University of Vermont ScholarWorks @ UVM

Family Medicine Clerkship Student Projects

Larner College of Medicine

2018

Evaluating the Effectiveness of a Smoking Cessation Support Group

Holly Bachilas

Follow this and additional works at: https://scholarworks.uvm.edu/fmclerk Part of the Medical Education Commons, and the Primary Care Commons

Recommended Citation

Bachilas, Holly, "Evaluating the Effectiveness of a Smoking Cessation Support Group" (2018). *Family Medicine Clerkship Student Projects*. 349. https://scholarworks.uvm.edu/fmclerk/349

This Book is brought to you for free and open access by the Larner College of Medicine at ScholarWorks @ UVM. It has been accepted for inclusion in Family Medicine Clerkship Student Projects by an authorized administrator of ScholarWorks @ UVM. For more information, please contact donna.omalley@uvm.edu.



Attention Hudson Headwaters Patients: Join Us For A FREE 7-Week Group Program



EVALUATING THE EFFECTIVENESS OF A SMOKING CESSATION SUPPORT GROUP

Holly Bachilas

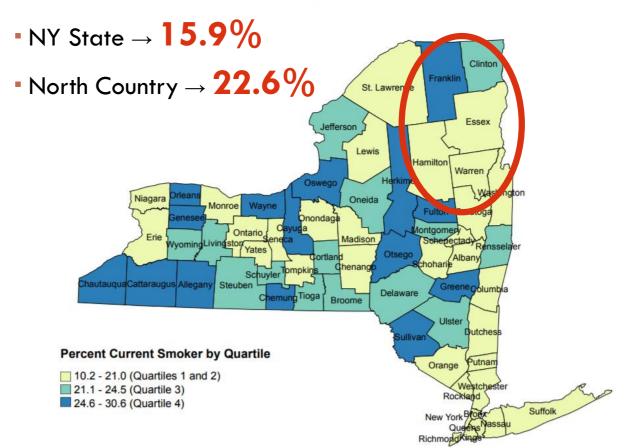
Longitudinal Integrated Clerkship Larner College of Medicine at the University of Vermont Hudson Headwaters Health Network Glens Falls, NY 2017-2018

PROBLEM IDENTIFICATION [NATIONAL/STATE]

- In 2015 \rightarrow **15.1%** of US adults smoked
- Smoking is the leading cause of preventable disease and death in the United States and accounts for more than 480,000 deaths every year, or 1 of every 5 deaths.

Healthy People 2020 Goal: 12%

Prevalence of Current Smoking Among Adults in NYS by County, eBRFSS 2013-2014



PROBLEM IDENTIFICATION [LOCAL]

Smoking Status	Number of Patients	Label
Current Every Day	12,762	Smoker
Current Some Days	1,235	Smoker
Formerly	19,247	Non-Smoker
Never	31,049	Non-Smoker
Blank/Unknown	307	Non-Smoker
Total	64,600	

Location	Total Patients	Smoking Rate
Bolton Health Center	1242	14%
Chester-Horicon Health Center	2082	16%
Fort Edward-Kingsbury Health Center	4241	30%
Health Center at Broad Street – Primary Care	5511	30%
Health Center at Broad Street – Urgent Care	4694	34%
Indian Lake Health Center	1107	17%
Moreau Family Health	3873	22%
Moriah Health Center	980	25%
North Country Family Health	4426	25%
North Country Ob/Gyn	3423	13%
North Creek Health Center	1671	20%
Queensbury Family Health	375	11%
Schroon Lake Health Center	1068	12%
Ticonderoga Health Center	4248	25%
Warrensburg Health Center – Primary Care	8159	22%
Warrensburg Health Center – Urgent Care	553	22%
West Mountain Health Services – Bldg 1	3682	12%
West Mountain Health Services – Bldg 2	13018	17%

PUBLIC HEALTH COST

- Total economic cost of smoking in the US \rightarrow more than \$300 billion/year
 - This includes nearly \$170 billion in direct medical care for adults and more than \$156 billion in lost productivity due to premature death and exposure to secondhand smoke
- Healthcare costs in NY state \rightarrow \$10.4 billion/year
 - more than a third (\$3.3 billion) is paid for by Medicaid

COMMUNITY PERSPECTIVE

Kate Ormsby, HHHN Prevention Coordinator:

"My perspective is that any behavior change is difficult and it has been proven that social support increases the likelihood of making lifestyle changes."

