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## Appeal and Impact of Characterizing Flavors on Young Adult Small Cigar Use

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### Abstract

**Objective**—To understand how affect for characterizing flavors influences little cigar and cigarillo (LCC) smoking uptake behaviors among young adults.

**Methods**—A convenience sample of multi-ethnic young adults (N = 90; mean age = 25.1 years; 53.1% male; 47.4% African-American, 35.5% white, 17.1% Hispanic) who were dual (LCC+ cigarette) and cigarette-only smokers participated in 12 focus groups and a semi-structured interview in the southeastern United States.

**Results**—Though they self-identified at enrollment as dual or cigarette-only smokers, 64.4% reported LCC-only smoking, 27.8% dual smoking, and 7.8% cigarette-only smoking. Participants acknowledged that the flavored tobacco made smoking LCCs more palatable, and it enhanced their moods. The variety of available sweet and fruit flavored LCCs and the visual, smell, and taste cues from the LCC packaging influenced the young adults' affect, their susceptibility to and initiation of LCC smoking, and their switch from cigarettes to flavored LCC smoking.

**Conclusions**—Characterizing flavored tobacco in LCCs contributed to young adults' susceptibility and initiation of use. The FDA is proposing to deem LCCs under its authority. Once these products are deemed, our results suggest that the FDA make a product standard restricting characterizing flavors in LCCs.

### Keywords

little cigars; cigarillos; cigars; flavored tobacco; young adults

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#### Conflict of Interest Statement

The authors have no conflicts of interest to disclose.

The Food and Drug Administration's (FDA) ban on flavored cigarettes (with the exception of menthol) has allowed cigar companies to expand their niche to flavored little cigars and cigarillos (LCCs). LCCs resemble cigarettes in shape and size and are often misclassified as cigarettes,<sup>1</sup> but contain more nicotine and tobacco toxins than regular cigarettes.<sup>2</sup> Of the LCCs currently sold on the market, 86% are flavored<sup>3</sup> and these alluring, cigarette-like products are mostly smoked by young adults 35 years of age and younger. Over 60% of young adults report awareness of flavored LCCs.<sup>3</sup> Delnevo et al<sup>4</sup> found that 88.7% of 18–25 and 72.2% of 26–34 year-old cigar smokers in the United States (US) reported that their usual brand of cigar smoked was a flavored cigar. Further, emerging population-based studies of cigar smokers that suggest that women, African-American, and Hispanic cigar smokers have the highest preference for cigar brands that produce flavors.<sup>4,5</sup> Flavored cigarettes entice youth to smoke,<sup>6,7</sup> and flavored LCCs are no exception. Their availability on the market may contribute to continued use of these cigarette-like products and counteract efforts to reduce combustible tobacco product use among vulnerable US populations.

Flavorings are added to the tobacco itself or the tobacco wrapper to mask the unpleasant odor and deliver a pleasing aroma.<sup>6</sup> Notably, the same chemical flavors used in Kool Aid and Jolly Ranchers candies are used in LCCs.<sup>8</sup> These flavorings make tobacco products easier to smoke by masking their harshness and lowering irritation experienced by new smokers.<sup>4,6,9,10</sup> The depiction of characterizing flavors on tobacco packages and point-of-sale (POS) advertising, which includes alluring names and colorful images, also may make LCCs attractive to young smokers.<sup>11</sup> Characterizing flavors include artificial or natural flavors added to tobacco products that are used in marketing practices to sell the products. They can include fruity, sweet, savory or alcohol flavors. For example, the Swisher Sweets "Tropical Fusion" flavor has light blue foil packaging that contains the words "sweet," "smooth," and "satisfying," while its point of sale (POS) advertising contains coconut and pineapple images. The text, imagery, and color of LCC packaging and its advertising may convey a sense of a lighter and perhaps healthier product,<sup>12–14</sup> and may have significant effects on young adults' perceptions of the ease of smoking.<sup>15</sup>

