



UW PACC

Psychiatry and Addictions Case Conference

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SMOKING CESSATION IN SUBSTANCE USE DISORDERS

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SPEAKER DISCLOSURES

✓ Any conflicts of interest?

OVERVIEW

- Misconceptions and barriers to smoking cessation during SUD
- Nicotine effects
- Smoking cessation treatment options
- Smoking cessation during SUD treatment
- SUD relapse in smokers
- Considerations for addressing smoking cessation in patients during SUD treatment

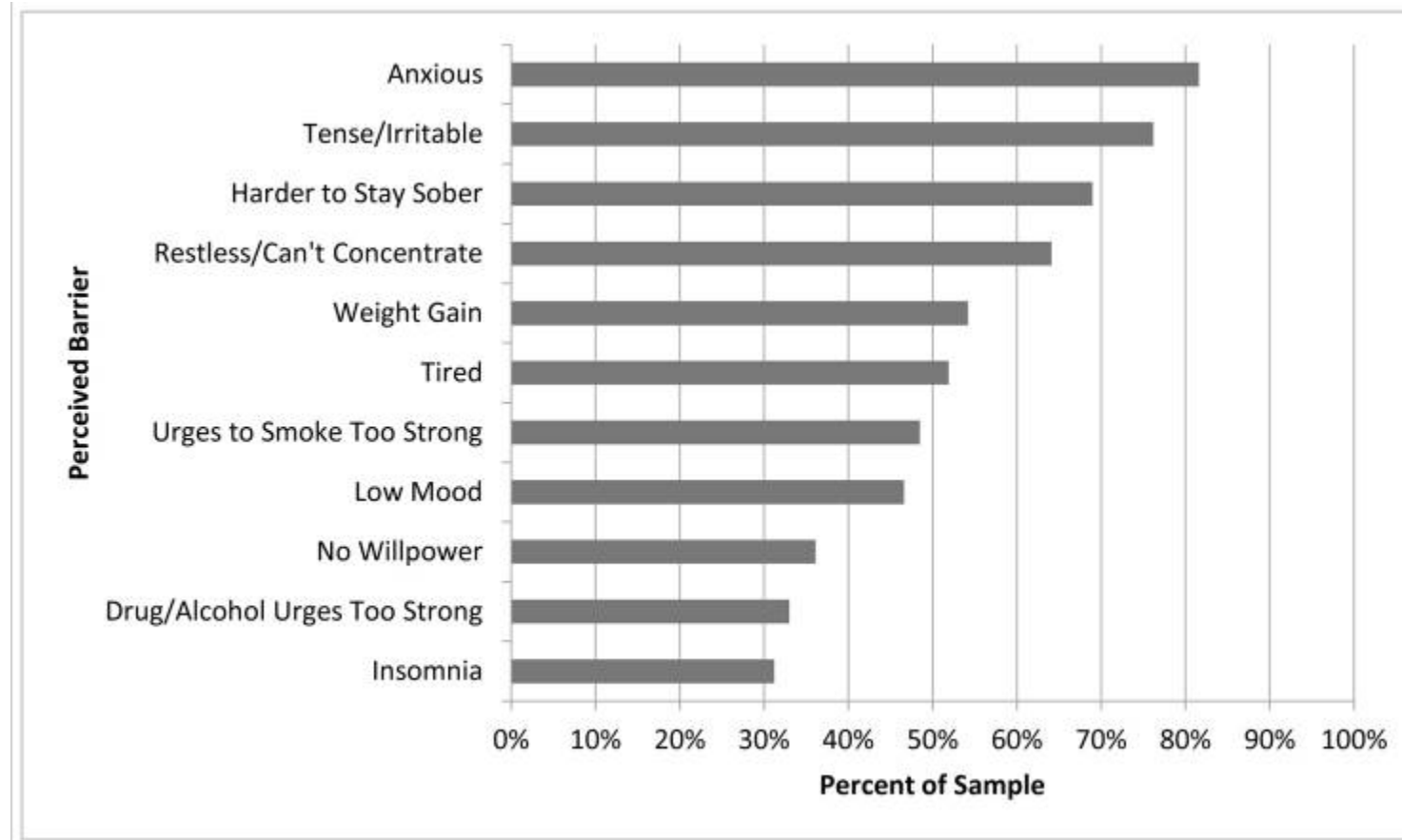
DIFFICULTIES OF SMOKING CESSATION DURING SUBSTANCE USE TREATMENT

- Common misconceptions cited in studies:
 - Concurrent smoking cessation will impair the patient's ability to abstain from their primary SUD goals
 - Failure to quit smoking will discourage efforts to quit other substances
 - Quitting smoking/nicotine will worsen rates of relapse of all substances
 - Quitting smoking during treatment will worsen the mood/stability of patients
 - Patients with SUD are not interested in quitting smoking/nicotine
- Barriers to smoking cessation during inpatient and outpatient SUD treatment
 - Less than half of SUD treatment programs offer smoking cessation resources
 - Smoking cessation counseling can be very time/resource intensive
 - Staff were not trained or do not feel comfortable offering cessation resources/medications

PERCEIVED BARRIERS TO SMOKING CESSATION AMONG ADULTS WITH SUBSTANCE USE DISORDERS³

