Treating Tobacco in Smokers with Mental Illness

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In terms of lives saved, quality of life, and cost-efficacy, treating smoking is considered the most important activity a clinician can do.

-- John Hughes, MD
Professor of Psychiatry
University of Vermont
NATIONAL CANCER INSTITUTE’S FIVE A’s for TREATING TOBACCO

ASK about tobacco USE

ADVISE tobacco users to QUIT

ASSESS readiness to make a QUIT attempt

ASSIST with the QUIT ATTEMPT

ARRANGE FOLLOW-UP care
The FIVE A’s: **ASK**

- **ASK** about tobacco use

  “Do you ever smoke or use any type of tobacco?”

- “I take time to ask all of my clients about tobacco use—because it’s important.”

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Tobacco use & MH status should be included in the intake assessment and documented for every client.
The FIVE A’s: ADVISE

- ADVISE tobacco users to quit (clear, strong, personalized, sensitive)
  - “Quitting smoking is the most important thing you can do to protect your health now and in the future.”
  - “I have training to help my clients quit, and when you are ready, I can work with you to design a specialized treatment plan.”

52% of psychiatric patients who smoke report never having been advised to quit by a mental healthcare provider (Prochaska et al., 2005)
Critical to get them on board with treating tobacco:

- Know the client well
- May have discouraged quit attempts in the past
- Should be aware of changes in tobacco status that may impact psychiatric medication levels
- Able to identify and address any changes in psychiatric symptoms during the quit attempt
YOUR ROLE

- Listen, share resources, work collaboratively with treatment providers

- Emphasize and respect client confidentiality

- Build upon client’s strengths and recovery “tools”
The FIVE A’s: ASSESS

- ASSESS readiness to make a quit attempt

- Not Ready to Quit
  - Precontemplation
  - Contemplation
  - Preparation
  - Quit date
  - Action
  - Maintenance

- Ready to Quit
  - Quit
  - + 6 months
  - - 6 months
  - - 30 days
Smokers with mental illness or addictive disorders are just as ready to quit smoking as the general population of smokers.

* No relationship between psychiatric symptom severity and readiness to quit
ASSIST: TAILOR TREATMENT to PATIENTS’ READINESS to QUIT

**Does the patient now use tobacco?**
- Yes
  - **Is the patient now ready to quit?**
    - No
    - Yes: Promote motivation
  - Yes: Provide treatment

**Did the patient once use tobacco?**
- No
  - Yes: Prevent relapse*

**Encourage continued abstinence**

*Relapse prevention interventions not necessary if patient has not used tobacco for many years and is not at risk for re-initiation.

**NOT READY to QUIT: Counseling Strategies**

**DO**
- Strongly advise to quit
- Provide information
- Ask noninvasive questions; identify reasons for tobacco use
- Raise awareness of health consequences/concerns
- Demonstrate empathy, foster communication
- Leave decision up to patient

**DON’T**
- Persuade
- “Cheerlead”
- Tell patient how bad tobacco is, in a judgmental manner
- Provide a treatment plan
Consider asking:

“On a scale from 1 to 10, how important is it to you to quit smoking?”

1 Not at all important

10 Extremely important

“On a scale from 1 to 10, how confident are you that you could quit smoking right now?”

1 Not at all confident

10 Extremely confident
The 5 R’s—Methods for enhancing motivation:

- Relevance
- Risks
- Rewards
- Roadblocks
- Repetition

RAISING AWARENESS:
TOBACCO USE MOOD LOG

- Use the Mood Log to raise patients’ awareness of their tobacco use.
- For each day, patient should record # of cigarettes smoked, # of pleasant activities, and provide a mood rating.
- Review log sheets with patient to identify relationship between smoking, activities / isolation, and mood.

Is patient’s tobacco use associated with isolation and poorer mood?
Does the patient now use tobacco?

Yes

Is the patient now ready to quit?

No

Promote motivation

Yes

Provide treatment

No

No

Did the patient once use tobacco?

Yes

Prevent relapse*

No

Encourage continued abstinence

*Relapse prevention interventions not necessary if patient has not used tobacco for many years and is not at risk for re-initiation.

Tobacco Dependence: A 2-Part Problem

Treatment should address the physiological and the behavioral aspects of dependence.

**Physiological**
- The addiction to nicotine
  - Treatment
  - Medications for cessation

**Behavioral**
- The habit of using tobacco
  - Treatment
  - Behavior change program

Treatment should address the physiological and the behavioral aspects of dependence.
Three general classes of FDA-approved drugs for smoking cessation:

- Nicotine replacement therapy (NRT)
  - Nicotine gum, patch, lozenge, nasal spray, inhaler
- Psychotropics
  - Sustained-release bupropion
- Partial nicotinic receptor agonist
  - Varenicline
“Clinicians should encourage all patients attempting to quit to use effective medications for tobacco dependence treatment, except where contraindicated or for specific populations* for which there is insufficient evidence of effectiveness.”

*Includes pregnant women, smokeless tobacco users, light smokers, and adolescents.

Medications significantly improve success rates.

