What Does It Meme? A Qualitative Analysis Of Adolescents’ Perceptions Of Tobacco And Marijuana Messaging

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What Does it Meme? A Qualitative Analysis of Adolescents’ Perceptions of Tobacco and Marijuana Messaging

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Master of Public Health (MPH), 2019

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Abstract:

With increasing popularity of e-cigarettes and legalization of marijuana, messaging from online sites and platforms are shaping product perceptions and use. Quantitative studies have examined social media statistics of posts; however, there is a lack of research explaining the aesthetic appeal of these advertisements from the adolescents and young adults (AYA) perspective.

Twenty-four participants were recruited from a larger study of adolescents' perceptions and tobacco use (N=772 high school students). Participants were grouped by whether or not they had used tobacco or marijuana products before, with N=8 non-users and N=16 users. Data were collected through individual semi-structured interviews, where participants were asked about their experiences with tobacco and marijuana advertisements online. Interview protocols were developed to understand appeal of advertisements and to learn about the nuances of social media. Interviews were recorded and transcribed.

Key themes emerged from the interviews: (1) Interactions with Online Platforms and Social Media, (2) Direct Appeal of Advertisements to AYA, (3) Trusting Source of Messaging, and (4) Attitudes and Agency. These findings suggest the need to continue to incorporate personal empowerment and understanding AYA’s role of spreading information through social media in prevention curricula, as well as increased regulation around social media messaging around tobacco and marijuana. Although this study aimed to understand online influences, the influences of personal agency and peers were still major factors in tobacco and marijuana decision-making.
INTRODUCTION

The prevalence of traditional cigarette use among high-school students has been declining since 2002. However, e-cigarette and marijuana use among youth remain high. E-cigarette use has dramatically increased from 2018-2019, with a prevalence of 32% in 10th graders and 37% in 12th graders. Ever and daily marijuana use has been increasing in the past ten years, with the prevalence of daily marijuana use among 12th graders at 5.8% in 2018.

Research has implicated that marketing of e-cigarettes and marijuana is one reason for the increase, and in particular social media. To increase usage, traditional cigarette companies relied heavily on marketing that included television and print materials, and had a history of manipulative motives towards youth; such marketing is now heavily regulated. However, e-cigarette marketing, which is largely unregulated, is ubiquitous and found throughout online sites and social media.

Social media is a large part of the culture of adolescents and young adults (AYA) in the U.S., and in 2015, 90% of AYA with access to the Internet used also social media. A study found that AYA reported using an average of 6 social media sites on a regular basis. Social media connect AYA virtually, and are potential moderators for adolescent identity development, friendship quality, social connectivity, and self-esteem. Exposure to positive social media messaging around e-cigarettes has been linked with more positive outcome expectancies and positive smoking experiences for young adults.

However, there is a lack of studies from the youth prospective on tobacco and marijuana marketing. There have been studies analyzing the number and types of messages on social media, such a tracking JUUL-related posts on Twitter. Most of the existing analyses of the content of tobacco and marijuana messages have been investigator-driven, and did not have youth weigh in on themes.

Research has found themes of emerging tobacco products’ marketing messages, such as freedom of choice and the ability to smoke anywhere. But we do not know the AYA perspective and how they are interacting, for example commenting, sharing, and paying attention, to these messages. The objectives of this qualitative study are to (1) understand and evaluate how AYA perceive tobacco and marijuana messaging on online platforms and social media, and how they are interfacing with these advertisements, (2) look at how online and social media advertisements appeal directly to AYA, and (3) understand the moderating factors that are influencing these media interactions.

This study focuses on tobacco and marijuana messaging, especially e-cigarettes and vapes, because AYA perceive vaping to have the lowest level of perceived risk compared to all other drugs, including alcohol and marijuana. Perceived risk of marijuana is also on the decline, and this is especially relevant given how recreational marijuana is now being legalized in many states in the U.S. and changing the general attitudes, as well as policies around regulation of advertisements.

These qualitative data can help better inform regulation around tobacco and marijuana marketing online. With technology evolving as quickly as it is, both in tobacco and marijuana product development and its marketing, it is imperative that public health research and policy keep up with these advancements.
METHODS

Participants

Participants (N=24) for this qualitative study were recruited from a larger longitudinal study of adolescents’ attitudes towards and use of tobacco products. The parent project consists of 772 students from California who completed consent packets that included consent to be interviewed.

