Message development for a communication campaign to support health warning labels on cigars: a qualitative study

Chineme Enyioha[1,2*], Sonia A. Clark[2], Kristen L. Jarman[1], Remi Philips[1], Selena Kleber[1], James F. Thrasher[3] and Adam O. Goldstein[1,2]

Abstract

Background Communication campaigns for health warning labels (HWLs) are an evidence-based strategy to reduce tobacco use. No research has examined campaign messages to support graphic HWLs for little cigars and cigarillos (LCCs).

Methods We developed four message types for graphic LCC HWLs: (1) Explanatory (2) Testimonial (3) Inquisitive and (4) Recommendation, depicting colon, lung, and esophageal cancer. Online focus groups with Black and White young adults (18–25 years old) who reported current LCC use were conducted. Participants were shown graphic HWLs on LCCs and then four message types corresponding to the HWLs. Participants discussed persuasive communication features for each message type.

Results Thirty-six young adults who use LCCs participated. Four central themes were revealed. (1) Perceived credibility of message and messenger impacted effectiveness. (2) Personally relevant messages were emotionally engaging and made people think about their health, (3) Succinct, factual messages with new information were perceived as believable, and (4) Language perceived to be "Marketing," was deemed insincere.

Conclusions For communication campaigns to support graphic HWLs for LCCs, messages perceived as credible, relatable, and messages that convey new information are more likely to be received positively and may increase campaign effectiveness.

Keywords Cigars, Health warnings labels, Campaign messages

*Correspondence:
Chineme Enyioha
chineme_enyioha@med.unc.edu
[1]Department of Family Medicine, University of North Carolina at Chapel Hill, 590 Manning Drive, Chapel Hill, NC 27599, USA
[2]Lineberger Comprehensive Cancer Center, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA
[3]Department of Health Promotion, Education, and Behavior, University of South Carolina, Columbia, SC, USA

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Background

Nearly 9 million adults in the United States smoke cigars, and in recent years, the prevalence of little cigars and cigarillo (LCC) use has increased significantly [1]. While cigarette consumption decreased by 55% between 2000 and 2022, cigar consumption increased by 108% [2]. This increase is especially pronounced amongst young adults and within Black communities [3–6]. Several factors influence this disproportionate use, including targeted advertisements [7, 8], product availability [7], relative affordability [6], misperceptions about LCC harms [9], and lower relative risk perceptions compared to cigarettes [6]. This is concerning because cigars are addictive and can cause negative health effects, including cancers of the mouth and lungs [10]. One successful strategy to communicate harms and risks about cigars is through health warning labels (HWLs) on product packaging.

Currently, the Food and Drug Administration (FDA) regulates cigars in the United States (US), including HWL requirements for those who manufacture or market LCCs [11]. Graphic HWLs on cigarettes, which generally use pictures or images of harms to accompany the text, are more effective than text-only HWLs [12, 13] in increasing knowledge and quit attempts, while reducing smoking prevalence [14–16]. As mandated in 2009 legislation that gave the FDA regulatory authority over tobacco products, the FDA proposed its first round of graphic HWLs for cigarette packaging in 2011 [17], but industry litigation delayed implementation for over a decade. If these get implemented, HWLs for other tobacco products, including LCCs, may also be implemented and could include a communication campaign to accompany these HWLs to enhance their impact.

Communication campaigns to complement the introduction of graphic HWLs on cigarette packs have helped increase attention towards and discussions about the HWLs as well as increase quit attempts [18–20]. Communication campaigns can provide information about harm in several ways, including use of testimonials [21, 22]. Communication campaigns on HWLs may augment the effect by integrating HWL statements into compelling narratives that bring the static imagery of HWLs to life [20, 23], thereby making the HWLs more impactful. While campaigns to accompany HWLs produced positive results, these campaigns were specific to cigarettes. To our knowledge, no research has examined the development or impact of a communication campaign to support cigar HWLs on cigar-related perceptions or behaviors. This is a critical gap since most people who use LCCs are younger adults and use LCCs less frequently than cigarettes. Furthermore, people who use LCCs typically consider themselves to be less addicted to these products and many are not very knowledgeable about the health consequences of LCC use [24, 25].

Hence communication campaigns to augment HWLs on LCCs may lead to increased awareness and attention to information on LCC HWLs and in turn, increase in cessation-related behavior by young adults who use LCCs. The purpose of this study was to develop and identify the optimal message style for use in a communication campaign to augment new cigar HWLs targeted to young adults.

