



Vermont Center on
Behavior & Health
The University of Vermont

1 South Prospect Street, MS 482
Burlington, VT 05401-1419

STAY CONNECTED

www.med.uvm.edu/behaviorandhealth



@vtcenterbh



@vtcenterbh



Vermont-center-on-behavior-and-health



@vermontcenteronbehaviorand7119



Center on
Rural Addiction
UNIVERSITY OF VERMONT

STAY CONNECTED

www.uvmcora.org



@CoraUVM



uvm-cora



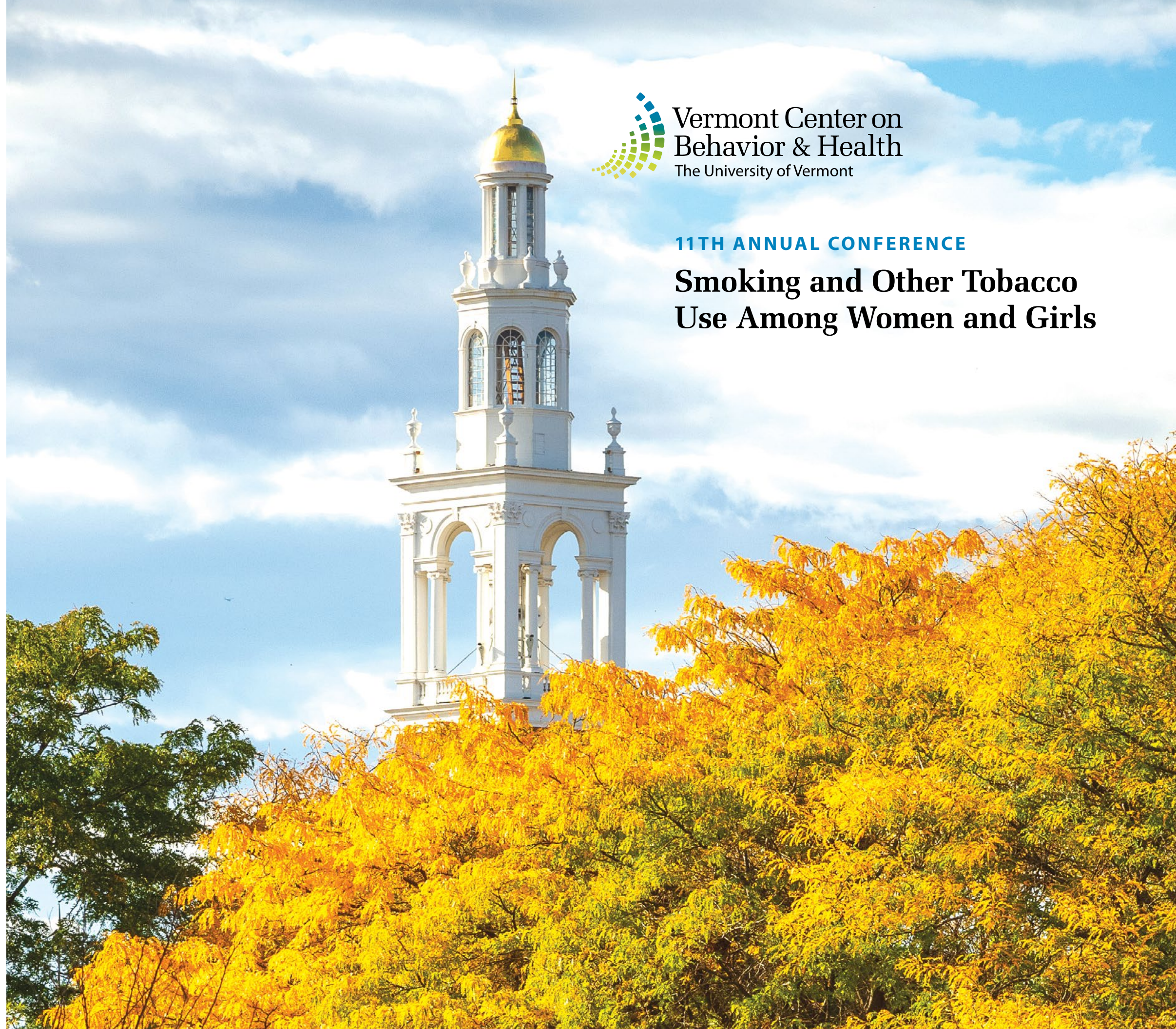
@uvmcenteronruraladdiction6519



Vermont Center on
Behavior & Health
The University of Vermont

11TH ANNUAL CONFERENCE

Smoking and Other Tobacco Use Among Women and Girls



Welcome

OCTOBER 5-6, 2023

HILTON BURLINGTON LAKE CHAMPLAIN

A Hybrid Event

#VCBH2023



Dear Colleagues,

Welcome to the 11th Annual Vermont Center on Behavior and Health Conference. Following our success of last year, we again offer this conference as a hybrid experience, allowing attendees to participate both in person and virtually. This allows everyone to attend in a way that works best for their own circumstances.

Our focus this year is on smoking and other tobacco use among women and girls. Cigarette smoking and tobacco use accounts for over 200,000 deaths per year among US women, including deaths tied to secondhand smoke. Exploring the behavioral, psychological, and physiological aspects of tobacco use and addiction provides us with the opportunity to further decrease smoking and other tobacco use that can save thousands of lives annually.

Our speakers this year come from across the United States and beyond, bringing with them a multitude of perspectives on tobacco use. We have experts who can speak to this matter on a national level as well as those who can discuss the impact on rural populations such as those found in the state of Vermont. Additionally, our colleagues at the National Institute on Drug Abuse (NIDA) and with the Vermont Department of Health can provide overviews of the situation from a regulatory standpoint.

I would like to thank the office of US Senator Peter Welch, from which Outreach Representative Ena Backus joins us this year. I would also like to thank Kate Tracy, PhD, who was appointed as the UVM Larner College of Medicine's Associate Dean for Research in November 2022. A great deal of thanks goes to our keynote speaker, Lucinda England, MD, MSPH, who brings a career's worth of expertise from the US Centers for Disease Control and Prevention to this year's conference.

I am deeply grateful to our speakers for their time and energy to give us insight into this very important topic. I also extend my deep gratitude to the National Institute of General Medical Sciences (NIGMS), NIDA, the US Food and Drug Administration Center for Tobacco Products, and the University of Vermont for their generous support without which these conferences would not be possible.

We hope you enjoy our 11th annual conference! Thank you, as always, for your contributions and support.

Sincerely,

Stephen T. Higgins, PhD
Director, Vermont Center on Behavior and Health
University Distinguished Professor
Virginia H. Donaldson MD '51 Endowed Professor of Translational Science
Departments of Psychiatry and Psychological Science

4	Conference Agenda: Day 1
6	Conference Agenda: Day 2
8	Poster Session Abstracts
25	Conference Kickoff Biographies
27	Session Chair & Speaker Biographies

ACCREDITATION

In support of improving patient care, The Robert Larner College of Medicine at the University of Vermont is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Educations (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.



JOINT ACCREDITATION[™]
INTERPROFESSIONAL CONTINUING EDUCATION

The University of Vermont designates this activity for a maximum of 10.25 AMA PRA Category 1 Credits[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This program has been reviewed and is acceptable for up to 10.25 Nursing Contact Hours.

TARGET AUDIENCE

Physicians, Nurses

CONFERENCE OBJECTIVES

1. Discuss the relationship between behavior patterns (lifestyle) and risk for chronic disease and premature death.
2. Identify evidence-based interventions that successfully promote health-related behavior change.

MEETING DISCLAIMER

Reading materials and information received during this educational event, the views, statements, and recommendations expressed during this activity represent those of the authors and speakers and do not necessarily represent the views of the University of Vermont.



