Smoking Cessation in those with Mental Health and Substance Use Disorders

Brian Hurley, M.D., M.B.A., DFASAM
Medical Director of Co-Occurring Disorder Services
Los Angeles County Department of Mental Health
Assistant Professor of Addiction Medicine
UCLA Department of Family Medicine

Los Angeles County Department of Mental Health
hope. recovery. well-being.
Disclosures

- No conflicts of interest to disclose
Smoking and mental illness

• **NESARC study**: Nicotine-dependent individuals with a comorbid psychiatric disorder made up 7.1% of the population yet consumed 34.2% of all cigarettes smoked in the United States *Grant et al. Arch Gen Psychiatry. 2004 Nov;61(11):1107-15*

• **NESARC study**: Mood, anxiety, personality and illicit substance use disorders were associated with significantly increased risk of persistent nicotine dependence *Goodwin RD et al. Drug Alcohol Depend. 2011 Apr 21.*

• **NCS study**: those with mental illness twice as likely to smoke but report lower quit rates, smoked 44% of all cigarettes consumed in US *Lasser K et al. JAMA. 2000 Nov 22-29;284(20):2606-10.*
Smoking in Mental Health Populations

Smoking prevalence in 42 U.S. addiction treatment studies, in epidemiological reports, and in the U.S. population.

Smoking topography in schizophrenia

- >80% co-occurrence
- Time between puffs shorter by 6.5 secs
- More puffs per cigarette
- Greater peak flow (more intense inhalation) and higher volume puff
- Higher nicotine intake per cigarette and greater smoking per 24 hrs

Increased severity of SPD ↑ likelihood of being a current smoker

2002 National Survey on Drug Use and Health

Slide courtesy of Williams JM, 2012 AAAP Workshop on Tobacco Use and Cessation, December 7, 2012
Smoking and psychotropics

- Polycyclic aromatic hydrocarbons induce hepatic enzymes to increase metabolism of many categories of medication, including antipsychotics, antidepressants and anxiolytics.

Desai, Seabolt and Jann. 2001 CNS Drugs, 15, 469-494.
Smoking and psychotropics

P450 1A2 isoenzyme particularly affected:

- haloperidol
- perphenazine
- chlorpromazine
- fluphenazine
- clozapine
- olanzapine
- ziprasidone
- amitriptyline
- clomipramine
- imipramine
- duloxetine
- mirtazapine
- mirtazapine
- ropinirole
- ALL methylxanthines

http://www.psychresidentonline.com/CYP450 drug interactions.htm – Accessed 9/10/11 at 12:00pm
Co-occurring disorder smokers don’t receive Rx for smoking cessation

- Nicotine Dependence documented in 2% of mental health records.
- Psychiatrists treat tobacco dependence in less than 2% of their outpatient practices.
- Psychiatrists have lowest awareness of Quitlines and state tobacco services.
- Less than 30% of state psychiatric hospitals offer cessation sessions.
- Less than half of outpatient substance abuse treatment programs offer smoking cessation counseling or pharmacoloy.

*Peterson 2003; Montoya 2005; Friedman 2008; Steinberg 2006*
Co-occurring disorder smokers don’t receive Rx for smoking cessation

- Prospective evaluation of smoking status and quit attempts over 11 years in 174 community outpatients enrolled in longitudinal study
- 75% made at least one quit attempt over 11 years but none received NRT or bupropion
- Low quit success

You Can Quit Smoking. We Can Help!

