

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Healing the Past by Nurturing the Future – co-designing perinatal strategies for Aboriginal and Torres Strait Islander parents experiencing complex trauma: framework and protocol for a community-based participatory action research study
AUTHORS	Chamberlain, catherine; Gee, Graham; Brown, Stephanie; Atkinson, Judith; Herrman, Helen; Gartland, Deirdre; Glover, Karen; Clark, Yvonne; Campbell, Sandra; Mensah, Fiona; Atkinson, Caroline; Brennan, Sue E.; McLachlan, HL; Hirvonen, Tanja; Dyall, Danielle; Ralph, Naomi; Hokke, Stacey; Nicholson, Jan

VERSION 1 – REVIEW

REVIEWER	Jennie Gamlin UCL Institute for Global Health, 30 Guildford St, London, WC1N 1EH, UK
REVIEW RETURNED	15-Feb-2019

GENERAL COMMENTS	I am very pleased to see the BMJ considering protocols of this nature for publication. They are both important and highly relevant to addressing pressing historical injustices in healthcare provision. The fact that this study is supported by the Lowitja Institute gives confidence in the quality and potential for impact of this study. While I retain personal reservations about interventions of this nature (individual focus to address what is essentially a structural issue), the protocol is robust, inclusive of indigenous participation in design, ethical approval and all important aspects and clearly in adherence with indigenous and decolonising methodologies that aim to redress the academic balance and representation of indigenous participation. I very much hope that BMJ Open is equally considers publishing the results of this study.
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REVIEWER	Kelly Gonzales Portland State University, USA
REVIEW RETURNED	25-Feb-2019

GENERAL COMMENTS	The work presented is valuable and important to contribute to the literature and practice of developing health programming to promote the health of Aboriginal populations. Overall, I suggest that the authors consider using a structure to present the information that "holds the hand" of the reader from one step to the next, to the next; as a reader, I got a bit lost and I was not always certain of the "take home" message that I should be looking out for. At times the paper also read like a research proposal and less about protocols or lessons learned that would be subsequently useful for others
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who are planning or conducting community-led participatory research. I hope the authors consider and address these issues, and resubmit. I look forward to reading the revised work. Thank you for the opportunity to review this work.

February 24, 2019

Manuscript Reference Number: BMJOPEN-2019-028397

Manuscript Title:

Healing the Past by Nurturing the Future – co-designing perinatal strategies for Aboriginal and Torres Strait Islander parents experiencing complex trauma: a framework and protocol for a community-based participatory action research study.

This paper presents protocol to “codesign acceptable and feasible perinatal *awareness, recognition, assessment* and *support* strategies for Aboriginal parents experiencing complex trauma.”

The work represented in this paper is valuable, meaningful and provides information to guide new understanding and approaches to achieve culturally relevant health programming that centers trauma within an Aboriginal context. Additionally, this work has the opportunity to counter deficit based thinking with regard to understanding determinants of health for Aboriginal peoples and families, the need for systems that serve these populations to center trauma and healing, as well as importance of collaboration and creating health interventions that consider and incorporate the wisdom and strength and desires of community – for and by community. The following comments are intended to strengthen this paper to make more visible the many contributions this work represents.

Abstract

-add a sentence that specifies clearly the purpose of the paper.
-add information that indicates that the work presented in this paper is based on formative processes and data.
-please consider adding a sentence in the introduction section to specify *what* is being co-designed and what it is intended to address. It is unclear if this co-design will lead to a program to promote perinatal health that will be applied within the healthcare context and comprised of four components *awareness, recognition, assessment* and *support* strategies for Aboriginal parents experiencing complex trauma.

Overall

-see comments within the PDF

- It would be helpful to include one paragraph in the Introduction to describe the “public health issue” that this work intends to address. This information is lost and could be made more direct and clear to the reader by adding this paragraph.
- I found this paper difficult to follow as there are many layers of information and it wasn’t always easy to follow or understand the take home lesson or conclusion. The work presented in this paper is very important and perhaps addressing the structure of the paper in the following ways will be helpful to show the reader more clearly the

intent/purpose of the paper and the salient take home message that you want to impart on the reader.