To recruit participants, nearly 60 participants from the larger study were contacted, purposively stratified by users and non-users. Table 1 depicts the demographics of the participants. Participant ages ranged from 17 – 21, with the mean age of 19.3 years. Of the participants interviewed, N=18 (75.0%) were female, N=16 (20.8%) were male, and N=1 (4.2%) identified as gender non-binary. The majority of the participants were Asian (N=9, 37.5%), N=8 (33.3%) were white/Caucasian (33.3%), N=2 (8.3%) were Native Hawaiian/Other Pacific Islander, N=2 (8.3%) were Hispanic/Latinx, and N=3 (12.5%) identified as more than one race. The proportion of participants who had experience with tobacco and/or marijuana products was N=16 (66.7%), and N=8 (33.3%) had no experience using tobacco and/or marijuana products. Of the participants who had experience with tobacco and/or marijuana products, N=3 had experience with only tobacco, N=1 had experience with only marijuana, and N=12 had experience with both tobacco and marijuana.

Procedures

Interviews were conducted from October 2017 to February 2018. Since participants were part of the larger longitudinal study, parent consent and adolescent assent for the interviews were obtained during the consent process for the entire project. Interview participants received an email to schedule the phone interview, and once the interview was scheduled, the interviewer contacted the participant by phone to conduct the interview. Before each interview began, the participants were reminded that their participation was voluntary and the interview could be stopped at any time. Participants were also told about the confidentiality of their interview and that each interview would be recorded. The participants were mailed a $25 gift card for their participation after completion of the interview. All procedures were approved by the Stanford University Institutional Review Board.

The interview guide remained consistent throughout the 24 interviews, with interviewers given the freedom to probe further with pre-identified probes (see Appendix A). Some questions were iteratively adapted as more interviews were conducted. Interviews were recorded and transcribed verbatim using a third-party transcription service.

Coding

Using the qualitative research software Dedoose, interview transcripts were uploaded, and the primary coder (JL) identified themes and ideas throughout the interviews that related to the research questions. After individually coding the interviews, the primary coder and senior author (BHF) met and discussed common themes found throughout the interviews. All codes were grouped into four parent codes, and these parent codes then translated to the main themes of the results. The individual child codes were then consolidated to produce a concise codebook. Saturation was reached through the 24 interviews conducted, as the 24 interviews were able to collectively capture and address the research questions.
RESULTS

In analyzing the 24 interviews, four major themes emerged: Interactions with Online Platforms and Social Media, Direct Appeal of Advertisements to AYA, Trusting Source of Messaging, and Attitudes and Agency; these themes were broken down into subthemes that more specifically displayed the details of the themes. The participants were grouped and divided by users and non-users; however, since the emerging themes did not differ, we collapsed the data of all the participants. Given space limitations, we have discussed the themes below and point to Table 2 for illustrative quotes.

Interactions with Online Platforms and Social Media

Participants discussed the various platforms, or specific web-based sites and social media companies, on which they see tobacco and marijuana advertisements. Social media has more individually tailored exposure of messaging and a greater influence on AYA, especially related to tobacco and marijuana (see Table 2, Ex. 1).

Different Interactions Based on Platform

Participants described specific social media and online platforms in great detail. Participants mentioned that Facebook did include advertisements from tobacco companies, even though they did not directly follow or subscribe to them. Participants also discussed Instagram, and how certain images of JUULs and vapes can be viewed easily without having to directly follow certain accounts (see Table 2, Ex. 2). Instagram was also described as a place to sell and promote products, but not necessarily by the companies and industry themselves (see Table 2, Ex. 3). This is sometimes done through more extreme photos and videos that are posted by other Instagram users (see Table 2, Ex. 4). An example of these extreme images are memes, usually an amusing photo with overlaid text, which are spread widely through Instagram and other online photo-sharing platforms. Participants described how it is very common for friends to share memes of tobacco and marijuana products directly with friends (see Table 2, Ex. 5). Snapchat is another photo-sharing platform, and participants described Snapchat as a method of learning about tobacco products, such as JUUL flavors, directly from their friends (see Table 2, Ex. 6). Another popular online platform is Reddit, and participants mentioned how there are specific Reddit communities and online forums, and one exists for marijuana (see Table 2, Ex. 7). More generally, company websites were also described as a place to receive messaging around tobacco and marijuana, especially the JUUL Labs website being a convenient place to gain access to their products (see Table 2, Ex. 8).