We offer free telephone counseling, self-help materials, and online help in six languages to help you quit smoking. Call 1-800-NO-BUTTS (1-800-662-8887) for more information.
Cravings and relapse to smoking

• In an internet survey sample of 403 former smokers with 1-10 years abstinence, the most commonly endorsed triggers for craving were:
  – DEPRESSED MOOD 47%
  – SEEING SOMEONE SMOKING 43%
  – ALCOHOL USE 37%
  – BEING WHERE YOU USED TO SMOKE 32%


• Having a mood or anxiety disorder worsens the subjective experience of nicotine withdrawal and increases the risk for craving-related relapse

Smoking Cessation in MH Treatment

- Smoking cessation during mental health treatment:
  - Reduced depression, anxiety, and stress
  - Improved positive mood and quality of life
  - Worked more effectively than antidepressants for mood and anxiety disorders

Smoking in SUD populations

• The majority of patients enrolled in treatment for SUDs also smoke tobacco
• Smoking associated with poorer treatment outcomes compared to non-smokers
• Without smoking cessation treatment, smokers in SUD treatment do not reduce or quit smoking

Smoking in SUD populations

- Meta-Analysis of Smoking Cessation Interventions With Individuals in SUD Treatment or Recovery:
- 25% increased likelihood of long-term abstinence from alcohol and illicit drugs.
- Smoking cessation interventions during addictions treatment enhanced long-term sobriety

Smoking Cessation in SUD Treatment

- Smoking cessation during substance use disorder treatment:
- Does not impair outcome of the presenting substance abuse problem
- Enhances substance use disorder treatment outcomes

Smokers are more stress reactive

• Stress during nicotine abstinence results in reduced ability to resist smoking, and intensification of smoking pleasure

McKee SA et al.

Which Approach to Take?

• Evidence Based Practices
  – Telephone Counseling
  – Brief Strategies
  – Limited Insurance Coverage
  – Public Health Model
  – Primary vs. Behavioral Health

• Tailored Approach
  – Longer Treatment
  – Face to face
  – Expanded Medicare / Medicaid
  – Combinations
  – Clinical / co-occurring treatment model

Slide courtesy of Williams JM, 2012 AAAP Workshop on Tobacco Use and Cessation, December 7, 2012
A Pragmatic Trial of E-Cigarettes, Incentives, and Drugs for Smoking Cessation

<table>
<thead>
<tr>
<th>Trial Group</th>
<th>Average Cost across Participants†</th>
<th>Cost per Successful Quit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usual care‡</td>
<td>0.82 (0.29–1.67)</td>
<td>700.00</td>
</tr>
<tr>
<td>Free cessation aids</td>
<td>39.55 (26.76–56.30)</td>
<td>7,797.52</td>
</tr>
<tr>
<td>Free e-cigarettes</td>
<td>54.01 (36.09–77.82)</td>
<td>5,416.33</td>
</tr>
<tr>
<td>Rewards</td>
<td>72.65 (51.94–98.85)</td>
<td>3,623.13</td>
</tr>
<tr>
<td>Redeemable deposit</td>
<td>100.96 (76.82–128.80)</td>
<td>3,461.47</td>
</tr>
</tbody>
</table>

Behavioral Health Should Take the Lead

- High prevalence of tobacco use disorders
- Tobacco Use Disorder is in the DSM
- Knowledge about addiction / co-occurring disorders
- Tobacco interactions with psychotropics
- Longer and more treatment sessions
- Experts in psychosocial treatment
- Tremendous patient need
- Relationship to mental symptoms

*Slide courtesy of Williams JM, 2012 AAAP Workshop on Tobacco Use and Cessation, December 7, 2012*
READINESS to QUIT in SPECIAL POPULATIONS

- General Population: 40% intend to quit in next 6 mo, 20% in next 30 days
- General Psych Outpts: 43% intend to quit in next 6 mo, 28% in next 30 days
- Depressed Outpatients: 55% intend to quit in next 6 mo, 24% in next 30 days
- Psych. Inpatients: 41% intend to quit in next 6 mo, 24% in next 30 days
- Methadone Clients: 48% intend to quit in next 6 mo, 22% in next 30 days

* No relationship between psychiatric symptom severity and readiness to quit

Smokers with mental illness or addictive disorders are just as ready to quit smoking as the general population of smokers.

