Make Smoking History: 
#stampouttobacco

Kathleen G. O’Leary RN, MS, FNP-BC, NP-C, TTS-C
Margaret Russo MTTS-C
“Cigarette smoking is the leading preventable cause of death in the United States”

(CDC, HECS, 2017)
Statistics of Tobacco Use

- 36.5 million Americans smoke cigarettes,
  - 16 million live with a smoking related disease
- Current smokers by age:
  - Age 18-24 y/o: 13%  
  - Age 25-44 y/o: 17.7%  
  - Age 45-64 y/o: 17%  
  - Age 65 y/o and older: 8.4%
- Each day, 3800 youth under the age of 18 years old, in the United States, try their first cigarette.
- Cigarette Smoking harms most organs in the body
- Quitting smoking can add years to your life and lowers your risk of smoking related diseases

Disease Statistics of Tobacco
(CDC, Health Effects, 2017)

More Than
480,000
U.S. Deaths
Every Year
Are From
Cigarette Smoking

Lung Cancer
137,989 (29%)

Other Diagnoses
31,681 (7%)

Stroke
15,300 (3%)

Other Cancers
36,000 (7%)

Heart Disease
158,750 (33%)

Chronic Obstructive Pulmonary Disease
100,600 (21%)
Demographics of Tobacco Dependency

- **Age of first use of tobacco product**: Teenage/young adult brain more addicted creating habits that are part of routine over longer span of lifetime (muscle memory)
  - Average Age of American first tobacco use: Peak 11-13 y/o, as young as 8 years old
- **Educational level**: lower the educational level the more prevalence of tobacco use
- **Socioeconomic Status**: lower the socioeconomic status the higher the prevalence of tobacco use
- **Environmental influence**: home, work, school
  - Parental, significant others peers who smoke increases risk of smoking
  - Cultural: ie: Asian: gifting, Middle Eastern: social hookah use
  - Social marketing: social media, packaging, flavoring, decoy devices ie:thumb drive
- **Psychological comorbidities**: 2-4 times more likely to smoke

(UMass Tobacco Treatment, 2012)
How the addiction of Nicotine becomes the hardest substance to quit?

- We are born with nicotine receptors: highly concentrated in the dopamine reward center of the brain and diffuse throughout the gastrointestinal system.

- Dopamine reward system is located throughout the mesolimbic portion of the brain.

- Nicotine is inhaled or absorbed through the oral mucosa.

- 5-10 seconds fills the Nicotine receptors.

- Chemical reaction at the receptor then releases Dopamine “a feel good neurotransmitter”
  - Reward, Euphoria, increased concentration
  - Nicotine’s half life is 2 hours
  - The more nicotine absorbed the more receptors produced

- Teens to early adults have developing brains that are more sensitive to becoming addicted to nicotine. Majority of adult smokers started as teenagers.

  (CDC, At a Glance, 2016), (UMass, 2012)
The physical addiction to Nicotine

(Google image, 2017)
The Behavioral Addiction to Tobacco Use

- Daily routine:
  - Tobacco users teach themselves to smoke/chew (MA TTS Manual, 2015)
  - Tobacco use is a well practiced behavior, it becomes an automatic behavior: breathing, eating and sleeping
  - It is used to cope with stress and other emotions “self medicate”
  - It is used in pleasure and for relief

(Freedom from Smoking), (UMass Medical School, 2012)
What is in tobacco and smokeless products?

- Tobacco Smoke contains a toxic combination of 7000 chemicals

- The additives in chemicals help make them more addictive, “filtered, lights, organic” are no safer and just as addictive as other cigarettes (CDC, 2010)

- Ecig/vape contain chemicals but are currently being tested: find similar chemicals to tobacco ie metals, formaldehyde, arsenic, diacetyl: flavoring additive

Electronic cigarette
Vaporizer Pen
“Tank” Vaporizer
Juul Vape
Respiratory Effects of Smokeless Products

- “Popcorn lung” in young adults is an inflammatory response to the lung tissue being exposed to vape and ecig.
- Narrowing and scarring of airways similar to COPD
  - Caused by diacetyl a flavoring additive
  - First diagnosed in workers manufacturing flavored popcorn. This was removed from popcorn.
  - Ecig/vaporizers not FDA regulated, diacetyl presently in ecig flavors such as vanilla, maple, coconut and more
- Symptoms: dry cough, wheezing and shortness of breath

(American Lung Association, 2016)
First, Second and Third Hand Smoke

First hand smoke: smoke inhaled from tobacco product or device

Second Hand Smoke: smoke or vapor exhaled or burned at end of tobacco product or device

Third hand smoke: Residue of tobacco smoke that contains 7000 chemicals. Layers itself with each smoke and becomes toxic to adults and highly toxic to children and pets

- Residue lays on to smoker’s skin, clothing
- Residue lays on every surface of a contained space: car, furniture, carpet, flooring, window treatments, heating/cooling systems
  - All are exposed, even the smoker when they are not smoking
  - Research shows that it is more toxic for children than if they chewed on a lead paint window sill: Children play on floor causing higher exposure tobacco residue that contains lead.