Sharing and Privacy of Tobacco and Marijuana Advertisements on Social Media

There are different ways in which tobacco and marijuana advertisements are shared and socially interacted with through social media. Privacy of sharing was brought up as an important aspect, and direct messages were described as the most secure and comfortable way to share interesting and potentially illicit content to friends about tobacco or marijuana (see Table 2, Ex. 9). Some participants described how they would try to share social media content about tobacco and marijuana through just screenshots and texting with their friends for additional privacy (see Table 2, Ex. 10). Participants also discussed how they were less comfortable leaving public comments on social media posts about tobacco and marijuana. A more specific form of commenting is tagging, or when the name of a person is commented and notified, and this was described as a method to relay information about online deals of tobacco or marijuana products (see Table 2, Ex. 11). Participants even described how Eaze, a marijuana delivery company,
and JUUL Labs would engage directly with them by sending out promotional discounts online, and then friends would share these promotions with each other on social media (see Table 2, Ex. 12 and 13).

**Direct Appeal of Advertisements to AYA**

The way that tobacco and marijuana industry is designing their advertisements, as well as the indirect messaging being circulated by celebrities and peers, is exactly how AYA want their information. The following are characteristics that make it very apparent that the advertisements are working on AYA.

**Aesthetic**

Participants described liking advertisements that were simple and lacked text because it “was based for the Millennial” and helped them better remember what was in the advertisement (see Table 2, Ex. 14-16). Participants also described how they tended to remember the subtler and more discreet aspects of JUUL advertisements (see Table 2, Ex. 17).

The use of colors was an element that was specifically asked about in the interview guide. Participants discussed how attention-grabbing colors are in tobacco and marijuana advertisements, and how these colors were used to bolster the advertising of flavors (see Table 2, Ex. 18 and 19).

Having certain themes or common imagery in the advertisements was mentioned as a memorable component. Moreover, having themed product packaging was explained as a novel form of messaging that resulted in purchasing a marijuana product (see Table 2, Ex. 20). In some interviews, sexual appeal was brought up as something that is present and notable in social media content around tobacco and marijuana products. For example, one participant described it as including: "Hot girls and alcohol."

**Emotional**

Participants described funny or humorous advertisements as something they liked and would potentially share with friends. Having a more overall positive tone was an appealing aspect to many participants, especially in regards to marijuana advertisements (see Table 2, Ex. 21). Marijuana is oftentimes advertised on social media as a stress reliever, or something that can provide calming effects (see Table 2, Ex. 22).

The idea of tobacco and marijuana products as a symbol for AYA being cool was shared in many interviews. Participants described how their friends would post images of themselves using various products as almost a sign of social status (see Table 2, Ex. 23). Some participants also described flavors as being cool (see Table 2, Ex. 24).

**Emphasis on Product Appeal**

In addition to the appealing aesthetics, advertisements also showcased aspects of tobacco and marijuana, and appealed to certain parts of the lifestyle and current culture of AYA. For example, convenience is something that users especially deemed an important part of tobacco and marijuana messaging, which is why marijuana delivery services were discussed a lot in the interviews. A participant also described flavors as being a more convenient way to enjoy the taste of certain sweets (see Table 2, Ex. 25).
Participants described how the current AYA generation enjoy new tobacco products, like e-cigarettes, and that these products are being advertised in a way to showcase that novelty (see Table 2, Ex. 26). There is even messaging calling JUUL “the Apple of e-cigs.”

Many participants described the constant messaging around how e-cigarettes are safer than traditional cigarettes (see Table 2, Ex. 27), and how flavors that feature familiar fruits and desserts make products seem less harmful (see Table 2, Ex. 28). These flavors are advertised through associations of images of fruits and descriptive somatosensory language (see Table 2, Ex. 29).

**Trusting Source of Messaging**

Another major theme throughout the interviews was trusting the source of the advertisements, and how different sources influence participants’ perceptions of tobacco and marijuana advertisements.

**Celebrities**

AYA follow celebrities and media personalities, people who are famous through social media, and look up to them highly when they post about tobacco and marijuana products (see Table 2, Ex. 30 and 31). Sometimes this advertising on social media is unofficial and more so just the celebrity showcasing their lifestyle and using tobacco or marijuana products (see Table 2, Ex. 32). Many participants discussed the role of music artists and song lyrics as a way they were exposed to tobacco and marijuana products in a positive light. Some participants following these music artists on social media saw them smoking cigars and marijuana (see Table 2, Ex. 33 and 34).

