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Objectives

• Discuss
  – Statistics
  – Evidence based behavioral treatment for tobacco dependence
    • Evidence among smokers with mental illness
  – Working with smokers in different stages of change
  – Unique treatment issues among people with co-morbid mental illness and addiction
General Population 17.8%

Prevalence of Smoking Not Decreasing in those with Serious Mental Illness

Current Smoking among Adults Aged 18 or Older, by Past Month Serious Psychological Disorders Status: 1997 to 2011

* Difference between estimates and estimates for 2011 is statistically significant at the .05 level.

SAMHSA CBHSQ Report, July 18, 2013

Smokers with Behavioral Health Comorbidity (Mental Illness and Addiction) are Becoming a Sizeable Percentage of Smokers Left in the US
Three Fourths of Smokers have a Past or Present Problem with Mental Illness or Addiction

Lasser et al., 2000; Data from National Comorbidity Study

Persons with a mental disorder or SUD purchase & consume 30-44% of cigarettes sold in the US

Smokers Suffer Financial Consequences and Lower Quality of Life

Smokers with Behavioral Health Comorbidity are a Tobacco Disparity Group

Reduction in CVD (%) from Each Risk Factor

50% of deaths in schizophrenia, depression and bipolar disorder attributed to tobacco

Tobacco in the Environment

- 60% of mental health consumers report living with smokers AND smoking indoors
- Part of mental health culture
- Staff tobacco use
Mental health and chemical dependency counselor Joan Ayala. Joan has a dual diagnosis of mental illness and addiction. During her lifelong battle she has learned coping skills to sustain her and end her addiction and cope with her mental illness.

USA TODAY; December 22, 2014

Tobacco Use May Worsen Behavioral Health Outcomes and Cessation Doesn’t Worsen BH Outcomes

Improved Mental Health with Quitting Smoking

• Meta-analysis 26 studies (14 gen pop, 4 psychiatric, 3 physical conditions, 2 psychiatric or physical, 2 pregnant, 1 post-op)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>No of studies included</th>
<th>No of studies excluded</th>
<th>Effect estimate</th>
<th>Original effect estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>4</td>
<td>5</td>
<td>-0.27 (-0.70 to -0.06)</td>
<td>-0.27 (-0.70 to -0.08)</td>
</tr>
<tr>
<td>Depression</td>
<td>9</td>
<td>1</td>
<td>-0.29 (-0.71 to -0.15)</td>
<td>-0.29 (-0.71 to -0.17)</td>
</tr>
<tr>
<td>Mixed anxiety and depression</td>
<td>4</td>
<td>1</td>
<td>-0.35 (-0.95 to -0.16)</td>
<td>-0.32 (-0.97 to -0.14)</td>
</tr>
<tr>
<td>Psychological quality of life</td>
<td>4</td>
<td>4</td>
<td>0.17 (0.02 to 0.33)</td>
<td>0.22 (0.09 to 0.36)</td>
</tr>
<tr>
<td>Positive affect</td>
<td>1</td>
<td>2</td>
<td>0.69 (0.34 to 1.12)</td>
<td>1.46 (0.98 to 1.97)</td>
</tr>
<tr>
<td>Stress</td>
<td>2</td>
<td>1</td>
<td>-0.25 (0.38 to -0.07)</td>
<td>-0.27 (0.40 to -0.15)</td>
</tr>
</tbody>
</table>

Taylor et al, BMJ, 2014
Behavioral Health Should Take a Lead in Tobacco Treatment

- High prevalence of tobacco use/ patient need
- Tobacco Dependence in DSM-V
- Trained in addictions
- Tobacco interactions with psych meds
- Longer and more treatment sessions
- Experts in counseling
- Relationship to mental symptoms and other addictions

- Undervalue tobacco use as a problem
- Consumers/ families minimize the health risks of tobacco
- Professionals/ systems have been slow to change in addressing tobacco
- Lack the knowledge about effectiveness of treatment
- Lack of advocating for treatment
- Poor reimbursement
- Higher smoking among staff

**READYNESS to QUIT in SPECIAL POPULATIONS**

<table>
<thead>
<tr>
<th>Population</th>
<th>Intend to quit in next 6 mo</th>
<th>Intend to quit in next 30 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Population</td>
<td>40%</td>
<td>20%</td>
</tr>
<tr>
<td>General Psych Outpts</td>
<td>43%</td>
<td>28%</td>
</tr>
<tr>
<td>Depressed Outpatients</td>
<td>55%</td>
<td>24%</td>
</tr>
<tr>
<td>Psych. Inpatients</td>
<td>41%</td>
<td>24%</td>
</tr>
<tr>
<td>Methadone Clients</td>
<td>48%</td>
<td>22%</td>
</tr>
</tbody>
</table>

* 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.