Characterizing flavors in LCCs and their package depiction also may influence young adults' affect toward and initiation of the product. Affect, or one's positive (eg, excitement, relaxed) or negative (eg, stressed, anxious) emotions or feelings, is thought to be important to understanding the appeal of tobacco products and their uptake among young people.<sup>16,17</sup> Slovic<sup>18–20</sup> found that young smokers initiated cigarettes because of their affective thoughts about smoking or the prospects that smoking was fun, exciting, and adventurous. Studies also suggest that young adults with a history of LCC smoking report positive affect (ie, enjoyed the taste and smell).<sup>21–23</sup> Characterizing flavors also may make flavored tobacco products more appealing to young adults,<sup>24</sup> thereby influencing their susceptibility toward their use.<sup>25</sup> According to the Theory of Planned Behavior and prior studies, one's susceptibility to cigarette smoking is a well-established predictor of smoking initiation.<sup>26</sup> Taken together, characterizing flavors in LCCs perhaps influence young adults' affect, product appeal, and their susceptibility to, and initiation of, LCC smoking.

Beyond describing the utility of flavors to ease the smoking experiences of new smokers, the appeal of flavored tobacco in LCCs to young adults and its impact on LCC tobacco use uptake behaviors are vastly understudied. Understanding the role of characterizing flavors in young adults' decision to smoke LCCs is critical for informing tobacco control regulatory policy surrounding flavoring and for future anti-LCC health communication message development. Using Slovic's research<sup>18–20</sup> and the Theory of Planned Behavior (TPB) as guiding theoretical frameworks, we conducted focus group interviews to elicit young adult smokers' affect toward flavored LCC smoking. We also sought to understand how characterizing flavors influenced these smokers' susceptibility to smoke or initiation of LCC smoking. Our focus groups were conducted with African-American, Hispanic, and white young adults who self-identified as dual (LCC + cigarette) and cigarette-only smokers. We stratified by race/ethnicity and dual and cigarette-only smokers as these groups may have different experiences with flavored LCCs that should be documented.

## METHODS

### Overview of the Study

Data for the current study are a part of a larger study that seeks to assess the association between risk perceptions of flavored LCC smoking and susceptibility to use among African-American, Hispanic, and white young adult smokers. The current study presents data about young adults' affect toward flavored LCCs and their influence on their susceptibility to smoke and initiation of flavored LCCs.

### Participants

Smokers were recruited to participate in 12 focus group interviews in the southeastern US. Participants were eligible for the study if they were: (1) dual (smoking 1 LCCs + cigarettes) or cigarette-only (smoking 1 cigarette) smokers; (2) aged 18–34 years old; (3) identified as African-American, Hispanic, or white, and (4) could read and speak English. The definition of duration of tobacco use (within the past 30 days) is similar to that used in other published studies of young adult tobacco use.<sup>27</sup> Current cigarette-only smokers who had a history of LCC smoking were not excluded from the study. Non-smokers and those who exclusively used e-cigarettes were excluded from the study. Recruitment methods included paid Internet-based advertisements on Craigslist.org and Facebook, posted flyers, and word of mouth. Participants were telephone-screened by trained research staff.

Because our reach and show rate of Hispanic smokers was lower than expected, one focus group was conducted as an individual semi-structured interview with one participant. An additional group of Hispanic smokers (with more participants) was conducted to provide better group representation in the overall results. Thus, there were a total 12 focus groups and one semi-structured interview conducted, and both methods used the same moderator guides.

### Study Procedures

The data were collected from April to June 2014 and included quantitative and qualitative components. A brief survey administered to participants prior to the focus groups was used

to characterize participants and cross-validate focus group findings. Upon completion of the survey, respondents participated in an hour-long focus group interview. The groups were stratified by sex, race/ethnicity and smoking status (dual use or cigarette only users) to create an open discussion.<sup>28</sup> Standard focus group procedures were followed.<sup>29</sup> The focus groups were moderated by trained research staff and a note-taker captured the notes from each group. All focus group sessions were digitally audio-recorded and professionally transcribed. Following each group, the note-taker and research staff discussed major themes from the focus group.

### **Brief Survey**

Participants completed a 5-minute questionnaire that assessed demographic characteristics, smoking-related and other substance use variables. Demographic data included age, sex, race/ethnicity (African-American, Hispanic, and white) and sexual orientation (heterosexual/straight, homosexual/gay or lesbian, bisexual, other). Because our primary interest was in LCC use, we assessed lifetime use, age of initiation, intensity and frequency of use of LCC, type of LCCs used (eg, flavored, filtered), and susceptibility to LCC use. Current cigarette smoking was assessed by asking participants if they smoked non-mentholated cigarettes and mentholated cigarettes (yes/no) in the past 30 days. We measured lifetime and frequency of use of marijuana in the past 30 days.