**Lack of Trust in Industry**

Generally, participants have a more negative view on messaging directly from the industry, especially tobacco. Participants reported knowing that the tobacco industry may have more underlying motives to make money as a corporation and business (see Table 2, Ex. 35). Participants described how important it is that they trust the source of their advertisements, and how they tend not to trust messages that come from the industry (see Table 2, Ex. 36). Friends’ posts of tobacco and marijuana on social media hold higher credibility (see Table 2, Ex. 37).

**Attitudes and Agency**

There are general attitudes that surround the environment of AYA that are influencing the way that AYA react to advertisements about tobacco and marijuana products.

**Changing Attitudes Around Products**

There is a greater acceptance that marijuana is better for the body than smoking cigarettes, and this influenced how participants viewed messaging around marijuana. Many non-user participants described how they were open to trying marijuana after viewing more positive messaging around it. A non-user participant also described their increased exposure to marijuana and JUUL messaging from their friends on social media (see Table 2, Ex. 38).

**Peer Networks**
Although the purpose of the interview questions was to look at messaging through online sites and social media, participants still brought up how the direct exposure of tobacco and marijuana messaging from their peers was more influential, and led to use (see Table 2, Ex. 39). A non-user participant described how their friends have been influential in changing their previously negative opinions about marijuana (see Table 2, Ex. 40).

Agency

A key theme that emerged throughout the interviews was the importance of personal choice for AYA and being able to fully make decisions for oneself, and thus post what they want on social media (see Table 2, Ex. 41). Many participants described how they dislike anti-tobacco or anti-marijuana messaging, in that it violates their ability to make their own decision-making process (see Table 2, Ex. 42 and 43). In the converse, participants described how they do not think that exposure to pro-tobacco and marijuana messaging from social media or even song lyrics sway their decisions (see Table 2, Ex. 44).

DISCUSSION

To our knowledge, this is the first qualitative study to learn more about how AYA are interacting with and perceiving tobacco and marijuana messaging on social media. The findings of this qualitative study help bridge the gap in the literature that currently includes more quantitative analyses by investigators of tobacco and marijuana messaging on social media, as well as giving a voice to the AYA population that is being studied.

This qualitative study examined some of the more specific ways that AYA can interact with tobacco and marijuana messaging on different online and social media platforms. Other findings that emerged from the data in regards to tobacco and marijuana messaging were: the importance of sharing and privacy, how online advertisements directly appeal to AYA, the value of trusting the source, and how general attitudes and personal agency play a role in using tobacco and marijuana products.

This is important given that, as the tobacco industry has known for years, AYA are susceptible to emotional appeals, social influences, and mere exposure to product advertisements. The industry has had a history of employing marketing strategies that are attractive to AYA, and are still doing so now. From our qualitative data, current marketing of tobacco and marijuana online still include these characteristics, and participants described how these advertisements are appealing and memorable. This brings the need for increased attention and regulation of these advertisements on more informal online platforms.

Research has found that flavors are one of the main reasons why AYA choose to try e-cigarettes, and overall perceive these products as less harmful. The findings from this qualitative study continue to support the existing research. Tobacco and marijuana prevention curricula need to focus more on addressing this gap, as the harm reduction messaging that does exist online and on social media can misconstrue the still evident risks of these products and misinform AYA. Existing qualitative studies have also addressed how this lack of information about newer products can be leading to the perception of lesser harm for products such as e-cigarettes and marijuana.

These findings emphasize a need to hold social media companies more accountable to better regulate the content on their platforms, and have more restrictions around what type of
tobacco and marijuana messaging are displayed or suggested towards their AYA audiences. Although social media platforms such as Facebook have comprehensive policies to exclude tobacco marketing from its site, these methods are clearly still being circumvented by AYA as they share the content through more unofficial channels online.

Trusting the source of messaging on social media emerged as a key factor of how influential online tobacco and marijuana messages appear to AYA. Participants described thinking highly of the ideas spread by friends, social media influencers, music artists, celebrities, or overall people they look up to and identify with, which corroborates former research. The fact that friends’ posts about tobacco and marijuana are viewed with highest credibility also confirm past research on how AYA social media users are essentially doing the advertising for the industry. Since participants reported a strong distrust towards the industry, it is imperative that prevention education equip AYA with the skills to understand social media’s role in peer networks and the potential impact of the content they post online. The importance of trusting the source of social media messaging and personal choice points towards the need for not just regulation of industry advertising on social media, but more network-based interventions targeting the AYA social media users themselves.

