

Tobacco Cessation and Behavioral Health



Today's Objectives

- Why this? Why now?
- Morbidity and mortality
- Prevalence rates
- Unique challenges
- The evidence-base
- Resources and tools



Why Now?

- Partnership
 - San Diego County Behavioral Health,
 American Lung Association, Communities
 Against Substance Abuse, Tobacco Control
 Coalition and Mental Health America



Why Now? (cont.)

- ▶ 100% of California state psychiatric facilities are smoke-free
 - Napa 7/08
 - Coalinga 8/08
 - Atascadero 11/08
 - Patton 4/09
 - Metro 4/09

"There have been no significant issues in any of the hospitals"

California Department of Mental Health



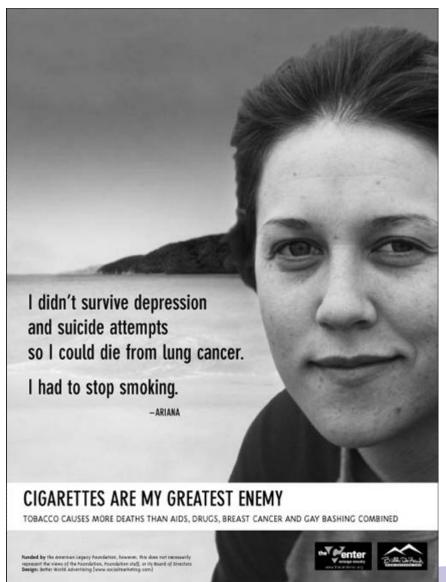
Why Now? (cont.)

- Promotion of health
- Changing philosophy around addictions
 & co-occurring treatment
- Putting the "T" back in ATOD
- Increased treatment effectiveness
- A key component of the recovery process
- You are in the best position to offer these services





A Wellness Philosophy



To assist people to lead meaningful lives in their communities, we need to promote behaviors that lead to health





Alarming Statistics



Tobacco's Deadly Toll

- 435,000 deaths in the US/year
- 4.8 million deaths worldwide/year
- 10 million annual deaths estimated by year 2030
- 50,000 annual deaths in the US due to second-hand smoke exposure



Tobacco's Deadly Toll (cont.)

- 200,000 of the 435,000 annual deaths are people with mental illness and substance use disorders
- For patients in treatment for alcohol and drug dependence, more than half die from tobacco-caused illnesses¹
- Among treated narcotic addicts, smokers' death rates are 4 times that of nonsmokers²

¹Hurt et al., 1996 ²Hser et al., 1994; Lynch & Bonnie, 1994





Morbidity and Mortality

Thirteenth in a Series of Technical Reports

> Morbidity and Mortality in People with Serious Mental Illness

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Morbidity and Mortality

- Persons with mental illnesses die up to <u>25 years</u> earlier and suffer increased medical comorbidity
 - Often from tobacco related diseases
 - More likely to die from these diseases than from their alcohol use
- Smokers with mental illnesses have more psychiatric symptoms, increased hospitalizations, and require higher dosages of medications

(Brown et al., 2000; Colton & Manderscheid, 2006; Dixon et al., 1999; Joukamaa et al., 2001; Osby et al., 2000; Dalack & Glassman, 1992; Desai, Seabolt, & Jann, 2001; Goff, Henderson, & Amico, 1992; Williams & Ziedonis, 2004; Ziedonis, Kosten, Glazer, & Frances, 1994).



Smoking is arguably the most modifiable risk factor for decreasing excess mortality & morbidity

(National Association of State Mental Health Program Directors, 2006; U.S. Department of Health and Human Services, 2004)



Prevalence Rates



Who Smokes?

- California adult smoking prevalence is
 13.3%* ~ 4 million smokers
 - American Indian 28.2%**
 - African American 18.7%**
 - White 16.2%**
 - Hispanic 12.8%**
 - Asian/Pacific Islander 12.0%**

- * California Department of Health Services, 2007
 - ** California Health Interview Survey, 2005





San Diego Prevalence Rates

- North Coastal 12.7%
- North Central 11.8%
- Central 12.4%
- ▶ South 11.9%
- ► East 15.4%
- ► North Inland 13.0%