Anonymous, Program Participant:

"Having people to talk to is a real plus. It is great to be able to ask questions and have tools. I like the camaraderie and ability to talk with others about the difficulty you face as you try to quit."

SMOKING CESSATION TOOLS — 6-MONTH QUIT RATES

4%	16% Nicotine Patch		% Nicotine Gum	19% Bupropion
"Cold Turkey"				
	24% Nicotine Nasal Spray	% Nicotine Inhaler	9% Nicotine Losenge	27% Varenicline
Pha	- rmacotherapy + E	Behavioral C	counseling $\rightarrow 3$	0 %

Long term (≥6 months) quit rates. Data adapted from Cochrane Database of Systematic Reviews 24 25 27

INTERVENTION AND METHODOLOGY

- Established a HHHN-led smoking cessation support group using the 7-week Butt Stops Here curriculum developed in NY state. Each session includes topics for group discussion as well as weekly homework.
- Participants were recruited via flyers in HHHN offices/around town and via referral from providers and the NY state quit line.
- Participants received free program workbooks as well as folders containing local smoking-cessation resources.
- Brief paper surveys were completed by the participants both before and after the 7-week session to begin to evaluate the effectiveness of the program.
- Carbon monoxide levels were also measured for each participant at each meeting to track cessation in real-time.
- So far two 7-week sessions have been completed and a third is currently underway.

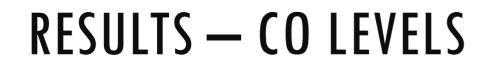
The Butt

RESULTS

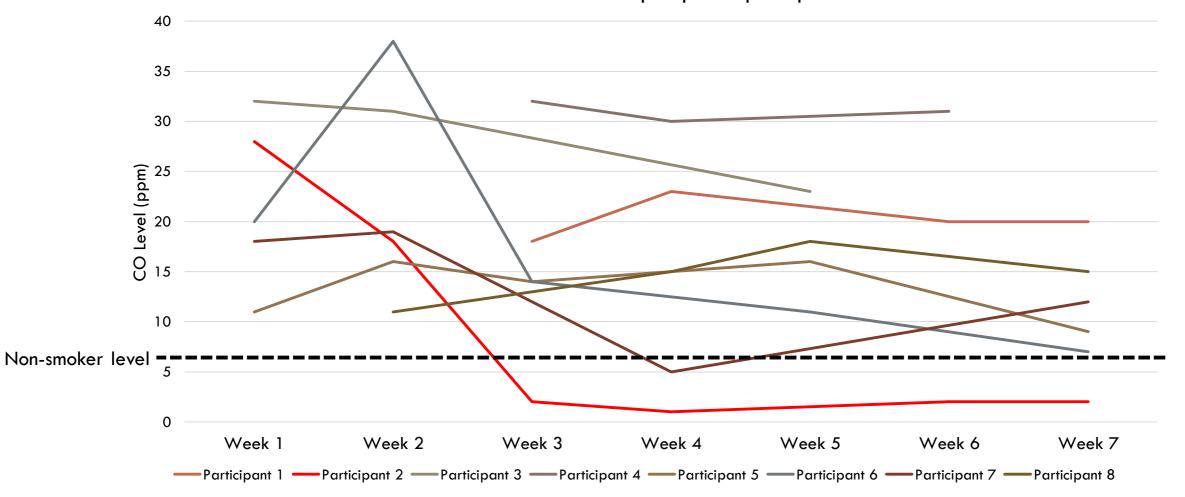
- •8 total participants (2 participated in both 7-week sessions)
 - 4 male, 4 female
 - Ages 42-72, average = 56
 - 4 had at least an Associate's degree
 - 7/8 had smoked for > 20 years
 - Average of <1ppd</p>
 - All had attempted to quit > 3 times in the past (success ranging from 2 weeks 8 years)
 - Between them had tried cold turkey, NRT, bupropion, and varenicline
 - All identified health as one reason they wanted to quit, most also identified cost as a motivator

