PEER REVIEW HISTORY

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This paper was submitted to a another journal from BMJ but declined for publication following peer review. The authors addressed the reviewers' comments and submitted the revised paper to BMJ Open. The paper was subsequently accepted for publication at BMJ Open.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Speaking out about physical harms from tobacco use: Response to graphic warning labels among American Indian/Alaska Native communities
AUTHORS	Patterson, David; Tovar, Molly; Thompson, Kellie; Ishcomer, Jamie; Kreuter, Matthew; Caburnay, Charlene; Boyum, Sonia

VERSION 1 - REVIEW

REVIEWER	Glover, Marewa Massey University, Research Centre for Maori Health & Development
REVIEW RETURNED	08-Apr-2015

GENERAL COMMENTS	It is always exciting to find articles reporting on the experience of Indigenous people. Tobacco Control is the leading international journal on tobacco control. As such, articles should be written for the international audience. This article was very US-centric. The article could be improved by inclusion of the relevance of the article to the international literature, other Indigenous people and other ethnic non-European/dominant minorities. Maybe there are similar studies or papers that have looked at this research question but for other Indigenous people? The authors should look especially to Australia and New Zealand especially Professor Janet Hoek et al in New Zealand. What about the ITC studies? Can any parallels be drawn for example with the differences between minority groups? Methods. The methods section seems jumbled up and does not follow a usual logic of flow. The first sentence is not about sample and recruitment (the sub-heading) it is about ethics and should be moved down. The study design should be presented before sample and recruitment. What sort of study is it? e.g. qualitative – why qualitative? Why was the method chosen? Why not a more representative or random sampling? What theory guided the study? The second sentence under sub-heading study design is describing the interviewing procedure.

	There needs to be more detail on the value of the remuneration. Under the sub-heading Survey and Card Sorting: there is reference to the images triggering a traumatic memory. Why would an image trigger a traumatic memory? Please provide reference. How would facilitators know this had occurred? Were different staff used? How did the researchers control for variability in conduct of data collection? What validity checks were performed? Measures. Categories are provided as smokers, nonsmokers, and at risk. Where did these categories come from? Why is 'never tried but had friends or knew adults who smoke' considered 'at risk'? Susceptibility is based on intent. Why haven't the researchers used established criteria? Pg. 8 Emotions What is the rationale for using these emotions? Reference to other literature. Pg 8 3rd para: The questions such as 'This label makes me think about my family members who smoke" seems a bit leading. The question prompts respondents to think about their family who smoke. The authors need to talk about bias. In the method section the authors need to say somewhere that this was a larger study and this paper presents only the results for AI/AN. Where are the fuller results published? Can the extended method be referred to in another published paper? Results. I think the term "at risk" used in this way is emotive and misleading for people who just happen to know a smoker. In countries and communities with high smoking prevalence, such as New Zealand Maori, that would mean nearly everyone was "at risk" which is not true. Pg. 11 first para: "Of those who were angry at people who smoke, 48.3% were angry at people who smoke around them" – around who? Be careful of grammar. Also, where are these questions explained in the method? The way the results are reported is misleading. For example, "AI/AN women rated their anger as higher than men for all labels, although only the diseased lung and cadaver were statistically significantly different…" Report the statistically significant differences otherwise say they were the same, not women were higher. The authors need to tone down their enthusiasm for claiming differences when there were none. "Those aged 13-17 years showed significantly higher disgust after viewing the labels showing the hole in the throat…" Where is the graph?