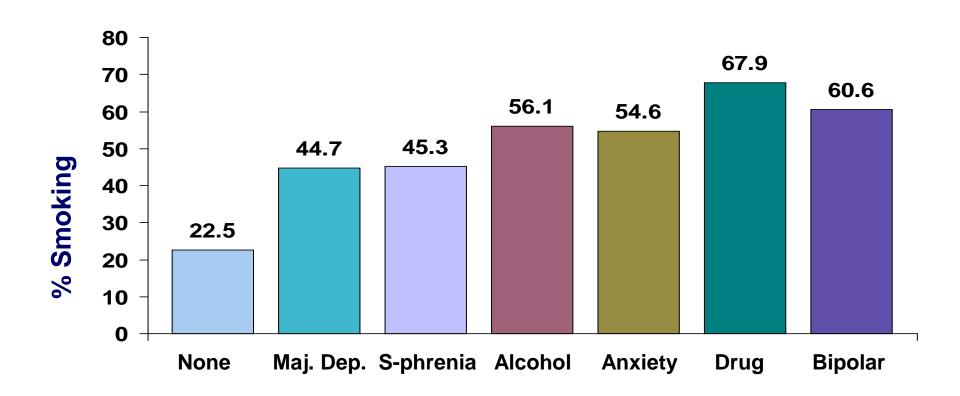
Smoking and Behavioral Health

- Rates of smoking are 2-4 times higher than among the general population.¹
- About 41% of people with mental illness & substance use disorders smoke.²
- ▶ 60% of current smokers report having had a mental health or substance use diagnosis sometime in their lifetime.¹
- This population consumes 45% of cigarettes smoked.³





Smoking by Diagnosis





Smoking by Diagnosis (variety of surveys & settings)

Schizophrenia	45-88%
Bipolar disorder	51-70%
Major depression	36-80%
Anxiety disorder	32-60%
Post-traumatic stress disorder	45-60%
Attention deficit/hyperactivity disorder	38-42%
Alcohol abuse	34-80%
Other drug abuse	49-98%

Beckham et al., 1995; De Leon et al., 1995; Farnam 1999; Grant et al., 2004; Hughes et al., 1996; Lasser et al., 2000; Morris et al., 2006; Pomerleaue et al., 1995; Stark & Campbell, 1993; Ziedonis et al., 1994



Why is This Population Vulnerable?



Barriers & Vulnerabilities

- Biological predispositions
- Barriers to tobacco interventions
 - Systems Factors
 - Clinician Factors
 - Client/Consumer Factors
- Tobacco industry targeting



Biological Predisposition

- Persons with behavioral health diagnoses have neurobiological & genetic features that may:
 - increase their tendency to use nicotine,
 - make it more difficult to quit, and
 - complicate the withdrawal phase.
- Nicotine enhances
 - concentration
 - information processing
 - learning
 - mood
- May reduce medication side effects



Barriers to Tobacco Interventions: Systems Factors

- Competing demands
- Tobacco as socialization activity, behavioral reward
- Staff acceptance and promotion
- Not part of current treatment milieu
- Lack of reimbursement for services



Barriers to Tobacco Interventions: Clinician Factors

- Expectation of failure
- Competing demands
- Fear of symptom exacerbation & relapse
- Lack of training
- Minimization



Smoking Prevalence Among Mental Health Providers

- ▶ 30% 35% of mental health providers smoke as compared to-
 - Primary Care Physicians 1.7%
 - Emergency Physicians 5.7%
 - Psychiatrists 3.2%
 - Registered Nurses 13.1%
 - Dentists 5.8%
 - Dental Hygienists 5.4%
 - Pharmacists 4.5%





Barriers to Tobacco Interventions: Client/Consumer Factors

- Expectation of failure
- Lack of knowledge
- Fear of withdrawal symptoms
- Fear of weight gain
- Concern about recovery
- Concern about stress management (tension, anxiety)
- Doubt about dealing with boredom
- Part of daily routines
- Integral to social activity



"I've been schizophrenic since I was 14. I was told more or less when I went to the hospitals that cigarettes help control certain areas in my brain and the way we function out in society. I became more of a smoker because I was told it would help me with my illness. I was taught more about it helping my illness than I was about cancer and stuff like that."

- Consumer focus group participant





Tobacco Industry Targeting

- Monitored or directly funded research supporting the idea that individuals with schizophrenia were:
 - less susceptible to the harms of tobacco and
 - that they needed tobacco as self-medication
- Promoted smoking in psychiatric settings by:
 - providing cigarettes and
 - supporting efforts to block hospital smoking bans



Myths and Myth-breaking Evidence



Myth #1

- Myth: Persons with mental illness and substance use disorders enjoy smoking and don't want to quit.
- ► <u>Fact</u>: Persons with mental illness and substance use disorders want to quit smoking and want information on cessation services and resources.



Interest in Quitting Results: Behavioral Health

- Study of 300 depressed smokers: 79% were interested in quitting. (Prochaska et.al., 2004)
- Study of 224 hospitalized psychiatric patients who smoke: 79% of eligible smokers recruited into the study (Prochaska et al., 2009)
- ► Review of clinical trials: 50% 77% in substance use facilities were interested in quitting. (Joseph et.al., 2004)



Myth #2

- Myth: Persons with mental illness and substance use disorders are more addicted to nicotine and therefore are unable to quit smoking.
- Fact: Persons with mental illness and substance use disorders can successfully quit using tobacco.