### **Semi-structured Focus Group Interviews**

The literature on smoking affect<sup>20</sup> and the TPB guided the development of the focus group moderator guides. Major themes that emerged during the coding process that we report in this paper include respondents' affect for flavored LCCs, the appeal of flavored LCC packaging, and their susceptibility to smoke (asked of cigarette-only smokers) or intention to continue smoking flavored LCCs (asked of dual smokers only). Table 1 presents example focus group questions. Questions about participants' susceptibility or intention to continue flavored LCC smoking correspond to the TPB's intention construct.<sup>30</sup> Questions about participants' emotions or feelings toward flavored LCC smoking correspond to the LCC smoking affect. Smoking affect questions, and questions about the appeal of flavored LCCs are based on Slovic's prior research<sup>18–20</sup> and the TPB.<sup>31,32</sup> Each theme was explored in all focus groups unless otherwise indicated. Several flavored LCC brands, such as Black & Mild and Swisher Sweets, were available at each focus group to facilitate discussion.

### **Analysis**

The survey data were analyzed for 90 smokers with descriptive frequencies (eg, percentages, means) using SPSS 22.<sup>33</sup> Chi-square tests were used to compare the demographic characteristics and smoking-related behaviors among the smoking groups. The focus group transcripts were checked for accuracy against the digital recordings and notes. To ensure inter-coder reliability, 2 researchers coded each transcript independently, reviewed and discussed their codes, and then agreed on the final codes used for analysis. In the event of discrepancies, the data were discussed and coded after consensus was achieved. A thematic content analysis was conducted based on the final study codes; the emergence of new codes was allowed, however.<sup>28</sup> Using NVivo 10,<sup>34</sup> coding queries were used to understand

participants' affect for flavored LCC smoking, the appeal of flavored LCC packaging, and their susceptibility to smoke or intention to continue smoking flavored LCCs.

## RESULTS

### Survey Results of Participant Demographic and Smoking Characteristics

Participants' reported smoking behavior on the survey differed from their reported smoking behavior at the time of study screening. Though participants self-identified as either past 30-day dual (smoking 1 LCC + cigarette) or cigarette-only (smoking 1 cigarette) smokers at screening, the survey data indicated that 64.4% of participants were past 30-day LCC-only smokers, 27.8% were past 30-day dual smokers, and 7.8% were past 30-day cigarette-only smokers. The demographic characteristics, LCC smoking history, and other tobacco and substance use for the 3 smoking groups are presented in Tables 2 and 3. The mean age of the sample ( $N = 90$ ) was 25.1 years and over half of the sample participants were male. African-American participants were significantly more likely to report LCC-only smoking ( $p < .001$ ) and were significantly less likely to report cigarette-only ( $p < .01$ ) or dual smoking ( $p < .001$ ). Hispanic participants were less likely to report past 30-day LCC only smoking, whereas white participants were more likely to report cigarette-only ( $p < .001$ ) and dual smoking ( $p < .05$ ).

The mean age of LCC initiation was 16.2 years, and over 60.0% of study participants initiated LCC smoking with a flavored product. Over 75% of LCC-only and dual smokers reported smoking a flavored LCC in the past 30-days. LCC-only smokers were significantly more likely to smoke more LCCs during the past 30 days than were dual smokers. In addition, 79.4% and 20.6% respectively reported smoking LCCs on 21–30 days ( $p < .05$ , data not reported in table).

### Survey Results and Qualitative Findings Related to Flavor Preference and Affect

The survey data show that the majority of the sample reported smoking a flavored LCC in the past 30 days. Using a word association exercise during the focus groups, participants were asked to describe what thoughts or images immediately came to mind when they heard or saw the phrase “flavored little cigars or cigarillos.” Participants across racial/ethnic and smoking groups and sex consistently described positive affect (eg, excitement, fascinated) toward flavored LCCs. Flavors that the participants enjoyed smoking included fruity (eg, mango) and sweet (eg, vanilla) flavors. This finding was supported by quantitative survey data, where 51.7% reported smoking a fruit flavored LCC in the past 30 days. For some smokers, seeing or simply hearing the phrase “little cigars or cigarillos” conjured up thoughts about their favorite flavors, as exemplified by this discussion with a white female dual smoker:

Moderator: When you see this phrase, what comes to mind?