8:00-8:30 AM	Breakfast	Adirondack AB
	Registration	Lobby
8:30-8:35 AM	Opening Remarks	Adirondack CD
		https://uvmcom.zoom.us/j/96613487127 password: 100523
8:40-8:45 AM	UVM Welcome	Adirondack CD
		J. Kathleen (Kate) Tracy, PhD , Senior Associate Dean for Research, Larner College of Medicine, University of Vermont, Director of Research, University of Vermont Health Network
8:50-8:55 AM	Government Welcome	Adirondack CD
		Peter Welch , US Senator for Vermont
9:00-9:55 AM	Keynote Address	The Changing Tobacco Landscape: Implications for Women & Girls Lucinda England, MD, MSPH , US Centers for Disease Control and Prevention, Division of Reproductive Health and Office on Smoking and Health (ret)
10:00-10:15 AM	Break	Prefunction

Session 1

10:15 AM-12:10 PM	Session 1	Adirondack CD
		https://uvmcom.zoom.us/j/98063992116 password: 100523
10:15-10:40 AM	Smoking and Psychiatric Health Among Women and Girls	Kathleen T. Brady, MD, PhD , Vice President for Research, Distinguished University Professor in Psychiatry, Director of the South Carolina Clinical and Translational Research Institute, Medical University of South Carolina
		Kathleen T. Brady, MD, PhD , Vice President for Research, Distinguished University Professor in Psychiatry, Director of the South Carolina Clinical and Translational Research Institute, Medical University of South Carolina
		Smoking and Cardiac Health Among Women and Girls Diann Gaalema, PhD , Associate Professor, Departments of Psychiatry and Psychological Science, University of Vermont
10:45-11:10 AM		
11:15-11:40 AM		Smoking and Pulmonary Health Among Women and Girls Katherine E. Menson, DO , Assistant Professor, Pulmonary and Critical Care Medicine, University of Vermont
11:45 AM-12:10 PM	Audience/Panel Q&A Discussion	
12:15-1:15 PM	Lunch	Adirondack AB

Session 2

1:20-3:45 PM	Session 2	Adirondack CD
		https://uvmcom.zoom.us/j/92428042352 password: 100523
1:20-1:45 PM		Session Chair: Sarah H. Heil, PhD , Professor, Departments of Psychiatry and Psychological Science, University of Vermont
		Tobacco Use and Sex and Gender Minority Girls/Women Andrea H. Weinberger, PhD , Assistant Professor, Department of Psychology, Ferkauf Graduate School of Psychology, Yeshiva University
1:50-2:15 PM		Associations Between e-Cigarette Use and Subsequent Smoking in Young People: Patterns by Gender Jamie Hartmann-Boyce, PhD , Senior Research Fellow, Nuffield Department of Primary Care Health Sciences, University of Oxford; Editor, Cochrane Tobacco Addiction Group
		Dual Use of E-Cigarettes and Combusted Cigarettes Among Women and Girls Elias M. Klemperer, PhD , Assistant Professor, Departments of Psychiatry and Psychological Science, University of Vermont
2:20-2:45 PM		Alternative Nicotine Delivery System Use Among Women and Girls Danielle R. Davis, PhD , Assistant Professor, Yale University School of Medicine
2:50-3:15 PM		
3:20-3:45 PM	Audience/Panel Q&A Discussion	
3:50-4:05 PM	Break	Prefunction
4:10-6:00 PM	Reception/Poster Session	Montpelier Conference Room
		Session Chair: Diann Gaalema, PhD , Associate Professor, Departments of Psychiatry and Psychological Science, University of Vermont

8:00-8:30 AM	Breakfast	Adirondack AB
	Registration	Lobby

Session 3

8:30-11:55 AM	Session 3	Adirondack CD
		https://uvmcom.zoom.us/j/93731512789 password: 100523
		Session Chair: Stacey C. Sigmon, PhD , Professor, Departments of Psychiatry and Psychological Science, Director of the Center on Rural Addiction, University of Vermont
		Tobacco and Nicotine Among Women and Girls Research Agenda at NIDA MeLisa Creamer, PhD , Deputy Branch Chief, Epidemiology Research Branch, National Institute on Drug Abuse
		Lifespan Approach to Tobacco Prevention and Cessation Among Vermont Women and Girls Mark Levine, MD , Commissioner, Vermont Department of Health
8:30-8:55 AM		
9:00-9:25 AM		
9:30-9:55 AM		Response to Nicotine Product Standard for Cigarettes Among Women and Girls Jennifer Tidey, PhD , Associate Dean for Research, Professor of Behavioral and Social Sciences, Brown University School of Public Health
10:00-10:25 AM	Break	Prefunction
12:15-1:15 PM	Lunch	Adirondack AB

Session 4

10:30-11:55 AM	Session 4	Adirondack CD
		https://uvmcom.zoom.us/j/96324498712 password: 100523
		W. Tidey, PhD , Associate Dean for Research, Professor of Behavioral and Social Sciences, Brown University School of Public Health
10:30-10:55 AM		Tobacco Manufacturer Targeting of Women and Girls Pamela Ling, MD , Professor of Medicine, University of California, San Francisco
11:00-11:25 AM		Rural Disparities in Smoking Among Women of Reproductive Age Stephen T. Higgins, PhD , Director, Vermont Center on Behavior and Health, University Distinguished Professor, Departments of Psychiatry and Psychological Science, University of Vermont
11:30-11:55 AM	Audience/Panel Q & A Discussion	
12:10-1:10 PM	Lunch & Learn	Adirondack AB: Buffet and Seating
		Elias M. Klemperer, PhD , Assistant Professor, Departments of Psychiatry and Psychological Science, University of Vermont
		Kelly R. Peck, PhD , Assistant Professor, Departments of Psychiatry and Psychological Science, University of Vermont
		Tyler G. Erath, PhD , Postdoctoral Fellow, Department of Psychiatry, University of Vermont

Session 5

1:15-2:25 PM	Session 5	Adirondack CD
		https://uvmcom.zoom.us/j/97479079876 password: 100523
		Session Chair: Stephen T. Higgins, PhD , Director, Vermont Center on Behavior and Health, University Distinguished Professor, Departments of Psychiatry and Psychological Science, University of Vermont
1:15-1:40 PM		Characterizing the Relationship between Moral Injury and Demand for Cigarettes Among Women Veterans Justin T. McDaniel, PhD , Associate Professor of Public Health, Southern Illinois University
1:45-2:10 PM		Biases in Decision Making and Smoking Risk Among Women and Girls Eric A. Thrailkill, PhD , Associate Professor, Departments of Psychological Science and Psychiatry, University of Vermont
2:15-2:25 PM	Audience/Panel Q & A Discussion	
12:10-1:10 PM	Closing Remarks	Adirondack CD
2:40 PM	Conference Adjourns	

Supporting smoking cessation among rural patients via Tobacco Toolkit provision to rural healthcare providers

Sydney R. Batchelder, PhD, BCBA

University of Vermont
Burlington, VT

Juan Napoles, MS
University of Vermont
Burlington, VT

Kate Peasley-Miklus, PhD
University of Vermont
Burlington, VT

Julia Shaw, MPH
University of Vermont
Burlington, VT

Elias M. Klemperer, PhD
University of Vermont
Burlington, VT

Kelly R. Peck, PhD
University of Vermont
Burlington, VT

Sarah Heil, PhD
University of Vermont
Burlington, VT

Stacey C. Sigmon, PhD
University of Vermont
Burlington, VT

Andrea Villanti, PhD, MPH
Rutgers Institute for
Nicotine & Tobacco Studies
New Brunswick, NJ

INTRODUCTION

Individuals in rural counties with opioid use disorder (OUD) have some of the highest prevalence of tobacco use in the US. People with OUD who smoke are less likely to successfully quit smoking and have a 4-fold higher mortality rate than those with OUD who do not smoke. Provision of nicotine replacement therapy (NRT) starter kits (i.e., NRT sampling) is an effective intervention to induce quit attempts in the general population of smokers. Based on findings from NRT sampling trials in the scientific literature, the UVM Center on Rural Addiction (CORA) distributed Tobacco Toolkits containing NRT and cessation supports to rural OUD treatment providers to address the high prevalence of smoking in their rural patient populations.

METHODS

From 2021 to 2023, 744 Tobacco Toolkits were distributed to 39 rural OUD providers to be shared with patients who currently use tobacco products. Toolkits included NRT patches and mini-lozenges as well as other items designed to mimic behavioral topographies of smoking (e.g., stress ball (hands), chewing gum (mouth), lip balm (hand to mouth)). From April 2023 to May 2023, we assessed provider satisfaction via the Tobacco Toolkit Follow-Up Survey. Twenty-three rural providers (59%) completed the survey.

RESULTS

Of the total 744 Toolkits distributed to date, rural providers had provided 310 (42%) to patients, 47 (6%) to other providers, and 161 (22%) had been distributed another unspecified way. The rural providers surveyed estimated that their organizations serve >28,500 patients (14,300 females) who would benefit from Tobacco Toolkits. Nearly half of providers indicated they discussed tobacco and/or nicotine use more frequently with their patients due to the Toolkits. More than 70% of providers indicated that, without the Tobacco Toolkits, patients would have been less likely to receive NRT. Overall satisfaction was high, with rural providers rating questions regarding the approval, ease of implementation, and match of the toolkits for their needs at greater than 90%.

CONCLUSIONS

UVM CORA's Tobacco Toolkits project supported efforts by rural OUD providers to initiate tobacco treatment discussions with patients and resulted in high levels of rural provider satisfaction.