Methods

Participants

The study team recruited a sample of White and Black participants over a period of six months, from Facebook and Instagram, the university's research recruitment site, and specific recruitment platforms such as Research Match and Research for Me. Potential participants were also identified using the Carolina Data Warehouse, a data repository at the University of North Carolina at Chapel Hill. Eligible participants included adults aged 18–25 years old who reported current little cigar or cigarillo use (i.e., past 30-day use.) Eligibility criteria further limited participants to those who felt comfortable participating in the focus group in English, had access to a computer or device to participate, and who had not participated in a tobacco-related research study in the past 3 months.

Message design

Several messages were developed to [1] Inform the audience about the HWLs and [2] communicate health consequences of cigar use. Using the Center for Disease Control and Prevention (CDC) Media Campaign Resource Center, the team reviewed several types of messages produced and national communication campaigns on various tobacco products, such as the Tips From Former Smokers (TIPS) campaign, while placing emphasis on campaigns targeted to young adult and Black individuals. We identified four message types that have been successfully employed in prior campaigns including: explanatory, testimonials, recommendation and inquisitive messages. Explanatory messages explain, in plain language, who introduced the graphic HWLs on cigars and their relevance. Testimonial messages are often written from the perspective of a patient with the negative health effect associated with the product or from the perspective of a friend or family member. This style has been popularized in tobacco messages through the TIPS campaign which has led to sustained cessation for approximately 1 million US adults [22]. Inquisitive messages, which invited participants to think, were conceived from campaigns like the Campaign for Tobacco-free Kids, which employed question-framed messages to engage the audience by asking "Need a reason to shop tobacco-free?" [26] The final message type identified was based on recommendations from the perspective of a knowledgeable

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professional. This style was recently employed by the CDC to raise awareness about the 2020 Surgeon General's Report on Smoking Cessation [27].

Stimuli

As part of a current study developing graphic HWLs on LCCs, we selected three graphic HWLs depicting colon, lung, and esophageal cancer, based on high rating of perceived message effective for these health effects in prior studies [28, 29]. With guidance from tobacco health communication experts, we developed three variations of the four message types and then applied to the three HWLs to create a total of 36 messages. We also developed the focus group guide for the study (see Table 1 and Supplementary materials 1 and 2).

Protocol

At the start of each focus group, participants were asked about their tobacco use history and nicotine dependence, as well as some demographic information. Participants in each focus group were shown a HWL for one health effect, then the HWL on a Brentfield cigarillo package to provide context of how these HWLs could look like on a cigar product. Brentfield is a fictious brand successfully used in prior studies to limit the influence of preexisting product perceptions [30, 31]. Participants were then shown four messages about the HWL, each message representing one message type. We used Latin square design to allocate the messages shown to each focus group to balance the number of times they saw each message type and variation. With an in-depth focus group guide developed by the study team, participants shared their opinions and perspectives about various aspects of each message, including persuasive communication features, such as ease of understanding and strong cognitive and affective reactions that are likely to increase LCC quit intentions. Focus groups ranged from 60 to 90 min, and participants were compensated for their time with a $50 Amazon gift card. Focus groups were facilitated by the principal investigator (CE) and a team member (SC).

Focus group transcripts were uploaded into Atlas Ti, a qualitative data analysis software. Using the research questions from the focus group guide, a codebook outline was constructed with an initial set of prospective codes. In addition to this deductive approach, inductive coding was used to develop new codes and refine existing codes within the codebook for clarity. Researchers (CE, SC) coded one transcript independently and individually identified potential codes to add to the codebook. After coding this initial transcript, all coders met to review coded excerpts and proposed codes, discuss discrepancies, reach a consensus on coding, and updated the codebook (See supplementary material 3). Intercoder reliability was examined using Krippendorff's c-Alpha-binary and the resulting score was 0.805, which showed satisfactory agreement. After definitions and decision rules were finalized for the codebook, the other focus group transcripts were dual-coded. Data within codes were analyzed by creating code reports and then organizing the data by categories while relevant and supporting quotes were extracted.

To improve the validity of the research, the focus groups were conducted in a culturally sensitive manner. For instance, focus groups with Black participants were facilitated by a member of the team familiar with cultural values of the group [32]. The data was also presented to the larger research team to discuss the findings, which also helped with the validity of the study [33]. Themes presented below are based on topics that were discussed in the focus group(s) repeatedly or greater than 50% of the time.

Results

We conducted 13 focus groups with 36 individuals. Of all participants, 34 reported current cigarillo use and 18 reported current use of little cigars. See Table 2.