Participant: Flavors again 'cause the first thing I taste is the flavor and then the actual smoke.

Moderator: What flavor did you taste?

Participant: For me it's always either a white grape or – there's so many to choose from. Sometimes – white grape is the most common for me –when I hear someone say little cigars or cigarillos even smoking one it's like I remember that taste.

Many acknowledged that smoking flavored LCCs was more tolerable and palatable than smoking unflavored (or regular flavor) LCCs, as noted by these African-American dual smokers:

Participant 1: Going for the regular flavor just sucks. That's like if you're having a really bad day and that's all that's left. But usually I get the wine, or the peach, or the grape flavor to kind of take the edge off of the tobacco taste, and I like the smell too.

Participant 2: ...it [flavor] adds to it as opposed to that same bland old tobacco taste. Cigarillo and cigars the tobacco is very harsh on my throat sometimes. But, for some reason flavors just make it a little bit more bearable.

Some white male dual smokers acknowledged that whereas some use cigarettes for nicotine, LCCs were smoked because they are flavored:

Cigarette smokers, they're smoking them because they want the nicotine. Whereas if you go out and buy like a Black & Mild you usually look at the taste. That's what you look at is the flavor.

[Several said 'yes']

Other dual smokers described how smoking flavored LCCs relieved stressful or tense feelings. Interestingly, a white female dual smoker revealed that she selected which flavored LCC to smoke based on her mood:

Yeah, like yellow like the mango ones make me feel like 'okay this is going to be a good smoke'. And then the red ones are more like for more of a serious time like after finals. Mango is like a day in the park. And the red one is like after school.

Notably, the survey data showed that 35.8% of the sample smoked a filtered LCC in the past 30 days prior to the focus groups. In the focus group, some participants revealed and described how the type of LCC filter (plastic vs wood) altered the taste of the flavors. Many agreed that wood filters intensified the taste of the flavors:

I personally like the flavor of the wood tip ones more than the plastic ones. It gives it a little bit more flavor.

(Hispanic male dual smoker)

Like the wine flavor you can taste. The wood actually tastes like the flavor of tobacco.

(White female dual smoker)

Females across smoking focus groups perceived that women preferred fruit flavored LCCs, whereas men preferred unflavored (or regular) or stronger flavors.

You know like guys they just want to smoke whatever. But girls you know we have our particular kinds that we like. Like we all said we like fruity ones, so I don't think that anyone here would smoke a regular one. A guy would smoke either one.

(Hispanic female dual smoker)

Yeah, women like anything fruity. They [men] like green, black, original, or wine.

(African American female cigarette smoker)

However, males across the focus groups reported smoking fruit flavored LCCs, including strawberry and mango. When we probed further for this theme in male groups, most said that they enjoyed flavors endorsing statements such as "it depends on what you're in the mood for."

An emerging theme that recurred in discussions about flavored LCCs was its utility to enhance and accentuate flavored marijuana.

It gives it like an exotic flavor with the weed flavor depending on what grade of weed you're smoking. If it's mid or exotic or loud flavor, it accentuates it.

(White female cigarette-only smoker)

You can rock what you want [in a blunt], but to get the best result though – it [the LCC] got to have the good flavor. Both of it [the LCC and marijuana] got flavor so it's like you eating some Skittles while you smoking.

(African-American male dual smoker)

### Appeal of Flavored LCC Packaging

The aroma of the flavors through the packaging, and the colors, images, and names of flavors on the LCC packages were appealing to participants, particularly to females. All groups agreed that the aroma of the flavored LCC could be smelled through the packaging, and some also associated the aroma with the taste of the product. Female smokers across focus groups often commented on the attractiveness of the package colors and also made an association between the color and the flavor's taste.

I like how this one has like the bright colors. Like I'd probably like this one because I'd be like the colors are kind of attractive so I wonder if it must taste.