This work was supported in part by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$20,365,920.00 with zero percentage financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

Tobacco use and second-hand smoke exposure in adolescents and young adults with cystic fibrosis

Cystic fibrosis (CF) is a complex chronic illness that is associated with increased risk of respiratory illness and symptoms, lower lung function, and higher rates of morbidity earlier in life. Exposure to air-borne pollutants, including from smoking tobacco or cannabis or exposure to second-hand smoke, increases the risk of lung infection and respiratory illness in individuals with CF (Bhatta & Glantz, 2019; National Children's Hospital, 2019; Raju et al., 2013). The aim of the present study was to assess the association of tobacco use and second-hand smoke exposure with health outcomes and demographic factors in adolescents and young adults with CF. Thirty-two patients diagnosed with CF (female = 17) between 15 and 20 years old completed a survey assessing unhealthy risk-behaviors (e.g., frequency of smoking) over the last month and health-related quality of life. Three participants (9%) reported a history of tobacco use and 20 (62%) reported at least monthly exposure to others smoking. More frequent second-hand smoke exposure was positively correlated with a history of personal tobacco use ($r=0.52$, $p=0.01$) and with being male ($R=0.41$, $p=0.03$). Neither smoke exposure nor tobacco use was significantly correlated with age, hospital admissions, BMI, respiratory symptoms, and health perceptions. These results suggest many youth with CF experience exposure to second-hand smoke, and exposure is more likely for men and those who have a history of personal tobacco use. However, the negative health consequences of smoke exposure may be smaller than we were powered to detect in this study and more likely to appear after long term use or exposure. Future research should focus on prevention of second hand smoke exposure, perhaps by assessing situations in which youth with CF are exposed to second hand smoke and further evaluation of long-term health outcomes.

Laura Cohen, MA

University of Vermont
Burlington, VT

Amy Hughes Lansing, PhD
University of Vermont
Burlington, VT

Rachel Wasserman, PhD
Nemours Children's Hospital
Florida

Kimberly Canter, PhD
Nemours Children's Hospital
Delaware

Amanda Montgomery, LCSW
Nemours Children's Hospital
Florida

Alison Stoner, PhD
Assumption University
Where?

Frequency of Electronic Nicotine Delivery System (ENDS) Use and Smoking Cessation Among US Women of Reproductive Age

Sulamunn R. M. Coleman

Janice Y. Bunn

Elias M. Klemperer, PhD

Marc Jerome P. Feinstein

Stephen T. Higgins, PhD

*Vermont Center on
Behavior and Health*

*University of Vermont
Burlington, VT*

INTRODUCTION

Women of reproductive age (WRA) are a vulnerable population due to potential multigenerational adverse impacts of tobacco consumption. WRA who dual use combusted cigarettes and electronic nicotine delivery systems (ENDS) may be able to minimize harm from cigarette smoking by transitioning to exclusive use of ENDS. Although there is mounting evidence that more frequent use of ENDS promotes smoking abstinence among adult dual users, we know of no studies examining whether frequency of ENDS use is associated with smoking cessation among WRA, specifically.

METHODS

Using a sample of WRA (N=2,834) from the Population Assessment of Tobacco and Health (PATH) Study, this study examined whether baseline (Wave 3 or 4) ENDS use frequency predicted (a) smoking quit attempts (QAs) and (b) successful quitting by follow-up (Wave 4 or 5).

RESULTS

Daily ENDS use predicted greater odds of QAs than non-daily (AOR=1.65, 95% CI=1.03, 2.63) and no ENDS use (AOR=2.01, 95% CI=1.26, 3.21), as well as greater odds of smoking cessation than non-daily (AOR=2.43, 95% CI=1.34, 4.41) and no ENDS use (AOR=1.71, 95% CI=1.02, 2.86).

CONCLUSIONS

Consistent with evidence from the general population, the benefits of ENDS for smoking cessation among WRA may be greatest among those using ENDS daily, whereas non-daily ENDS use may hinder efforts to quit smoking. WRA who are considering using ENDS to assist with quitting smoking should be informed that only daily ENDS use has been associated with greater odds of smoking cessation compared to not using ENDS, and non-daily ENDS use risks impeding cessation efforts.

Current Smoking Impedes Recovery in Cardiac Rehabilitation

INTRODUCTION

Current smoking is a powerful predictor of future morbidity and mortality. Those who smoke have higher risk clinical profiles and are less likely to engage in secondary prevention. However, little is known about how those who smoke benefit from cardiac rehabilitation (CR). The purpose of this study was to compare improvements in fitness among those who smoke versus those who do not during CR.

METHODS

Data were gathered on 2208 individuals entering the University of Vermont CR program from 1/1996-12/2021. Self-reported smoking status was collected at CR entry (current smoking vs. formerly vs. never smoking). Cardiorespiratory fitness (CRF)(peak oxygen capacity [VO₂peak]) was assessed via a symptom limited exercise tolerance test at entry to and exit from CR. Change in Peak VO₂ was compared by smoking status both univariately and in a multivariate model controlling for other potential contributing variables such as age, sex, entry VO₂, number and severity of exercise-limiting comorbidities, BMI, and number of CR sessions attended.

RESULTS

On average patients improved by 3.26 in their CRF during the course of CR. In univariate analyses improvement by smoking status was 2.29, 3.06, and 3.55 (current, former, never smoker respectively). The multivariate model included smoking status, CRF at intake, comorbidities, age, BMI, and interactions between smoking status and age, and BMI and age. Least square means from this model were improvements of 1.95, 3.10, and 3.53 (current, former, never smoker respectively). This suggests that current smokers improve less in fitness during CR than those who formerly or never smoked and that controlling for covariates highlights that the biggest difference in the effect of smoking is truly between the current smokers and the former/never smokers. Further research should be conducted to see if successful smoking cessation can improve fitness related gains during CR.

Aria Elahi

Patrick Savage

Blair Yant

Bradley Anair

Philip Ades, MD, FACC

Diann Gaalema, PhD

Sherrie Khadanga, MD

*University of Vermont
Burlington, VT*

An Examination of Cumulative Health and Psychosocial Disparities on Adolescent Cigarette Smoking Prevalence in the United States from 2002 to 2019

Tyler G. Erath, PhD

Stephen T. Higgins, PhD

Fang Fang Chen, PhD

Michael DeSarno, MS

Derek Devine, MS

Joan M. Skelly, MS

*Vermont Center on
Behavior and Health*

*University of Vermont
Burlington, VT*

INTRODUCTION

To assess disparities in adolescent smoking prevalence including recent record-setting reductions and whether a cumulative-vulnerability model extends to adolescents.

DESIGN, SETTING, AND PARTICIPANTS

Nationally representative sample of respondents ages 12 to 17 years at time of participation in the US National Survey of Drug Use and Health from 2002 to 2019.

METHODS

Ten psychosocial variables were used to form a risk index composite measure of cumulative vulnerability (CV). This CV taxonomy categorized risk as low (0-2), moderate (3-4), and high (5+). Variables included perception of peer substance use, self-approval of peer substance use, behavior problems, past-month alcohol binge-use, past-month marijuana use, overall health, semester grades, religious beliefs, youth activities, seat-belt use.

MAIN OUTCOMES AND MEASURES

Population-weighted smoking prevalence by cumulative risk disparities and time, examining relative rates of change.

RESULTS

Among 273,770 adolescents 12 to 17 years (mean, 14.5; 49.1% female), overall smoking prevalence decreased from 13.0% to 2.4% between 2002 and 2019 (OR=0.91; 95% CI, 0.91-0.91), with CV moderating an interaction of smoking prevalence and time (OR=1.01; 95% CI, 1.01-1.01). Those at low-CV risk exhibited the earliest and steepest declines (-12.5% to -88.1%; $\beta=-0.05$, $p<.001$), followed by those in the moderate- (-0.32% -75.5%; $\beta=-0.04$, $p<.001$) and high-risk CV categories (+3.0% to -62.78%; $\beta=-0.03$, $p<.001$).

CONCLUSIONS

These results suggest that the CV-risk model extends to adolescent smoking and has potential to enhance understanding of individual differences in youth smoking risk. Although substantive decreases in smoking prevalence have occurred across risk levels, they have varied in an orderly manner by CV level.

Do Women vs Men Differ in Nicotine Product Substitution for Cigarettes Using the Experimental Tobacco Marketplace?

INTRODUCTION

Regulation proposed by the US FDA to reduce nicotine in cigarettes could result in switching from cigarettes to other nicotine products. Prior research demonstrates that non-combusted products may function as substitutes for cigarettes, which would reduce tobacco-related harm. However, whether such nicotine product substitution differs by gender remains unclear. This study used an online Experimental Tobacco Marketplace to examine the substitutability of an array of combusted and non-combusted nicotine products for cigarettes.

METHODS

Participants (N = 132, 71.43% female, 85.71% White) were recruited via Amazon Mechanical Turk. Hypothetical purchases were made for 7 days of nicotine products using average weekly expenditure at five price points for cigarettes (\$0.25, \$0.50, \$1, \$2, \$4) in a marketplace including e-cigarettes (pod, disposable, and e-liquid for e-cigarette tanks), nicotine gum/lozenges (NRT), little cigars, snus, chewing tobacco, and nicotine pouches.