Which Approach to Take

Implement current evidence based practices?
- Public health model
- Primary care
- Brief strategies
- Limited insurance coverage
- Telephone counseling

Develop tailored approaches?
- Clinical/ co-occurring treatment model
- Behavioral health
- Face to face
- Longer treatment
- Expanded Medicaid and Medicare coverage for treatment

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Psychosocial Treatment

Need for Pharmacotherapy in Tobacco Users w/MI and SUD

• No reason not to use
• First line treatment/recommended for all
• Higher levels of nicotine dependence
• Psychiatric inpatients not given NRT were > 2X likely to be discharged from the hospital AMA

Fiore 2008; Prochaska 2004

PHS Clinical Practice Guidelines

• Effective treatments: Individual or group; CBT, relapse prevention, social skills
• Brief Treatments
  – Primary care model
  – Motivation enhancement
  – Sessions <10 minutes
• Intensive Treatments
  – Sessions > 10 minutes
  – More than 4 sessions
  – Tobacco treatment specialists
  – Behavioral health and/or addictions specialists

Treatment Effectiveness

• Brief physician advice ↑ quitting
  10% quit rates with < 3 minutes
  20% quit rates >10 minutes
**Brief Treatment**

- Primary Care Model
  - Document tobacco use at all visit (Ask)
  - Urge every tobacco user to quit (Advise)
  - Ask about willingness to quit (Assess)
  - Prescribe meds and/or brief counseling (Assist)
  - Schedule follow-up around quit date (Arrange)

**Studies of 5A’s for Smoking Cessation in Mental Health Settings**

- Six months before 5 A’s and just before 5 A’s: 99% smoked in past 7 days
- Six months after 5A’s: 96% smoked in past 7 days
- 12 months after 5A’s: 94% smoked in past 7 days
- 6% 7 day abstinence at 12 months

Dixon et al., 2009; DiClemente et al., 2011

**Reduced Access to Tobacco Treatment in Behavioral Health Settings**

- Nicotine dependence documented in 2% of mental health records
- Only 1.5% of patients seeing an outpt psychiatrist received treatment for smoking

*Less than half (44%) of clinicians in community mental health sites ask their patients about smoking*

Peterson 2003; Montoya 2005; Himelhoch 2014
Poor Baseline Tobacco Treatment Knowledge among Clinicians

50% correct: Evidence-based treatments; nicotine withdrawal; tobacco medications interactions.

Williams et al., JAPNA 2009

Clinician Self-Reported Compared to Baseline Practices

Specialized Tobacco Training Increases Treatment

Chart Review of 200 charts (20 clinicians trained at 2 day CME)
**Intensive Treatments**

- Intensive more effective than brief
- Intensive better for highly addicted smokers
- Telephone counseling, individual and group treatment
- Mental health and addiction professionals are experts in intensive psychosocial treatments

**Skills training**
- Change cognitions about smoking
- Reinforce nonsmoking
- Avoid high risk situations
- Develop healthy coping skills

**Relapse prevention**

**Problem solving**

**Coping skills**

**Stress management**

**Contingency management**

**Cognitive-behavioral**

**Benefits of Group**

- Cost and time effective
- Additional support
- Accepted treatment in MH and addiction treatment settings

**Modeling**
- Seeing success
- Using NRT
- Effective coping

**May facilitate culture change; norms**
Usual Community Tobacco Group

- Offered in community settings (ALA, ACS)
- 6 or 8 weeks
- Once weekly
- Everyone quit together (Week 2)
- Group support and coping
- Limited research among smokers with mental illness

Quitline

- Toll-free telephone counseling
- State funded
- Scheduled calls from tobacco specialist
- Good for transportation issues
- Assessment
- High success rate in smoking cessation

Are there barriers which keep smokers with mental illness or addiction from:

- Attending (ALA) community groups
- Accessing brief treatments in primary care
- Using Quitline
Potential Quitline Issues

