## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

#### ARTICLE DETAILS

TITLE (PROVISIONAL)	Young adults' cigarillo risk perceptions, attention to warning labels and perceptions of proposed pictorial warnings – a focus group study.
AUTHORS	Gratale, Stefanie; Jeong, Michelle; Sidhu, Anupreet; Safi, Zeinab; Strasser, Andrew; Delnevo, Cristine; Wackowski, Olivia A.

#### VERSION 1 – REVIEW

REVIEWER	Timberlake, David
	University of California, Irvine
REVIEW RETURNED	21-Mar-2022

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GENERAL COMMENTS	3/21/2022 Journal: BMJ Open
	Manuscript Title: Young adults' cigarillo risk perceptions, attention to warning labels and perceptions of proposed pictorial warnings – a focus group study
	The authors of this manuscript conducted focus groups to explore cigarillo users' risk perceptions, perceptions of addictiveness, attention to warning labels, and perceptions about pictorial warning labels (PWLs). The authors addressed an important topic with the rationale that an evidentiary base needs to be established for mandating a warning label on cigarillo packages.
	While I agree with the premise of the study, I believe the manuscript could be framed with a greater focus on how the frequent modification of cigarillos (i.e. for blunts or "freaking") could influence risk perceptions, perceptions of addictiveness, warning labels, etc. The use of focus groups, unlike survey data, could unpack some of the uncertainty about whether the perceived risks pertain to smoking a cigarillo as intended or as a modified product. This was a fundamental limitation in a recent publication examining risk perceptions by modified use of the cigarillo (Timberlake & Rhee, Psychol Addict Behav. 2022). The focus groups themselves won't be able to provide the evidentiary base for establishing whether the warning labels are effective for preventing and ceasing cigarillo use. Thus, the authors should consider reevaluating what question their methodological approach (i.e. focus groups) is best suited to address. It is my opinion that the study's true strength lies in its ability to distinguish perceptions according to type of use. Here is a list of specific suggestions:
	1) Some published studies using PATH data have reported risk perceptions of cigarillos without consideration of how cigarillos are

actually used. The authors could discuss the limitations of these papers in the Introduction and speculate why " some also misperceive cigarillos as more natural and less harmful than cigarettes" (lines 15-18, Introduction).
2) In the section Study Procedures (or elsewhere), list the three cigar warning statements that were discussed with participants.
3) I strongly recommend dropping Table 1 because the results are a distraction that could potentially mislead the reader. Instead of presenting detailed survey results from a small convenience sample (n=42), which is probably unrepresentative of the larger population of cigarillo users, I suggest briefly summarizing in the text key demographic characteristics (e.g., sex, age, race/ethnicity) of the sample and a few tobacco use behaviors (e.g., blunt use, "freaking" if available, preferred cigarillo brand).
4) On page number 11 of the results section, the authors state that several participants expressed uncertainty/lack of knowledge about cigarillo risk perceptions, exemplified by the quote "I used them mostly for wraps, so I've not considered the health risk". I conjecture that part of the uncertainty can be attributed to confusion over whether the risk perceptions pertained to smoking a whole or part of a cigarillo (e.g., outer shell, wrap).
5) I'm surprised that the authors did not discuss the common practice of "freaking" a Black and Mild (B&M) cigarillo, and the extent to which the practice is intended to reduce cancer risk. I suspect that "freaking" a B&M did not come up in the focus groups because African Americans were underrepresented in the sample. The authors briefly acknowledged the latter as a limitation without discussing the implications.
6) Many of the quotes pertaining to cigarillo warning attention and perceived effectiveness of PWLs could apply generally to other tobacco products. I suggest that the authors report some of these general observations/quotes, but, focus more on warning label issues that are specific to cigarillos, e.g., last sentence at the bottom of page 15 & the two quotes at the top of page 16 (lines 11-22).
7) The discussion section, which is very well written, highlights my recommendation of addressing how variation in use of the cigarillo dictates risk perception and potential effectiveness of the warning labels.

### **VERSION 1 – AUTHOR RESPONSE**

#### **Reviewer: 1**

Dr. David Timberlake, University of California, Irvine

Comments to the Author:

The authors of this manuscript conducted focus groups to explore cigarillo users' risk perceptions, perceptions of addictiveness, attention to warning labels, and perceptions about pictorial warning labels (PWLs). The authors addressed an important topic with the rationale that an evidentiary base

needs to be established for mandating a warning label on cigarillo packages.

While I agree with the premise of the study, I believe the manuscript could be framed with a greater focus on how the frequent modification of cigarillos (i.e. for blunts or "freaking") could influence risk perceptions, perceptions of addictiveness, warning labels, etc. The use of focus groups, unlike survey data, could unpack some of the uncertainty about whether the perceived risks pertain to smoking a cigarillo as intended or as a modified product. This was a fundamental limitation in a recent publication examining risk perceptions by modified use of the cigarillo (Timberlake & Rhee, Psychol Addict Behav. 2022). The focus groups themselves won't be able to provide the evidentiary base for establishing whether the warning labels are effective for preventing and ceasing cigarillo use. Thus, the authors should consider reevaluating what question their methodological approach (i.e. focus groups) is best suited to address. It is my opinion that the study's true strength lies in its ability to distinguish perceptions according to type of use.

