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Barriers to Smoking Cessation in Patients Enrolled in Suboxone Treatment

LUKE ARNELL

DECEMBER 2018 - JANUARY 2019

PROJECT MENTOR: DR. MICHAEL CORRIGAN

Problem Identification

- ▶ Cigarette smoking is the leading cause of preventable death and disease in the United States, accounting for more than 480,000 deaths every year (1).
- ▶ The adult smoking prevalence in Franklin County, VT, in 2017 was 16.6%, approximately 1% higher than the national average (2,3).
- ▶ In 2017, there were 134 opioid-related overdose deaths in Vermont—a rate of 23.2 deaths per 100,000 persons and more than the national rate of 21.7 deaths per 100,000 persons (8).
- ▶ **The prevalence of tobacco use among substance abuse treatment program enrollees has been shown to range between 75-97% (4,5).**

Public Health Cost

- ▶ Smoking-related illness in the US costs more than \$300 billion each year. This includes nearly \$170 billion for direct medical care for adults and more than \$156 billion in lost productivity (1,6).
- ▶ In Vermont, smoking costs the state approximately \$348 million in medical expenses and results in about 1000 smoking-attributable deaths per year (7).

Community Perspective

▶ In order to gain a community perspective on this issue, I spoke with Barbara Wynse, one of the clinic's MAT coordinators, and an anonymous patient currently undergoing suboxone treatment at the clinic.

- “For many patients who are undergoing treatment for their opioid use disorder, quitting smoking is simply not as high of a priority as getting and staying sober.” – Barbara Wynes RN
- “It’s not that I don’t want to quit, but every time I try, the stress in my life drives me to pick it up again. Sometimes I feel like it’d be harder to stay sober if I wasn’t smoking.”
- Patient

QUIT tips

Nicotine Replacement and Quit Aids

These therapies are FDA approved to help you quit smoking

Over the counter

Gum - Chew to release nicotine. Helpful way to reduce cravings. Allows users to control their dosage.

Patch - Once daily dosing. Place on the skin. Ideal for long-lasting craving relief. Gradual release of nicotine.

Lozenge - Placed in the mouth like hard candy. Offers the same benefits of gum without chewing.

Prescription

Wellbutrin/Zyban - Twice daily dosing. May be beneficial in patients with depression. May be used in combination with nicotine replacement therapy products like patches, gum and lozenges.

Chantix - Twice daily dosing. Lessens sense of pleasure from tobacco. Should be taken with food or a full glass of water to reduce nausea.

Nasal Spray - Pump bottle containing nicotine. The spray releases a specific amount of nicotine.

Inhaler - Cartridge attached to a mouthpiece. Inhaling releases a specific amount of nicotine. Mimics hand-to-mouth ritual of smoking

Helpful Resources

- Call **1-800-QUIT-NOW** (1-800-784-8669)
 - This is a **free** telephone support service that can help put you in touch with local Vermont resources specific to help quit smoking
- **802quits.org**
 - Vermont-specific online resource that provides support over the phone, online, and in person
 - **Free patches, gum, and lozenges**
 - Free “quit tools”
- Call **211**
 - Hotline that provides detailed descriptions of programs and services available to Vermonters. Wide variety of services ranging from help with substance use, transportation, food, shelter, and more.

The Handout

Results

▶ Demographics

- ▶ Total # of responses: 14
- ▶ 64.3% Male, 35.7% Female
- ▶ Average # of cigarettes/day: 12.07
- ▶ Average # of previous quit attempts: 3
- ▶ 93% tried at least 1 quit aid/nicotine replacement
 - ▶ Most commonly tried was the nicotine patch (78.6%)

▶ Motivation

- ▶ Average **importance** of making changes in smoking habits: **8.4/10**
- ▶ Average **confidence in ability** to make changes: **7.8/10**
- ▶ Average **readiness** to make changes: **8.3/10**

Results (cont.)

- ▶ Barriers
 - ▶ Average # of barriers: **4.9**
 - ▶ Top 3 most common barriers:
 - ▶ 1) “If I quit smoking, I would feel anxious” (**85.7%**)
 - ▶ 2) “When I don’t smoke, I feel restless and I can’t concentrate” (**64.3%**)
 - ▶ 3) “It’s hard to quit because so many others around me are smoking” (**50%**)
 - ▶ 3) “If I quit smoking, I would gain weight” (**50%**)
 - ▶ Top 3 most “important” barriers:
 - ▶ 1) “If I quit smoking, my urges to use drugs will be so strong, I won’t be able to stand it” (**4/5**)
 - ▶ 2) “When I don’t smoke, I feel restless and I can’t concentrate” (**3.78/5**)
 - ▶ 3) “If I quit smoking, my urges to smoke will be so strong, I won’t be able to stand it” (**3.67/5**)

Effectiveness and Limitations

- ▶ Effectiveness:

- ▶ The results of the survey provided Dr. Corrigan with useful information regarding the trends in motivation to quit and barriers to smoking cessation in his patient population. This information will allow him and his staff to target the most common and important barriers in their interventions and patient education.
- ▶ One way to evaluate the effectiveness of the handout would be to compare smoking rates, quit attempts, and quit aid use in the study population before receiving the handout and at certain time-points following the intervention (3, 6, 9 months).

- ▶ Limitations:

- ▶ Due to the time constraints of the clerkship, the sample size of the study population was not large enough to yield statistically significant results.
- ▶ Because the surveys were completed anonymously, only population data was gathered. This prevents Dr. Corrigan and his staff from using the survey responses to tailor patient-specific education and treatment plans.

Future Directions

- ▶ It would be useful to:
 1. Continue to distribute this survey at Dr. Corrigan's clinic in order to accumulate more responses and generate statistically significant data.
 2. Perform a more in-depth statistical analysis comparing number and types of barriers with information collected on demographics, previous quit history, and motivation to change.
 3. Distribute this survey and handout at other clinics in Franklin county in order to obtain information that would be more generalizable to the rest of the county and provide an intervention to a broader patient population.
- ▶ It would be useful to use this survey as a tool for creating patient-specific treatment plans, rather than as an anonymous data-gathering instrument.
- ▶ An interesting future project could compare barriers to smoking cessation and motivation to quit in smokers enrolled in suboxone treatment programs with smokers who have concurrent opioid use disorder and are not enrolled in suboxone treatment programs.

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