Cover sheet for protocol HM20018290/NCT04332926

The stats section is from the grant. Our institution now requires a protocol when submitting to the IRB, it was not required when this study was approved. The final version of the study was approved by the IRB 3/21/2024 and the last consent form approved was 2/27/23.

RESEARCH PARTICIPANT INFORMATION AND CONSENT FORM

STUDY TITLE: Effects of E-Cigarette Nicotine Delivery on Abuse Liability in Smokers

VCU INVESTIGATOR: Dr. Caroline Cobb, Associate Professor of Psychology & Dr. Andrew Barnes, Associate Professor of Health Behavior and Policy

SPONSOR: National Institutes of Health/Food and Drug Administration

ABOUT THIS CONSENT FORM

You are being invited to participate in a research study that is being conducted by VCU's Drs. Caroline Cobb and Andrew Barnes. **It is important that you carefully think about if being in this study is right for you and your situation.** This consent form is meant to assist you in thinking about whether or not you want to be in this study. **Please ask the investigator or the study staff to explain any information in this consent document that is not clear to you.** You may take home an unsigned copy of this consent form to think about or discuss with family or friends before making your decision.

Your participation is voluntary. You may decide to not participate in this study. If you do participate, you may withdraw from the study at any time. Your decision not to take part or to withdraw will involve no penalty or loss of benefits to which you are otherwise entitled.

AN OVERVIEW OF THE STUDY AND KEY INFORMATION

The purpose of the study is to understand how varying the amount of nicotine in electronic cigarette (e-cigarette) liquid when all other device features are held constant influences the likelihood that someone might use/abuse these products and how you feel. The results of this study will help us to better understand these factors.

In this study, you will be asked to do the following things:

1. When you arrive to the study site for each visit, we may ask you to wear a mask except when directed by study staff.
2. We may be using Zoom, as an intercom system, for the majority of communications during screening and sessions. At some points, we may use the camera feature to explain tasks/procedures. We will make you aware before turning your camera on. No video or audio recording will take place.
3. At the screening session, we will ask you to fill out some forms about yourself, your medical history, tobacco/alcohol/drug use, and perceptions of tobacco products, and we will use a urine test(s) to make sure that you qualify to participate in the study. This will include a test for nicotine to confirm you use tobacco products and a pregnancy test, as pregnant women are not eligible to participate in this study. At this visit we will also ask to take picture(s) of your cigarettes and to see a form of identification with your date of birth to verify your age.
4. If the urine tests and your answers to our questions indicate you fulfill the entry criteria, we will ask you to complete two behavioral tasks at the in-person screening session. One task asks you to decide between receiving hypothetical amounts of money now or at a later date (money is not actually disbursed for this

task). The other task is meant to measure risk-taking behavior and involves potential compensation up to $40 depending on task performance.

5. If eligible, following the in-person screening session, we will ask you to complete **five sessions that differ by the tobacco/nicotine product used**. The first four sessions will take about 3.5 hours each. The fifth session is slightly shorter, taking 3 hours. All sessions will take place at Center for the Study of Tobacco Products. Each session will begin at approximately the same time each day, and will be separated by at least 48 hours.
   a. The first four sessions will vary in the nicotine content of the e-cigarette liquid that we provide to you. You will not know nicotine content of the e-cigarette you are using during these sessions. This is called blinding and it is done so that a fair evaluation of results may be made.
   b. Each time you puff on the e-cigarette, your puffs will be limited to 2 seconds in duration using hardware and/or a computer program.
   c. The fifth session will be the same for all participants. This will be your own brand session. The study staff will provide your own brand cigarettes to you.
6. Before each visit, abstain from **all** tobacco and nicotine containing products (cigarettes, e-cigarettes/vapes, pipes, cigars, and hookah/waterpipe) for at least 12 hours. In addition, the use of any other nicotine-containing products (like nicotine gum or the nicotine patch) is prohibited.
7. We will ask you to take a simple breath test to make sure that you have complied with these restrictions. Our tests are not perfect, but they will be the only measures that we can accept to make certain that you have complied with the no tobacco/nicotine restrictions.
8. We also ask that you refrain from using all caffeine-containing beverages for at least one hour prior to each session.
9. At the beginning of each session, after you have answered questions about changes in health you may have experienced since your last session, then we will take a blood pressure reading using a cuff on your arm, and begin to monitor your heart rate using a sensor attached to your finger (this device will stay on your finger for the entire session).
10. You will then be asked to take 4 sample puffs of the session-specific product, which we will provide to you. Following this sampling will be a 1-hour rest period. The 1-hour rest period will take place in the session room, this will help you get acclimated to the setting. During this waiting period you will not be allowed to eat food, or drink outside beverages. We will provide you with water to drink and a movie to watch or book/magazine to read. You can also use your cell-phone during this waiting period.
11. Following the 1-hour rest period, you will be asked to complete questionnaires that measure how you feel at several time points, as well as complete three behavioral tasks: Drug Purchase Task (DPT), Progressive Ratio Task (PRT), and Cross-Product Progressive Ratio Task (CP-PRT).
    a. During the DPT, we will ask how much of the session-specific product you would be willing to purchase in one day if the session-specific product cost varying amounts of money. We also will ask you about how much of the