RESULTS

All e-cigarette types and NRT served as substitutes for cigarettes among both women and men (all $p<.05$). However, e-liquid for tank e-cigarettes served as a better substitute for cigarettes among men ($r=0.33$) vs women ($r=0.16$; $p=.04$). All other products showed no significant difference in substitution by gender (all $p>.05$).

CONCLUSIONS

Although e-cigarettes and NRT served as substitutes for cigarettes among both women and men, women were less likely to substitute with tank-style e-cigarettes. Future research is needed to assess gender differences in substitutability regarding other e-cigarette characteristics (e.g., flavor and nicotine strength) and the potential benefits of making different types of e-cigarette products available in the context of a nicotine-limiting standard for cigarettes.

Marc Jerome P. Feinstein

Tyler G. Erath, PhD

Eric Thrailkill, PhD

Michael DeSarno, MS

Norman Medina

Stephen T. Higgins, PhD

Elias M. Klemperer, PhD

*Vermont Center on
Behavior and Health*

*University of Vermont
Burlington, VT*

Prolonged Exposure Therapy for Individuals with Co-Occurring Posttraumatic Stress Disorder and Opioid Use Disorder: A Randomized Clinical Trial

Jillian Giannini, BS
Rebecca Cole, BA
Peter Lontine, BA
Stacey Sigmon, PhD
Kelly Peck, PhD
Vermont Center on
Behavior and Health
University of Vermont
Burlington, VT

INTRODUCTION

This randomized clinical trial is part of a programmatic effort to develop a novel prolonged exposure (PE) therapy protocol for improving PE attendance and posttraumatic stress disorder (PTSD) symptoms among patients receiving medications for opioid use disorder (MOUD) with a concurrent diagnosis of PTSD.

METHODS

Fifty-two buprenorphine- or methadone-maintained adults with PTSD were randomized to receive either: (a) continued MOUD treatment as usual (TAU; n=17), (b) Prolonged Exposure therapy (PE; n=17), or (c) PE with financial incentives delivered contingent upon PE session attendance (PE+; n=18). Primary outcomes included PE session attendance and PTSD symptom severity. Given that the prevalence of smoking is high among individuals with opioid use disorder (OUD) and PTSD, we also examined baseline smoking characteristics and the association between experimental condition and urine cotinine levels.

RESULTS

PE+ participants were more likely to attend therapy sessions compared to PE participants (87% vs. 33%; $p < .05$). Participants receiving PE+ experienced PTSD symptom reductions that were approximately two times greater than those in the TAU and PE groups. With regard to smoking outcomes, most participants (82.7%) reported smoking at intake, with an average of 13.07 cigarettes smoked per day. However, urine cotinine levels remained high throughout the study, regardless of experimental condition.

CONCLUSIONS

These findings provide additional support for the efficacy of PE+ for improving PE attendance and PTSD symptoms in individuals with co-occurring PTSD and OUD. Furthermore, our data show high smoking rates in individuals with OUD and PTSD, highlighting the need for integrated smoking cessation interventions.

Associations between Gender and Recent Cannabis Use on Reported Depression and Anxiety Symptoms within Individuals who Smoke Cigarettes

INTRODUCTION

Gender differences in affective disorders are known to be present as early as adolescence. Prior research has found that co-use of tobacco and cannabis is associated with higher rates of both depression and anxiety when compared to single-use or no-use. We aim to determine if co-users of tobacco and cannabis reported more severe depressive and anxiety symptoms than tobacco-only users, and whether this differed by gender.

METHODS

Data was examined from a clinical trial administered across 2 institutions among individuals with affective disorders ($n = 258$) who smoked cigarettes daily. Participants were 59% female, 37.2 ± 13.3 years, 5.1% Black, 5.5% Latino, and 51% reported past-30-day cannabis use. There was a significant effect of gender on BDI total score ($F(1,253)=4.68$, $p < .05$), OASIS total score ($F(1,253)=7.80$, $p < .01$), and PANAS-Negative Mood scale ($F(1,253)=6.30$, $p = .01$) with higher scores on all measures in women compared to men. There were significant effects of past-30-day cannabis use on OASIS ($F(1,253)=4.80$, $p < .05$) and Perceived Stress Scale scores ($F(1,252)=5.58$, $p < .05$), with higher scores in cannabis users than non-users. There were no significant interactions between gender and cannabis use on depression or anxiety symptom scores.

RESULTS

Results of this analysis indicate that both female gender and cannabis/tobacco co-use are associated with higher symptoms of depression and anxiety, consistent with prior research, but there was no indication that effects of gender on affective symptoms were elevated in cannabis users. Future research examining symptoms prior to, and post, initiated co-use may bring insight to relationships between gender, co-use of tobacco and cannabis, and affective symptoms.

Julissa Godin, BA
Brown University School of
Public Health
Jennifer W. Tidey, PhD
Brown University School of
Public Health
Michael DeSarno, MS
Vermont Center on
Behavior and Health
University of Vermont
Burlington, VT

The Effects of Smoking Status on Patient Outcomes in Pulmonary Rehabilitation: Analysis of the AACVPR Registry

Raisha Ismail
Diann Gaalema, PhD
Katherine E. Menson, DO
*Vermont Center on
Behavior and Health*
*University of Vermont
Burlington, VT*

INTRODUCTION

Smoking is the primary etiology of chronic obstructive pulmonary disease (COPD), and a significant contributor to exacerbation and progression of chronic respiratory disease. These diseases are qualifying diagnoses for pulmonary rehabilitation (PR), but national programs vary greatly on enrollment of those who smoke. While PR completion is known to be lower in this patient population, there is very limited data on how smoking status impacts clinical outcomes in PR. Data were drawn from the AACVPR registry database. We analyzed 41,087 patients who entered PR at AACVPR-accredited programs. Of the patients, 5,883 (17%) were listed as currently smoking at time of entry. Current smoking was associated with younger age and having lower-SES (Medicaid insurance or lower educational attainment), and fewer completed sessions ($p < 0.001$). Patients had higher anxiety and depression scores, but better 6MWD at entry ($p < 0.001$) and similar dyspnea scores. Current smoking was associated with less improvement in depression scores, but no change in 6MWD or anxiety and dyspnea scores. Female and black patients had less improvement in 6MWD than their male and white counterparts, which those with private insurance and completed college education had greater gains in 6MWD. Despite programmatic limitations, those who smoked demonstrate similar improvements in PR outcomes compared to never and former smokers, except for depression scoring. Other metrics such as sex, race, and socioeconomic status may better predict clinical outcomes in PR. Smoking should not be a limitation to referral and enrollment in PR.

Comparison of Cardiopulmonary Effects of Cigarettes and e-Cigarettes in Individuals with Pulmonary Disease

INTRODUCTION

E-cigarettes may be less harmful than combustible cigarettes, though results from research with objective outcomes are limited. Effects of combustible and e-cigarettes in individuals with chronic obstructive pulmonary disease (COPD) were compared, and a contingency management program reinforcing combustible-cigarette abstinence was evaluated.

METHODS

Twenty individuals at least 40 years old who smoke (≥ 5 cigarettes/day for ≥ 1 year) while diagnosed with COPD underwent two randomly ordered 2-week phases: a cigarette phase (usual-brand cigarettes) and nicotine-containing e-cigarette phase (combustible-cigarettes abstinence with tobacco-flavored JUUL available). During the e-cigarette phase, participants earned monetary incentives for CO readings ≤ 6 ppm to promote cigarette abstinence. Pulmonary (spirometry, oscillometry, COPD Assessment Test [CAT], Saint George's Respiratory Questionnaire for COPD [SGRQ-C]) and cardiac (heart rate, blood pressure) assessments were completed after 0, 2, and 4 weeks.

RESULTS

Fifteen participants abstained from cigarettes during the e-cigarette phase. For these participants, changes across phases in pulmonary measures were minor and did not meet thresholds for minimal clinically important differences. Changes in cardiac measures, while larger, also did not meet minimal clinically important difference thresholds.

CONCLUSIONS

The contingency management program largely maintained cigarette abstinence, but changes in cardiac and pulmonary functioning were minimal. Some participants anecdotally reported improved pulmonary health during the e-cigarette phase, but changes in average CAT and SGRQ-C scores were negligible. However, small trends towards improvements in cardiac outcomes are promising. An evaluation of a longer duration of e-cigarette exposure, with concurrent cigarette abstinence, is warranted to determine the efficacy of e-cigarettes as a combustible-cigarette replacement.