Smoking Cessation Results: Mental Illnesses

Most combine meds & psycho-education +/or CBT

► Schizophrenia: 8 studies (n= 9-70)
Quit rates 35-56% post-treatment,
12% at 6-months

► <u>Depression</u>: 8 studies (n= 29-615) Quit rates 31-72% post-treatment, 12-46% at 12 months

(el-Guebaly et al., 2002)





Does Abstinence from Tobacco Cause Recurrence of Psychiatric Disorders?

- For depressed smokers who quit :
 - No increase in suicidality, hospitalization, use of marijuana, stimulants, or opiates
 - Less alcohol use among those who quit (Prochaska et al., 2008)
- For smokers with schizophrenia who quit:
 - No worsening of attention, verbal learning/ memory, working memory, or executive function/inhibition, or clinical symptoms of schizophrenia (Evins et al., 2005)



Myth #3

- Myth: Smoking cessation will threaten recovery for persons with substance use disorders.
- Fact: Smoking cessation can enhance long-term recovery for persons with substance use disorders.

(Prochaska et al., 2004; Saxon, 2003; Signal Behavioral Health, 2008; Lemon et al. 2003; Gulliver et al 2006; Ziedonis et al, 2006; Baca & Yahne, 2009)



Smoking Cessation Results:During Addictions Treatment or Recovery

- Systematic review of 17 studies
- Smokers with current and past alcohol problems:
 - More nicotine dependent
 - Less likely to quit in their lifetime
 - As able to quit smoking as individuals with no alcohol problems



Does Abstinence from Tobacco Cause Relapse to Alcohol and Illicit Drugs?

- At > 6 months follow-up, tobacco treatment with individuals in addictions treatment was associated with a 25% increased abstinence from alcohol and illicit drugs
- Caveat one well done study looking at concurrent vs. delayed tobacco cessation treatment (n=499; Joseph, et al, 2004)
 - ➤ Comparable smoking quit rates at 18 months, but lower prolonged alcohol abstinence rates for concurrent treatment group at 6 months





What is Your Role?



Behavioral Health Professionals

- Often the clinician for whom contact is the most frequent and who knows the client/consumer best
- Able to coordinate pharmacotherapy and behavioral/counseling treatment
- Trained in mental health and/or substance abuse treatment
- Able to identify and address any changes in psychiatric symptoms during the quit attempt.



Clinical Practice Guidelines

- Comprehensive, evidence-based approach for smoking cessation
- Released in June 2000 by the U.S. Public Health Service-updated version in 2008
- Systematic approach to tobacco cessation for all healthcare facilities



Clinical Practice Guidelines (cont.)

- All patients/clients should be screened for tobacco use, advised to quit and be offered intervention
- Those trying to quit should be offered pharmacotherapy, unless contraindicated
- There is a dose response relationship with the amount of contact provided



Evidence-Based Model: The 5 A's

Ask: Systematically identify all tobacco

users at every visit

Advise: Advise tobacco users to quit

Assess: Assess each tobacco user's

willingness to quit

Assist: Assist tobacco users with a quit plan

Arrange: Arrange follow-up contact



The 5 A's and A, A, R

Ask: Systematically identify all tobacco users at every visit

Advise: Advise smokers to quit

Assess: Assess each smoker's willingness to quit —

Refer to the California
Smokers' Helpline and/or
Peer-to-peer counselor

Assist: Assist smokers with a quit plan ——

The Helpline provides behavior modification counseling (quit plan and quit date)

Arrange: Arrange follow-up contact ______

The Helpline provides 5 followup calls – timing is based on the probability of relapse.



San Diego County Resources

- http://www.californiasmokershelpline.org/ CountyListings.aspx
- ► To add resources to the list contact Kathy Sullivan at KSullivan@alac.org



California Smokers' Helpline 1-800-NO-BUTTS

- Free statewide tobacco cessation program
- Funded by tobacco taxes
 - Propositions 99 & 10
- Scientifically proven to be effective
- All services available by telephone
- ► In operation since 1992
- Adults, teens, pregnant women and proxy
- Multiple languages



Multiple Languages

- English1-800-NO-BUTTS (1-800-662-8887)
- Cantonese1-800-838-8917
- Korean1-800-556-5564
- Mandarin1-800-838-8917
- Spanish1-800-45-NO-FUME (1-800-456-6386)
- Vietnamese1-800-778-8440