	"Youths reported higher sadness after viewing the diseased mouth than did young adults." – were these statistically significant. Because of earlier overstating of a result, the remainder of the results can not be trusted. The results needs to be rewritten with more caution. Pg 15. Bias the authors might want to consider include Hawthorne and social desirability bias. Discussion. Were the results found for AI/AN similar to the results found for the rest of the sample in the larger study? They would have also been effected by the same forms of bias. What about other literature? Are the results consistent or reflected in other literature? 2nd para. "If the prevalence of tobacco use among AI/AN communities is to be reduced, health-related messages must come from peers within…" – this does not flow from the results. Provide a reference to support this claim. The authors go on with "There is an established literature on AI/ANs mistrusting medical institutions" – what does this have to do with their results? There needs to be more explanation. It reads like a string of random statements – it is disjointed. Pg 16. "This follows Fu et al's recommendations that smoking cessation interventions come from AI/AN community members…" – smoking cessation interventions are different from people talking to each other about graphic warnings. The authors are not tying things together very well. Limitations. There is no discussion of bias or weaknesses in the method. The conclusion statement needs to be rewritten. "In conclusion, research shows…" The reader is expecting a conclusion about the study findings not a general statement – it could be mistaken as a claim that this research shows. The authors go on to say "The power and influence of AI/AN peers can do much to effect change in the smoking habits…" – this is not a conclusion of this study, it is rationale for the research question. The next paragraph is discussion not conclusion. "Motivating community peer leaders within AI/AN communities could have a positive effect on messages…" – this does not flow from this study. The authors need to go back to their results and ask what do our results tell us? Then write about that. Perhaps if they stated more clearly what their rationale for the study was and what the aims were – this would guide reporting back on the implication of what was found. How do graphic warnings need to change if at all? Please fix spelling errors throughout.

REVIEWER	Yu, Mansoo Univ Missouri, School of Social Work
REVIEW RETURNED	26-Apr-2015

GENERAL COMMENTS	This study is to examine if AI/AN communities respond differently to particular graphic warning labels. This study has potential to make a contribution to the literature because the sample (AI/AN) and the topic (responses to graphic warning labels) are unique. However, concerns in methodology decrease the potential. One of the main concerns is in the operational definition of smoking status (p.7). The researchers operationally defined nonsmokers as "have never smoked 100 cigarettes in their entire lives and do not smoke now." Those individuals could be experimental smokers, smokers only at traditional ceremonies, occasional smokers, or social smokers. The definition of nonsmokers could also be overlapped with the definition of "at-risk young adults (have tried cigarettes even one or two puffs)." Secondly, the strong peer influence on smoking behavior and smoking cessation is well documented. In other words, the strong associations between peers and smoking is also true for other racial/ethnic groups. In the current study, what if those participants do not have siblings, teachers and/or doctors? Can the absence of siblings, teachers and/or doctoral influence more talking with peers? Further, how a smoking cessation program particularly for AI/AN smokers could have a different approach of peer influence (p.16) in helping AI smokers quit? Thirdly, what are the ranges of graphic warning labels from the respondents? It might be more interesting to compare two extreme groups of feelings about the warning label: for example, a high negative emotion group (6 or 7) vs. a low negative emotion group (1 or 2). What are the likely reasons for high negative emotions (e.g., disgusted, worried, etc.)? On the other hand, what are the likely reasons for low negative emotions? Why did those respondents talk more with peers over other groups (e.g., parents, siblings, etc.)? This type of information might be more useful to design/improve a tobacco control program for the population. Fourthly, although it is mentioned in the limitation of the study, it is not clearly stated if the sample of AI/AN in this study shares a same/similar culture. Minor points: Six population subgroups (abstract) vs. five population subgroups (methods)?

VERSION 1 – AUTHOR RESPONSE

Reviewer 1

Tobacco Control is the leading international journal on tobacco control. As such, articles should be written for the international audience. This article was very US-centric. The article could be improved by inclusion of the relevance of the article to the international literature, other Indigenous people and other ethnic non-European/dominant minorities. Maybe there are similar studies or papers that have

looked at this research question but for other Indigenous people? The authors should look especially to Australia and New Zealand especially Professor Janet Hoek et al in New Zealand.

RESPONSE: DAP

What about the ITC studies? Can any parallels be drawn for example with the differences between minority groups?

RESPONSE: We agree that this would be an important consideration for future research. We are cautious about drawing parallels as yet because of the huge diversity of American Indian peoples represented in this relatively small sample. Our thinking was that the next step would be to investigate differences and commonalities among American Indian/Alaska Native tribes, before then expanding to comparisons with other minority groups.

Methods.

The methods section seems jumbled up and does not follow a usual logic of flow. The first sentence is not about sample and recruitment (the sub-heading) it is about ethics and should be moved down. The study design should be presented before sample and recruitment.

RESPONSE: Thank you for pointing this out. We have revised the methods section so that it flows in a more organized fashion.

What sort of study is it? e.g. qualitative – why qualitative? Why was the method chosen? Why not a more representative or random sampling? What theory guided the study?

