Author’s response to reviews

Title: Designing an implementation intervention with the Behaviour Change Wheel for health provider smoking cessation care for Australian Indigenous pregnant women

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AUTHOR RESPONSES

Handling editor's comments:

1. One reviewer has asked for minor changes and these should be attended to in detail by the authors. I also think it would help if in the introduction the authors might refer to and comment on the work of the meaning of smoking for those in marginalised and disadvantaged groups. This would add a link between the specific example they are looking at in relation to smoking cessation and the critical public health literature which recognises and analyses the meaning of smoking in a broader context of culture and identity. (See for example this paper published in 2012). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3464452/

Response: We have considered this paper, however have concerns about applying this lens to an indigenous population, without being fully familiar with critical theories, and how these apply here without extensive consultation that we would require to ensure this use is respectful. A more appropriate approach we feel would be to engage with the decolonising literature, but we do not feel we can fully do this justice in this paper.
However we have added a little more context around indigenous smoking and the impact of colonisation which is still felt today (page 4-5 lines 96-105). The citation will refer interested readers to a more complete consideration of smoking among Indigenous pregnant women:

“Other important factors perpetuating Indigenous tobacco smoking in Australia includes: the detrimental impact of European colonization causing dispossession, degradation and loss, and during which tobacco was introduced to many Indigenous communities for the first time, how Indigenous workers were often only paid in tobacco, government policies such as children being forcibly removed from parents (termed ‘the stolen generation’), and racism [2]. Tobacco smoking has become a norm and a social lubricant in many and diverse Australian Indigenous communities [2].”

Reviewer #1:

2. It may work to add "implementation" prior to the word intervention throughout.
Response: this has been added where appropriate and not too repetitive.

3. Initially I thought the manuscript was better suited to a different journal, but as I progressed through I realised ICAN QUIT is in many ways an implementation intervention developed via BCW for evidence-based smoking cessation. This is clearer in some of the authors other publications, such as the study protocol http://bmjopen.bmj.com/content/7/8/e016095. Stage 3 confuses the issue further as the title mentions implementation options for the "intervention", however there is no further mention of implementation in the section.
Response: have clarified in stage 3 and elsewhere. Page 6 line 131 added ‘evidence-based’ to text. P 6, line 135-136 added “implementation of the provider-patient consultation process (to aid counselling and provision of NRT)”.

See also changes stage 3 (page 19 lines 440-443):

“The BCTs identified for the ICAN QUIT in Pregnancy implementation intervention were those which authors considered as promising to elicit behaviour change in the health providers.

<Table 1 here>

In summary, to implement this smoking cessation intervention optimally, we aimed to improve capability by training clinicians in NRT prescribing; structuring the consultation using a flipchart and prompts;”
4. You can frame ICAN QUIT as both a smoking cessation intervention and implementation strategy, by both targeting health providers' to provide EBP SCC (counselling and NRT) and patients' behaviour to quit, however be very careful with terminology as currently it is challenging to read. In addition to fit scope of Implementation Science the primary focus should be on implementation. I feel this is an excellent study, however the terminology needs to be tidied up if to be published as an implementation paper. I.e. be explicit in what the intervention is and what the implementation strategy is and what was being developed.

Response: We have developed both an intervention, and an implementation strategy. As this is new in an Indigenous context there is an overlap, but did not want to make an artificial distinction. For example highlighted text added (p5, line 118-119):

“A lack of evidence for successful smoking cessation interventions for pregnant Indigenous populations highlights the importance of understanding context when designing intervention components, and using a systematic approach to avoid implementation challenges [4].”

5a. In the abstract the final sentence is not clear - how does training health providers at ABS develop an intervention?

Response: The concluding paragraph of the abstract (page 3, lines 64-71) has been re-arranged and the highlighted text added:

“ICAN QUIT in Pregnancy was an intervention to train health providers at Aboriginal Medical Services in how to implement culturally competent evidence-based practice including counselling and nicotine replacement therapy for pregnant patients who smoke. Using the BCW aided in scientifically and systematically informing this targeted implementation intervention based on the identified gaps in SCC by health providers. Multiple factors impact at systemic, provider, community and individual levels. This process was therefore important for defining the design and intervention components, prior to a conducting a pilot feasibility trial, then leading on to a full clinical trial.”

[NB: We had to delete some text in abstract to get back within word limit after the changes.]

5b. Similarly, how does using BCW develop improve culturally competent smoking cessation care? This framework is not specific for cultural competency. The article provides the answers and many steps were taken to ensure cultural competency, however this is not clear in the abstract.
Finally, the implementation intervention of education and training does not link clearly in the abstract to the objective of developing an intervention.

Response: we linked to the training, and added that the approach was developed with Aboriginal Medical Services (page 2 abstract):

“We aimed to develop an implementation intervention to improve smoking cessation care (SCC) for pregnant Indigenous smokers. An outcome to be achieved by training health providers at Aboriginal Medical Services (AMS) in a culturally-competent approach, developed collaboratively with AMS.”

6. From materials and procedures the manuscript starts to find itself, however the abstract and background need reworking. For example initially there appears to be confusion around the study objective - was it to use BCW to develop a smoking cessation intervention or was it to use the BCW to develop an implementation strategy or was it both. These need to be clear.

Response: added a paragraph at start of introduction to define implementation science, and relate to context of this paper (page 4, lines 80-85).

“Implementation science is the study of the methods to promote the systematic uptake of evidence-based practice into routine care to improve the quality and effectiveness of health services [1]. In this case, the challenge was to implement what is known to be effective for smoking cessation care (SCC) during pregnancy, into the context of health providers working with Indigenous women served by Aboriginal Community Controlled Health Services (ACCHS).”

7. Step 1: Please be more explicit in describing the behaviours so readers can identify. Currently the text does not match the heading clearly.

Response: clarified by bringing up the following sentence higher in the section, under a subsection (page 14, lines 315-319):

“Health Provider Behaviours

We identified the behavioural problem as a lack of essential elements in the health providers’ provision of evidence-based SCC for pregnant Indigenous women who smoke, such as prescribing NRT, providing cessation support, involving family members and following up.”

Response: Also clarified the ‘parallel target’ being the patients (page 16, lines 369-373):
“A parallel target was to support the provision of a holistic culturally competent approach, taking into account the social determinants of health and psychosocial factors related to continued smoking during pregnancy, that is exemplified in the ABCD approach [43], and thus provide resources to target the patients’ needs also.”

8. Step 2: are the 5A's, ABC and AAR evidence-based? If so, it may be good to say "several EBPs are recommended for SCC" so it links to line 6 of the previous paragraph.
Steps 3 & 4 are excellent and very clear.
Response: Amended as suggested p15, line 340.

9. I suggest making it clear earlier and in the abstract that the implementation intervention involved using the BCW and COM-B twice, once for provider behaviour and also for patient behaviour. Although some sections refer to this as secondary rather than separate. Try to be more consistent and clear.
Response: amended Page 2, lines 39-40 in abstract and as in comment 7 above.

10. Formatting of references: Numbers in square parentheses should be prior to punctuation.
Response: Amended

Reviewer #2: Rebuttal not required