Available Services

- Self-help materials
- Referral lists of local cessation programs
 - Updated by each county's tobacco control program
- Individual telephone counseling
 - Confidential
 - One pre-quit call, multiple proactive follow-up calls
 - ► Trained counseling staff

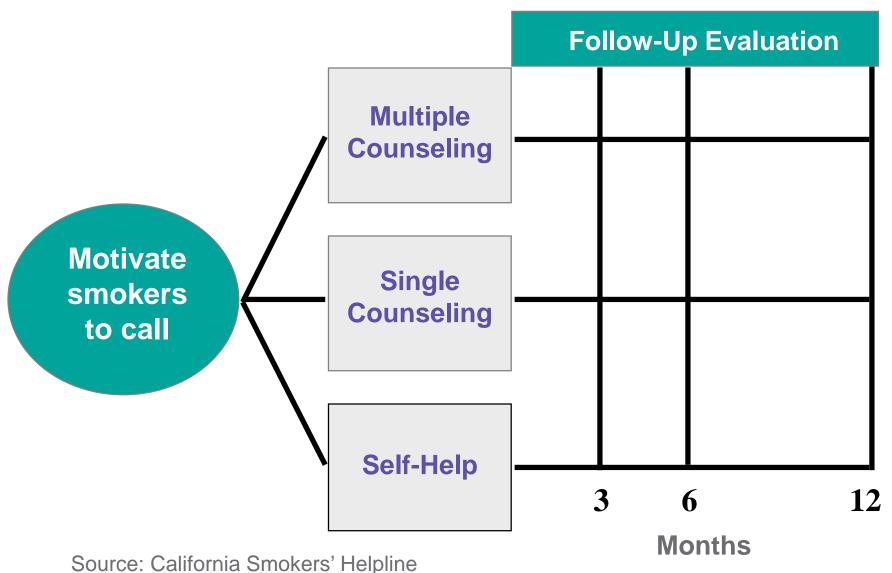


Helpline Counselors

- Bachelor level or higher in psychology, social work, or health related field
- Majority are bilingual/bicultural
- Training & quality control
 - 48-hour, in-house training
 - Clinical supervision
 - Continuing education



A Randomized, Controlled Trial

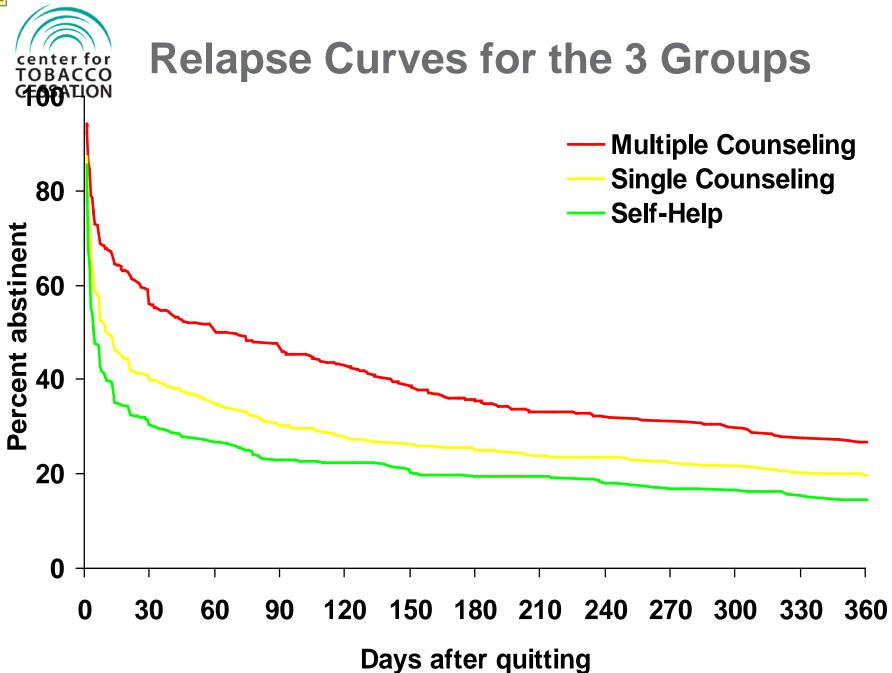




Quit Attempts by the 3 Groups

Treatment	Made a Serious Quit Attempt
Group	%
Self-Help	58.8
Single Counseling	66.7
Multiple Counseling	66.6

Source: Zhu et al. (1996), *JCCP*, 64, 202-211



Source: Zhu et al. (1996), *JCCP, 64*, 202-211



What Happens in Each Call?