Brian R. Katz
Norman Medina
Shannon D. O'Connor
Sulamunn R. M. Coleman
Charles G. Irvin, PhD
David A. Kaminsky, MD
Katherine E. Menson, DO
Diann E. Gaalema, PhD
*Vermont Center on
Behavior and Health*
*University of Vermont
Burlington, VT*

Contingency Management Interventions for Abstinence from Cigarette Smoking in Pregnancy and Postpartum: a Systematic Review and Meta-Analysis

Loren S. Kock, PhD

Tyler G. Erath, PhD

Sulamunn R.M. Coleman

Stephen T. Higgins, PhD

Sarah H. Heil, PhD

*Vermont Center on
Behavior and Health*

*University of Vermont
Burlington, VT*

INTRODUCTION

Contingency management is an effective treatment for substance use disorders in non-pregnant people. The most recent quantitative review of its efficacy among pregnant and postpartum women who smoke cigarettes concluded with moderate certainty that those receiving contingent financial incentives were twice as likely to be abstinent compared with controls. We aimed to update and extend previous reviews.

METHODS

Five databases were systematically searched for randomized controlled trials (RCTs) published before December 2022 that assessed the effectiveness of incentives for abstinence from substance use. Data from trials of smoking abstinence were pooled using a random-effects meta-analysis model. Results are reported as risk-ratios (RRs) with 95% confidence intervals (CIs). This study is registered with PROSPERO, CRD42022372291.

RESULTS

Twelve RCTs (3136 pregnant women) were included. There was high certainty evidence that women receiving incentives were more likely to be abstinent than controls at the last antepartum assessment (12 RCTs; RR=2.43, 95% CI 2.04–2.91, n=2941, I²=0.0%) and moderate certainty evidence at the longest postpartum assessment while incentives were still available (five RCTs; RR=2.72, 1.47–5.02, n=659, I²=44.5%), and at the longest postpartum follow-up after incentives were discontinued (six RCTs; RR=1.93, 1.08–3.46, n=1753, I²=51.8%).

CONCLUSIONS

Pregnant women receiving incentives are twice as likely to achieve smoking abstinence during pregnancy suggesting this intervention should be standard care for pregnant women who smoke. The results also demonstrate that abstinence continues into the postpartum period, including after incentives are discontinued, but more trials measuring outcomes in the postpartum period are needed to strengthen this conclusion.

Attempts to Quit Smoking and Vaping Among a Treatment Seeking Sample of Young Adult Women who Dually Use Cigarettes and e-Cigarettes

INTRODUCTION

Dual use of cigarettes and e-cigarettes is common among young adults, but little is known regarding cessation efforts in this population. Understanding dual use and intentions to quit among women is critical to developing effective tobacco treatment.

METHODS

Participants (N=208) were young adult women who use cigarettes daily and e-cigarettes daily (76.9%) or non-daily (23.1%) and consented to participate in smoking cessation research at UVM. This analysis utilizes baseline data to describe past quit attempts, treatment utilization, and intentions for future cigarette and e-cigarette cessation.

RESULTS

Participants self-identified as female with a mean age of 26.0 (±2.5). Participants reported a median of 3.0 previous cigarette and 1.0 previous e-cigarette quit attempts. The most common reasons for quitting were to improve health (cigarettes=87.5%; e-cigarettes=64.4%), reduce cost (cigarettes=86.1%; e-cigarettes=66.8%), and gain freedom from addiction (cigarettes=70.7%; e-cigarettes=51.0%). The most common methods used during previous quit attempts were cold turkey (cigarettes=73.1%; e-cigarettes=51.9%), cutting down to quit (cigarettes=71.2%; e-cigarettes=39.9%) and nicotine replacement therapy for cigarettes (60.1%) but switching to lower nicotine e-liquid for e-cigarettes (22.1%). Regarding future plans, 45.2% indicated intention to quit cigarettes and e-cigarettes simultaneously, 15.9% intended to quit cigarettes but continue e-cigarettes, and 37.5% did not know or had no preference.

CONCLUSIONS

The most endorsed reasons and methods for quitting were similar for both cigarettes and e-cigarettes and nearly half intended to quit both products simultaneously. These findings illustrate the importance of identifying motivations to quit cigarettes and e-cigarettes separately among young adult women to inform the development of tobacco treatment for dual users.

Katya Marsh

*University of Vermont
Larner College of Medicine
Department of Psychiatry*

Marc Jerome P. Feinstein

*University of Vermont
Larner College of Medicine
Department of Psychiatry*

Joan Skelly

*University of Vermont
Larner College of Medicine
Department of Medical
Biostatistics*

Elias M. Klemperer, PhD

*University of Vermont
Larner College of Medicine
Department of Psychiatry*

Smoking and its Association with Clinical Characteristics at Entry to Cardiac Rehabilitation

William Middleton

Blair Yant

Patrick Savage

Philip Ades, MD, FACC

Diann Gaalema, PhD

Vermont Center on
Behavior and Health

University of Vermont
Burlington, VT

INTRODUCTION

Cigarette smoking is the largest cause of preventable death in the United States, much through its effect on the development of cardiovascular disease (CVD). Those who continue to smoke after developing CVD may be an especially high-risk group within secondary prevention.

METHODS

This was a secondary data analysis of a prospectively collected dataset from the University of Vermont Medical Center Cardiac Rehabilitation (CR) Program (2018-2023), N =760. We conducted correlations between an objective smoking measure (CO ppm) and demographic and clinical variables, and an ANOVA comparing those with CO levels ≥ 4 vs. < 4 on the same variables. Demographic and health variables included age, weight at entry, cholesterol at entry, heart rate at rest at entry and exit, PHQ-9 scores at entry and exit, and Metabolic Equivalence of Tasks (METs) and VO_2 scores at entry and exit.

RESULTS

Higher CO was correlated with younger age ($r=-.11, P<.01$) and decreased cardiorespiratory fitness (CRF) at entry across VO_2 ($r=-.078, P<.001$) and METspeak ($r=-.077, P<.001$). Higher CO was also related at exit with worse depressive symptoms ($r=.073, P<.01$) and lower CRF by METspeak ($r=-.122, P<.05$). An ANOVA was conducted between smoking status ($CO \geq 4$) and all the variables that previously showed significant correlations. Smokers were older ($M=5.4$ yrs; $F(1, 759)=34.6, P<.001$), had lower CRF by METs at entry ($F(1, 759)=5.2, P<.05$) and exit ($F(1, 759)=17.7, P<.001$), and had higher depressive symptoms at entry ($F(1, 759)=5.1, P<.05$).

DISCUSSION

When entering CR, those who smoke are younger and have worse CRF and depression symptoms. Additional research is needed to determine whether smoking cessation improves health outcomes.

Nicotine and Other Substance Use among Young Women with Type 1 Diabetes

INTRODUCTION

Substance use can inhibit self-care behaviors, reduce adherence to treatment regimens, and increase medical complications in young adults with type 1 diabetes (T1D). This study aims to describe the prevalence of nicotine and other substance use and examine associations between nicotine use with psychological and diabetes distress in young women with T1D.

METHODS

This study represents a national sample of young adults aged 19-29 years with T1D recruited nationally for an ongoing clinical trial of a diabetes self-management intervention (NCT04646473). The baseline survey included measures of T1D distress (T1-DDS), psychological distress (CCAPS-34), and self-reported previous 30-day substance use. Analyses ($n=202$ women) included multivariable models adjusted for demographics and diabetes device covariates.

RESULTS

Forty-two (20.8%) women self-reported any nicotine use, including 9 smoking tobacco (4.5%) and 38 (18.8%) vaping nicotine, while 49 (24.2%) used cannabis and 59 (29.2%) reported one or more alcohol binge episodes within the prior 30 days. Nicotine use was significantly associated with higher risk for anxiety (OR=2.60, 95%CI [1.27 to 5.32]), depression (OR=2.54, 95%CI [1.16 to 5.59]), and diabetes management distress (OR=2.83, 95%CI [1.36 to 5.88]).

CONCLUSIONS

One in five young women with T1D reported nicotine use with higher prevalence of vaping nicotine compared to smoking tobacco. Nicotine use was related to higher levels of anxiety, depression, and diabetes management distress. The association between nicotine use and increased distress in managing diabetes suggests that these young women are at risk for poor T1D health outcomes and may benefit from increased substance use screening and subsequent intervention.

