regain a state of health (i.e., stopping tobacco use and non-medical psychoactive drug use), and establishing a lifestyle that embraces healthy behaviors

**Relapse Prevention Therapy (RPT):** A clinical approach that helps patients to anticipate obstacles and high-risk situations when working to maintain a change, and when such obstacles or situations occur, to use effective coping strategies

**Route of Administration:** The path by which a substance is taken into the body (i.e., by mouth, injection, inhalation, rectum, or by topical application)

**RPT:** An acronym for Relapse Prevention Therapy, which is a clinical approach that helps patients to anticipate obstacles and high-risk situations when working to maintain a change, and when such obstacles or situations occur, to use effective coping strategies

**RTATC:** An acronym for Regional Technical Assistance and Training Center

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## Glossary, Continued

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**SAMHSA:** Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services (<http://www.samhsa.gov>)

**Screening:** Gathering and sorting of information to determine if a person may have a problem with substance use ( i.e., Fagerström Test for Nicotine Dependence) and, if so, whether a more detailed clinical assessment is appropriate

**Second-Line Medications:** Medications that have not been approved by the FDA for a specific purpose but which health practitioners prescribe as “off- label” drugs to treat a disease or condition (i.e., nortriptyline, an antidepressant, is sometimes used for helping some people stop tobacco use, but is not FDA approved for this purpose)

**Self-efficacy:** One’s beliefs about his or her capability to successfully act to achieve specific goals or influence events that affect one’s life

**SES:** Socioeconomic Status

**SOC:** an acronym for Stages of Change (i.e., precontemplation, contemplation, preparation, action, and maintenance)

**Stages of Change:** The Transtheoretical Model of Change or Stages of Change (SOC) is a theory developed by James Prochaska and Carlo DiClemente, which suggests that most people progress through five different stages on their way to successful change. The stages are precontemplation, contemplation, preparation, action, and maintenance

**TAG:** Tobacco Awareness Group

**Tailored Interventions:** Treatments based on a dimension or a subset of dimensions of the patient (e.g., weight concerns, dependency). See also Individualized Interventions

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## Glossary, Continued

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**TC:** Therapeutic Community, a drug-free residential setting where the community (treatment staff and patients in recovery) interact in structured and unstructured ways to influence attitudes, perceptions, and behaviors associated with drug use. This approach is often referred to as “community as method”

**TCP:** Tobacco Control Program, within the NYS Department of Health ([http://www.health.state.ny.us/prevention/tobacco\\_control](http://www.health.state.ny.us/prevention/tobacco_control))

**Technical Assistance:** Help, resources, practical advice, problem-solving, and guidance to establish, strengthen, or enhance a program’s capacity to implement tobacco use interventions provided by Regional Technical Assistance and Training Centers (RTATCs)

**Titration:** The process of gradually adjusting the dose of a medication until the desired effect is achieved

**Tobacco Awareness Group:** A treatment modality primarily helpful for patients in the precontemplation and contemplation stages of change. The goal of the group is to help patients resolve their ambivalence about their tobacco use and move on to the next stage of change. The tobacco awareness group develops interest, elevates importance, and enhances motivation

**Tobacco dependence:** A chronic biopsychosocial disease characterized by persistent use, inability to limit or control use, withdrawal symptoms when use is stopped abruptly, frequent relapse after attempts at abstinence, and continued use despite knowledge of serious physical and psychological consequences

**Tobacco Interventions Project:** NYS Department of Health Tobacco Control Program, state-wide, Technical Assistance and Training grant awarded to the Professional Development Program (PDP) to support NYS addiction service providers to integrate tobacco interventions into chemical dependence and gambling programs

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## Glossary, Continued

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**Tobacco Recovery Group:** A treatment modality primarily helpful for patients in the preparation, action, and maintenance stages of change. The goal of the group is to define tobacco recovery and teach recovery tools in the physical, behavioral, and emotional arenas. The tobacco recovery group helps patients develop skills, elevate confidence, and embrace lifestyle change

**Tolerance:** There are different forms of tolerance, and in this manual the term refers to metabolic tolerance, a need for increased amounts of a substance to achieve the desired effect

**Treatment:** An action or program that aims to bring about identifiable outcomes. For tobacco dependence, the treatment generally is clinical in nature and may consist of counseling and the use of medications. Also may be referred to as "intervention"

**UMDNJ:** University of Medicine and Dentistry of New Jersey (<http://www.umdnj.edu/>)

**Varenicline (Chantix®):** A first-line non-nicotine medication used in the treatment of tobacco dependence

**Withdrawal:** Symptoms of discomfort and distress when use of a substance is abruptly stopped, and may include intense craving for the substance

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