- Laws passed for smoke free public environments, work places, schools, hospitals

(Ballantyne, 2009), (Hays, 2017)
Quit Attempt Statistics

- 17 million attempt to quit annually in the U.S.
  - Only 1.3 percent succeed in maintaining smoke free
  - 90 percent of all smokers want to quit smoking
  - Internal reward
  - External reward
  - As health care professionals, the more we ask and counsel about tobacco use and cessation the closer a smoker gets to a quit attempt
  - Medication and counseling combined will triple the chances of a tobacco user to quit and maintain tobacco free
    - 90% are thinking about quitting and 20% of those thinking about quitting are ready to quit
      (CDC, Quitting, 2017), (ALA, 2007)
Cardiovascular benefits of quitting tobacco use

- Risk of heart attack drops sharply after one year of quitting
- 15 years after tobacco use risk of stroke and heart attack are those of a nonsmoker
- “Smoking around others increases their risk of heart attack and death”.
- “By not smoking, you help protects your family, friends and coworkers”
- Public risk of heart attacks drop sharply after smoking ban in public places from second and third hand smoke

(Surgeon General, 2010)
What is Tobacco Treatment?

Treatment of nicotine addiction to individuals who are physically, emotionally and/or socially addicted to Nicotine
Stages of Change Model
Prochaska and DiClemente

- Pre Contemplation: Not Ready to Quit
- Contemplation: Thinking about Quitting
- Preparation: Ready to Quit: Willing to quit within the next 30 days
- Action: Has quit for less than 6 months
- Maintenance: Staying quit for more than 6 months
- Relapse: Resuming old behaviors

(Wikipedia, 2017)
Symptom Management of Nicotine withdrawal

- Physiology of nicotine receptors: concentrated in the pleasure/reward center of the brain
  - Born with receptors: brain, GI system
  - “The more an individual uses tobacco the more receptors are built”
  - Path of nicotine: drag in mouth, absorbed by oral mucosa, 10 seconds fills the nicotine receptors with nicotine, release dopamine “feel good neurotransmitter”
  - 20-30 minutes nicotine receptors are “empty”: cause withdrawal symptoms to refill receptors
  - Half life of Nicotine is 2 hours
  - Nicotine metabolized in cotintine in the liver, ½ life 24-36 hours

(UMass, 2017)
Withdrawal Symptoms of Nicotine

- Craving
- Irritability: “Jonesing”
- Dreams about smoking (subconscious craving)
- Difficulty with falling asleep or staying asleep
- Decreased ability to concentrate
- Increase or decrease of appetite
- Mood swings: depression, anxiety

(CDC, Quitting, 2017)
How to treat symptoms of Nicotine withdrawal

- **Medication:**
  - **Nicotine Replacement Therapy:**
    - Nicotine patch,
    - Nicorette gum,
    - Nicorette lozenge,
    - Nicotrol inhaler,
    - Nico nasal
  - **Psychotropics: Sustain released bupropion “Wellbutrin”**
  - **Partial Nicotine Receptor agonists: Varenicline “Chantix”**
  - **Speak with your Primary Care Provider before any smoking cessation medication use**
Tips and Tools to Treat Symptoms of Withdrawal

- Tools for cravings; the most common side effect of nicotine withdrawal is craving

- 4 D’s
  - Deep breath
  - Delay
  - Drink water
  - Distract

- 3 A’s
  - Avoid temptation: stay away from persons, places and activities that trigger smoking
  - Alter your habits: drinking water instead of coffee, tea or alcohol.
  - Alternatives: cinnamon sticks, chewing gum, eat raw vegetables

Treating both the physical and psychological addiction will triple the chances of quitting and staying smoke free for a life time.

(CDC, Quitting, 2017)
Counseling Resources in the Community

- One on one counseling: Outpatient tobacco counseling in acute care facilities

- Group smoking cessation:
  - “Nic A” Nicotine Anonymous: NANS Nicotine Anonymous of the North Shore
    - Email: stampouttobacco@gmail.com
  - American Lung Association “Freedom from Smoking” Program

- Phone counseling: Massachusetts QuitWorks

- Electronic Apps: Crave2Quit
Tobacco Legislation

- **Tobacco Free Mass**: Statewide “Supports a collaborative approach to protecting youth from all tobacco and nicotine containing products, help smokers quit and prevent exposure to secondhand smoke. This is being accomplished through regular increases in tobacco sales taxes, smoke free work laws and funding of evidence based tobacco programs.

- **Local programming**: Towns passing laws to prevent the sales of tobacco products in pharmacies, increase the age of tobacco sales to 21 years old, limit tobacco product sales to adult only retail, prohibit the use of e-cigarette where the Smoke Free Law applies.

  Tobacco Free Mass, 2017
Health Promotion Voices Can Be Any One of Us
References


References cont


References cont


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