- Suggestions are as follows:
 - Insert a paragraph that gives a brief overview of the information presented, the corresponding stages of the work and what that work relates to with regard to the overall project.
 - Hone in on a few protocols that are critical to guide the work – for example, community collaboration, using meaningful engagement practices.
 - Identify the larger picture of the work – what is intended to result from the work, and then specify the steps taken (or will be taken) to complete that work. Perhaps structure the paper accordingly.
 - Identify in each of the Phases, the intent and how it connects to the larger project.
 - Include a conceptual model that demonstrates the levels, phases, and purpose of the project. Perhaps organize to the work that has been completed and yet to be completed and how each level and phase contributes to the intended outcome of the overall body of work represented by this project.
 - The aspect of healing is also lost in the work presented – a very important aspect of this work.
 - A few articles to consider also:
 - [Historical trauma in American Indian/Native Alaska communities: A multilevel framework for exploring impacts on individuals, families, and communities](#), T Evans-Campbell - Journal of interpersonal violence, 2008
 - Evans-Campbell, T., & Walters, K. L. (2006). Catching our breath: A decolonization framework for healing indigenous families. *Intersecting Child Welfare, Substance Abuse, and Family Violence: Culturally Competent Approaches*. Alexandria, VA, CSWE Publications, 266-292.
 - Gonzales, K. L., Jacob, M. M., Mercier, A., Heater, H., Nall Goes Behind, L., Joseph, J., & Kuerschner, S. (2018). An indigenous framework of the cycle of fetal alcohol spectrum disorder risk and prevention across the generations: historical trauma, harm and healing. *Ethnicity & health*, 1-19.

REVIEWER	Elizabeth Newnham Curtin University, Australia
REVIEW RETURNED	28-Feb-2019

GENERAL COMMENTS	<p>Thank you for the opportunity to review the manuscript 'Healing the Past by Nurturing the Future – co-designing perinatal strategies for Aboriginal and Torres Strait Islander parents experiencing complex trauma: a framework and protocol for a community-based participatory action research study'. The paper describes a robust protocol for the co-design of a screening measure and strategies for service improvement, with multiple cycles of participatory action research. The investigator team is Aboriginal-led, with extensive clinical and research experience. The methodology is sound, and the project presents a respectful and rigorous research design that has potential to inform important changes to Australian perinatal health services.</p> <p>A unique contribution of the project is a focus on strength and healing – informed by the experience of complex trauma for Aboriginal and Torres Strait Islander people in Australia, and through feedback from participants. The focus promotes a positive, inclusive framework for culturally secure health services. It also presents an engagement opportunity for people who do not wish to identify as someone with complex trauma, but would benefit from the connection with health services.</p> <p>My main concern is that the protocol appears to focus on the development of the screening tool (which is important), with less information provided on how the co-design process will inform changes to health services. The development of “strategies” is indicated for Workshops 3 and 4, but it is unclear which perinatal services these strategies will feed into. Could the authors please provide further detail on how the co-design process will result in changes to specific services? Will the use of strategies determined during the workshops be measured to assess uptake or improvements in accessibility for Aboriginal parents with complex trauma? (These issues may be the focus of a later project, in which case the title of the current study might require revision).</p> <p>The screening tool is unlikely to provide a “true prevalence of complex trauma” (p.28). The project aims to develop a highly sensitive measure that will identify clients with at least two symptoms of trauma to ensure inclusivity and accessibility of services. This is an appropriate goal for use of the screening measure, but the high sensitivity of the instrument will preclude estimates of prevalence.</p> <p>The supplementary materials are comprehensive and will be of significant value to other researchers in the field.</p> <p>Minor Points:</p> <ul style="list-style-type: none"> • Abstract: The definition of complex trauma is unclear and could be revised. • The Strengths and Limitations should be more specific. i.e. What specific values and principles will guide the research process? The authors have put a lot of work into developing a values framework and it would benefit readers to highlight the specific principles integral to the research here.
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	<ul style="list-style-type: none"> • Similarly, the first point of the Strengths and Limitations section is unclear. • Introduction – excellent point regarding the real threats associated with identifying Aboriginal clients as ‘at-risk’. It should be noted that the removal of Aboriginal children continues to occur at high rates today. (p3)
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VERSION 1 – AUTHOR RESPONSE