Enzo G. Plaitano, BA
Center for Technology
and Behavioral Health

The Dartmouth Institute for
Health Policy and Clinical
Practice

Geisel School of Medicine
Dartmouth College
Lebanon, NH

Catherine Stanger, PhD
Center for Technology
and Behavioral Health
Geisel School of Medicine
Dartmouth College
Lebanon, NH

Patterns of Alcohol, Marijuana, Nicotine Vaping, and Tobacco Use Among U.S. Adolescents and Young Adults by Disability Status

Jonathan A. Schulz, PhD, MPH
Vermont Center on
Behavior and Health
Department of Psychiatry
University of Vermont
Gilbert Gimm, PhD
Department of Health
Administration and Policy
George Mason University

Julia C. West, MA
Vermont Center on
Behavior and Health
Department of Psychiatry
Department of
Psychological Science
University of Vermont

Loren Kock, PhD
Vermont Center on
Behavior and Health
Department of Psychiatry
University of Vermont
Dana Rubenstein, BA
Department of Psychiatry
and Behavioral Sciences
Duke University School of
Medicine

Myriam Casseus, PhD,
MPH, MA
Department of Pediatrics
Robert Wood Johnson
Medical School
Rutgers University

Andrea C. Villanti, PhD, MPH
Rutgers Center for Tobacco
Studies and Department
of Health Behavior, Society
and Policy
Rutgers School of Public Health

INTRODUCTION

An estimated 6% to 25% of US adolescents and young adults (AYA) have a disability. However, few studies have investigated patterns of substance use in this population. This presentation reports the prevalence of alcohol, marijuana, nicotine vaping, and tobacco use among U.S. adolescents (age 12–17) and young adults (age 18–25) with a disability and examines associations between disability and the use of each respective substance.

METHODS

Data from the 2015–2021 National Survey on Drug Use and Health were analyzed to estimate the prevalence of substance use and nicotine vaping among AYAs with disabilities. Modified Poisson regression models evaluated time trends in substance use and estimated adjusted prevalence ratios (aPR) for alcohol, cigarette, marijuana, and nicotine vaping by disability domain, controlling for sociodemographic characteristics.

RESULTS

From 2015–2019, youth with any disability had a higher prevalence of alcohol (aPR=1.21), cigarette (aPR=1.87), and marijuana use (aPR=1.47) than those without a disability. Young adults with any disability had a higher prevalence of cigarette (aPR=1.42) and marijuana use (aPR=1.39), but lower prevalence of alcohol use (aPR=0.93). In both 2020 and 2021, adolescents (aPR=2.18 and 1.70, respectively) and young adults (aPR=1.41 and 1.52, respectively) with any disability had higher prevalence of nicotine vaping than those without a disability.

CONCLUSIONS

There are persistent, population-level disparities in cigarette and marijuana use among AYAs with disabilities, which have extended to nicotine vaping in recent years. Future research is needed to address the lack of prevention and cessation strategies tailored to this population.

Who Uses Multiple Tobacco Products? Psychosocial Characteristics Unique to Adolescent and Young Adult Polytoabacco Users

INTRODUCTION

Polytoabacco use is associated with greater nicotine addiction and health risks than single product use. This narrative review aims to identify the unique psychosocial characteristics of individuals who use polytoabacco that could be targeted for prevention.

METHODS

54 studies from 2007–2023 were identified through PubMed searches of: dual, polytoabacco, poly tobacco, poly-toabacco and multiple tobacco products. Publications assessing sociodemographic, social, and psychological characteristics of adolescents and young adults (AYA) unique to polytoabacco use compared to single product use were included. Social factors included peer influence, peer tobacco use, tobacco advertising receptivity and exposure, and familial tobacco use. Studies examining psychological predictors focused on tobacco-related cognitions (i.e., attitudes, perceptions, and social norms) and psychiatric symptomatology (i.e., internalizing and externalizing symptoms).

RESULTS

AYA who use polytoabacco tend to be lesbian, gay, bisexual, or queer (LGBQ) and non-Hispanic white or Hispanic, younger, male, and less educated than those with no use or single product use. Early studies (2016–2018) comparing demographic correlates among AYA with polytoabacco vs. single product use signaled higher prevalence among non-Hispanic black and socioeconomically disadvantaged AYA. Studies with more recent data (2021–2023) are mixed about these differences. AYA who use polytoabacco have higher prevalence of binge drinking, alcohol, and cannabis use, as well as more internalizing and externalizing symptoms compared to AYA with single product use. The few articles examining harm and addiction perceptions and social norms in AYA with polytoabacco vs. single use found mixed results across studies. However, AYA polytoabacco use is associated with higher tobacco advertising exposure and receptivity and peer tobacco use than single product use.

CONCLUSIONS

Younger, male, less educated, non-Hispanic white, Hispanic, and LGBQ AYA have higher prevalence of polytoabacco use than their counterparts. AYA polytoabacco use is associated with high rates of peer use, mental health symptoms, polysubstance use, and exposure to tobacco advertising. High prevalence of multiple product use and polysubstance use signals the need to shift broad focus from single products to poly product use. Psychiatric symptoms and polysubstance use may be particularly salient message targets given their strong associations with polytoabacco use.

Research reported in this publication was supported by the National Institutes of Health under Award Number U54DA036114. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Julia C. West, MA
Elias M. Klemperer, PhD
Vermont Center on
Behavior and Health
Department of Psychiatry
Department of
Psychological Science
University of Vermont

Ollie Ganz, DrPH, MSPH
Andrea C. Villanti, PhD, MPH
Rutgers Institute for Nicotine
& Tobacco Studies
Rutgers Biomedical and
Health Sciences
New Brunswick, NJ
Department of Health
Behavior, Society and Policy
Rutgers School of
Public Health
Piscataway, NJ

Darren Mays, PhD, MPH
Department of Internal
Medicine
The Ohio State University
Center for Tobacco Research
The Ohio State University
Comprehensive Cancer
Center

Robin J. Mermelstein, PhD
Department of Psychology
and Institute for Health
Research and Policy
University of Illinois at
Chicago

Conference Kickoff Biographies

The Effects of Smoking on Patients in Cardiac Rehabilitation: Results from a National Registry

Blair Yant
Katherine E. Menson, DO
Diann Gaalema, PhD
*Vermont Center on
Behavior and Health
University of Vermont*

Smoking cessation continues to be the most effective behavior to improve secondary prevention following development of cardiovascular disease (CVD). However, smoking cessation is challenging and many patients entering secondary prevention programs (i.e., cardiac rehabilitation, CR) continue to smoke. Those who smoke are likely to be high risk, but less is known about whether they benefit as much from CR as those who do not smoke. Data were drawn from the AACVPR registry database. We analyzed 447,921 patients who entered CR at AACVPR-accredited programs. Of the patients, 34,656 (8.4%) were listed as currently smoking at time of entry. Current smoking was associated with younger age, having lower-SES (Medicaid insurance or lower educational attainment), a qualifying diagnosis of MI, higher anxiety and depression scores, lower max METS at entry, and fewer CR sessions completed (all $p < 0.001$). Equal percentages of females and males were currently smoking (8.5% vs. 8.3%). When controlling for other variables (baseline values, age, sex, race, education, diagnosis, insurance, BMI, and number of CR sessions attended), current smoking was associated with less improvement in fitness (-17.6 meters in 6mw and -0.26 in max METS) and worse exit scores for depression and anxiety (0.53 and 0.50 higher respectively). As expected, those who enter CR and are smoking are high risk and may not benefit as much from CR as those who do not smoke. Continued effort must be placed on improving smoking cessation efforts in those with established CVD.

Stephen T. Higgins, PhD

Director, Vermont Center on Behavior and Health

Stephen T. Higgins, PhD, is the director of the Vermont Center on Behavior and Health at the Larner College of Medicine, University of Vermont, and is the principal investigator on five NIH grants on the general topic of behavior and health, including the UVM Center of Biomedical Research Excellence (COBRE) and the Tobacco Center on Regulatory Science (TCORS). He is a Distinguished Professor and the Virginia H. Donaldson Endowed Professor of Translational Science in the departments of psychiatry and psychological science. His research centers around behavioral economics and behavioral pharmacology to investigate tobacco, substance abuse, and other health-related risk behaviors in vulnerable populations. Dr. Higgins' projects focus on examining mechanisms underpinning vulnerability to tobacco and improve health outcomes, treatment interventions to reduce them and improve health outcomes, and regulatory science. He has held many national scientific leadership positions, including terms as president of the College on Problems of Drug Dependence (CPDD) and the American Psychological Association's Division of Psychopharmacology and Substance Abuse. He is the author of more than 425 journal articles and invited book chapters and editor of a dozen volumes and therapist manuals in behavior and health. In 2022, he received the SABA Award for Scientific Translation and the Nathan B. Eddy Memorial Award, a career achievement award from CPDD.



J. Kathleen (Kate) Tracy, PhD

Senior Associate Dean for Research, Larner College of Medicine, University of Vermont

Dr. Tracy's research interests have focused primarily on cervical cancer prevention across the prevention continuum (primary, secondary, tertiary), particularly in underserved groups of women. Using a biobehavioral approach, her research focuses on identifying factors that increase a women's risk for developing cervical cancer as well factors in diagnosis and treatment. Her domestic research agenda continues to focus on reducing disparities in cancer across various dimensions of prevention. Dr. Tracy's international studies on the epidemiology of human papillomavirus (HPV) infection in women from Mali, West Africa helped characterize the burden of HPV disease in Mali and informed a mathematical model to estimate the impact of HPV vaccination in Mali. Data from these projects provided the scientific and practical basis for support from the Gardasil Access Program (GAP) which awarded \$3.96 million worth of HPV vaccine for a vaccine implementation project in Bamako, Mali and also supported a project to assess probable impact of the HPV vaccination in Mali using modeling simulation. Currently, Dr. Tracy is the PI of a National Cancer Institute grant health professionals, health authorities, and national policy makers to foster comprehensive an HPV-based screen-and-treat cervical cancer screening programs in Peru. She has also expanded her research agenda to a new cancer disparity area: cancer and work. This new area is focused on increasing our knowledge of how cancer diagnosis and survivorship negatively impact employment and employment outcomes, especially among women and working poor cancer survivors.