session-specific product and your own brand cigarettes you would buy at the same time if offered at various prices.

b. During the PRT, you will be asked to tap the spacebar on the keyboard ten times to receive one puff of the session-specific product. To receive each successive puff you will have to tap a space bar at increasing increments of 30% (i.e., 13, 17, 22, 29 taps...). When you decide to stop tapping the space bar for at least 5 minutes, the task will end.
c. During the CP-PRT, you will be asked to tap one of two keys to earn one puff of the session specific product or your own brand cigarette. You will complete 10 trials, and puffs will be given at the end of the 10 trials. One key will always require 25 taps, while the other will require 25 taps at increasing increments of 25 additional taps with each successive puff (i.e.,50, 75, 100, 125 taps...).

12. Throughout each session, we will ask you to remain seated in a comfortable chair while completing questionnaires/tasks or when using study products.
13. At the end of each session we will take a final blood pressure reading and disconnect heart rate monitoring.
14. Three months following your final session at the laboratory we will call or email you to complete a short follow-up survey. This survey will include questions about your recent cigarette and e-cigarette use.

Your participation in this study will last between 19 to 21 hours in-person in the laboratory (2-hour screening; four, 3.5 to 4-hour sessions and one, 3-hour session). About 40 individuals will participate in this study. This study will not use your samples to sequence all or part of your DNA.

WHAT ALTERNATIVES ARE AVAILABLE?

This is not a therapeutic study. You have the alternative not to participate.

WHAT RISKS AND DISCOMFORTS COULD I EXPERIENCE FROM BEING IN THE STUDY?

There are both risks and benefits of participating in research studies.

Most Common Risks and Discomforts

Physical Risks:

1. You may experience some mild discomfort during the 12-hour tobacco/nicotine abstinence period before each session. Side effects from tobacco/nicotine abstinence can include irritability, anxiety, restlessness, excessive hunger, difficulty concentrating, and sleep disturbance. Though uncomfortable, these feelings are not medically dangerous.
2. You may experience mild frustration while completing some of the study-related tasks.
3. On very rare occasions, you may experience small droplets of liquid during inhalation of the e-cigarette we provide. You may find these droplets to be unexpected and/or unpleasant. This experience has been reported by e-cigarette users, and they report that it is an annoyance that does not appear to present any known medical danger. If this occurs, we will immediately replace the e-cigarette device you are using.
4. The e-cigarette liquid that we give you may contain more nicotine than you are used to, although some e-cigarette users report using these liquids. Inform the study staff immediately if you experience any discomfort. You may also experience side effects from products that contain nicotine such as acute increases in heart rate and blood pressure,

sweating, lightheadedness, dizziness, nausea, and nervousness. These side effects are unlikely in individuals who use cigarettes regularly.