- 65-90% of patients in SUD settings use nicotine regularly
 - - 3-5x higher than the general population (~20-25%) who use nicotine products
 - - 15-25% of SUD patient receive smoking cessation resources while in SUD treatment
- 208 adults in an inpatient detox setting
- ~50/50 Alcohol vs Opioid use disorder
- No significant differences in number of perceived barriers associated with:
 - Age
 - Employment status
 - Alcohol vs opioid use
- Number of perceived barriers associated with
 - Self-reported cigarette dependence score
 - Number of cigarettes smoked per day
- Increased number of perceived barriers associated with
 - Lower reported importance of changing smoking habits
 - Lower readiness to change smoking
 - Lower confidence in the ability to change smoking

PERCEIVED BARRIERS TO SMOKING CESSATION AMONG ADULTS WITH SUBSTANCE USE DISORDERS³



THE EFFECTS OF NICOTINE

- Nicotine binds to nicotinic/cholinergic receptors
 - CNS autonomic ganglia
 - Neuromuscular junctions
 - Adrenal medulla
- Time to peak:
 - Inhaled (smoking, inhalers) – 15 minutes
 - Intranasal (nasal spray) – 15-20 minutes
 - Buccal (gum/lozenge) – 30 minutes
 - Transdermal (patch) – 2-8 hours
- Central Nervous System Effects:
 - Locus ceruleus – Stimulating effects
 - Limbic system – Reward / reinforcement (increased in high doses of nicotine)

COMMON SYMPTOMS OF NICOTINE WITHDRAWAL

- Irritability/anger
- Increased anxiety
- Restlessness
- Muscle tension
- Insomnia
- Anhedonia
- Depression
- Increased appetite