Session Chairs & Speakers



Peter Welch
US Senator

Peter Welch was born in Springfield, Massachusetts in 1947. He graduated from the College of the Holy Cross in 1969. After working in Chicago fighting housing discrimination as one of the first Robert F. Kennedy Fellows, he enrolled in law school at the University of California, Berkeley, and graduated in 1973. After law school, he settled in White River Junction, Vermont, where he worked as a public defender before founding a small law practice. He was first elected to represent Windsor County in the Vermont Senate in 1980. In 2006, Mr. Welch was elected to Vermont's only seat in the US House of Representatives. In 2022, he was elected to the United States Senate. He is married to Margaret Cheney, commissioner of the Vermont Public Utility Commission. They share a home in Norwich, Vermont.



Lucinda England, MD, MSPH
Keynote Speaker

Dr. England's work has focused on studying the effects of tobacco exposure and of individual components of tobacco exposure (such as nicotine) on pregnancy, fetal development, and offspring health and on translating this information into public health messages. She received her MD from the University of Kentucky College of Medicine in 1992 and completed residencies in pediatrics at Cincinnati Children's Hospital Medical Center in 1995 and in general preventive medicine at University of Colorado Health Sciences Center in 1998. She completed training as an officer in CDC's Epidemic Intelligence Service in the Division of Reproductive Health in 2000. As a postdoctoral fellow at NIH's Eunice Kennedy Shriver National Institute of Child Health and Human Development, she conducted research on tobacco and pregnancy outcomes, including preeclampsia, gestational diabetes and preterm delivery, and on smokeless tobacco use among pregnant women. She then worked in the area of tobacco and reproductive health at CDC over the next 20 years, also serving as the medical advisor for the Tips from Former Smokers campaign, as a writer and reviewer for numerous Surgeon General's Reports, and providing subject matter expertise to WHO, NIH, FDA, CMS, and the EPA. To promote collaboration in the field across disciplines, she organized many multidisciplinary international expert meetings on tobacco and women.

Kathleen Brady, MD, PhD

Dr. Brady is a prominent leader in the substance abuse field at a national and international level. She is well known for her research in the area of psychiatric comorbidity and substance use disorders and pharmacotherapy of substance use disorders. She has had a particular focus on the area victimization and post-traumatic stress disorder in substance users, issues of particular importance to women. Her focus on psychiatric comorbidity in substance use disorders has led to investigations of gender-specific issues because of the high comorbidity of anxiety and affective disorders in substance-using women. Dr. Brady began her research career conducting basic science work in the drug abuse field and received a PhD in pharmacology. She moved into clinical and translational research after finishing her residency in psychiatry in 1989. She has been continuously federally funded to conduct research since 1989. Her recent research activities involve the interface between basic and clinical science investigating the mechanistic connection between stress and substance use disorders and in the translation of empirically-based treatments from academic medical centers to front-line treatment settings. Dr. Brady is also the PI and Center Director for one of eleven Specialized Centers of Research on Sex and Gender Factors Affecting Women's Health. The center at MUSC, known as the Women's Research Center (WRC) is a translational research center designed to forge connections between basic scientists and clinical investigators studying gender-based differences in substance use disorders. In 2005, Dr. Brady was appointed as the Assistant Dean for Clinical Research at MUSC and the Director of the MUSC General Clinical Research Center (GCRC).



Diann Gaalema, PhD

Dr. Gaalema is an Associate Professor in the Departments of Psychiatry and Psychological Science at UVM. She received her PhD in Experimental Psychology from the Georgia Institute of Technology. Her current research interests include health-related behavior change and the use of tobacco in vulnerable populations such as those with chronic medical conditions. Currently she is the Principle Investigator on a NIH-funded study aimed at increasing cardiac rehabilitation participation among those of lower-socioeconomic status and is the site-PI on a NIDA/FDA funded study examining the effects of cigarettes of varying nicotine levels on behavior in those with depression or anxiety. She is an author on more than 100 peer-reviewed articles in the areas of behavior and health.



Katherine E. Menson, DO

Dr. Menson is an Assistant Professor with the University of Vermont Larner College of Medicine and a Critical Care Medicine Physician at the University of Vermont Medical Center, where she also serves as the Director of Pulmonary Rehabilitation. She earned her DO at the University of New England College of Osteopathic Medicine in Biddeford, Maine, and then came to the University of Vermont for postdoctoral training. She completed her residency training in internal medicine in 2016 and her fellowship training in pulmonary and critical care medicine in 2019, both at the Larner College of Medicine. She has extensive experience in pulmonary health, and her recent research in studying the pulmonary effects of long COVID was featured in an article by *Vermont Digger* in 2022.





Sarah Heil, PhD

Dr. Heil is the Associate Director of the UVM Center on Rural Addiction. She is a Professor of Psychiatry and Psychological Science at UVM and a faculty member of the Vermont Center on Behavior and Health. Dr. Heil earned her PhD from Dartmouth College in 1997, then completed National Institutes of Health postdoctoral fellowships in substance abuse research at Wayne State University and UVM. She joined the faculty at UVM in 2002. Continuously funded by the National Institute on Drug Abuse since that time, her research interests revolve around the reproductive health needs of people with substance use disorders, with a recent focus on helping these people avoid unintended pregnancy. Dr. Heil has more than 150 publications to her credit and is an elected Fellow of two divisions of the American Psychological Association. She has served on the Board of Directors of the College on Problems of Drug Dependence and the editorial board of the journal *Psychology of Addictive Behaviors* and the journal *Experimental and Clinical Psychopharmacology*.



Andrea H. Weinberger, PhD

Dr. Weinberger's research focuses on addictions with an emphasis on nicotine dependence. Specifically, she is interested in groups of adults who smoke at higher rates and have a more difficult time quitting smoking including adults with co-morbid psychiatric and substance use disorders and women. She also has an interest in identifying variables important to the smoking behaviors of these adults (e.g., expectancies, cue reactivity, stress) that can be targeted through behavioral treatments for smoking cessation. Her research interests include smoking and nicotine dependence, development of behavioral smoking cessation treatments, gender and smoking, and smokers with comorbid psychiatric and substance use disorders. Dr. Weinberger has published more than 65 peer-reviewed papers on topics related to nicotine dependence and addictions including smoking and gender, smoking and depression, and beliefs about smoking (perceived risks of smoking, smoking expectancies).



Jamie Hartmann-Boyce, PhD

Dr. Hartmann-Boyce received her MA from Oxford Brookes University and her PhD from the University of Oxford. Her research mainly consists of applied evidence synthesis for health policy, including in the areas of tobacco control, electronic cigarettes, diet, physical activity, and management of long-term conditions. She has a particular interest in diabetes, having lived with type 1 diabetes since childhood. She has lead a number of research programs focusing on smoking cessation and electronic cigarettes. Dr. Hartmann-Boyce is also involved in developing methods for evidence synthesis and primary research, including quantitative and qualitative synthesis and work on incorporating equity considerations into systematic reviews. She is passionate about communicating complex information and data to inform policy and public action. She works hard to engage the public in my research and have been involved in podcasts, blogging, tv and radio interviews, and songwriting to communicate research results outside of academia.

Elias M. Klemperer, PhD

Dr. Klemperer is an Assistant Professor at the University of Vermont in the Departments of Psychiatry and Psychological Science. As an investigator with the Vermont Center on Behavior and Health, Dr. Klemperer's research primarily develops clinical and regulatory interventions to reduce harm from tobacco use, with a particular focus on nicotine reduction and dual users of cigarettes and e-cigarettes. In addition, Dr. Klemperer has a growing program of research on the treatment of opioid use disorder among people who are incarcerated or recently released from incarceration in rural communities.



Danielle Davis, PhD

Having grown up in Atlanta, Georgia, Dr. Davis came north to join the Vermont Center of Behavior and Health when she was pursuing her master's degree, and has remained in New England ever since. Dr. Davis serves as an Assistant Professor of Psychiatry at the Yale School of Medicine. She received both her MA and PhD in Experimental Psychology at the University of Vermont, and completed her postdoctoral fellowship at the Yale School of Medicine in 2021. She is a member of the Janeway Society, Tobacco Research in Youth, and the Yale Tobacco Center of Regulatory Science.