(Hispanic female dual smoker 1)

If it's better.

(Hispanic female dual smoker 2)

Well, they're all very bright and each package has a different little color scheme to like differentiate from the different tastes.

(White female cigarette-only smoker)

Some participants acknowledged that the images were designed to be alluring and contributed to continued LCC use. A Hispanic female dual smoker described why images on LCC packages were enticing:



Yeah, and I feel like these kind of like picture thingies for the flavor they do it to like attract more customers. It's like people like mango and like grape and stuff, so – like that's what I look at like first thing. I'm like oh – cause I like food.

The flavors' names often evoked curiosity and excitement among participants. In some cases, the flavors evoked visual images for some participants, as exemplified by these African-American female cigarette smokers:

I like the new one called Island Madness and it's called Watermelon Rum. And I just was trying that. It got the taste of rum to it. It has a little hint of rum to it. You can taste the rum, but you know what I'm saying, so it's kind of – I like the flavors when they add something new. You be like 'oh they got a new blunt out. Let me try it'.

I think the Tropical Fusion cause it's like escape to the islands with tropical – oh escape to the island!

### Flavored LCC Smoking Susceptibility

The survey data show that the majority of respondents (74.7%) intended to smoke LCCs within the next year. Of those, 80.9% were current flavored LCC smokers. Self-reported dual smokers across sex and race/ethnicity described how they initiated with a flavored LCC.

I had known some people who had already started smoking cigarettes and I'd also been trying cigarillos and you know they were telling me about all the flavors that they had. And that sounded like something that was good to get into.

(White male dual smoker)

I had a White Owl white grape. And then I smoked that.

(African-American female dual smoker)

Some revealed they initiated smoking flavored LCCs with marijuana, as exemplified by this White female dual smoker:

I was 17 when I started smoking, and I was with an ex-boyfriend. And also I wanted to learn how to roll (marijuana), so I went and bought a strawberry Swisher Sweet cigarillo.

Notably, some participants described how they initiated flavored LCC smoking after seeing the variety of available flavors at point-of-sale:

You know right here at the gas station where they advertise right by the cashier when you're walking out the door. Just a little glance and that's all. And I've just been seeing them [flavored LCCs]. So, I'm like 'well I'm just going to go ahead and smoke one.'

(Hispanic male dual smoker)



Some dual smokers noted that the smelling the pleasant aroma of the flavored LCC through the packaging, the flavor depiction on the packaging, and the variety of available flavors encouraged continued experimentation.

...and I was like it [LCC] smells good, so it made me want to hit it. But I'm like I don't like the taste of this. So, then I started of course experimenting with different ones.

(African-American female dual smoker)

Moderator: So, when you see these packages, what about it makes you want to try it?

Participant: The names, like the flavor, like Island Madness.

(White male, dual smoker)

Some Hispanic male dual smokers described how flavors influenced their LCC uptake after years of cigarette smoking:

Moderator: Why did you start smoking LCCs, after smoking cigarettes?

Participant 1: I mean...just cause it's flavored. You know that's a step up.

Participant 2: Well, I tried the Black & Milds with my friend the first time, and I like the fact that you could just – share it with him. And that way I wouldn't be just smoking a cigarette by myself. And then I like the flavor of it. Because we would usually get the wood tip ones, and I like the flavor of it so. I kind of just stuck to those after that.

Our survey data revealed that 49.1% of current LCC smokers in our sample definitely intended to use cigarettes in the next year. The following quotes reveal how use of flavored LCCs lead to some participants' cigarette smoking initiation:

The first time I smoked a Black I was by myself and then smoked. I just bought one regularly after that. It is a gateway for me because I stopped smoking Blacks and then started smoking cigarettes.

(African-American female cigarette-only smoker)

Yeah, it [LCCs] wasn't enough. I was spending too much money on just 4 little cigars when I can get a pack [of cigarettes] and it last at least 2 – 2 or 3 days.

(Hispanic female dual smoker)

Cigarette-only participants across sex also described how the variety of available flavors, the flavor's aroma and its association with taste could influence their susceptibility to smoke LCCs.

With more options for flavors, I might be more inclined to [smoke a LCC].

(White male)

The smell is a big factor. Because if it don't taste good then you won't buy that product.