5. The Centers for Disease Control and Prevention advises that e-cigarette, or vaping products are unsafe for youths, young adults, or women who are pregnant. Adults who do not currently use tobacco products should not start using e-cigarette, or vaping, products. If you use e-cigarette products, monitor yourself for the below symptoms and promptly seek medical attention if you have concerns about your health.
    a. Some people who use e-cigarettes have reported experiencing seizures. Some of these individuals reported a prior history of seizures or using other substances at the same time as their e-cigarette.
    b. In some cases, e-cigarette use has led to respiratory illnesses such as difficulties breathing, shortness of breath, cough, and/or chest pain before hospitalization. In some cases, e-cigarette use has led to death, although most of these cases have been related to vaping THC.
    c. In some cases, e-cigarette use has been associated with symptoms of mild to moderate gastrointestinal illness such as nausea, abdominal pain, vomiting, diarrhea, fevers, or fatigue.
6. The use of e-cigarettes may include other side effects/risks such as a sore or scratchy throat and headache.
7. E-cigarette devices will be reused for participants. New disposable mouthpieces will be provided to each participant. There is some risk of contamination or illness, which is minimized by sanitizing the e-cigarette devices in addition to the use of these mouthpieces.
8. The researchers will let you know about any significant new findings (such as additional risks or discomforts) that may make you change your mind about participating in the study.

Non-physical Risks

1. Participation in research might involve some loss of privacy. There is a small risk that someone outside the study could see and misuse information about you.
2. The study questionnaires ask personal questions that are sensitive in nature. You may refuse to answer any question that makes you feel uncomfortable.

Benefits to You & Others

1. You will derive no personal benefit from this study. However, your participation will help us in the future as we try to understand better the effects of e-cigarette power level and nicotine content.
2. In general, we will not give you any individual results from the study with the exception of a positive pregnancy test or high blood pressure readings.

WILL I BE PAID TO PARTICIPATE IN THE STUDY?

You will be paid $15 for completing the in-person screening to determine your eligibility to participate. If you are eligible and choose to participate, you will be asked to complete a behavioral task where you can earn up to $40 (in addition to the $15) at the in-person screening session. For the study sessions, you will be paid $75 for completion of the first session, $100 for session 2, $100 for session 3, $100 for session 4, $125 for session 5. For the follow-up survey you will be paid $10. Thus, total potential compensation for this study is $565.

Additionally, if lab parking is not available for the in-person screen or study sessions you will be reimbursed for parking expenses only. Compensation for all in-person visits

(screening and sessions) will be paid in cash. Compensation for the follow-up survey will be paid via an Amazon gift card (email).

In addition, if you are eligible for the study, we will give you 5 cards that have our lab information and a number/letter combination on them. The numbers/letters on the cards are linked (by us) to your name/e-mail address. You can give these cards to friends or family members who might want to participate in any of our ongoing laboratory studies that involve in-person screening visits. If someone you give a card to completes the initial screening survey via https://cstp.vcu.edu/studies/ and attends an in-person screening visit with the card, we will send you an additional $20 per returned card, paid via an Amazon gift card (email). We will not tell you who brought us the card. The cards expire after one year.

Total payments within one calendar year that exceed $600 will require the University to annually report these payments to the IRS and you. This may require you to claim the compensation you receive for participation in this study as taxable income. VCU is required by federal law to collect your social security number. Your social security number will be kept confidential and will only be used to process payment.

WHAT HAPPENS IF I AM INJURED OR BECOME SICK BECAUSE I TOOK PART IN THE STUDY?

If you are injured by, or become ill, from participating in this study, please contact your study doctor immediately. Medical treatment is available at the Virginia Commonwealth University Health System (VCU Health System). Your study doctor will arrange for short-term emergency care at the VCU Health System or for a referral if it is needed.

Fees for such treatment may be billed to you or to appropriate third party insurance. Your health insurance company may or may not pay for treatment of injuries or illness as a result of your participation in this study. To help avoid research-related injury or illness, it is very important to follow all study directions.

CAN I STOP BEING IN THE STUDY?

You can stop being in this research study at any time. Leaving the study will not affect your medical care, employment status, or academic standing at VCU or VCU Health. Tell the study staff if you are thinking about stopping or decide to stop.