NICOTINE BIOAVAILABILITY AND METABOLISM

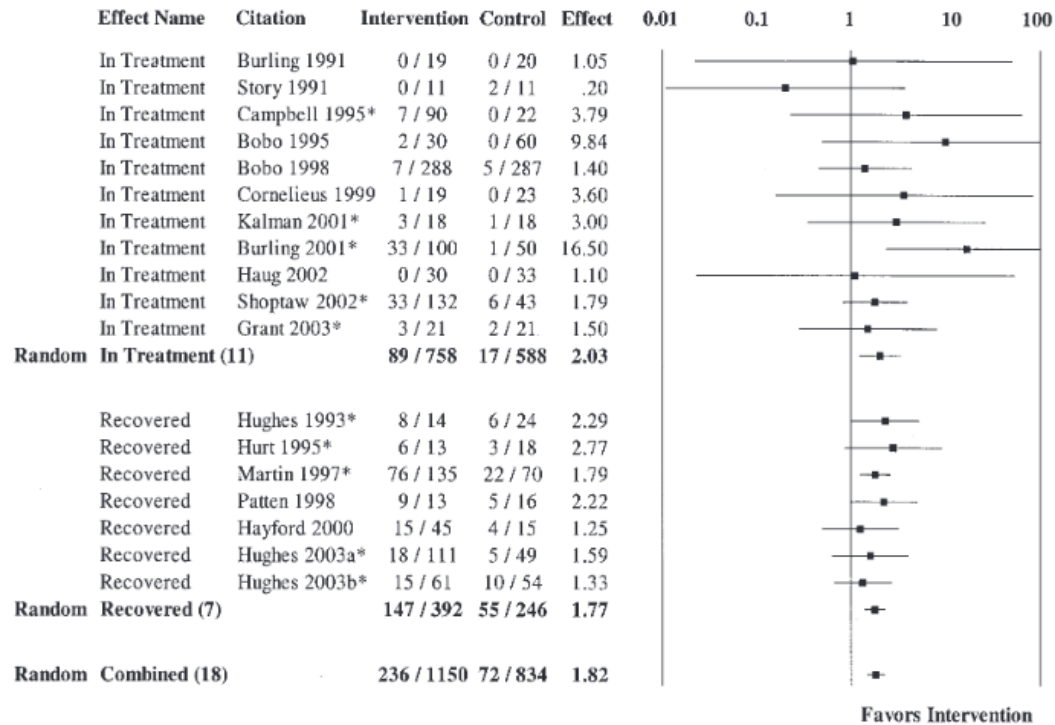
- Rapid absorption of nicotine is associated with acute reward and addiction
 - Replacement therapy designed to be less rapid than smoking
 - Goal of reduced addiction to replacement medications
- Nicotine absorption is impaired in acidic environments (coffee, orange juice, salsa)
- % nicotine swallowed with oral replacement products
 - Gum – 55%
 - Oral spray – 61%
 - Inhaler – 67%
 - Lozenge – 69%
- Only 30-40% of swallowed nicotine is absorbed in the small intestine
- ~75% of the nicotine in gum is released
- ~75% of patches are absorbed over 24 hours
- Nicotine and metabolites are metabolized by the liver
 - Impaired clearance with liver disease
- Minimal renal excretion

OPTIONS FOR SMOKING CESSATION

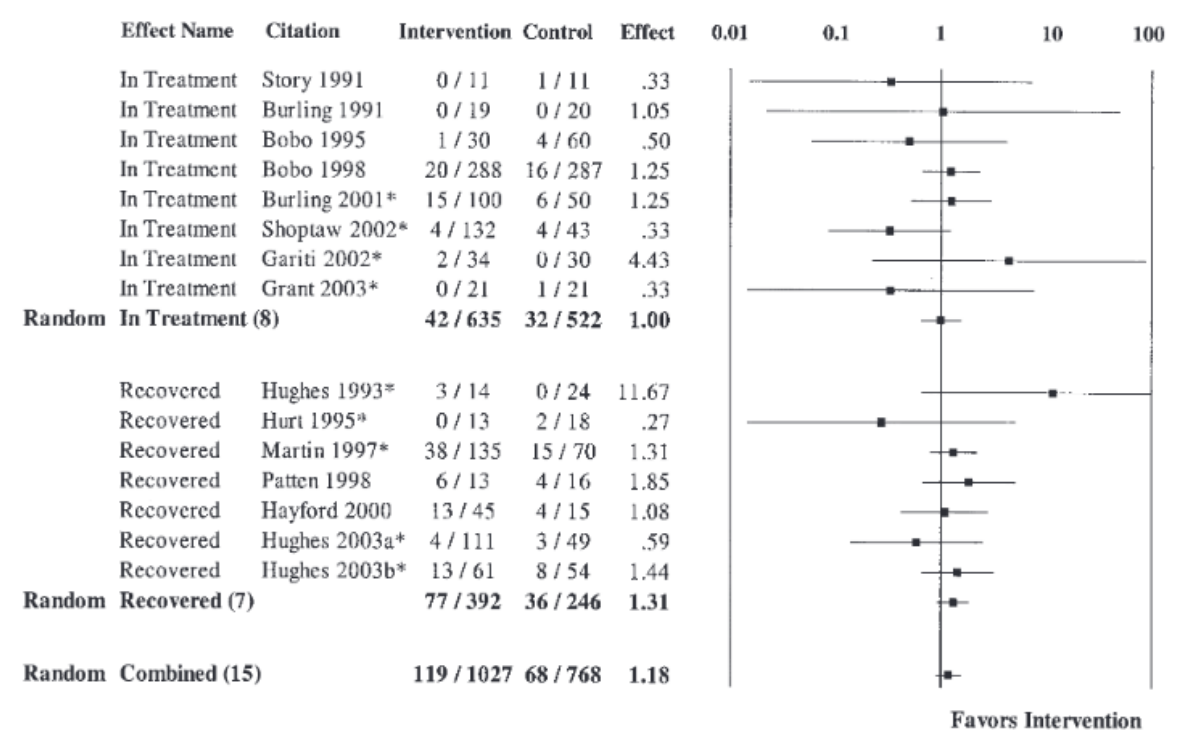
- Behavioral interventions
 - Motivational interviewing
 - CBT for smoking cessation
 - Habit reversal therapy
 - Contingency management
 - “Generalization” therapy
- Clinical education/advice
 - Provider education
 - Brief interventions
 - Group education
 - Quitting support lines/chat
- Nicotine replacement
 - Patch
 - Gum
 - Lozenge
 - “Melts”/strips
 - Inhalers
 - Intranasal spray
- Pharmacotherapy
 - Bupropion (Wellbutrin)
 - Varenicline (Chantix)