Response to reviewer comments for manuscript ID bmjopen-2018-028397

Healing the Past by Nurturing the Future – co-designing perinatal strategies for Aboriginal and Torres Strait Islander parents experiencing complex trauma: a framework and protocol for a community-based participatory action research study

Editorial Request:

1. *Please update your protocol to confirm that phase 2 has received approval from your local ethics committee.*

We have updated the protocol to confirm that phase 2 ethics approval has been received (p5).

“At the time of submitting this protocol, phase one and two HREC approval had been granted, and HREC submission is planned for phase three in late 2019.”

Reviewers' Comments to Author:

Reviewer: 1 Reviewer Name: Jennie Gamlin

2. *I am very pleased to see the BMJ considering protocols of this nature for publication. They are both important and highly relevant to addressing pressing historical injustices in healthcare provision. The fact that this study is supported by the Lowitja Institute gives confidence in the quality and potential for impact of this study. While I retain personal reservations about interventions of this nature (individual focus to address what is essentially a structural issue), the protocol is robust, inclusive of indigenous participation in design, ethical approval and all important aspects and clearly in adherence with indigenous and decolonising methodologies that aim to redress the academic balance and representation of indigenous participation. I very much hope that BMJ Open is equally considers publishing the results of this study.*

We thank reviewer 1 for these comments.

Reviewer: 2 Reviewer Name: Kelly Gonzales

3. *The work presented is valuable and important to contribute to the literature and practice of developing health programming to promote the health of Aboriginal populations. Overall, I*

suggest that the authors consider using a structure to present the information that "holds the hand" of the reader from one step to the next, to the next; as a reader, I got a bit lost and I was not always certain of the "take home" message that I should be looking out for. At times the paper also read like a research proposal and less about protocols or lessons learned that would be subsequently useful for others who are planning or conducting community-led participatory research. I hope the authors consider and address these issues, and resubmit. I look forward to reading the revised work. Thank you for the opportunity to review this work.

We thank the reviewer for these suggestions, and have attempted to include some more signposting to 'hold the hand' of the reader. This includes:

3.1 A summary paragraph as suggested in comment 8 below, with elements corresponding to methods subheadings (p5):

"The purpose of this protocol paper is to illustrate the processes, frameworks and methods utilised by an Aboriginal-led research team to generate rigorous context-relevant strategies, while also fostering cultural and emotional safety for participants, partners, research staff and the broader Aboriginal community. This paper includes an outline of the following elements: :

- **Community involvement in the project**
- **Conceptual framework and for developing safe research processes**
- **Research activities within the four action research cycles and Intervention Mapping (IM) steps**
- **Ethical considerations and research dissemination plans".**

3.2 Including subheadings in each of the four action research cycles to reflect the purpose of activities within that 'cycle' (see titles within text).

3.3 We have revised Figure 3 and hope this further clarifies the processes for the reader.

We have also restructured the article in a way that we hope is clearer and 'holds the hand' of the reader. We had attempted as far as possible to conform with the heading structure outlined in the BMJ Open Study Protocol guidance, and welcome advice regarding the flexibility of this outline https://bmjopen.bmj.com/pages/authors/#study_protocols

This paper presents protocol to "codesign acceptable and feasible perinatal awareness, recognition, assessment and support strategies for Aboriginal parents experiencing complex trauma." The work represented in this paper is valuable, meaningful and provides information to guide new understanding and approaches to achieve culturally relevant health programming that centers trauma within an Aboriginal context. Additionally, this work has the opportunity to counter deficit based thinking with regard to understanding determinants of health for Aboriginal peoples and families, the need for systems that serve these populations to center trauma and healing, as well as importance of collaboration and creating health interventions that consider and incorporate the wisdom and strength and desires of community – for and by community. The following comments are intended to strengthen this paper to make more visible the many contributions this work represents.