Slide Courtesy J Prochaska; Acton 2001; Prochaska 2004; Prochaska 2006; Nahvi 2006

Slide courtesy of Williams JM, 2012 AAAP Workshop on Tobacco Use and Cessation, December 7, 2012
People with behavioral health conditions are motivated to cease smoking

- Combined data from nine studies suggests:
  - More than half of all smokers may be contemplating quitting within 6 months or preparing to quit within 30 days.
  - Not dissimilar from general population.

Integrated care begins with brief interventions to assist motivation for smoking cessation!
BRIEF INTERVENTIONS:

• The 5 A’s:
  Ask, assess, advise, assist, arrange

  Feedback
  Responsibility
  Advice
  Menu of options
  Empathy
  Self-efficacy/support follow up
State your conclusion and recommendations unambiguously while highlighting autonomy

“You’ve noticed that you get winded more easily climbing stairs or walking distances, and we’ve discussed the risks of second-hand smoke exposure to your family and pets. *There is nothing but poison in cigarettes and the safest thing for your health is to stop smoking altogether.* But it’s up to you, have you thought about quitting?”
Medications for tobacco use disorder*

Nicotine replacement
Bupropion
Varenicline

*always paired with psychosocial support interventions
“I’m prescribing a patch to help you quit smoking. Wear it over your mouth.”
NRT patch

- 7-28 mg available
- Produces steady nicotine levels which reduces cravings and withdrawal symptoms
- Take off at night (nightmares), skin irritation
- Have gum by bedside for early awakenings and before shower, put patch on after shower
- Easily comes off with sweat – have pts prepared with surgical tape and spare patches
- Can safely combine with gum/lozenge for breakthrough cravings (recommended)
NRT gum or lozenge

• 2 – 4 mg; replacement boxes cheaper than starter kits
• “chew and park” method – nicotine absorbed through cheek mucosa –”peppery” taste
• Some peak effects but less than inhaled
• Lozenges also available OTC in 2-4 mg
• Inhalers and nasal spray prescription only, disadvantages are more adverse events with spray and failure to break behavioral cues with inhaler
Bupropion XR (Zyban, Wellbutrin)

- Also an antidepressant, improves probability of quit success, may reduce weight gain
- Contraindicated in those with seizure disorder or predisposition to seizures (active bulimia nervosa) and also with bipolar I disorder patients
- Begin 1-2 weeks before quit date: 150 mg daily x 3 days, then increase as tolerated to 300mg daily
- Warn about “jitters,” insomnia
- Can combine with NRT safely
- First-line for schizophrenia

Varenicilineline (Chantix)

- Partial agonist at the nicotinic cholinergic receptor
- Provides mild activation while blocking exogenous nicotine from being able to activate receptor
- Abrupt discontinuation can result in mild withdrawal syndrome
- Begin 1 week before quit date:
  - Days 1 – 3: 0.5 mg once daily
  - Days 4 – 7: 0.5 mg twice daily
  - Day 8 – End of treatment: 1 mg BID
- 12-24 weeks; nausea, insomnia, HA
PSYCHOSOCIAL INTERVENTIONS

• Group therapies (professional, peer support)
  – Engages group in problem-solving and supporting each other
  – Often paired with wellness teaching/program
  – Less flexible commitment
  – Nicotine Anonymous
  – Dual diagnosis

• Individual therapy
  – Personalized, more flexible, but no peer support
  – Mindfulness/meditation approaches being developed

• Telephone counseling
  – Convenient and personalized, but no peer support

• Online manualized treatment (internet interventions)
  – No solid evidence base
Resources: DO’s and DON’Ts

- www.smokefree.gov
- http://www.nicotine-anonymous.org/
- http://smokingcessationleadership.ucsf.edu/BehavioralHealth.htm
- DON’T recommend:
- “light” cigarettes or “natural” cigarettes
- Smokeless tobacco (carcinogenic, just as addictive)
PERSISTENCE

THANK YOU!