Although this study originally grouped participants into users and non-users, the findings from the major themes show that there are not significant differences between the two groups. Non-users still described their exposure to tobacco and marijuana and their marketing in extreme detail, even though they did not have personal experience with using the products. Users had more to say about accessing and using tobacco and marijuana products, and how social media messaging and peer connections played a role into that.

There are some limitations to this qualitative study. The sample of AYA are all participants who went to high school in California, and may not be generalizable to all populations, especially in states that have not yet legalized recreational marijuana like California. This may also affect the type of advertising and social media messages that youth are exposed to, as well as attitudes around marijuana and smoking in general. Despite some of these limitations, this study still provides novel information on how AYA are interfacing with tobacco and marijuana messaging on popular social media sites, and focus on the personal perspective of AYA.

Social media is fast evolving, and public health research needs to keep up with the changing dynamics, given how AYA use social media as popular source of information and how quickly JUUL spread through social media. However, social media can also prove to be a powerful tool in delivering future health interventions. If AYA are more educated of their role in propagating tobacco and marijuana industry tactics through social media, they will be able to use social media in a way that is not doing the advertising for the industry. Ultimately, it is important to value the importance of the power and agency that AYA have not only on their own lives, but the greater online social network they are constantly connected to.

Acknowledgements

We would like to thank Dr. Trace Kershaw, the Department Chair of Social and Behavioral Sciences at the Yale School of Public Health, for acting as the primary Yale affiliated reader for this article, as well as all other Yale faculty who have advised the primary author in qualitative research methodology.
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doi:10.1136/tobaccocontrol-2017-054175

doi:10.1016/j.addbeh.2009.05.014
Tables

Table 1: Characteristics of Interview Participants (N=24)

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<th>Gender</th>
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<tbody>
<tr>
<td>Male N (%)</td>
<td>5 (20.8%)</td>
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<tr>
<td>Female N (%)</td>
<td>18 (75.0%)</td>
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<td>Other N (%)</td>
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<th>Age Mean (SD)</th>
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<td>Native Hawaiian or Other Pacific Islander N (%)</td>
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<td>More than One Race N (%)</td>
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<tr>
<td>Non-Use N (%)</td>
<td>8 (33.3%)</td>
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<tr>
<td>Tobacco Only N (%)</td>
<td>3 (12.5%)</td>
</tr>
<tr>
<td>Marijuana Only N (%)</td>
<td>1 (4.2%)</td>
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<tr>
<td>Tobacco and Marijuana N (%)</td>
<td>12 (50.0%)</td>
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Table 2: Illustrative Quotes

<table>
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<tr>
<th>Themes</th>
<th>Illustrative Quotes</th>
</tr>
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<tbody>
<tr>
<td>How Online Platforms and Social Media Tools Influence Interfacing</td>
<td>Ex 1: “I would say friends and social media is the most influential in getting me to try [tobacco], just because, I mean, it's what I'm exposed to the most, the people that I choose to follow on Twitter and Instagram and stuff like that.” (User)</td>
</tr>
</tbody>
</table>
| Subtheme: Interactions with Online Platforms and Social Media | Ex 2: “So, I think on Instagram at least, they just recommend – you can kind of go to a recommended page of images you might like, and it's just a bunch of things that they compile from, like, depending on what you've liked or looked at on Instagram.” (User)  
Ex 3: “I know some of the people on Instagram will post like that. And then they get some money from the shop for linking the shop's website in their caption.” (Non-User)  
Ex 4: “I have seen some videos, like on Instagram of some people hitting five jewels at once, like crazy hit” (User) |
Ex 5: "It’s a meme. I remember specifically this one with old grandma using 50 different [tobacco and marijuana products] and people are just like, damn, she’s so cool. A lot of people will like it and that’s how I saw it, ‘cause it was really liked and it was shared to me." (User)

Ex 6: "JUUL just recently came out with a limited-edition flavor. And I personally never saw like a sponsored post by them like promoting that because I also am not subscribing to anything for JUUL. But my friends kind of indirectly promoted it by like posting it on their Snapchat or stuff like that." (User)