4. *Abstract -add a sentence that specifies clearly the purpose of the paper.*

We have amended the aim in the abstract as follows (p1):

“This paper outlines a conceptual framework and protocol for an Aboriginal-led, community-based participatory action research (action research) project that aims to co-design acceptable and feasible perinatal awareness, recognition, assessment and support strategies for Aboriginal parents experiencing complex trauma.”

5. *add information that indicates that the work presented in this paper is based on formative processes and data.*

We have amended the first sentence of the abstract methods (p1) as follows:

“This **formative research** project is being conducted in three Australian jurisdictions (Northern Territory, South Australia and Victoria) with key stakeholders from all national jurisdictions.”

We have also amended the aims and objectives in the main methods section as follows (p5):

“*Healing the Past by Nurturing the Future* is a **formative** Aboriginal-led, community-based participatory action research (action research) project, which aims to co-design perinatal strategies to support Aboriginal parents experiencing complex trauma. **There is currently insufficient evidence to identify potentially acceptable, feasible and effective strategies to support Aboriginal parents experiencing complex trauma, hence the focus of this project is formative research.**”

-please consider adding a sentence in the introduction section to specify what is being co-designed and what it is intended to address. It is unclear if this co-design will lead to a program to promote perinatal health that will be applied within the healthcare context and comprised of four components awareness, recognition, assessment and support strategies for Aboriginal parents experiencing complex trauma.

We have amended the aims of the project (p5) as follows:

“The co-design strategies aim to improve four key domains of perinatal care:

- **Awareness of the impact of trauma on parents or ‘trauma-informed’ perinatal care to minimise the risks of triggering and compounding trauma responses.**
- **Safe recognition of parents who may benefit from assessment and support, with processes to reduce risk of harm.**
- **Assessment of complex trauma symptoms, to accurately identify parents experiencing distress.**
- **Support strategies for parents to heal, including psychological/emotional, social, cultural and physical strategies.”**

These development of these four domains are further discussed under ‘conceptual framework’. (p7)

a) *“Four main domains of recognition, assessment, awareness and support*

The four main domains were developed during the early community engagement stages of the project which revealed concerns about the use of language such as ‘screening’ and ‘intervention’, which implies ‘something is wrong’ with a person, and is not consistent with PTMF framing of trauma to ask ‘what has happened to you.’⁴⁸ There are also sensitivities in the context of Aboriginal communities in Australia, with controversial Government ‘interventions’ imposed on Aboriginal communities. The

domains of 'recognition' and 'assessment' broadly align with 'screening' strategies that incorporate a safe and feasible two-tiered process for care providers to *recognise* parents who may require more in-depth *assessment* for complex trauma; and 'intervention' approaches to improve trauma-informed perinatal care and minimise the risks of re-traumatising parents (*awareness*), and provide trauma-specific *support*."

6. Overall -see comments within the PDF □ It would be helpful to include one paragraph in the Introduction to describe the "public health issue" that this work intends to address. This information is lost and could be made more direct and clear to the reader by adding this paragraph. □

We have added the following paragraph to the introduction (Page 3, paragraph 3):

"There are strong associations between child maltreatment and a wide range of physical and psychological morbidities¹⁷ and risk factors, including smoking, eating disorders, unplanned pregnancies^{18 19} and adverse birth outcomes²⁰. Critically, these long-lasting relational effects can impede the capacity to nurture and care for children, leading to 'intergenerational cycles' of trauma²¹. Experiences of child maltreatment are not equally distributed across general populations and the World Health Organization (WHO) use a socio-ecological framework²² to highlight the links between higher levels of social adversity and increased rates of child maltreatment experienced in some communities worldwide. These factors also interact and create a 'compounding intergenerational effect' on health inequities. As such, this is a crucial issue for improving health equity worldwide. 'Life course approaches' are central to understanding complex intergenerational causal pathways and also for identifying critical 'intervention points' for prevention and support to improve health equity.²³"

7. Comment on second paragraph of introduction: What about outside of Aboriginal communities? Is it perhaps likely that the effects of ACES are compounded also by policies and practices outside of Aboriginal communities that lead to or reinforce some of these socio-ecological factors? Because -- if so, one of the solutions is to understand the impact of policies and programming -- system level factors that impact micro-level factors