- Initial session
 - Comprehensive, 30-40 min. call
 - Preparation to quit
 - Setting a quit date
- Follow-up sessions
 - Up to five 10-15 min. calls
 - Relapse prevention
 - Pharmacotherapy review



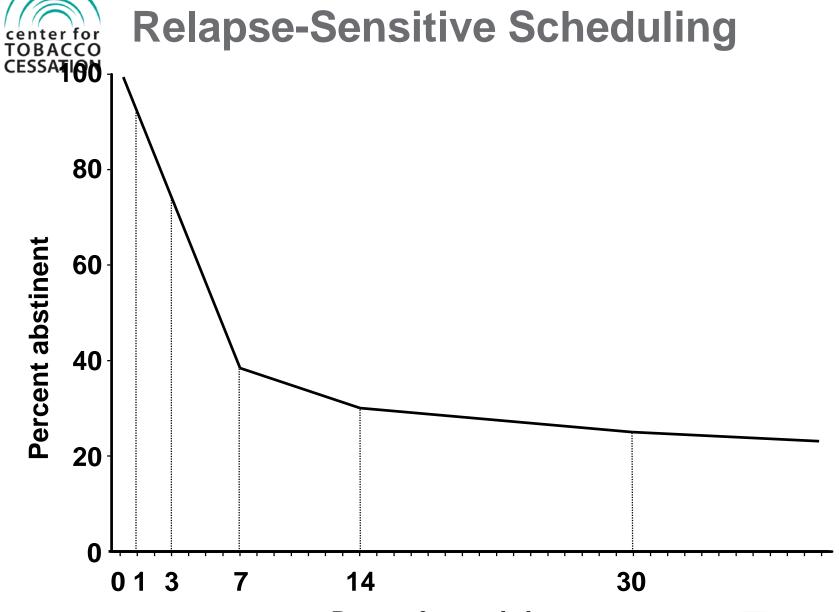
First Session

- Treatment overview & rationale
- Motivation
- Health considerations
- Smoking & quitting history
- Quitting methods

- Environmental considerations
- Self-efficacy
- Self-image
- Planning
- Call summary
- Setting a quit date
- Addressing follow-up calls

Source: Zhu S-H, Tedeschi GJ, Anderson CM, Pierce JP. *J Couns Devel* 1996;75;93-102.





Source: Zhu & Pierce (1995), *Prof. Psych. Res.& Practice*, 26, 624-625

Days after quitting





Proactive Follow-up Sessions

- Quit status
- Withdrawal review
- Pharmacotherapy review
- Challenges & smoking events

- Motivation & selfefficacy
- Support
- Planning for future
- Self-image

Source: Zhu S-H, Tedeschi GJ, Anderson CM, Pierce JP. *J Couns Devel* 1996;75;93-102.



Helpline Intervention Summary

Identify a strong reason (Motivation)

Bolster belief in ability (Confidence)

Develop a solid plan (Skills)

Adopt a new view of self (Self-image)

Keep trying (Perseverance)



Helpline Callers with Behavioral Health Issues

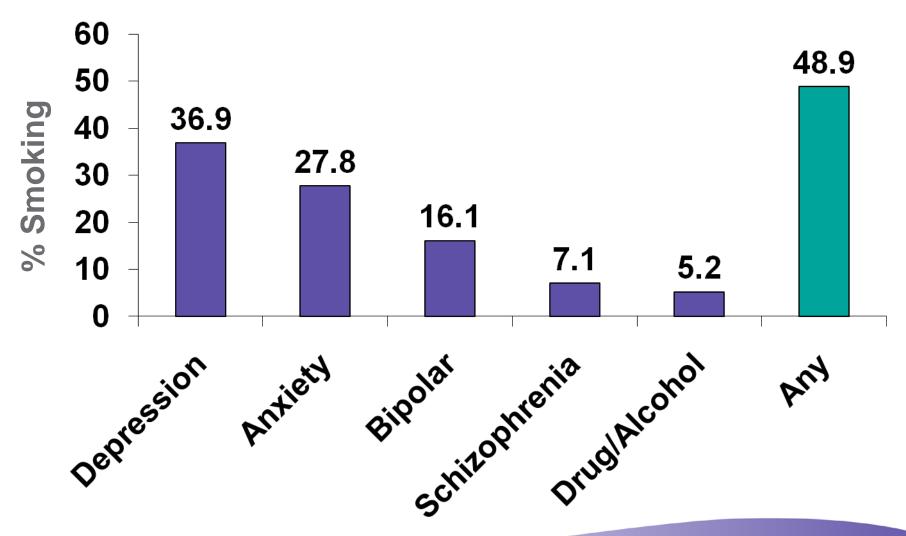


Self-Reported Behavioral Health Issues Among Helpline Callers

- Do you have any current mental health issues such as:
 - An anxiety disorder?
 - Depression?
 - Bipolar disorder?
 - Schizophrenia?
 - Drug or alcohol problem?
 - ▶ If yes, have you been actively using/drinking in the last month?