The parent study was a mixed methods study, including in-depth interviews in addition to quantitative methods. This paper focuses only on the (quantitative) baseline assessment and survey. The study was not guided by any particular theory. The aim of the study was to investigate the effects of graphic warning labels in communities where smoking rates and associated health problems are high.

RESPONSE: DAP – The text under sub-heading study design has been edited to better explain methods.

There needs to be more detail on the value of the remuneration.

RESPONSE: Thank you for pointing that out. We have added details on the amount and form of remuneration.

Under the sub-heading Survey and Card Sorting: there is reference to the images triggering a traumatic memory. Why would an image trigger a traumatic memory? Please provide reference.

RESPONSE: This information was removed as it did not fit within this paper. How would facilitators know this had occurred?

RESPONSE: References to this issue has been removed from paper.

Were different staff used? How did the researchers control for variability in conduct of data collection? What validity checks were performed?

RESPONSE: The survey questions was delivered via iPad and therefore, the actual data collection portion did not vary. The only difference between the group and individual settings was whether the directions on how to use the iPad was delivered to a group or to an individual. All staff who administered surveys received the same training. For these reasons, we did not conduct validity checks.

Measures.

Categories are provided as smokers, nonsmokers, and at risk. Where did these categories come from? Why is 'never tried but had friends or knew adults who smoke' considered 'at risk'? Susceptibility is based on intent. Why haven't the researchers used established criteria?

RESPONSE: Only youth were assigned as at risk if adults and friends smoked. Having peers and family members who smoke is a risk factor for smoking Young adults and adults were assigned as at risk based on other criteria.

Pg. 8 Emotions

What is the rationale for using these emotions? Reference to other literature.

RESPONSE: We agree that this was not clear. Thank you for noting. We have added the rationale for using these particular emotions.

Pg 8 3rd para: The questions such as 'This label makes me think about my family members who smoke" seems a bit leading. The question prompts respondents to think about their family who smoke. The authors need to talk about bias.

RESPONSE: One of the questions guiding this research was how graphic warning labels would affect thinking and behavior of friends and families of smokers, as well as smokers themselves.

In the method section the authors need to say somewhere that this was a larger study and this paper presents only the results for AI/AN. Where are the fuller results published? Can the extended method be referred to in another published paper?

RESPONSE: Thank you for your thoughts. The parent study has not yet been published. We have attempted to clarify in the paper that the results discussed in this paper are from a larger study.

Results.

I think the term "at risk" used in this way is emotive and misleading for people who just happen to

know a smoker. In countries and communities with high smoking prevalence, such as New Zealand Maori, that would mean nearly everyone was "at risk" which is not true.

RESPONSE: While we were greatly appreciate this comment, are attempts were not to mislead participants.

Pg. 11 first para: "Of those who were angry at people who smoke, 48.3% were angry at people who smoke around them" – around who? Be careful of grammar.

RESPONSE: We have revised this text to clarify the difference between the responses "I am angry at people who smoke" and "I am angry at people who smoke around me."

Also, where are these questions explained in the method? The way the results are reported is misleading. For example, "AI/AN women rated their anger as higher than men for all labels, although only the diseased lung and cadaver were statistically significantly different…" Report the statistically significant differences otherwise say they were the same, not women were higher. The authors need to tone down their enthusiasm for claiming differences when there were none.

The emotions are discussed in the second paragraph of the methods section. The text has been updated to clarify which differences were statistically significant.

“Those aged 13-17 years showed significantly higher disgust after viewing the labels showing the hole in the throat…” Where is the graph? “Youths reported higher sadness after viewing the diseased mouth than did young adults.” – were these statistically significant. Because of earlier overstating of a result, the remainder of the results can not be trusted. The results needs to be rewritten with more caution.

RESPONSE: Results have been re-written to clarify the statistically significant differences.

Pg 15. Bias the authors might want to consider include Hawthorne and social desirability bias.
RESPONSE: While we can see the value in this comment, we believe it does not fit here.

Discussion.

Were the results found for AI/AN similar to the results found for the rest of the sample in the larger study? They would have also been effected by the same forms of bias. What about other literature? Are the results consistent or reflected in other literature?

RESPONSE: Yes, thank you, the results were similar, though there were some differences in reactions to the labels, especially for the labels involving women and children. These results have not been published. We have updated the discussion to include a comparison of our results to other studies.

2nd para.