Ex 7: "So in Reddit, there are several, I guess, groupings, kind of like a sub-forum for everyone to post a thread related to one particular topic. So one sub-Reddit is named trees." (Non-user)

Ex 8: "The JUUL website is a really, like – pretty like, well developed website… the JUUL website is something that people go on very frequently…If you’re like, you know, age verified and all that stuff, there’s a couple of things that you have to fill out. But so they make it very easy to like, get another JUUL or to get pods, or to find where those pods are.” (User)

Ex 9: "But like if it was a smoking or marijuana-related thing, I probably wouldn’t do that on Facebook anyways, ‘cause that’s like, you know, just where family and stuff is. But if I saw like something like that on Twitter, I might at a friend or DM [direct message] them, like a link." (User)

Ex 10: "Yeah, I'll just show it to them in person or I'll just text them." (User)

Ex 11: "Yeah, I've had friends tag me in promotions for like bongs or glassware that they're giving away." (User)

Ex 12: “On-line, I would say – one thing that I remember in particular is after I signed up for the website with Juul, they sent me emails and they were advertising like another – a new flavor that they had only on-line.” (User)

Ex 13: “Like, hey, did you hear about that sale?...Let’s all go over the shop tomorrow. Let's go buy some. And then like, you know, posting it on social media and showing it off to other people.” (User)
| Subtheme: Simplicity | Ex 14: "Very clean cut, like almost like it was based for the Millennial, you know, like looking for something that looks really nice and design-wise." (User)  
Ex 15: "I just remember that for Juuls they use like – of course there would be the word Juul on it ...it’s a white background but it’s still minimalistic. There’s not much going on with the ad besides the product itself and the name of the product." (User)  
Ex 16: "Right, yeah, so, Pax, I think their logo is just the X, like, at the end of "Pax." And I think they would market, like, the simplicity of their products" (User)  
Ex 17: "I don’t remember any specific text other than it probably said JUUL or whatever.... But, yeah, it was more so just a picture. I don’t remember any specific writing." (User) |
|---|
| Subtheme: Aesthetic | Ex 18: "I mean I remember that JUUL classifies their favors by like colors so like fruit is red, mint is green, tobacco is like brown and like a Crème Brule flavor, that’s yellow. And I think the other one’s actually blue." (User)  
Ex 19: "I think it’s also about the message and more just like “this is what I want you to associate with my product. When you see this color and like this texture of color, this is what I want. I want you to think of Swishers when you see like shiny purple.”" (User)  
Ex 20: "One of my other friends on her 21st birthday, a bunch of my friends got together and gave her some marijuana from a company...she got really excited because she was like, "You got me feminist marijuana!" because the [logo] of the marijuana company was a woman, and that's very rare in the marijuana industry.” (User) |
| Subtheme: Emotional | Ex 21: "I've seen a lot more advertisement for it, very positive. I a lot of it’s like, “Hi, San Diego” kind of more the uplifting kind of – yeah, just emphasizing a high state of mind and a looseness and a happiness from those advertisements.” (Non-user)  
Ex 22: "Not necessarily a healing tube, but it’s like, oh, it'll calm you down or something like that. They advertise it almost as medicine." (User) |
<table>
<thead>
<tr>
<th>Subtheme: Emphasis on Product Appeal</th>
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<tbody>
<tr>
<td>Ex 23: &quot;I guess I see a lot of people that – friends that I have that do use products have a way of glorifying things and making it seem cool, so I guess, yeah, Instagram is a very much way to make your own advertisement of something; the way that you take picture of something or that setting make it seem very cool.&quot; (User)</td>
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<tr>
<td>Ex 24: &quot;I think they were like, oh, like they’re trying to be like hip and like show that like these different flavors are cool and – yeah.&quot; (User)</td>
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<tr>
<td>Ex 25: &quot;Say you want cotton candy but you don’t want to go track down someone who is actually selling cotton candy. Well, here’s the liquid for you, something that you can’t usually get, I guess, but you can get a taste of or a little sample of in this product. That's my reaction and response.&quot; (User)</td>
</tr>
<tr>
<td>Ex 26: &quot;I think it's just kinda like… innovation. A lot of younger people are like, into new technology, new products, and it just kinda like… it's kind of like the same thing. They wanna try new things, they're curious.&quot; (User)</td>
</tr>
<tr>
<td>Ex 27: “So these advertisements come in for the e-cigs and vapes, showing that this is a healthier alternative, which I do think it is. I still don’t think it’s healthy, but compared to cigarettes, obviously it’s much healthier to use that.” (User)</td>
</tr>
<tr>
<td>Ex 28: &quot;I've definitely seen advertisements… like the different fruity flavors, to try to make it enticing to you or normalize it a little bit. ‘Cause like, you’re familiar with a strawberry. Like, “Strawberry, that’s like ice cream, that can't be bad for you.” (User)</td>
</tr>
<tr>
<td>Ex 29: “Juicy, they have juicy as a descriptive word.” (User)</td>
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<tr>