A META-ANALYSIS OF SMOKING CESSATION INTERVENTION WITH INDIVIDUAL IN SUBSTANCE ABUSE TREATMENT OR RECOVERY¹¹

Immediately post treatment

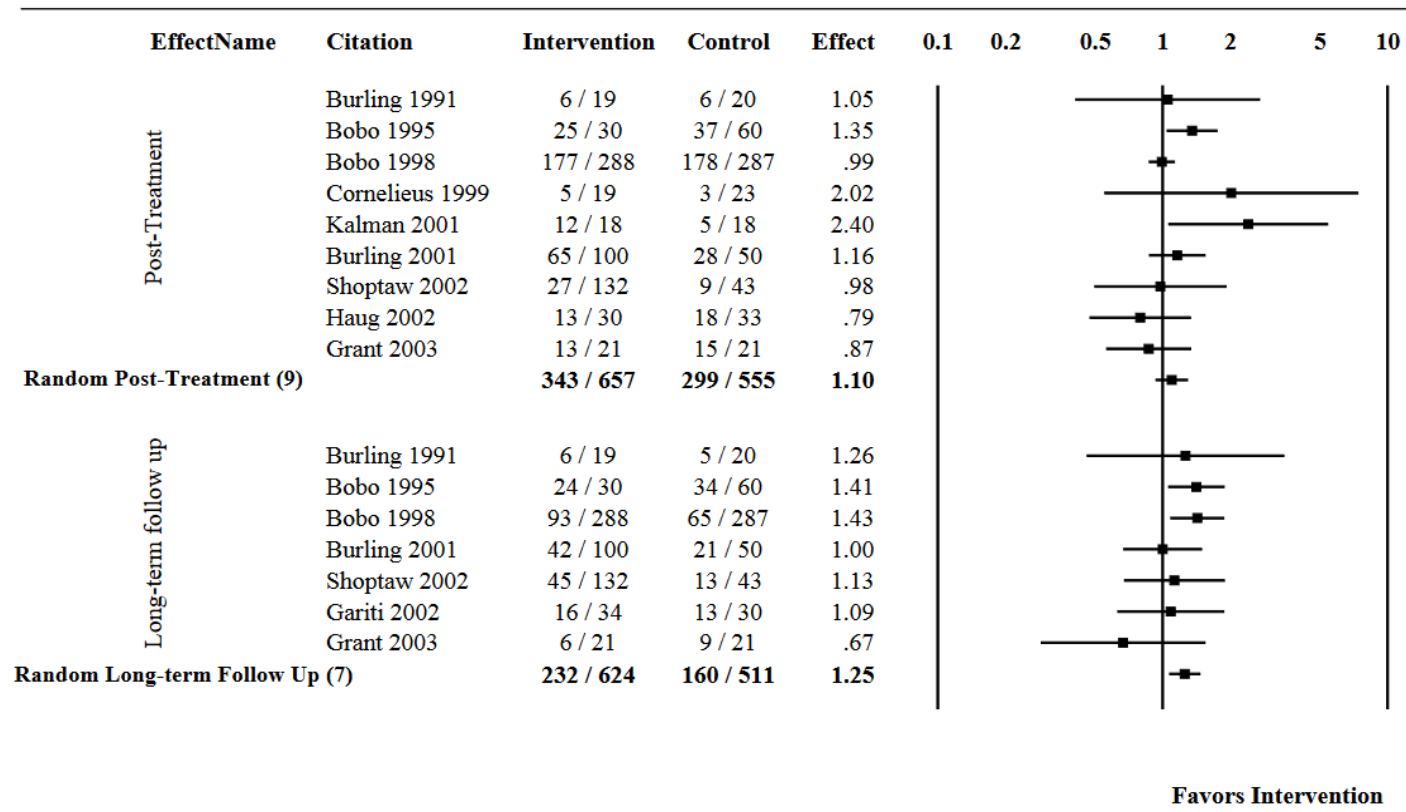


At 6-12 month follow up



A META-ANALYSIS OF SMOKING CESSATION INTERVENTION WITH INDIVIDUAL IN SUBSTANCE ABUSE TREATMENT OR RECOVERY

Long-term substance use abstinence



A SYSTEMATIC REVIEW OF SMOKING CESSATION INTERVENTIONS FOR ADULTS IN SUBSTANCE TREATMENT OR RECOVERY⁷

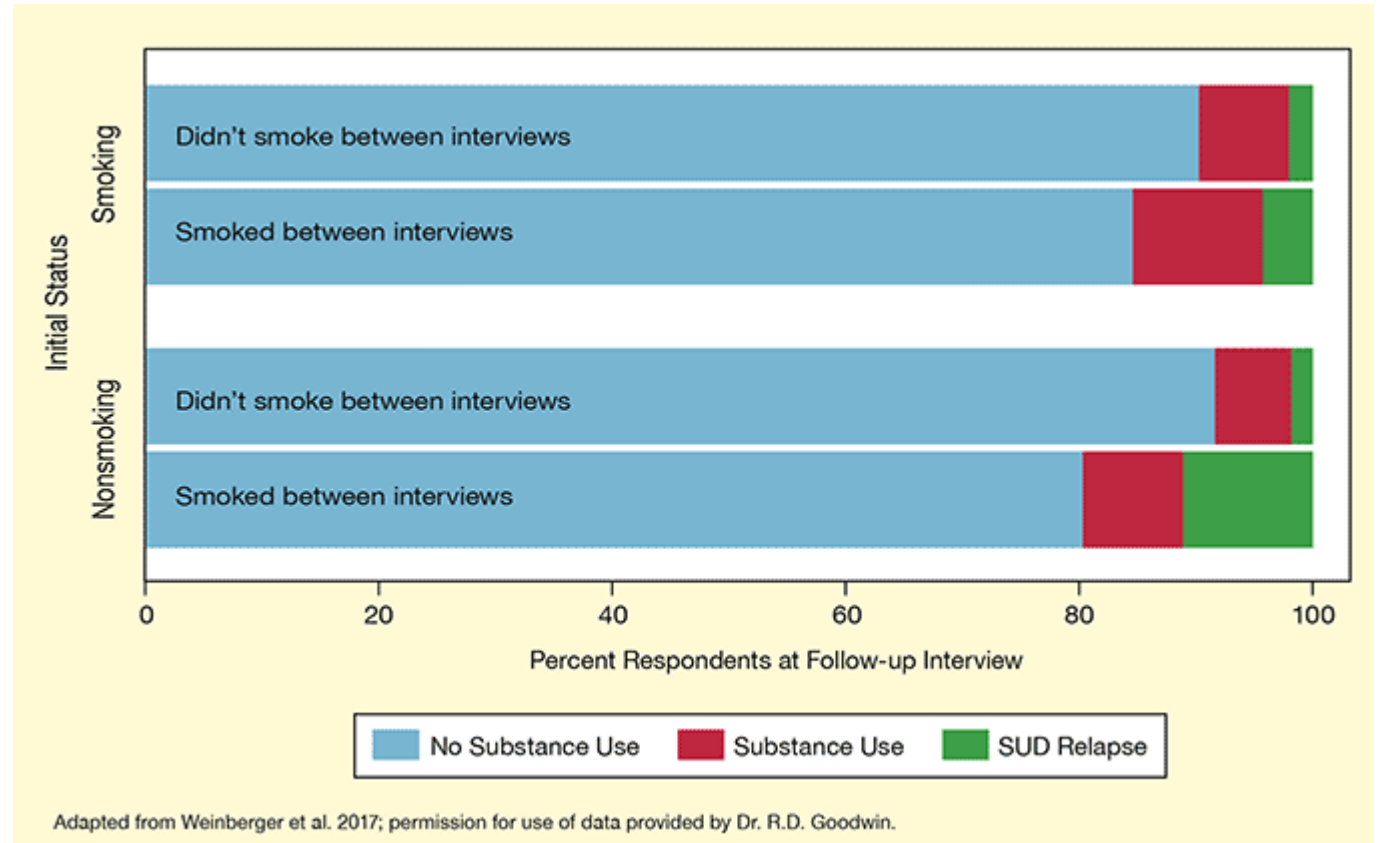
- 51% of current and former substance users will die from tobacco related causes
- 74-98% of patients with substance use disorders also smoke
- Primary outcome measure:
 - Carbon monoxide verified self-reported abstinence at 6 or 12 months
- Secondary outcome measures:
 - Carbon monoxide verified 7 day point prevalence at 6 or 12 month follow up
 - Substance use treatment outcomes at 6 or 12 months
- Findings:
 - Significant short term (1-3 month) reductions in smoking across multiple interventions
 - Minimal long term differences (6-12 month) in this subpopulation
 - Minimal changes to substance use outcomes