RESULTS — MOTIVATION AND RESOURCES

Participant-reported level of motivation and resources to quit before and after participation in the Butt Stops Here program (0-10 scale) 10 9 8.33 8.25 8 7 5.91 6 5.42 5 4 3 2 0 **Resources to Quit** Motivation to Quit ■ Before ■ After



Carbon monoxide levels per participant per week



RESULTS — CESSATION RATES

- Participant 1 cut back slightly, now smoking a little less than 1/2ppd
- Participant 2 was able to quit entirely and is still a non-smoker (> 2 months out)
- Participant 3 was able to quit entirely for 3-4 weeks, but is now back to smoking 1/2ppd
- Participant 4 was smoking 2ppd, now closer to 1ppd
- Participant 5 has decreased to about 5 cigarettes per day (was smoking 10)
- Participant 6 was able to quit for 1-2 weeks, but is now back to smoking 1/2ppd
- Participant 7 was still smoking at the end of one session, but has been a non-smoker for about 2 weeks
- Participant 8 came to a few sessions, but was unable to continue
- One participant was able to quit entirely (12.5%)
- Nearly all participants reduced their level of smoking

LIMITATIONS

Sample size

- Need for longer follow-up
- People who seek out a group program may be more motivated to quit in general

RECOMMENDATIONS

- Work on recruitment
- Consider a program with rolling admission
- Continue to evaluate effectiveness as number of participants increases
- Integrate pharmacologic efforts more
- Emphasize referral to more intensive behavioral counseling/CBT
- Consider having a former smoker run the program



REFERENCES

- Bakkevig O, Steine S, Von Hafenbradl K, Laerum E. Smoking cessation A comparative, randomised study between management in general practice and the behavioural programme SmokEnders. Scandinavian Journal of Primary Health Care 2000;18(4):247-51.
- Fiore MC, Jaén CR, Baker TB, et al. Treating Tobacco Use and Dependence: 2008 Update—Clinical Practice Guidelines. Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, Agency for Healthcare Research and Quality, 2008
- Hall, W., & Doran, C. (2016). How Much Can the USA Reduce Health Care Costs by Reducing Smoking? PLoS Medicine, 13(5), e1002021. http://doi.org/10.1371/journal.pmed.1002021
- Sandberg, A., Sköld, C. M., Grunewald, J., Eklund, A., & Wheelock, Å. M. (2011). Assessing Recent Smoking Status by Measuring Exhaled Carbon Monoxide Levels. PLoS ONE, 6(12), e28864. http://doi.org/10.1371/journal.pone.0028864
- Stead LF, Carroll AJ, Lancaster T. Group behaviour therapy programmes for smoking cessation. Cochrane Database of Systematic Reviews 2017, Issue 3. Art. No.: CD001007. DOI: 10.1002/14651858.CD001007.pub3.
- Stead LF, Koilpillai P, Lancaster T. Additional behavioural support as an adjunct to pharmacotherapy for smoking cessation. Cochrane Database of Systematic Reviews 2015, Issue 10. Art. No.: CD009670. DOI: 10.1002/14651858.CD009670.pub3.
- Wu, P., Wilson, K., Dimoulas, P., & Mills, E. J. (2006). Effectiveness of smoking cessation therapies: a systematic review and meta-analysis. BMC Public Health, 6, 300. http://doi.org/10.1186/1471-2458-6-300
- Supporting smoking cessation Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/259724432_fig1_Fig-1-Long-term-6-months-quit-rates-for-widely-available-drugs-forsmoking-cessation
- https://www.health.ny.gov/prevention/tobacco_control/
- https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm
- http://www.healthyadk.org/content/sites/healthyadk/Tobacco_Reports/Data_Adult_Cigarette_Smoking_North_Country_Fl NAL.pdf