Self-Reported Behavioral Health Issues Among Helpline Callers







Received Counseling

No Mental Illness 74.0%

Mental Illness 84.0%

(Zhu,et al, 2009. Unpublished data)



NRT Use

No Mental Illness

33.3%

Mental Illness

41.7%

(Zhu,et al, 2009. Unpublished data)



Quit Attempts

Quit in 2 Months (%)

No Mental Illness

53.1*

Mental Illness

56.4*

(Zhu,et al, 2009. Unpublished data)

^{*} Descriptive data, not based on results of a randomized controlled trial





Quitting Success

30-Day Point Prevalence (%) at 2 Months

No Mental Illness 20.8*

Mental Illness 19.0*

(Zhu, et al, 2009. Unpublished data)

^{*} Descriptive data, not based on results of a randomized controlled trial





Conclusions from the Helpline

- Smokers with mental illnesses call in high numbers
 - Across all demographics
- They appear to be more motivated
 - More likely to get counseling & use NRT
- The motivation and use of treatment seem to compensate for the vulnerability associated with their mental health condition.
- As a result, they are equally likely to try to quit & succeed
- Randomized controlled trials are needed to determine efficacy of telephone counseling for smokers with mental illnesses



Treatment Considerations



Treatment: MI/SUD Fundamentals

- Demonstrated interest in quitting across populations
- Smoking cessation rarely jeopardizes stability of primary disorder or recovery
- Similar treatment/relapse prevention techniques



Assessment Considerations

- Past/current history of MI treatment and SUD recovery
- Current health history including medications
- Current life situation
- Social support
- Tobacco use history
 - Determine current interest in quitting
 - If interested; determine readiness to quit



Determining Readiness to Proceed

- Motivation
 - "Interested" is sufficient
 - Not ruling out some type of intervention, even if motivation to quit now is low
- Stability
 - Need to be psychiatrically stable-do not need to be in full remission



Unique Tobacco Treatment Needs

- Determine need for involvement from primary care/other health care providers
- Determine need for more intensive behavioral therapy
- Address psychotropic medication issues
- Tailor treatment plan based on
 - Current stability of symptoms/recovery
 - Functional status
 - Current psychotropic medications
 - Previous quit history



Helpline Counseling Considerations

- Psychiatric stability
 - How are the client's symptoms?
 - Is the client in treatment?
 - How consistent is the client with treatment
 & how is it working?
- No major life changes
- No major medication changes
- No active intoxication/withdrawal from other substances



Counseling Considerations (cont.)

- Quitting history & symptoms
 - Past quit attempts are helpful indicators of what to expect.
 - What changes in symptoms were noticed?
- Biochemical factors
 - Nicotine acts much like a psychotropic medication on brain chemistry.
 - The blood levels of some the medications can increase dramatically when quitting.
 - Medications may need to be adjusted.



Counseling Considerations (cont.)

- Content, length, & number of calls
 - Based on level of functioning and professional support
- Counselor style
 - How much direction vs. facilitation should a counselor provide?



Counseling Considerations (cont.)

- Client contact with prescribing MD
 - Refer back to the primary physician
- Professional support & referral
 - May need to help clients identify support in their local area



Pharmacotherapy



Role of Nicotine Receptors

- Chronic nicotine use results in permanent increase in the number of receptors.
- The brain gets used to a new, "nicotine normal" level.
- Reduced nicotine use (e.g. quitting smoking) disrupts "nicotine normal" receptor activity; causes nicotine withdrawal symptoms.
- Without nicotine, receptor activity normalizes again in 3-6 months, but increase in receptors remains indefinitely.
- Increase in receptors is responsible for:
 - Difficulty reducing amount smoked.
 - Quick relapse to former levels of smoking



Withdrawal Symptoms

- Depressed mood
- Sleep disturbance
- Irritability, frustration or anger
- Difficulty concentrating

- Anxiety
- Restlessness
- Decreased heart rate
- Increased appetite or weight gain
- Craving

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders (4th ed.) Washington, DC.