(African-American female)

The variety of choices [at the gas station]. Like probably over 150 choices of cigarillos. I was like ‘hum maybe I should try it’.

(White male)

Not only can flavors affect LCC smoking uptake, but some dual participants suggested that flavoring can also impact cigarette smoking cessation. A Hispanic female dual smoking participant described the experience of a friend who used flavored LCCs as a tool to quit smoking cigarettes:

One of our friends he thought this was a smart idea. He’s like ‘I’m going to stop smoking cigarettes, like a pack a day. And then I’m just going to do like Black & Milds like BLKs and I’ll just do 2 of them a day because they take longer to burn’. So we thought okay that’s kind of better ‘cause you’re only doing 2. But at the end of the day, 2 weren’t working out. Like, he had to get more [Black & Milds] throughout the day, so he ended up spending more money. We thought it was a benefit because he was only smoking less, but it ended up not being like that.

## DISCUSSION

The FDA has proposed to bring the regulation of LCC under its authority and is considering the harms of flavors in these products on smoking initiation, nicotine dependence, and toxicity. Our young adult participants revealed that flavorings are critically important to and influence their LCC smoking behavior. Our participants were drawn to the flavored tobacco in LCCs for several reasons, including peer use of flavored LCCs, the depiction of flavors on the LCC packaging, and retail point-of-sale advertisements. As noted in prior studies,<sup>21,22</sup> participants reported initiating flavored LCCs in social settings with peers. Peers also appeared to play an important role in our participants’ continued experimentation with different LCC flavors, with many noting that their friends often would suggest trying a flavor. Participants would also try a flavor after they saw a friend smoking it. Dual smoking participants across sex and race/ethnicity revealed how the visual portrayal of flavors (via colors and imagery) and the flavors’ aroma through the packaging influenced their perception of the flavors’ taste, which often evoked positive affect. They described how their affect for flavors subsequently influenced their LCC initiation. Some dual smokers described their continued experimentation with flavored LCCs, citing the appeal of the variety of available flavored LCCs on the market. Other dual smokers described the importance of flavored LCCs in their switch from and initiation of cigarette smoking, and its utility in cigarette smoking cessation. Further, the visual depiction of flavorings and variety of flavored LCCs were important for susceptibility to use LCCs among cigarette-only smokers in our sample. Though preliminary, our findings document the influential impact of characterizing flavors on young adults’ affect for flavored LCCs, and on their LCC and cigarette smoking initiation and susceptibility. Our findings also provide evidence that can be used to inform the FDA’s decision to regulate LCC, their characterizing flavorings, and product advertising.

Our study participants enjoyed smoking flavored LCCs, and revealed the benefits of their use. A consistent theme among all respondents was that the flavored tobacco made LCC smoking more bearable and palatable, which parallels prior studies.<sup>9,35,36</sup> Our participants also acknowledged that smoking flavored LCCs was gratifying and described its influence on their affect. Notably, some participants revealed how smoking flavored LCCs augmented their moods. A review of industry documents found that tobacco companies added flavors, particularly sweet flavors, to increase smokers' gratification.<sup>9</sup> Nicotine causes the brain to release endorphins and norepinephrine, which temporarily improves the smoker's mood.<sup>37,38</sup> The mechanism underlying how flavored tobacco and nicotine interact to influence LCC use needs further investigation.

Over half of the young adults in our study preferred to smoke fruit flavored LCCs. Sex differences in flavor preferences also were observed, with women across racial/ethnic groups and smoking status perceiving that men were more likely to smoke original or stronger (ie, wine) flavored LCCs. The tobacco industry's differential promotion of sweet and fruity flavors to women and minorities is well established.<sup>4,10,36,39</sup> Our findings suggest that the use of fruit and sweet flavors in LCCs is a tried and true tactic that the cigar industries are using to lure young adult smokers, particularly women and minorities, to initiate LCC smoking. In addition to target marketing, women also may prefer fruit flavors due to their taste sensitivity. Women are more likely to perceive bitter flavors of tobacco compared to men. The fruit flavors may help to disguise the unpleasant bitter flavor of tobacco. The alcohol industry also has target-marketed flavored alcohol (eg, fruit flavored coolers) to young people and women as well.<sup>40,41</sup> Alcohol, like cigarettes, has a natural bitter flavor.