- Literature base of more than 8,700 research articles

- < 30 randomized clinical trials treating tobacco dependence in smokers with mental illness or addictive disorders

TREATING TOBACCO DEPENDENCE
in DEPRESSED SMOKERS

322 depressed smokers recruited from four outpatient psychiatry clinics

**Stepped Care Intervention**
- Stage-based expert system counseling
- Nicotine patch
- 6 session individual counseling

**Brief Contact Control**

Hall et al., 2006. Am J Public Health
ABSTINENCE RATES by TREATMENT CONDITION

<Diagram showing abstinence rates over months for Intervention and Control groups, with a p-value of *p<.05 for group comparison.>

- Intervention: 16%, 18%, 20%, 19%, 25%
- Control: 12%, 21%, 12%, 12%, 19%

Month: 3, 6, 12, 18
**NO RELATIONSHIP**

- Depression severity, as measured by the Beck Depression Inventory-II, was unrelated to participants’ likelihood of quitting smoking.
- Among intervention participants, depression severity was unrelated to their likelihood of accepting cessation counseling and nicotine patch.
Among depressed patients who quit smoking:

- No increase in suicidality
  - Quit: 0% vs Smoking: 1-4%

- No increase in psych hospitalization
  - Quit: 0-1% vs. Smoking: 2-3%

- Comparable improvement in % of days with emotional problems

- No difference in use of marijuana, stimulants or opiates

- Less alcohol use among those who quit smoking

Prochaska et al., 2008, Am J Public Health
BDI TOTAL SCORE

Moderate

Mild

Minimal

Baseline 3 M 6 M 12 M 18 M

Smoking Quit
TREATING DEPRESSED SMOKERS

- Stage-based tobacco treatment with CBT and NRT significant effects at 12 and 18 months
- No evidence of worsened psychiatric symptoms associated with quitting smoking
- Smoking can be treated concurrent with depression without adverse effects to mental health functioning
TREATING TOBACCO USE in INPATIENT PSYCHIATRY

- 100% smoke-free unit
- Stage-tailored expert system, stage-tailored manual, 10 wk nicotine patch vs. Usual care
- 224 patients enrolled
- Full range of psychiatric diagnoses
- 79% recruitment rate
- 82% retention at 18 months

PI: Prochaska, NIDA K23 DA018691
ABSTINENCE RATES by TREATMENT CONDITION

χ² (df) = 14.7 (1) p < 0.001 for condition in a GEE-based logistic regression
46% psychiatric re-hospitalization rate
  - CA data: 44% psychiatric re-hospitalization rate

232 Re-hospitalizations:
  - Unrelated to quit status
  - Related to African American race, psychosis symptoms at baseline, lower income, prior psych hospitalizations & treatment condition
  - Significantly greater for control (138) than treatment (94) participants, p=.032
The 18-mo quit rates and pattern of increasing abstinence rates over time are consistent with previous evaluations of staged-care interventions in the general population.
### URBAN PUBLIC HOSPITAL: INPATIENT PSYCHIATRY

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<td>N</td>
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<td>Recruitment Rate</td>
<td>79%</td>
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<td>Age in years</td>
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<td>Private/self-pay</td>
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CO-confirmed 7 day PPA overtime by conditions

**San Francisco General Hospital**
- Enhanced care
- Standard care

- Month 3: 12.5%, 7.3%
- Month 6: 17.5%, 8.5%
- Month 12: 26.2%, 16.7%

**Langley Porter Psychiatric Institute**
- Enhanced care
- Standard care

- Month 3: 14.0%, 4.4%
- Month 6: 15.5%, 6.6%
- Month 12: 19.0%, 12.0%
TREATING SMOKERS with SCHIZOPHRENIA

- Treatments tailored for smokers with schizophrenia no more effective than standard programs (George et al., 2000)

- Atypical antipsychotics associated with greater cessation than typical antipsychotics
2 META-ANALYSES of BUPROPION FOR QUITTING SMOKING in PERSONS with SCHIZOPHRENIA

- 6 RCTs, N = 260 total (19 – 59)
- EOT: RR = 2.57 (95% CI 1.35, 4.88)
- 6 mo FU: RR = 2.78 (95% CI 1.02, 7.58)
- Gen Pop: RR = 1.69 (95% CI 1.53, 1.85)


Bupropion for quitting smoking found to be well tolerated in patients with schizophrenia who are stabilized on an adequate antipsychotic regime.
VARENICLINE USE with INDIVIDUALS with SCHIZOPHRENIA

- Evins et al. (2008): Open-label case series reported 13 of 19 patients (68%) with schizophrenia quit smoking at the end of treatment

- Two RCTs in process of varenicline use in individuals with schizophrenia (Pfizer & NIDA)
FDA BOXED WARNINGS

On July 1, 2009, varenicline and bupropion received Boxed Warnings concerning the risk of serious neuropsychiatric symptoms:

- Patients should be advised to stop taking varenicline or bupropion and to contact a health-care provider immediately if they experience agitation, depressed mood, and any changes in behavior that are not typical of nicotine withdrawal, or if they experience suicidal thoughts or behavior.
Tobacco abstinence (1-wk) **not** associated with worsening of:

- attention, verbal learning/memory, working memory, or executive function/inhibition, or clinical symptoms of schizophrenia (Evins et al., 2005)

- Bupropion: decreased the negative symptoms of schizophrenia (Evins et al. 2005, George et al. 2002)

- Varenicline: no worsening of clinical symptoms and a trend toward improved cognitive function (Evins et al., 2009)
IN the ABSENCE of TIME or EXPERTISE: REFER

- REFER patients to other resources:
  - A doctor, nurse, pharmacist, or other clinician, for additional counseling
  - Local program
  - The support program provided free with each smoking cessation medication
  - Web sites like smokefree.gov or quitnet.org
  - The toll-free national quit line: 1-800-QUIT-NOW
Referring patients to a toll-free quit line is simple and easily integrated into routine patient care.

CA Quitline: nearly 1 in 4 callers met criteria for current major depression.

Those with depression much less likely to be quit 2-months later (18.5%) than callers without depression (28.4%)

INTEGRATING TOBACCO TREATMENT within PTSD SERVICES

- RCT with 66 clients from VA Medical Center
- Integrated care (IC)
  - Manualized treatment delivered by PTSD clinician and case manager (3-hr training)
  - Behavioral counseling once a week for 5 weeks + 1 follow-up
  - Bupropion, nicotine patch, gum, spray
- Usual care (UC): referral to VA smoking cessation clinic

McFall et al. (2005) Am J Psychiatry
INTEGRATING TOBACCO TREATMENT within PTSD SERVICES

- Cessation Medication Use
  - Integrated Intervention: 94%
  - Usual Care: 64%

- Counseling Sessions Attended
  - Integrated Intervention: M=5.5
  - Usual Care: M=2.6

- At all assessments, the odds of abstinence were 5 times greater for integrated care vs. usual care

McFall et al. (2005) Am J Psychiatry
INTEGRATING TOBACCO TREATMENT within PTSD SERVICES

- Multi-site RCT with 943 clients from 10 VA Medical Centers
- Integrated care (IC) vs. Usual care (UC)
- Cessation outcomes: 2-fold increase in quitting
  - 6-mo 7 day PPA: IC 16.5% vs. UC 7.2%
  - 18-mo 7 day PPA: IC 18.2% vs. UC 10.8%
- Strongest predictor of tx effect: # of counseling sessions received
- Quitting had no detriment on PTSD symptoms

McFall et al. (2010) JAMA
SUMMARY: TOBACCO TREATMENT in PSYCHIATRIC PATIENTS

- In general, currently available interventions show effectiveness
- Wide range of abstinence rates, with unknown determinants
- Evidence of deleterious effect on psychiatric symptoms or recurrence is weak
- Integration into mental health treatment settings increases abstinence rates
TOBACCO CESSATION DURING ADDICTIONS TREATMENT or RECOVERY

- Meta-analysis of 19 trials
  - 12 in treatment; 7 in recovery

- Findings: Tobacco Cessation
  - **In Treatment Studies:** Post treatment abstinence rates were intervention=12% vs. control=3%
  - **In Recovery Studies:** Post treatment abstinence rates were intervention=38% vs. control=22%
  - No significant effect for tobacco cessation at long-term follow-up (> 6 months)

Prochaska, Delucchi & Hall (2004) JCCP
OVERALL SMOKING CESSATION RATES

In Treatment
Post-Treatment
18 studies

In Recovery

7 day PPA

Comparison Intervention

3%
28%
6%
15%
12%
38%
7%
20%
0%
5%
10%
15%
20%
25%
30%
35%
40%

In Treatment
Long-term FU
15 studies

12%
28%
38%

15%
20%

6%
7%
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 (Prochaska et al., 2004).

- Caveat: One well done study (N=499) of concurrent versus delayed treatment reported (Joseph et al., 2004):
  - Comparable smoking abstinence rates at 18 months (12.4% versus 13.7%)
  - Lower 6-month prolonged alcohol abstinence rates among those offered concurrent compared to delayed tobacco cessation treatment; NS at 12 and 18-months
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

Hughes & Kalman (2006) Drug Alc Dep
SUMMARY: TOBACCO TREATMENT for SUBSTANCE ABUSING PATIENTS

- In general, currently available interventions show some effectiveness, at least for the short-term.
- Range of abstinence rates, with unknown determinants.
- Weak evidence of deleterious effect on abstinence from illicit drugs and alcohol.
- Disorder specific data may eventually allow better tailoring of treatments.
Drug Abuse Treatment Settings

Prospective study, N=649

At 12-month follow-up, 13% of the 395 baseline smokers reported quitting smoking and 12% of the 254 baseline nonsmokers reported starting/relapsing to smoking

Kohn et al. (2003) Drug Alc Dep
Address tobacco use with all patients.

At a minimum, commit to incorporating brief tobacco interventions as part of routine patient care:

Ask, Advise, and Refer.

Become an advocate for smoke-free hospitals and clinics, workplaces, and public places.
ACKNOWLEDGEMENTS

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Q&A

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