We agree with the reviewer that ACES are compounded by policies and practices outside of communities, and have amended paragraph 2 of the introduction to clarify this as follows (page 3, para 2):

"Broader societal factors can amplify or counteract the impact of potentially traumatic experiences. Aboriginal and Torres Strait Islander (Aboriginal) peoples in Australia are particularly affected by complex trauma, following a legacy of historical trauma^{11 12} which includes state-sanctioned systematic removal of Aboriginal children from their families and ongoing discrimination.¹³ **While community cohesion, access to services and cultural continuity have been shown to have a protective effect for some trauma related outcomes among Aboriginal peoples¹⁴, within the context of colonisation** socio-ecological risk factors experienced by many Aboriginal communities are likely to amplify rather than counteract the effects **of complex trauma originating from childhood experiences.**^{15 16}

8. I found this paper difficult to follow as there are many layers of information and it wasn't always easy to follow or understand the take home lesson or conclusion. The work presented in this paper is very important and perhaps addressing the structure of the paper in the following ways will be helpful to show the reader more clearly the intent/purpose of the paper

and the salient take home message that you want to impart on the reader. Suggestions are as follows: □ Insert a paragraph that gives a brief overview of the information presented, the corresponding stages of the work and what that work relates to with regard to the overall project.

Please see responses to comment 3 with regard to this.

9. □ *Hone in on a few protocols that are critical to guide the work – for example, community collaboration, using meaningful engagement practices.*

We have moved the summary of critical protocols to the beginning of the ‘conceptual framework’ section (p6) and added an introductory sentence to introduce the following protocols to more clearly highlight these for the reader:

“Protocols that have been critical for informing this conceptual framework include:

- *Power Threat Meaning Framework (PTMF)*,⁴⁸ “an over-arching structure for identifying patterns in emotional distress, unusual experiences and troubling behaviour, as an alternative to psychiatric diagnosis and classification”.^{48, p 5} We will incorporate the PTMF by reframing behaviours related to complex trauma as normal self-protective responses to threatening situations rather than pathological deficits.
- *Principles for population-based screening*⁴⁹ to assess the benefits, risks, costs, acceptability, accuracy and potential risk of harms resulting from recognising and assessing parents experiencing complex trauma.
- *Indigenous research methodologies*⁵⁰ that involve privileging Aboriginal worldviews, self-determination and Aboriginal community control.

10. *Identify the larger picture of the work – what is intended to result from the work, and then specify the steps taken (or will be taken) to complete that work. Perhaps structure the paper accordingly.*

We have added a brief paragraph on ‘expected outcomes of the project’ after the aims and objectives (p5) as follows:

“The expected outcomes of the project are to identify strategies that are considered acceptable to Aboriginal parents and feasible for service providers. Piloting, implementation and evaluation of the effectiveness of these perinatal strategies will be the subject of a sequential project following this formative design stage.”

11. *Identify in each of the Phases, the intent and how it connects to the larger project.*

We have restructured the article to focus more on the four ‘action research cycles and intervention mapping steps’, than the administrative ‘ethics phases’. We have included text throughout to note how data will be incorporated from previous or in subsequent activities. For example (p10):

“The scoping review findings have been incorporated into subsequent research activities, **including: presentation at workshop 1; generating ‘cards’ of key issues described by parents elsewhere in discussion groups with senior Aboriginal women and parents; and scoping ‘strengths’ to be included in an assessment tool. The scoping review has also been critical to refine the search strategy for a series of comprehensive reviews.**^{61”}

The descriptive text of each ‘activity’ also starts with the ‘purpose’ of that activity in terms of the overall project.

12. *Include a conceptual model that demonstrates the levels, phases, and purpose of the project. Perhaps organize to the work that has been completed and yet to be completed and how each level and phase contributes to the intended outcome of the overall body of work represented by this project.*

The purpose of the conceptual framework (Figure 1) and the associated descriptive text is to describe the **purpose and values** of the project. The research plan (Figure 2) aims to demonstrate the Intervention Mapping steps, action research cycles, research activities and ethics phases.