MeLisa Creamer, PhD, MPH

Dr. MeLisa Creamer is a Health Science Administrator in the Epidemiology Research Branch. Her program area includes tobacco use in marginalized populations, social media, and general epidemiology research of tobacco and substance use. Dr. Creamer also is a member of the Population Assessment of Tobacco and Health (PATH) Study team, which is an ongoing longitudinal cohort study on tobacco use behavior, attitudes and beliefs, and tobacco-related health outcomes, conducted as a collaboration between NIDA and the Center for Tobacco Products (CTP), Food and Drug Administration (FDA). Prior to joining NIDA, Dr. Creamer was an ORISE Fellow in the Office on Smoking and Health at the Centers for Disease Control and Prevention, where she focused on surveillance of tobacco products among youth and adults. She specifically worked on the National Youth Tobacco Survey team, and contributed to the 2020 Surgeon General's Report on Smoking Cessation. Prior to joining NIDA, Dr. Creamer was also an Assistant Professor at the University of Texas School of Public Health in Austin and co-investigator on the Texas Tobacco Center of Regulatory Science on Youth and Young Adults. There she focused on transitions and trajectories of tobacco use among youth and young adults, including an emphasis on cognitive and affective factors related to tobacco use. She has authored peer-reviewed articles on tobacco use, and served as one of the Senior Scientific Editors of the 2016 Surgeon General's Report on E-cigarette Use Among Youth and Young Adults. Dr. Creamer earned her B.A. in Sociology from American University, and her MPH and PhD in Epidemiology from the University of Texas School of Public Health in Austin.





Stacey Sigmon, PhD

Dr. Sigmon is the Principal Investigator of the HRSA grant for the UVM Center on Rural Addiction. She is a tenured Professor of Psychiatry at UVM and researcher with the Vermont Center on Behavior and Health in the Larner College of Medicine. Dr. Sigmon also helps lead the Chittenden Clinic Opioid Treatment Program – the first and largest clinic of its kind in Vermont. Dr. Sigmon’s scientific research focus is on developing efficacious opioid use disorder treatments, including innovative medication delivery.



Mark Levine, MD

Dr. Mark Levine was appointed commissioner of health by Governor Phil Scott and began service on March 6, 2017. Prior to his appointment, Dr. Levine was a professor of medicine at the University of Vermont – a position he still holds, associate dean for graduate medical education, and designated institutional official at the College of Medicine and UVM Medical Center. He also served as vice chair for education in the Department of Medicine. Dr. Levine received his BA in biology from the University of Connecticut and MD from the University of Rochester. He completed his internal medicine residency and chief resident year at the University of Vermont, and a fellowship in general internal medicine at the University of North Carolina. Dr. Levine’s general internal medicine practice focused on health promotion and disease prevention, preventative health screening and clinical nutrition, chronic disease management, and solving complex diagnostic dilemmas. With this experience, Dr. Levine understands the challenges our health care system holds for both patients and physicians. This informs his interest in improving public health through policies that foster a culture of health. Dr. Levine has served on the American College of Physicians Board of Regents, and as governor of its Vermont chapter; as vice president and president-elect of the Vermont Medical Society; and was a longstanding member of the Vermont Department of Health’s Primary Care-Public Health Integration Workgroup. He successfully directed large NIH and HRSA educational grants related to nutrition-preventive medicine competencies for general physicians.



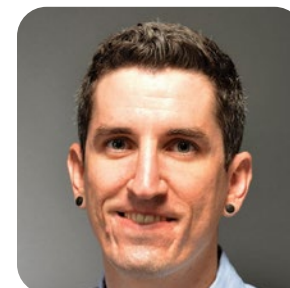
Pamela Ling, MD

Dr. Pamela Ling is an internal medicine specialist and primary care doctor. She has a special interest in caring for underserved urban populations. Dr. Ling’s research investigates the intersection of tobacco use, media and social marketing as relates to young people. Her work focuses on understanding how tobacco marketing encourages youths and young adults to begin using tobacco, and how to apply the same strategies to improve tobacco control programs. Dr. Ling earned her medical degree and completed a residency in medicine at UCSF. She then earned a master of public health degree from the University of California, Berkeley. She completed a fellowship at the UCSF Center for AIDS Prevention Studies. Dr. Ling is a member of the American Public Health Association and Society of General Internal Medicine.



Jennifer Tidey, PhD

Jennifer Tidey (she/her) is Associate Dean for Research and Professor of Behavioral and Social Sciences at the Brown University School of Public Health, where she is affiliated with the Center for Alcohol & Addiction Studies (CAAS). She also holds a secondary appointment as Professor of Psychiatry and Human Behavior at the Warren Alpert School of Medicine of Brown University. At CAAS, she is Co-PI and Associate Training Director of the NIDA T32 training program and Director of the CAAS Laboratory. The goals of her research are to identify mechanisms underlying the high rates of tobacco dependence in vulnerable populations, particularly people with psychiatric disorders, and to develop effective interventions to reduce tobacco use and its health harms in these individuals. Most of her current research is in the area of tobacco regulatory science, the aim of which is to provide the FDA with information it needs to make evidence-based regulatory decisions about tobacco products, with the goal of improving public health. To date, Dr. Tidey has published over 170 peer-reviewed research articles in the area of addiction. She has been awarded over \$25M in total costs as PI, MPI, or core lead on 15 NIH R-, U- and P-grants, and has contributed as Co-Investigator on 26 grants R-, U-, and P-grants totalling over \$100M. She has mentored 12 early-career investigators on NIH K- or F- awards with total costs of almost \$7M. She is a Deputy Editor for the journal Nicotine & Tobacco Research and serves on the Editorial board for Experimental and Clinical Psychopharmacology.



Kelly Peck, PhD

Dr. Peck is the Director of Clinical Operations for the UVM Center on Rural Addiction. He is an Assistant Professor with joint appointments in the Departments of Psychiatry and Psychological Science at UVM. He received his PhD in Clinical Psychology from the University of Mississippi. His primary research and clinical interests are two-fold. First, he has conducted research focused on the development and evaluation of novel treatments for opioid use disorder (OUD). Second, he has worked extensively to address co-occurring post-traumatic stress disorder (PTSD) in individuals with substance use disorders, particularly around the delivery and evaluation of cognitive-behavioral treatments for PTSD. Dr. Peck is currently conducting a randomized clinical trial aimed at developing and evaluating a novel Prolonged Exposure (PE) therapy protocol for improving PE therapy attendance and PTSD symptom severity among individuals with co-occurring PTSD and OUD.



Tyler Erath, PhD

Dr. Erath is a postdoctoral fellow with Dr. Stephen Higgins as part of the Vermont Center on Behavior and Health. His research is broadly focused on behavioral health, substance use disorders, and health disparities. A central tenet that connects his research – past, present, and future – is to integrate evidence-based practices into real-world, community settings. Dr. Erath’s current projects include collaborative work with a local syringe service program on substance use and treatment interest among individuals who inject drugs and behavioral economic research examining the substitutability of alternative tobacco products among individuals who smoke menthol cigarettes.



Justin McDaniel, PhD

Dr. McDaniel is an Associate Professor of Public Health at Southern Illinois University in Carbondale, Illinois. He also holds a joint appointment with the Department of Neurology and the Dale and Deborah Smith Center for Alzheimer's Research and Treatment at the Southern Illinois University School of Medicine. He completed his MBA with Eastern Illinois University, then went on to earn his PhD in Health Education at Southern Illinois University. His professional interests include military service members and veteran, implementation science, and health geography and geographic information systems.



Eric Thraikill, PhD

Eric Thraikill, PhD is an Associate Professor in the Departments of Psychological Science and Psychiatry at the University of Vermont. His work concentrates on how decision making and instrumental behavior influences risk for substance use disorders, cigarette smoking, and overeating, and how such factors connect to fundamental mechanisms of associative learning and behavioral regulation. Dr. Thraikill's current focus is on 1) the relationship between loss aversion, or the tendency for potential losses to have a stronger influence on behavior than equivalent gains, and risk for cigarette smoking and other substance use, 2) understanding the sequential, "chained" structure of instrumental behavior and how this informs how we make and break habits whether healthy or not, and 3) variables that influence the effectiveness of treatments that involve differential reinforcement. His goal is to improve the understanding of cognitive mechanisms and behavioral processes that underpin durable behavior change. Dr. Thraikill received his PhD from Utah State University and completed his postdoctoral work at the University of Vermont.

This event is funded in part by generous support from the National Institute of General Medical Sciences (NIGMS), the National Institute on Drug Abuse (NIDA), and the US Food and Drug Administration (FDA) Center for Tobacco Products (CTP). The content is solely the responsibility of the authors and does not necessarily represent the official views of NIGMS, NIDA, FDA, or CTP.