- Lack of stable phone service
- Temporary loss of service
- Barriers in phone access
  - Group home
  - Boarding home
- Crisis/ problem calls

Cessation Reduced in MH Callers to SD Quitline

Kerkvliet, J et al., NTR, 2014

N= 10720 callers; 20% (2086) had MHC

Have you ever been told you have, or have you been treated by a healthcare professional for a mental health issue (depression, anxiety, bipolar, etc)"

Substance abuse disorders were not assessed, or included in the MHC group

Cessation Reduced in Depressed Callers to Quitline

Hebert, J et al., 2011

N= 844 smokers

Screened for current depression with PHQ-9

No depression
Mild Depression
Major Depression

N= 844 smokers 30d PP 2 mos post enrollment Hebert, J et al., 2011
Other Treatments

- Currently lack sufficient evidence; possible components of other treatments
  - Relaxation
  - Social support
  - Nicotine fading
  - Acupuncture
  - Exercise
  - Self-help materials
  - Nicotine Anonymous
  - Hypnosis
  - Laser treatment

Match Treatment Strategies to Stages of Change

- PRECONTEMPLATION OR CONTEMPLATION
- PREPARATION

Engaging Low Motivated Smokers

- 40-50% of smokers with mental illness or co-morbid addictions have no plans of quitting in next 6 months.
- Less than 25% planning to quit in the next 30 days.
- Need to increase motivational levels in clients before tobacco treatment can commence.

Clarke et al., 2001; Carosella et al., 1999; Addington et al., 1997; Hall et al., 1995; Etter et al., 2004
Motivational Interviewing (MI) Study

- One 45-minute MI session versus interactive education (IE) among smokers with serious mental illness (N=98)
- Quit attempts
  - MI (35%) vs. IE (14%), p=.009
  - However, attempts did not translate to abstinence

Steinberg et al, 2015
Complete Wellness Approach

- LAHL developed to help low motivated smokers
- Mental health settings
- Group format
- Education on range of topics
  - Healthy eating
  - Increasing activity
  - Awareness of tobacco addiction

Learning About Healthy Living

- This treatment is designed as two groups.
- Group I - Learning About Healthy Living
- Group II - Quitting Smoking

- It is designed so that consumers can progress from Group I to Group II, when appropriate or desired

Group I: Learning About Healthy Living

- 20 Weeks
- Educational and Motivational
- Accepts all smokers with mental illness
- Piloted in outpatients
- Smoking within the context of Healthy Living (Exercise, stress, & diet)
- Could change the order of the sessions and some may take longer than 1 session
Section 5: Chapter 3

What's in cigarette smoke?

Many things are found in cigarette smoke. When cigarettes are made, filters, tar filters, and other chemicals are added to reduce the smoking experience. Most of the harmful components in cigarettes are related to power when cigarettes are burned.

- The main flavoring is used to enhance flavor.
- Tobacco is used for the nicotine content.
- Carbon monoxide is used for the carbon monoxide content.
- Tar filters are used to reduce tar content.
- Filters are used to reduce smoke content.
- The main flavoring is used to enhance flavor.
- The main flavoring is used to enhance flavor.
- Tobacco is used for the nicotine content.
- Carbon monoxide is used for the carbon monoxide content.
- Tar filters are used to reduce tar content.
- Filters are used to reduce smoke content.

Learning More about Smoking

When you smoke, you put more than 60 different chemicals into your body. Many of these chemicals are called poisons.

- Tobacco tar is a main component that is heated to form tar.
- Carbon monoxide is a gas that is released into the body.
- Nicotine is the main component that is absorbed into the body.
- Carbon monoxide is a gas that is released into the body.
- Tobacco tar is a main component that is heated to form tar.
- Carbon monoxide is a gas that is released into the body.
- Nicotine is the main component that is absorbed into the body.

Nicotine is the cause for

Learning about Healthy Living 06 Consumer's Handbook 2005

Section 5: Chapter 5

What is Carbon Monoxide?

One of the most deadly chemicals found in cigarette smoke is carbon monoxide (CO). Carbon monoxide is a colorless, odorless gas that cannot be detected by the body. It is a byproduct of smoking.

Carbon monoxide is found as a byproduct of the body. It is absorbed by the body from polluting air and enters the system in the bloodstream.