The focus group interviews revealed four central themes, providing insight into message type perceptions and preferences: (1) Perceived credibility of message & messenger impacted effectiveness (2), Personally relevant messages about family, friends, or young adults were emotionally engaging and made people think about their health (3), Succinct, factual messages with new information were perceived as believable and attention-getting, and (4) Language perceived to be "Marketing," was deemed insincere and untrustworthy. Participants discussed message believability and perceptions. We

Table 1 Example messages for the four message types

Message Type	Example Message
Explanatory	The FDA has new warnings on cigars that are directly relevant to young adults because cigars can cause colon cancer.
Testimonial	"It hurts to see my mother in the hospital with colon cancer. She used to smoke cigars. We now know that cigars cause colon cancer as seen on the new health warning labels."
Recommendation	The U.S. Surgeon General supports the new health warnings on cigar products. Cigar use does increase your chances of getting colon cancer.
Inquisitive	Why should you quit using cigars? New health warning labels on cigar packs show the negative health effects cigars can cause, including colon cancer.

Table 2 Demographics and tobacco use characteristics

		Count (*N*)	%
Age (years)			
	Mean Age (SD)	21.5 (2.1)	-
Sex			
	Female	24	67%
	Male	10	28%
	Nonbinary	2	6%
Race			
	White	19	53%
	Black/African American	17	47%
Ethnicity			
	Non-Hispanic	26	72%
	Hispanic	10	28%
Educational Attainment			
	High school graduate or less	3	8%
	Associate degree or some college	19	53%
	Bachelor's degree	10	28%
	Graduate degree	4	11%
Ever Cigarillo Use			
	Yes	34	94%
	No	2	6%
Current Cigarillo Use (# of days used in Past 30 days)			
	No Past 30-day use	0	0%
	Use 1–5 days	18	53%
	Use 6–15 days	3	9%
	Use 16–25 days	10	29%
	Use 26–30 days	3	9%
Ever Little Cigar Use			
	Yes	23	64%
	No	13	36%
Current Little Cigar Use (# of days used in Past 30 days)			
	No Past 30-day use	5	22%
	Use 1–5 days	11	48%
	Use 6–15 days	3	13%
	Use 16–25 days	3	13%
	Use 26–30 days	1	4%
Other Tobacco Product Use			
	Cigarettes	15	42%
	Electronic cigarettes, e-cigarettes, or other vaping devices	25	69%
	Water-pipe tobacco or Hookah	7	19%
	Smokeless tobacco, for example: chewing tobacco, snuff, dip, or snus	4	11%
	None of the above	5	14%

describe salient themes and provide representative quotes from participants.

Perceived credibility of message & messenger influenced effectiveness

Several participants noted that messages that shared factual and unbiased information, such as explanatory messages, were believable.

- "I probably would choose recommendation or explanatory also since it's—something.

- more of—more statistic, more researched wised" (Black male, late teens).
- "It's, like, very straightforward …, I can see that esophageal cancer would lead you to have the esophagus removed." (White female, mid-twenties).
- Many participants also noted the source of a message affected believability. For example, testimonial messages from personal experiences and messages from healthcare professionals were found to be believable. Messages from healthcare professionals

were not only believable but also instilled concern about the health consequences of their LCC use.

- "It's coming from someone who actually smoked cigarettes and got esophageal cancer. And I feel like someone will be able to believe that…" (Black female, late teens).
- "I will say this is informative… since it's actually coming from a doctor and he's more professional … so I think I'll go for that" (Black female, mid-twenties).
- "…the fact that it's tied to a very credible source for me makes that fear a little bit more, uh, omnipresent…." (White Male, mid-twenties).

While some participants noted that messages mentioning a health authority like the U.S, Surgeon General or FDA were particularly effective, a few participants disagreed due to negative perceptions or confusion.

- "The FDA, um, that's—to me, that's a reliable source…" (Black female, late teens).
- "I think I would take out the FDA part of it… because a lot of people have bad feelings about the FDA and how they're kinda corrupt" (White female, early twenties).

Personally relevant messages about family, friends, or young adults were relatable, emotional, and made people think about their health
Several participants expressed that messages that referenced family or friends made them think about quitting. The same outcome applied to messages that were specific to young adults.

- "…… makes me feel sad because, obviously, you wouldn't want to see your mother in the hospital with colon cancer. So maybe … take initiative to quit" (White male, early twenties).
- "If we're saying one of my friends had colon cancer, that means people my age should be concerned about this health risk… I need to talk with my close friends, we need to try and discover an alternative. (Black female, early twenties)
- "It says that it can affect young adults. knowing that colon cancer could happen now, um, that's new information to me" (White female, early twenties).