We have signposted under aims and objectives that only activities listed under ethics phase one and two have been approved (p5). We have also included a subheading (p15) indicating that the following ‘phase 3’ activities are subject to further consultation and ethics approval as follows:

“Summary of proposed activities to be submitted for ‘phase three’ HREC approval”

The detailed methods for the following activities will be refined based on feedback from ‘reflection’ and ‘planning’ from activities described in ‘ethics phase one and two’ in consultation with partner organisation staff, and submitted for ethical approval. A brief outline of main activities aims and sample size estimates are included below.”

We have also used past tense to identify activities which have been completed at the time of submitting this protocol, and future tense to identify those yet to be completed.

13. *The aspect of healing is also lost in the work presented – a very important aspect of this work.*

We agree healing is a very important aspect of this work, which has inspired the title for the project. We have emphasized and expanded on this as follows (page 4):

“Conversely, the transition to parenthood offers a unique life-course opportunity for emotional healing and development.^{29 30} A positive strengths-based focus during this often-optimistic period has the potential to transform the ‘vicious cycle’ of intergenerational trauma into a ‘virtuous cycle’ that contains positively reinforcing elements. **When parents can manage**

trauma responses and provide love and nurturing care, this love is readily returned by children, and trauma responses can be relearned, promoting healing in the parent,³¹ and optimal development for the infant.^{32 33} It is this concept which has inspired the title for this project - '*Healing the past by nurturing the future*'."

We have also added '**to heal**' to illustrate the purpose of the support strategies outlined in the objectives, as follows (p5):

"Support strategies for parents to heal, including psychological/emotional, social, cultural and physical strategies."

We also note comments from Reviewer 3 below highlighting the strengths-based and healing focus of the article.

14. A few articles to consider also:

Historical trauma in American Indian/Native Alaska communities: A multilevel framework for exploring impacts on individuals, families, and communities, T Evans-Campbell - *Journal of interpersonal violence*, 2008

Evans-Campbell, T., & Walters, K. L. (2006). Catching our breath: A decolonization framework for healing indigenous families. *Intersecting Child Welfare, Substance Abuse, and Family Violence: Culturally Competent Approaches*. Alexandria, VA, CSWE Publications, 266-292.

Gonzales, K. L., Jacob, M. M., Mercier, A., Heater, H., Nall Goes Behind, L., Joseph, J., & Kuerschner, S. (2018). An indigenous framework of the cycle of fetal alcohol spectrum disorder risk and prevention across the generations: historical trauma, harm and healing. *Ethnicity & health*, 1-19.

We thank the reviewer for these informative articles and we have referenced the two journal articles in the relevant part of the introduction.

(Page 3, Para 3) "Aboriginal and Torres Strait Islander (Aboriginal¹) peoples in Australia are particularly affected by complex trauma, following a legacy of historical trauma^{11 12}[Evans-Campbell] which includes state-sanctioned systematic removal of Aboriginal children from their families and ongoing discrimination."

(Page 4): "The benefits of involving communities in co-designing health-care strategies are increasingly recognised.³⁶[Gonzales]

Reviewer: 3 Reviewer Name: Elizabeth Newnham

15. *Thank you for the opportunity to review the manuscript 'Healing the Past by Nurturing the Future – co-designing perinatal strategies for Aboriginal and Torres Strait Islander parents experiencing complex trauma: a framework and protocol for a community-based participatory action research study'. The paper describes a robust protocol for the co-design of a screening measure and strategies for service improvement, with multiple cycles of participatory action research. The investigator team is Aboriginal-led, with extensive clinical and research experience. The methodology is sound, and the project presents a respectful and rigorous research design that has potential to inform important changes to Australian perinatal health services.*

A unique contribution of the project is a focus on strength and healing – informed by the experience of complex trauma for Aboriginal and Torres Strait Islander people in Australia, and through feedback from participants. The focus promotes a positive, inclusive framework for culturally secure health services. It also presents an engagement opportunity for people who do not wish to identify as someone with complex trauma, but would benefit from the connection with health services.

My main concern is that the protocol appears to focus on the development of the screening tool (which is important), with less information provided on how the co-design process will inform changes to health services. The development of "strategies" is indicated for Workshops 3 and 4, but it is unclear which perinatal services these strategies will feed into. Could the authors please provide further detail on how the co-design process will result in changes to specific services?