<th>Trusting Source of Messages</th>
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<tr>
<td>Subtheme: Celebrities</td>
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<tr>
<td>Ex 30: “I could see myself like taking a picture with a marijuana product, you know, like actors, like Seth Rogen and all those other people do them, like, you know, this is fun.” (User)</td>
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<td>Ex 31: &quot;Yeah, but there’s – I remember there actually is like a girl on You Tube and there’s a lot of YouTubers and a lot of Instagrammers that do promote like weed. I don’t know about tobacco, in particular. There’s probably like vape ones but I’ve only seen marijuana and that’s what they specifically advertise, and they get sponsored and they do reviews and stuff.&quot; (User)</td>
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<tr>
<td>Subtheme: Lack of Trust in Industry</td>
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<td>Ex 32: &quot;But then a lot of times too it’s you know just the lifestyle of the artist that is in the video and like they’re just promoting their lifestyle, even if that means some product placement by mistake.&quot; (User)</td>
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<td>Ex 33: “I like to listen to a lot of music, and definitely hearing other artists that I like and look up to talk about smoking blunts, and smoking – just like really weed product. And I guess like cigarettes too, definitely influenced me on trying these products, and doing them to feel cool, you know?” (User)</td>
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<td>Ex 34: “One of my favorite artists, Wiz Khalifa, he’s a rapper, a hip-hop rapper, and so I’ve seen him post photos of him like smoking a joint with like some cigars on the table, as well as liquor and cigarettes.” (User)</td>
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<td>Ex 35: “’Cause I just feel like in tobacco industry, there’s just like a lot of lying and corruption. And definitely that’s seeping over into like marijuana, since it’s about to be legalized, but there’s just like more – I feel like there’s more honesty among like – in the marijuana, it’s weird saying industry, ‘cause it wasn’t necessarily an industry. But now it like is moving towards that. So, yeah.&quot; (User)</td>
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<td>Ex 36: &quot;Well, if it were from the company, I would be more – I would be less likely to trust it, because I know that they’re benefiting from selling the product; whereas my friends or like people I follow, I feel like it’s much more like their own opinion and they don’t really have like a lot to gain from like sharing that information.&quot; (Non-user)</td>
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<td>Ex 37: &quot;My friends are people that I you know have a personal relationship with, so anyone who I know personally as opposed to some big faraway corporation advertisement I would give more credibility to.&quot; (User)</td>
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<tr>
<th>Attitudes and Agency</th>
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<tr>
<td>Subtheme: Changing Attitudes Around Products</td>
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<td>Ex 38: &quot;A really large portion of my friends seem to continually pop up and say that they have started to do regularly smoke marijuana or a couple of them I have seen or heard of or seen them on social media vaping or JUULing. So although I don’t do it and a couple close friends kind of stay very distant from it, what I’ve observed is just a trend of more and more people doing it.&quot; (Non-user)</td>
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<td>Ex 39: “I have smoked marijuana because of course there’s like a lot of pressure from my friends and a lot of other people telling me that it’s beneficial and it’ll help” (User)</td>
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<td>Ex 40: “I used to have like very, very negative feelings towards marijuana, but like when I’ve heard my friends have tried it – like it’s made me think that maybe it’s like not as bad as I previously thought, and like people who do use it like aren’t terrible, they’re like just regular people. ” (Non-user)</td>
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| Subtheme: Agency |
| Ex 41: “Never. I feel like everyone has their own freedom of speech, and they should be, no matter what, they should be allowed to say what they think or show what they think, as long as it’s appropriate enough for the world to see.” (User) |
| Ex 42: “Because I don’t smoke and because I don’t really have the urge to do drugs, I find that the message are often kind of not obnoxious but a little frustrating to have them put in front of me because it seems like some higher authority trying to tell me to do something that I know or choose not to do already so it almost seems extraneous.” (Non-user) |
| Ex 43: ”Why they’re annoying? Okay, I just like – they just sound so preachy and I feel like they don’t necessarily dissuade people who are going to – who are like already indulging in those products and like … there’s like a small subset of people who I just feel like the amount of people that could be influenced by this are not that many and I just think they’re like really preachy.” (User) |
| Ex 44: ”No. I mean, I liked the song, but, like, the – I don’t know. [Laughs] It doesn't, like, sway me either way, because, I mean, a song’s not gonna really, like, affect my health choices.” (User) |
Appendix