Pharmacotherapy Options

- Nicotine Replacement Therapy (NRT)
 - Nicotine Patch (OTC)
 - Nicotine Gum (OTC)
 - Nicotine Lozenge (OTC)
 - Nicotine Inhaler
 - Nicotine Spray
- Medication
 - Bupropion SR (Wellbutrin SR, Zyban)
 - Varenicline (Chantix)
 - Other: Nortriptyline, Clonidine



Nicotine Replacement Therapy

- Used to help smokers get off nicotine slowly. Nicotine is released into the bloodstream (via the type of NRT) in order to help reduce physical withdrawal symptoms.
- NRT works by replacing some of the nicotine from smoking at the receptor sites with nicotine from less harmful sources.
- Reduced efficacy for women over time, unless paired with high intensity support (Cepeda-Benito et al., 2004).
- **Contraindications**: pregnancy or nursing, recent heart attack, irregular heart beat, severe or worsening heart pain, stomach ulcers, overactive thyroid, high blood pressure, diabetes requiring insulin.



Bupropion (Wellbutrin S-R, Zyban)

- Bupropion (Zyban) is a non-nicotine prescription drug, the sustained-release form of the antidepressant Wellbutrin.
 - The "pill" is thought to stimulate dopamine and norepinephrine, brain chemicals that give smokers the sensation of alertness & energy.
 - Reduces the withdrawal symptoms such as cravings, irritability and depressed mood.
 - Works equally well for men and women.
 - Contraindications: seizure disorders, cranial trauma, stroke, withdrawing from alcohol, current or prior diagnosis of bulimia or anorexia nervosa, pregnancy/nursing, other meds like MAO inhibitors



Varenicline (Chantix)

- Varenicline (Chantix) is a non-nicotine prescription drug developed specifically for smoking cessation. Not an antidepressant.
 - The "pill" releases dopamine, but substantially less than with smoking.
 - Varenicline specifically targets the alpha-4 beta-2 (α4β2) nicotinic receptors, blocking the binding of nicotine from smoking.
 - Reduces the urge to smoke and reduces the pleasure derived from smoking.
 - Works equally well for men and women.
 - **Contraindications**: < age 18, pregnancy/nursing, caution if psychiatric disorder, renal impairment, other meds like insulin, blood thinners, asthma puffers



Varenicline (Chantix)

- Post-marketing reports of adverse mood and behavior changes.
- Available research data has been reviewed and causal links have not yet been established.
- Warnings are for both patients and providers to closely monitor psychiatric symptoms of anyone taking varenicline to stop smoking.
- Studies are underway to test varenicline in patients with MI.

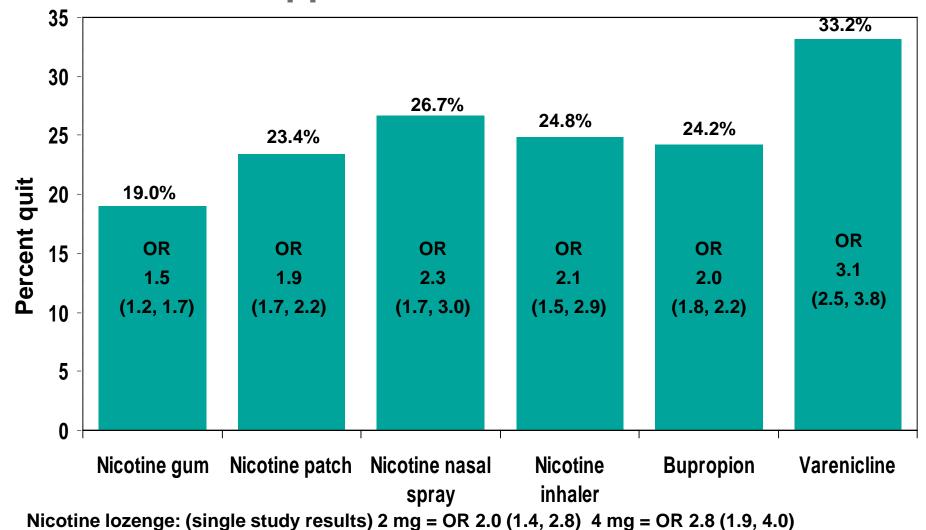


Boxed Warning for Chantix & Zyban

- July 1, 2009 FDA announced it is requiring manufactures to use a Boxed Warning
- It will highlight the risk of serious issues including:
 - Changes in behavior
 - Hostility & agitation
 - Depressed mood
 - Suicidal ideation, behavior, & attempts
- The FDA also stated the risk of serious adverse medication events must be weighed against significant health benefits of quitting smoking



Six Month Point Prevalence Quit Rates for FDA-Approved Cessation Medications



*PHS Clinical Practice Guideline, May 2008.