Carbon monoxide takes the place of oxygen in your blood. The body sends oxygen to organs and cells that are oxygen-starved to keep them functioning.

The Good News about Carbon Monoxide

Although it is very deadly, carbon monoxide lasts only a short time in your body. Your body can eliminate carbon monoxide within ten to forty minutes.

After you stop smoking, your carbon monoxide levels will come down. The carbon monoxide in your blood can be reduced with exercise.

However, the effects of carbon monoxide are not reversible and can get worse with long-term smoking.

Learning about Healthy Living 05 Consumer's Handbook 2005

Section 5: Chapter 6

How Much Does Smoking Cost?

How do you spend your money?

If you are a smoker and do not keep track of how much money you spend on cigarettes, you may not know how much you are spending on certain items because you pay for them in a $40 or $50 a time. Whether it is the shopping list or desirous in a $400 or $500, it could be a pack of cigarettes or alcohol, using the telephone for sex or - more times you add up to take a large chunk of money out of our budget.

What is the cost of smoking?

- Smoking cigarettes is very expensive.
- It cost $3 or more to buy a pack of cigarettes today.
- The tobacco companies earn about $4.94 profit on each pack of cigarettes that you buy.
- The more you smoke, the more money the tobacco industry makes.
- You have to keep buying cigarettes over and over again.

IMPORTANT POINT TO REMEMBER

1 Pack of Cigarettes Cost Approximately

- $5.00 plus $0.94

Learning about Healthy Living 03 Consumer's Handbook 2005

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How Can I Make Healthier Food Choices?

The 2015 Dietary Guidelines for Americans are the newest science-based advice from the United States Department of Agriculture and the Department of Health and Human Services. What do the experts say?

We should make smart choices from every food group. The best way to give your body the balanced nutrition it needs is by eating a variety of nutrient-packed foods every day. Don’t be too strict, within your daily calorie needs.

A healthy eating plan is one that:
- Emphasizes fruits, vegetables, whole grains, and fat-free or low-fat milk and milk products.
- Includes lean meats, poultry, fish, beans, eggs, and nuts.
- Limits saturated fats, trans fats, cholesterol, salt (sodium), and added sugars.
- Makes up your choices within each food group.

The information below is based upon a 2,000 calorie diet. Different people have different calorie needs. Streamers will vary based upon your calorie needs. Turn the page to see how your diet compares to what the experts recommend.

Rutgers

Match Treatment Strategies to Stages of Change

PRECONTEMPLATION OR CONTEMPLATION

MOTIVATING

PREPARATION

ACTION

QUITTING

CESSATION

Rutgers

Quitting Smoking

• Create a quit plan
• Set a quit date
• Prepare for a quit date
• Maximize social support
• Achieve early abstinence
• Celebrate quitting
Coping Strategies

- Resist urges
- Avoid triggers (people places and things)
- Manage stress
- Fill time with other activities
- Delay, Deep Breathe, Do Something Different

3 major categories of triggers that can precipitate relapse

1. Discomfort from physical withdrawal.
2. Loss of a means to manage feelings.
3. Physical cues or associations with smoking.

Persistence

- Tobacco dependence = chronic condition
  - < 25% successful on first attempt
  - ≥ 8 quit attempts before successful
- Encourage smokers to try again
Unique Issues for People with Mental Illness and Co-morbid Addictions

- Persistent psychiatric symptoms
- Low motivation/self-efficacy
- Lack of knowledge
- Poor social skills
- Cognitive limitations
- Unsupportive social networks
- Treatment culture
- Difficulty forming a therapeutic alliance
- Fear of relapse
- “It’s all I have left.”

Adapting Psychosocial Treatments for Smokers with Mental Illness and Other Addictions

- More motivational assessments/interventions
- Slow pace, repetition
- Alternative short-term goals, eventual abstinence
- Flexible quit date
- Coping with treatment culture
- More extensive coping, social and relapse prevention skill building
- Increase self-efficacy
- More education
- Build support networks
- Collaboration with treatment team
- Longer treatment

Conclusions

- Too few patients receive psychosocial treatments for tobacco
- Mental health and addiction professionals are well skilled to provide these psychosocial treatments
- Combinations of medications and psychosocial treatments will likely be most effective
- PHS Guideline based interventions may be less effective or feasibly for people with mental illness or other addictions
- More research and resources needed