We thank the reviewer for picking up on a disproportionate focus on development of the screening tool, which we agree is important but does not reflect the focus of the project. We are specifically using an 'intervention mapping' model to inform a structured process with 'service relevant' outcomes. We have made the following amendments to better emphasize these elements:

Under aims and objectives we have clarified that this is a formative research project to codesign safe, acceptable and feasible strategies, and that planning for implementation and evaluation of effectiveness will take place at the end of this formative research (workshop 4) and form the basis of a subsequent project. We have also added 'expected outcomes' as follows (p5).

"Healing the Past by Nurturing the Future is a formative Aboriginal-led, community-based participatory action research (action research) project, which aims to co-design perinatal strategies to support Aboriginal parents experiencing complex trauma. There is currently insufficient evidence to identify potentially acceptable, feasible and effective strategies to support Aboriginal parents experiencing complex trauma, hence the focus of this project is formative research.

The expected outcomes of the project are to identify strategies that are considered acceptable to Aboriginal parents and feasible for service providers. Piloting, implementation and evaluation of the effectiveness of these perinatal strategies will be the subject of a sequential project following this formative design stage.

The co-design strategies aim to improve four key domains of perinatal care:

- **Awareness of the impact of trauma on parents or 'trauma-informed' perinatal care to minimise the risks of triggering and compounding trauma responses.**

- **Safe recognition of parents who may benefit from assessment and support, with processes to reduce risk of harm.**
- **Assessment of complex trauma symptoms, to accurately identify parents experiencing distress.**
- **Support strategies for parents to heal, including psychological/emotional, social, cultural and physical strategies.”**

Under ‘community engagement’, we have amended the second paragraph to clarify that this is a formative research project, and a range of people are included in this stage to foster engagement for later planning for program implementation and evaluation (page 6):

“Participants in this study include Aboriginal parents, perinatal service providers, Aboriginal Elders and key stakeholders (service providers, researchers, policy-makers and community leaders working to address complex trauma). **We invite key stakeholders from all Australian jurisdictions to participate in the four co-design workshops to enable broader national collaboration in planning for subsequent program pilot, implementation and evaluation.”**

Under ‘data triangulation’, we have signposted that the data collection tools are designed to progressively inform the codesign process, as follows (page 9):

“Data collection tools are designed to progressively inform the co-design of safe, acceptable and feasible perinatal awareness, recognition, assessment and support strategies.”

Please see tracked changes in text emphasising the focus of the discussion groups on development of support strategies.

Eg (p10):

“ Reflections regarding the discussion group with senior Aboriginal women and pre-testing the discussion group ‘Tree of life’⁶⁴ approach for use with parents were recorded by participants pictorially using sticky notes on butchers paper. **The ‘Tree of Life’⁶⁴ was used as it provides a hopeful and inspiring approach to talking about challenging issues and generates visual images to promote shared understanding, and had been used by effectively by an Investigator in other settings (JA). This positive ‘tree of life’ tool aligned with the ‘strengths-based’ focus on parents hopes and dreams and the support parents need moving forward, rather than dwelling on past experiences.** These images were photographed, data were coded into themes and imported into NVivo for thematic analysis **and future triangulation with other data sources to inform co-design of awareness and support strategies.”**

(page 14-15)

“The workshop will incorporate triangulated data from previous action research cycles to foster informed co-design of for preliminary:

- **awareness and support strategies, informed by scoping review, qualitative systematic review of parents views, intervention review, and relevant data from discussion**

groups and key stakeholder workshops. The purpose is to generate an over-inclusive range of options, for further refinement in parent discussion groups to rank and assess acceptability, and service provider discussion groups to assess feasibility.

- recognition and assessment strategies', informed by data from the scoping review, scoping of assessment tools, key stakeholder workshop 2 exercise, and the face validity assessments in parent discussion groups. The purpose is to develop processes to foster safe recognition of parents who may benefit from further assessment, to be further refined following parent and service provider discussion groups, and an overinclusive list of assessment items for psychometric evaluation and refinement."