An emerging theme was the role of marijuana in participants' LCC smoking behavior. Some dual smokers reported that they initiated flavored LCC smoking with marijuana as a blunt (ie, a hollowed out cigar that contains marijuana). Blunt smoking and its reasons for use among young adults, including producing a better high than other routes of marijuana administration and being a concealing device for illicit marijuana use,<sup>42,43</sup> have been documented in prior studies. Our current findings indicate that flavored LCC tobacco also accentuates the taste of flavored marijuana. Along with removing the tobacco and replacing it with marijuana, some participants also reported blending the flavored LCC tobacco with marijuana. Those who engage in this practice noted that the flavored LCC tobacco enhanced the flavor of their marijuana. Notably, some participants described how they selected flavored LCCs that would pair well with their grade of marijuana (eg, loud, mid). The implications of the reinforcing role of marijuana on flavored LCC smoking warrants further study.

Price as a disincentive for LCC smoking behavior was also an important emerging theme. Prior qualitative studies have described cost as an incentive for LCC smoking. LCCs are often viewed as an affordable option for price-conscious consumers when purchased as singles (average price of \$0.99 per LCC).<sup>22</sup> Notably a few participants described costs as a reason for discontinuing LCCs use and switching to cigarette smoking, noting that the price for purchasing several single LCCs was higher than that of a package of cigarettes. Cigars (including LCCs) are taxed based on their weight.<sup>44</sup> A 2009 federal excise tax increase in the United States equalized taxes between cigarettes and little cigars.<sup>45</sup> Further increases in

the taxation of LCCs may be an effective policy that discourages LCC initiation and continued use among youth and young adults.<sup>46</sup>

Our study is not without limitations. The study collected in-depth information on the context of flavored LCC smoking among our sample participants.<sup>28</sup> Though our findings may not apply to other young adult smoking populations, these data highlight the appeal of flavorings in LCCs in a sample of young adult smokers. Second, we encountered challenges recruiting Hispanic male and female cigarette-only smokers and white female cigarette-only smokers. We believe that language barriers and focus group location were factors that affected the recruitment of Hispanic participants. Spanish-speaking Hispanics were excluded from the study. Possible implications of their exclusion could include the existence of differing usage patterns and views about LCCs between English-speaking and Spanish-speaking Hispanics and with the other groups. Finally, though participants self-identified as either a cigarette-only or dual smoker at enrollment, their actual smoking behaviors differed at the time of data collection and have implications on the interpretation of our findings.

More importantly, our study documents the appeal and perceived benefits of flavoring in LCCs among young adults. It also revealed that the affect for flavoring may influence LCC susceptibility, initiation, continued experimentation, product switching (both from cigarettes to flavored LCCs and from flavored LCCs to cigarettes), and cigarette smoking cessation.

## IMPLICATIONS FOR TOBACCO REGULATION

To our knowledge, no study has examined the influence of affect for characterizing flavors in LCCs on young adults' little cigar and cigarillo (LCC) smoking uptake. The FDA specifically states that it is "seeking research regarding the long-term effects of flavored tobacco product usage, including data as to the likelihood of whether users of flavored tobacco products initiate cigarette usage and/or become dual users with cigarettes."<sup>(47, pp. 23,144)</sup> This qualitative study found that the portrayal of characterizing flavors on LCC packaging influenced young adults' affect, as well as their susceptibility to smoke and their initiation and continuation of LCC smoking. Further, our findings that show some flavored LCC smokers both initiated cigarette use and became dual users with cigarettes. As such, our study adds to the body of emerging empirical evidence that informs the FDA's rule making.

The FDA is proposing to deem LCCs under its authority. Once these products are deemed, our results suggest that the FDA make a product standard restricting characterizing flavors in LCCs. Our research suggests that the role of characterizing flavors in LCC initiation is extremely similar to that of cigarettes,<sup>7</sup> and plays a critical role in its use among young adults. Establishing a product standard that restricts characterizing flavors in LCCs may reduce its use among vulnerable populations and protect the public's health. Finally, the FDA should develop public education campaigns that communicate information about the impact of flavored LCC use.