However, a few participants noted that messages focused on young adults made them feel like they were being lectured, and the referenced health effect may not be a real concern for young adults.

- "Young people don't like to be told what to do, so I feel like specifically targeting young adults is kind of,

like, a turnoff to the message. I think kind of almost weakens the message." (White female, mid-twenties).

Succinct., factual messages that presented new information were found to be believable & attention-getting
Many participants emphasized that they wanted messages to share new, interesting information. For example, while most participants knew smoking causes lung cancer, the majority did not know about the association with cigar use and esophageal and colon cancer. Many revealed that messages with new information were attention grabbing and made them reflect on the consequences of having the described health effect.

- "…because it's a new health warning… it makes me so curious. Like, I really want to know more about … the health effects more." (White female, early twenties).
- "…an immediate threat to my health… was really effective for me … that last sentence, "This may lead to removal of all or part of the esophagus" (White male, mid-twenties).
- "It says 'new health warnings,' um, and—well, it was new to me because before this, I didn't know that you could get colon cancer from smoking. (White female, early twenties)

When messages were about lung cancer, some participants found the information to be dull. Some people expressed dislike for these messages in part because they were perceived as lacking new information or condescending.

- "I think the first one almost makes me feel annoyed. [Laughter] Like, like, do you think I'm stupid?" (White female, mid-twenties).

Language perceived to be "Marketing," or coercive was deemed insincere and untrustworthy
Participants felt that messages that applied a question-and-answer approach or coercive messages, such as recommendation from a professional, had a "marketing" tone and such messages were found to be unappealing.

- "It kinda felt scripted. Like, "Did you know…? … it just feels like ingenuine and just, like, more like commercial-like" (White male, mid-twenties).
- "I personally didn't like …. at all. It felt like an ad … very impersonal … something you might read on a billboard." (White female, early twenties).

Some participants discussed how messages that were explanatory resonated with them more because they

were unbiased, instead of using coercive language aimed at pushing them to quit.

- "I chose …. [to like] neutral, and it's just information… decide for themselves whether or not they want to quit" (White female, early twenties).

Discussion

The present study investigated how adults who use LCCs perceive different types of messages that could be used to support HWLs for LCCs. Our findings showed that messages with simple, factual language and information were positively received. Further, messages based on personal experiences or from healthcare professions, messages about family, friends, young adults, or messages that provided novel and factual information were relatable, engaging and believable. Messages perceived to have a marketing or coercive tone were negatively received. This study provides insight into types of messages and language that may enhance the effectiveness of messages developed to augment HWL for LCCs or other tobacco products and can play a significant role in tobacco regulatory science.

First, findings from this study show that the credibility of a message as well as the messenger is important to those who use LCCs. Messages that were simple and in plain language as well as messages from personal experiences and from health professionals were perceived as more credible than others. Several factors, including message and message source, influence how individuals evaluate messages [34, 35], which can, in turn, influence the effect of communication campaigns. The credibility of a message depends on the message content, language and delivery platform features [36] and previous research has shown that messages that are perceived to be without bias or with no personal opinion are found to be more credible [37]. This is also true for messages with facts that are backed with data [38]. However, messages with technical language or jargon, and generalized terminology can create a negative perception and weaken perceived credibility [39, 40].

The credibility of a message source can also influence message reception and affect persuasiveness of the message [34, 41–43]. In tobacco control, evidence regarding the importance of message source is mixed. While a study by Lazard and colleagues showed no significant difference in believability of cigarettes warning messages based on message source [44], Erku and colleagues showed that lower use of nicotine vaping products (NVPs) and the perception that NVPs were as harmful as cigarettes were related to a trust in health agencies providing risk information on NVPs [42]. Similarly, Lee and colleagues showed a positive relationship between perceived source credibility and appeal, relevance and

effectiveness of e-cigarette ads among people who use e-cigarette [45]. Source credibility is based on expertise, skills and experience that allows an individual to provide accurate information, and trustworthiness [34], the belief that an individual presents what he or she thinks is accurate information [46]. For products such as LCCs, source credibility is important because many people are not well-informed about the health consequences of LCC use [24, 25]. People who use LCCs may rely on external sources or sources they trust outside of their social circle for information about risks.