“If the prevalence of tobacco use among AI/AN communities is to be reduced, health-related messages must come from peers within…” – this does not flow from the results. Provide a reference to support this claim. The authors go on with “There is an established literature on AI/ANs mistrusting medical institutions” – what does this have to do with their results? There needs to be more explanation. It reads like a string of random statements – it is disjointed.

RESPONSE: We have revised the discussion section to address this concern.

Pg 16. “This follows Fu et al’s recommendations that smoking cessation interventions come from AI/AN community members…” – smoking cessation interventions are different from people talking to each other about graphic warnings. The authors are not tying things together very well.

RESPONSE: We have revised the discussion section to address this concern. Limitations.

There is no discussion of bias or weaknesses in the method. The conclusion statement needs to be

rewritten. “In conclusion, research shows…” The reader is expecting a conclusion about the study findings not a general statement – it could be mistaken as a claim that this research shows. The authors go on to say “The power and influence of AI/AN peers can do much to effect change in the smoking habits…” – this is not a conclusion of this study, it is rationale for the research question.

RESPONSE: We have expanded the limitations section. We have revised the conclusion section to accurately represent the research results.

The next paragraph is discussion not conclusion.

“Motivating community peer leaders within AI/AN communities could have a positive effect on messages…” – this does not flow from this study. The authors need to go back to their results and ask what do our results tell us? Then write about that. Perhaps if they stated more clearly what their

rationale for the study was and what the aims were – this would guide reporting back on the implication of what was found. How do graphic warnings need to change if at all?

Please fix spelling errors throughout.

RESPONSE: We have revised the discussion and conclusion sections to address these concerns.

Reviewer 2

Comments to the Author

This study is to examine if AI/AN communities respond differently to particular graphic warning labels. This study has potential to make a contribution to the literature because the sample (AI/AN) and the topic (responses to graphic warning labels) are unique. However, concerns in methodology decrease the potential.

One of the main concerns is in the operational definition of smoking status (p.7). The researchers operationally defined nonsmokers as “have never smoked 100 cigarettes in their entire lives and do not smoke now.” Those individuals could be experimental smokers, smokers only at traditional ceremonies, occasional smokers, or social smokers. The definition of nonsmokers could also be overlapped with the definition of “at-risk young adults (have tried cigarettes even one or two puffs).”

RESPONSE: Reviewers were clear about the difference between ceremony and non-ceremony tobacco use. We are there could be some possible overlapped but believe we set definition that could best describe and measure different risk levels.

Secondly, the strong peer influence on smoking behavior and smoking cessation is well documented. In other words, the strong associations between peers and smoking is also true for other racial/ethnic groups. In the current study, what if those participants do not have siblings, teachers and/or doctors? Can the absence of siblings, teachers and/or doctoral influence more talking with peers? Further, how a smoking cessation program particularly for AI/AN smokers could have a different approach of peer influence (p.16) in helping AI smokers quit?

RESPONSE: We have attempted to clarify this point in the discussion section. We are interested in not just peer influence, but on how images may trigger conversations about smoking risk and smoking cessation within a close-knit, minority community.

Thirdly, what are the ranges of graphic warning labels from the respondents? It might be more interesting to compare two extreme groups of feelings about the warning label: for example, a high negative emotion group (6 or 7) vs. a low negative emotion group (1 or 2). What are the likely reasons for high negative emotions (e.g., disgusted, worried, etc.)? On the other hand, what are the likely reasons for low negative emotions? Why did those respondents talk more with peers over other groups (e.g., parents, siblings, etc.)? This type of information might be more useful to design/improve a tobacco control program for the population.

RESPONSE: We agree that these are interesting and important questions to consider, but we are limited by our data in being able to address these at the level of detail you suggest.

Fourthly, although it is mentioned in the limitation of the study, it is not clearly stated if the sample of AI/AN in this study shares a same/similar culture.

RESPONSE: This sample represents multiple native tribes and tribal nations, and cannot be said to share the same culture.

Minor points:

Six population subgroups (abstract) vs. five population subgroups (methods)? RESPONSE: This has been corrected.

VERSION 2 – REVIEW

REVIEWER	Associate Professor Marewa Glover Research Centre for Māori Health & Development, College of Health, Massey University, New Zealand
REVIEW RETURNED	21-Aug-2015

GENERAL COMMENTS	This is the revised version. The authors have attended to the suggested changes and the paper is much improved. Thank you for the opportunity to read it.