On the Horizon: Nicotine Vaccine

- ▶ In Phase III trials: Will take a few more years.
- Works by stimulating immune system to produce antibodies to nicotine + protein molecule
- Antibodies then bind to any nicotine in bloodstream; can't pass the blood/brain barrier
- Effects of nicotine can't reach brain



Pharmacotherapy Guidance for Behavioral Health

- Smokers with behavioral health diagnoses who are trying to quit should receive pharmacotherapy (PHS Clinical Practice Guideline, 2008)
- Dose level and duration of drug treatment individualized.
- Many will need
 - Higher doses
 - Combination treatments
 - Longer duration of treatment



Bupropion SR

- Effective in smokers with Major Depression but relapse high when treatment discontinued
- Not appropriate as only medication in Anxiety disorders
- Effective in smokers with PTSD (limited evidence)
- Effective in smokers with Schizophrenia but relapse high when treatment discontinued



Bupropion SR (cont.)

- Contraindicated in seizure and eating disorders
- Not recommended
 - Alcohol abuse/dependence
 - Bipolar disorder
 - Extended sleep deprivation
 - Past head trauma
- Interferes with efficacy of protease inhibitors used for HIV/AIDS treatment



Varenicline

- Anecdotal reports of effectiveness for MI/SUD
 - One study in UK; positive results
 - Gap in the varenicline evidence base
- Post marketing adverse behavior and mood changes
 - Have been reported in all samples
 - Boxed warning for neuropsychiatric issues, BUT still widely used by individuals with these issues
- Providers need to closely monitor mental status of anyone quitting smoking on varenicline



Pharmacotherapy Guidance

- Smoking induces CYP1A2 isoenzyme
- Approximately doubles clearance of
 - Antipsychotics: Prolixin (fluphenazine), Haldol (haloperidol), Zyprexa (olanzapine), Clozaril (clozapine), Thorazine (chlorpromazine)
 - Antidepressants: Elavil (amitriptyline), Aventyl (nortriptyline), Jaminine (imipramine), Anafranil (clomipramine), Sinequan (doxepin), Fluvox (fluvoxamine)
- Cessation may produce rapid, significant increase in blood levels
- Need to monitor for increased side effects



Clinical Monitoring Recommendations

- Patients should be seen 1-3 days after initiating smoking cessation
- Monitor weekly for the 1st 4 weeks for MI/SUD relapse and the need to adjust medication levels
- After 1st month, monthly review for 6 months
- Communication between the primary care provider and MI/SUD provider(s) should occur
 - During the initiation of the cessation attempt
 - During the cessation period if any psychiatric complications occur



Coverage for Tobacco Dependence Treatments

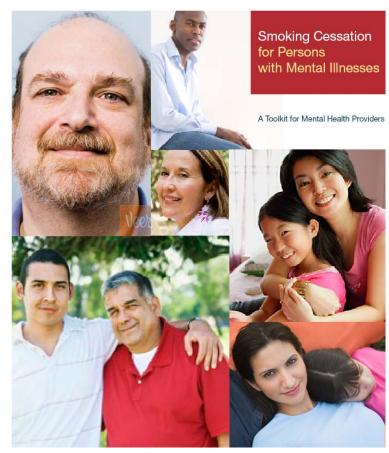
- Health insurance coverage & requirements vary by plan
- Medi-Cal provides FREE pharmacotherapy with:
 - Certificate of enrollment in behavior-modification, e.g. 1-800-NO-BUTTS
 - Prescription
- Medicare
 - Prescription drug benefits Part D
 - Reimburses for cessation counseling
 CPT Codes:
 - 99406 (3-10 minute intervention)
 - 99407 (>10 minute intervention)

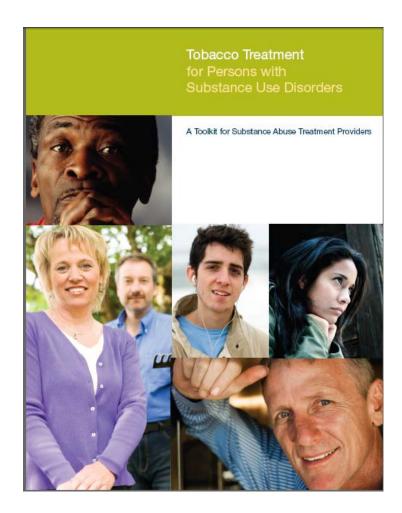




Resources

Smoking Cessation for Persons with Mental Illnesses A Toolkit for Mental Health Providers





For free copies go to: www.centerforcessation.org



American Lung Association in CA www.californialung.org

Center for Tobacco Cessation www.centerforcessation.org

Communities Against Substance Abuse http://www.drugfreesandiego.org/

County of San Diego Behavioral Health http://www.sdcounty.ca.gov/hhsa/programs/bhs/

Mental Health America of San Diego County http://www.mhasd.org/

Smoke-Free San Diego
http://www.smokefreesandiego.org/

Smoking Cessation Leadership Center www.smokingcessationleadership.ucsf.edu



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