If you leave the study before the final regularly scheduled visit, you will be able to keep any money that you have earned in the study up to that point.

Your participation in this study may be stopped at any time by the investigator without your consent. The reasons might include:

- the investigator thinks it necessary for your health or safety
- you are found to not be eligible for the study
- the sponsor has stopped the study
- you have not followed study instructions
- administrative reasons require your withdrawal

HOW WILL INFORMATION ABOUT ME BE PROTECTED?

VCU and the VCU Health System have established secure research databases and computer systems to store information and to help with monitoring and oversight of

research. Your information may be kept in these databases but are only accessible to individuals working on this study or authorized individuals who have access for specific research related tasks.

Identifiable information in these databases are not released outside VCU unless stated in this consent or required by law. Although results of this research may be presented at meetings or in publications, identifiable personal information about participants will not be disclosed.

Personal information about you might be shared with or copied by authorized representatives from the following organizations for the purposes of managing, monitoring and overseeing this study:

- The study Sponsor, representatives of the sponsor and other collaborating organizations
- Representatives of VCU and the VCU Health System
- Officials of the Department of Health and Human Services

In the future, identifiers might be removed from the information you provide in this study, and after that removal, the information could be used for other research studies by this study team or another researcher without asking you for additional consent.

The only samples collected, urine samples, will be disposed of immediately and will not be stored.

A description of this clinical trial will be available on http://www.ClinicalTrials.gov, as required by U.S. Law. This Web site will not include information that can identify you. At most, the Website will include a summary of the results. You can search this Web site at any time.

Certificate of Confidentiality

To help us protect your privacy, we have obtained a Certificate of Confidentiality from the National Institutes of Health. With this Certificate, the researchers cannot be forced to disclose information that may identify you, even by a court subpoena, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings. The researchers will use the Certificate to resist any demands for information that would identify you, except as explained below.

The Certificate cannot be used to resist a demand for information from personnel of the United States Government that is used for auditing or evaluation of federally funded projects or for information that must be disclosed in order to meet the requirements of the federal Food and Drug Administration (FDA).

You should understand that a Certificate of Confidentiality does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research. If an insurer, employer, or other person obtains your written consent to receive research information, then the researchers may not use the Certificate to withhold that information.

WHO SHOULD I CONTACT IF I HAVE QUESTIONS ABOUT THE STUDY?

If you have any questions, complaints, or concerns about your participation in this research, contact:

Dr. Caroline Cobb at 804-828-8687 / email: cobbco@vcu.edu or

Dr. Andrew Barnes at 804-827-4361 / email: andrew.barnes@vcuhealth.org

The researcher/study staff named above is the best person(s) to call for questions about your participation in this study.

The medically responsible investigator is Dr. Thokozeni Lipato
thokozeni.lipato@vcuhealth.org

If you have general questions about your rights as a participant in this or any other research, you may contact:

Virginia Commonwealth University Office of Research
800 East Leigh Street, Suite 3000
Box 980568
Richmond, VA 23298
Telephone: (804) 827-2157

Contact this number to ask general questions, to obtain information or offer input, and to express concerns or complaints about research. You may also call this number if you cannot reach the research team or if you wish to talk to someone else. General information about participation in research studies can also be found at http://www.research.vcu.edu/irb/volunteers.htm.

Do not sign this consent form unless you have had a chance to ask questions and have received satisfactory answers to all of your questions.

STATEMENT OF CONSENT

I have been provided with an opportunity to read this consent form carefully. All of the questions that I wish to raise concerning this study have been answered. By signing this consent form I have not waived any of the legal rights or benefits to which I otherwise would be entitled. My signature indicates that I freely consent to participate in this research study. I will receive a copy of the consent form for my records.

Signature Block for Enrolling Adult Participants	
_____ Adult Participant Name (Printed)	
_____ Adult Participant's Signature	_____ Date
_____ Name of Person Conducting Consent Discussion (Printed)	
_____ Signature of Person Conducting Consent Discussion	_____ Date
_____ Principal Investigator Signature (if different from above)	_____ Date