**Response:** We thank the reviewer for the thoughtful feedback provided for this manuscript, as it was very helpful.

With regard to the above suggestions, we have attempted to be true to our focus groups in the presentation of results, which asked about cigarillos risk/addiction perceptions as introductory questions leading to discussion about warning labels (rather than sessions that were more focused on the risk perception/use patterns themselves). However, we do feel that important themes related to user modification (i.e., blunt use) did emerge, and we have attempted to capture this. We have added language to the Introduction highlighting that the manuscript explicitly considers the role of cigarillo modification, such as for blunts, in affecting product risks perceptions. We have also incorporated additional exploration of this throughout the manuscript, especially in the Discussion section, in conjunction with the specific suggestions shared below. We also added some additional example quotes to the Results section that related to perceptions of cigars being more "natural" than cigarettes, which is also somewhat limited in the research and we think would be of interest to readers.

Here is a list of specific suggestions:

1) Some published studies using PATH data have reported risk perceptions of cigarillos without consideration of how cigarillos are actually used. The authors could discuss the limitations of these papers in the Introduction and speculate why ".... some also misperceive cigarillos as more natural and less harmful than cigarettes" (lines 15-18, Introduction).

**Response:** We have added a statement about research/gaps regarding this issue to the beginning of the Introduction, as well as a stipulation at the end of the Introduction specifying that risk perceptions by use type/modification for blunts.

2) In the section Study Procedures (or elsewhere), list the three cigar warning statements that were discussed with participants.

**Response:** There were actually a total of seven different cigar warning statements (i.e., those put forth by the FDA), though in any given group participants only discussed three of the seven (statements were split across groups). We have clarified this in the manuscript and included a reference to the FDA's website where all seven statements can be found (and have included the seven statements in a Supplementary File). We think this may be preferable to including all seven statements in this manuscript, given manuscript length, and because doing so could be distracting for readers, since reactions to these specific statements and image pairings are not the focus of this particular manuscript.

3) I strongly recommend dropping Table 1 because the results are a distraction that could potentially mislead the reader. Instead of presenting detailed survey results from a small convenience

sample (n=42), which is probably unrepresentative of the larger population of cigarillo users, I suggest briefly summarizing in the text key demographic characteristics (e.g., sex, age, race/ethnicity) of the sample and a few tobacco use behaviors (e.g., blunt use, "freaking" if available, preferred cigarillo brand).

**Response:** Thank you for this suggestion. We carefully considered the pros/cons of excluding the table and ultimately decided to keep the table, as doing so allows us to add other important text to the narrative based on the reviewer's comments, rather than using additional word count on describing demographics that the table can instead provide. The table also allows readers to efficiently see the distribution of characteristics by group type (past 30-day versus past 12-month users). In our experience overall, including a table about participant characteristics is not unusual for a focus group study, and based on this, we do not expect that readers should be misled into thinking these are representative results. Still, as this is a relevant concern, wDiscussion section that this is a small convenience sample and that the generalizability of the results may thus be limited. Unfortunately, we did not collect data about blunt use or freaking on the survey, so this cannot be added to the table.

4) On page number 11 of the results section, the authors state that several participants expressed uncertainty/lack of knowledge about cigarillo risk perceptions, exemplified by the quote "I used them mostly for wraps, so I've not considered the health risk". I conjecture that part of the uncertainty can be attributed to confusion over whether the risk perceptions pertained to smoking a whole or part of a cigarillo (e.g., outer shell, wrap).

**Response:** We have added a sentence to the first paragraph of the Discussion, mentioning potential confusion of risks of smoking whole cigarillos or part. We also added another example of lack of knowledge to that paragraph in the Results section (i.e., "One person mentioned not knowing that the outside wrapper was made out of tobacco when they first started using cigarillos. Some mentioned not having thought about potential health risks before, because for example, they had not heard much about cigarillo risks, or because they used the product mostly for blunts").

5) I'm surprised that the authors did not discuss the common practice of "freaking" a Black and Mild (B&M) cigarillo, and the extent to which the practice is intended to reduce cancer risk. I suspect that "freaking" a B&M did not come up in the focus groups because African Americans were underrepresented in the sample. The authors briefly acknowledged the latter as a limitation without discussing the implications.

**Response:** We have added a statement to the Discussion of limitations, specifying that the participant composition may have influenced the lack of organic discussion about freaking, although we also did not specifically probe on this, which we have also added to the limitations.

6) Many of the quotes pertaining to cigarillo warning attention and perceived effectiveness of PWLs could apply generally to other tobacco products. I suggest that the authors report some of these general observations/quotes, but, focus more on warning label issues that are specific to cigarillos, e.g., last sentence at the bottom of page 15 & the two quotes at the top of page 16 (lines 11-22). **Response:** We appreciate this comment and understand the logic. We would like to keep the examples we have included even though many could pertain to tobacco labeling in general, in order to keep the results section true to the discussion and comments that emerged as prominent in the groups. However, we have added sentences at the end of the third and fourth paragraphs of the Discussion section, explaining that many of the comments regarding labels could pertain to other tobacco products, but that this underscores the relevance of the inconsistent use of cigarillo warnings and the importance of making cigar warning standards commensurate with those of cigarettes.

7) The discussion section, which is very well written, highlights my recommendation of addressing how variation in use of the cigarillo dictates risk perception and potential effectiveness of the warning labels.

**Response:** Thank you for this comment. We have incorporated additional statements in the first and last paragraphs of the Discussion to reinforce this point.

Reviewer: 1

Competing interests of Reviewer: I don't have any competing interests

# VERSION 2 – REVIEW

REVIEWER	Timberlake, David
	University of California, Irvine
REVIEW RETURNED	14-May-2022
CENEDAL COMMENTS	Learning the sufficient the resume responses and attentiones to

GENERAL COMMENTS	I appreciate the authors' thorough responses and attentiveness to the issues that I addressed. The manuscript will be an important
	contribution to the field. I have no further comments.