Appendix A: Interview Guide

1. Hi __________. How’s your day going?
   Thanks so much for agreeing to be interviewed today. I want to remind you that everything we discuss is confidential. That means we will not disclose any information you give us to your parents, family members or your friends. And in all publications that use this information we will not reveal your identity.
   Thanks for taking this opportunity to contribute to research that will inform public health policy at the national level. And we think that’s pretty important. As appreciation for your participation we send you a Target $25 gift card from in the next week or so.

2. Do you have any questions? O.K. Let’s get started. So I’ll be asking the same question for 5 products: e-cigs, cigarettes, LCCS (define), hookah and marijuana. If I forget to ask about one of them I’m counting on you to remind me 😊

3. Today I’d like to ask you about marketing and the media and tobacco products. Do you have any thoughts on that?

4. Please tell me generally what kinds of experiences you’ve had, if any, with any type of tobacco product, including e-cigarettes, regular cigarettes, chew, cigars and so on? (If report nothing, clarify: So you’ve never tried a tobacco product even one time, not even a puff, or anything else (a cigarette, cigar, hookah, e-cigarette, marijuana, LCCS)?

5. How many times and how often have you tried any tobacco? Probe to ask about tobacco products used.

6. Have you ever seen any ads, imagery, marketing for cigarettes?
   After drilling down: ask same thing for e-cigarettes, LCCS, hookah and MJ

7. Can you describe where you’ve seen the ads? (If online - which site, and how often they use that site). Do they often or only sometimes see an ad on that site?

8. Have you seen ads anywhere else? Where?

9. Can you describe what you’ve seen? What was the content of the ad – can you describe the photo or the words used to sell the product?

10. *Can you describe where you have seen messages warning against using a flavored product?

11. Have you ever seen an ad that describes flavors?

12. Have you seen ads for different types of e-cig juice flavors?

13. How would you describe the ads you’ve seen that describe flavors?

14. Do you remember what pictures, colors, words were in the ad to describe flavors?
15. Do you remember what pictures, colors, words were in the ad to describe smells?
16. Do you remember what pictures, colors, words were in the ad to describe brands?
17. What messages have you heard or seen in an ad?
18. Have you seen any ads that make claims if you use their product? 
   If so, what claims?  
   (Healthier, help you quit using cigarettes, be more free, anything else)?
19. Have you seen any ads that imply you would be healthier if you used vapes? (all products)
20. Have you seen any ads that suggest using them will help you quit smoking cigarettes? 
   Which products?
21. Have you seen any ads that imply you would not be able to quit smoking if you used vapes? (all products)  
   Who sponsored that ad? The product manufacturer? A public health organization?
22. Have you seen any ads that suggest that you are free to use them wherever and whenever you want to?
23. What products have been advertised this way?
24. I know this is tough to describe but do you remember how an ad made you feel?
25. When you see an ad how do you respond? 
   Do you like it? 
   Do you skip it? 
   Anything else?
26. Are there any settings where you might click on “like” for an ad for a tobacco product? 
   What settings? 
   Example an ad that a friend posted online about a tobacco product 
   So you would like it? 
   Would you skip it? 
   Would you comment on it?
27. Have you ever seen a tobacco product ad from a company - like Marlboro or Njoy - 
   Would you be more likely to skip it or like it?
28. Under what circumstances would you skip an ad for a tobacco product? 
   What circumstances?
29. Are there any situations where you would remove an ad from popping up?
30. Have you seen any ads that promote using more than one product? Like marijuana and 
   tobacco, e-cig juices with hookah/marijuana. Anything else?
31. Do any ads stand out?  
   What about them? They're clever, funny?