## Human Subjects Statement

The study involved human participants, and was approved by the Institutional Review Board at Georgia State University in Atlanta, GA.

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**Table 1**

## Example Focus Group Questions and Themes

Focus Group Theme	Example Question	
	Dual Smokers	Cigarette-only Smokers
<b>Affect</b>	When you see the words “little cigars or cigarillos” what emotions or feelings immediately come to mind?  Tell me about the last time you smoked a little cigar or cigarillo. What did you feel while you were smoking it?	When you see the words “little cigars or cigarillos” what emotions or feelings immediately come to mind?
<b>Appeal of Flavored LCC Packaging</b>	What are the first thoughts or images that come to mind about the flavored little cigar or cigarillo packages? (PROBE: what do you like or dislike about them? Relative to unflavored little cigars/cigarillos? Relative to cigarettes? What do you think about the name of the flavor?)	What are the first thoughts or images that come to mind about the flavored little cigar or cigarillo packages? (PROBE: what do you like or dislike about them? Relative to unflavored little cigars/cigarillos? Relative to cigarettes? What do you think about the name of the flavor?)
<b>Susceptibility to Smoke or Intention to Continue Smoking Flavored LCCs</b>	What would influence you to continue to smoke a little cigar or cigarillo? To not smoke a little cigar or cigarillo? Why?	What would influence you to smoke a little cigar or cigarillo? To not smoke a little cigar or cigarillo? Why?

**Table 2**  
Demographic Characteristics by Participant Past 30-day LCC and Other Tobacco Smoking Status

Characteristic	LCC-only (N = 58)	P	Cigarette-only (N = 7)	P	Dual Smoker (N = 25)	P	Total (N = 90)
Age (mean, SD)	25.4 (4.4)		23.7(2.8)		25.7(4.5)		25.1 (4.5)
Sex (%)							
Male	44.8		28.6		48.0		53.1
Female	55.2		71.4		52.0		46.9
Race/ethnicity (% yes vs all others) <sup>a</sup>							
African American	82.1	***	14.3	**	29.2	***	47.4
Hispanic	15.8	***	0.0		28.0		17.1
White	16.1		85.7	***	45.8	*	35.5
Sexual Orientation (%)							
Heterosexual	77.6	*	42.9		76.0		73.5
Homosexual	10.3		0.0		0.0		7.1
Bisexual	12.1		42.9		20.0		16.3
Other	0.0		14.2		4.0		3.1

\*\*\*  
p < .001,

\*\*  
p < .01,

\*  
p < .05

Note.

<sup>a</sup> = Column percentages do not total 100%

LCC Smoking History and Other Substance Use by Participant Past 30-day LCC and Other Tobacco Smoking Status

Table 3

Characteristic	LCC-only (N = 58)	p	Cigarette-only (N = 7)	p	Dual (N = 25)	p	Total (N = 90)	p
Age of LCC initiation (mean, SD)	16.1 (3.3)		18.0 (1.8)		15.8 (1.8)		16.2 (2.8)	
First LCC flavored? (% yes)	61.4	***	57.1		68.0	*	63.3	
# LCCs past 30 days								
0–1 day	10.5		100		8.4		24.5	
2–5 days	17.5		0.0		37.5		19.4	
6–10 days	8.8		0.0		20.8		10.2	
11–20 days	15.8		0.0		4.1		11.2	
21–30 days	47.4		0.0		29.2		34.7	
#LCCs per day on days smoked in past 30 days								
1 LCC per day	37.5		0.0		68.0		47.1	
2–5 LCCs per day	42.9		0.0		24.0		37.3	
6–10 LCCs per day	7.1		0.0		4.0		6.0	
11 LCCs per day	12.5		0.0		4.0		9.6	
Filtered LCC past 30-days	46.3	***	0.0		28.0	**	35.8	
Past 30-day LCC flavored	76.4	***	0.0		88.0	*	67.7	
Ever LCC with marijuana use	84.2		85.7		84.0		82.3	
Past 30-day marijuana	80.4	**	42.9		72.0		70.8	*
Intention to continue LCCs (% yes)	85.7	**	0.0	***	88.0		74.7	

\*\*\*  
p < .001,\*\*  
p < .01,\*  
p < .05