Second, participants found personal relevance of messages to be important. Messages referring to family, friends or young adults were viewed as relatable, made participants self-reflect and think about their health. The personal relevance of a message leads to motivation, which in turn leads to active processing of the message vis a vis one's past experiences. Messages processed in this manner have been associated with longer retention and change in behavior [47, 48]. Such messages are meaningful and appeal to the sense of self of the receiving individual [49, 50]. For instance, previous studies have shown that messages that are framed in ways that highlight the fact that tobacco use can result in health effects that can affect young adults, and not just long-term health effects associated with older adults, tend to be effective on young adults. Such messages lead to increased processing, stronger emotional reaction in young adults [51]. Similar effects can be expected with messages that involve direct or indirect consequences on loved ones or friends since these can make the messages more relatable, elicit emotions that may help make the message more meaningful.

Third, some participants were interested in messages with novel information and messages that were perceived to be unbiased. For instance, while participants in our study were aware that tobacco use increases the risk of lung cancer, many of them were shocked about the association between smoking and colon or esophageal cancer. The importance of new content is consistent with findings in the literature. Morgan and colleagues, in a study to identify ways to increase the impact of messages on chemical constituents in cigarette smoke, found that novelty was a way to maintain attention and effectiveness [48]. Researchers also found a positive relationship between perceived new knowledge and being discouraged to smoke [52]. A content analysis of major campaigns against tobacco on social media by Lin and colleagues showed that campaign posts with new information were most popular and had more user engagement [53]. New information can have a direct and indirect impact by increasing worry about health consequences of smoking. In contrast, repeated exposure to a message or the perceived redundancy of a message can

lead to desensitization or reduced attention to the message [54].

Finally, our study highlights the importance of message tone. Messages with coercive tone or with a "marketing" or commercial-like language were described as insincere and not trustworthy. In a study to identify content of tobacco related information that keeps young adults engaged, Lazard and colleagues noted the importance of the tone of a message. Participants in that study were not interested in messages that applied language that appeared authoritative. The same applied to messages that appeared aggressive or scary [44]. In our study, participants preferred messages with language that was explanatory because these messages were viewed as unbiased, and not aimed at pushing them to quit. Previous studies have shown that when a message tone is authoritative, it can have a negative effect because the individuals viewing the message may feel that they have no choice and cannot make their own decisions [55]. This type of reaction can be counterproductive and lead to the opposite effect from the expected outcome of a message.

Research limitations

Some limitations exist with this research. We may not have captured some message characteristics that may appeal to young adults who use LCCs. While our study focused on White and Black young adults, because this population makes up a high proportion of people who use LCCs, our findings may not be generalizable to the general population of people who use cigars. In addition, although we were able to determine message characteristics that are important to participants, we did not examine the influence of these factors on actual behavior change. Most of our participants used other tobacco products, and the influence of the use of other products on perception of messages uniquely about LCCs is unclear. Along the same line, majority of participants were cigarillo users while a smaller proportion of participants reported a history of cigar use. This may have influenced our overall findings and future studies can explore preferences for message characteristics based on tobacco use habits and other demographic factors. Preferences for characteristic of messages may differ by health literacy levels, and health literacy affects the processing and understanding or interpretation of health information [35].Lastly, focus groups were conducted via Zoom. While the virtual nature of focus groups enabled us to recruit participants from geographically diverse backgrounds across the U.S, it may have also affected interactions between participants during the meeting and enabled false representation of eligibility during the initial screening process. Participants who were confirmed to be ineligible during the second screening process at the start of the focus groups were informed of

their ineligibility and not allowed to participate. This led to some focus groups having fewer than 4–6 participants, which is the number of participants recommended for online focus groups [56].

Conclusion

The use of LCCs among young adults has increased in recent years. Effective messages to support new HWLs for LCCs is a high area of need. This study provides useful information on types of messages that can be applied in a campaign to support new HWL on LCCs. Our findings revealed that perceived credibility of message and message source is important as well as messages with personal relevance either with self, family and friends or young adults and messages with new information are preferred. Messages with these attributes may be a promising route for future development for health communication campaigns. The effect of complimentary campaigns focusing on multiple product use is also an important area for future research.

Abbreviations
HWL	Health warning labels
LCC	Little cigars and cigarillos
FDA	Food and Drug Administration
CDC	Center for Disease Control and Prevention
TIPS	Tips from Former Smokers campaign
NVPs	Nicotine Vaping Products

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12889-024-21097-1.

Supplementary Material 1

Supplementary Material 2

Supplementary Material 3

Data availability
The datasets generated and/or analyzed during the current study are not publicly available but are available from the corresponding author on reasonable request.

Declarations

Ethical approval and consent to participate
All methods used in this study were done in accordance with guidelines and regulations under the Declaration of Helsinki. The study was approved by

the University of North Carolina Institutional Review Board (approval number 21-2218). Informed consent was obtained from all participants prior to participation in the study.

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