SUD AND SMOKING RELAPSE

- Individual studies report varied relationships of relapse by smoking status
- Alcohol use increases the urge and amount smoked compared to placebo beverage
- Meta analysis studies show minimal differences in SUD relapse for smoking cessation during treatment
 - No strong associations regardless of interventions used
 - No significant changes with concurrent versus delayed smoking interventions
- Minimal differences in time to relapse of alcohol with smoking cessation during treatment

CIGARETTE SMOKING INCREASES THE LIKELIHOOD OF DRUG USE RELAPSE^{8,9}

- 5515 patients provided responses
- All had a history of SUD and were in remission at the time of first interview
- Active smokers at first interview:
 - 1.5x higher substance use
 - 2x higher relapse to SUD
 - +0.7% odds of relapse per cigarette
- Started smoking after first interview:
 - 1.3x higher substance use
 - 5x higher relapse to SUD
 - +2.4% odds of relapse per cigarette



WHEN TO ADDRESS SMOKING CESSATION

- Always!
 - Smoking will kill ~50% of SUD patients versus ~20% of the general population
 - ~30% of patients with die from alcohol or other substances
 - 5.5 million “Years of Potential Life Lost” attributed to smoking
- Addressing smoking cessation during SUD treatment does not negatively impact long term substance use
- Smoking intervention success for SUD patients does not differ significantly from the general population

CONSIDERATIONS/RECOMMENDATIONS DURING SUD TREATMENT

- No significant differences in treatment recommendations versus the general population
- Does the patient want to address nicotine at the same time?
 - Provide education prior to the treatment start date
 - Allow the patient to choose from available options
- Discuss if a patient will be allowed to smoke/vape in their treatment program/facility
 - Consider transition to nicotine replacement before starting treatment
- Can the patient use medications in their treatment program?
 - Is there a provider available to manage medications on site?
 - Is the patient allowed/required to bring medications from home?
- Arrange a plan for smoking cessation follow-up during or after treatment

THE 5 A'S FOR NICOTINE CESSATION

- Ask about nicotine use
- Advise quitting
- Assess readiness
- Assist those ready to quit
- Arrange follow-up

QUESTIONS?

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