16. *Will the use of strategies determined during the workshops be measured to assess uptake or improvements in accessibility for Aboriginal parents with complex trauma? (These issues may be the focus of a later project, in which case the title of the current study might require revision).*

This study is formative research only. We have amended the text in several places to clarify that this is formative research (IM steps 1-4), and that the purpose of the final workshop (4) is to work with service providers to develop plans for pilot, implementation and evaluation of perinatal awareness, recognition, assessment and support strategies for Aboriginal parents experiencing complex trauma. We anticipate that measures of accessibility will be included in this evaluation.

17. *The screening tool is unlikely to provide a "true prevalence of complex trauma" (p.28). The project aims to develop a highly sensitive measure that will identify clients with at least two symptoms of trauma to ensure inclusivity and accessibility of services. This is an appropriate goal for use of the screening measure, but the high sensitivity of the instrument will preclude estimates of prevalence. The supplementary materials are comprehensive and will be of significant value to other researchers in the field.*

We agree with the reviewers comment and have deleted this sentence from Supplementary file 1.

18. *Minor Points: Abstract: The definition of complex trauma is unclear and could be revised.*

We have updated the definition in the abstract (page 1) as follows:

"Child maltreatment and other traumatic events can have serious long-term physical, social and emotional effects, including a cluster of distress symptoms recognised as 'complex trauma'."

And in the introduction (page 3) as follows:

"Child maltreatment and other adverse childhood experiences (ACEs) is an international health priority¹, contributing to a wide range of long-lasting physical, social and emotional health issues.²⁻⁸ There is growing international consensus to recognise a cluster of distress symptoms people may experience following childhood exposure to severe threats, called complex post-traumatic stress disorder (complex trauma). This classification describes a symptom profile that typically follows traumatic experiences of a prolonged nature or repeated adverse events from which separation is not possible.⁹ These symptoms include 'affect/emotional dysregulation', 'negative self-concept' and 'relational disturbances', in addition to previously recognised Posttraumatic Stress Disorder (PTSD) symptoms of 'Re-experiencing the events (triggers), Avoidance, and a 'Sense of threat' [8]. These traumatic experiences often involve interpersonal violation and occur within childhood family or institutional care giving systems¹⁰ (e.g. childhood abuse, severe domestic violence, torture, or slavery).^{9"}

19. The Strengths and Limitations should be more specific. i.e. What specific values and principles will guide the research process? The authors have put a lot of work into developing a values framework and it would benefit readers to highlight the specific principles integral to the research here.

We have amended this section to include the specific values as follows (page 2):

“A conceptual framework to guide this project includes **core values of safety, trustworthiness, empowerment, collaboration, culture, holism, compassion and reciprocity.**”

20. Similarly, the first point of the Strengths and Limitations section is unclear.

We have amended the first point as follows (page 2):

- **“Demonstrates a comprehensive formative action research process** to co-design safe, acceptable and feasible perinatal awareness, recognition, assessment and support strategies for Aboriginal parents experiencing complex trauma.”
21. *Introduction – excellent point regarding the real threats associated with identifying Aboriginal clients as ‘at-risk’. It should be noted that the removal of Aboriginal children continues to occur at high rates today.*

We agree and have amended the sentence as follows (page 4):

“These concerns are particularly salient for Aboriginal communities, with the history of colonisation and forced child removals from families, **and ongoing high rates of infants being removed from Aboriginal families [inserted recent Odonnell ref]**, which have devastating ongoing intergenerational impacts.”

O'Donnell M, Taplin S, Marriott R, et al. Infant removals: The need to address the over-representation of Aboriginal infants and community concerns of another 'stolen generation'. *Child Abuse Negl* 2019;90:88-98. doi: 10.1016/j.chiabu.2019.01.017 [published Online First: 2019/02/16]

VERSION 2 – REVIEW

REVIEWER	Elizabeth Newnham Curtin University, Australia
REVIEW RETURNED	15-Apr-2019
GENERAL COMMENTS	Thank you for the opportunity to review a revised version of the manuscript. It reads well, and I am satisfied with the revisions made. I look forward to seeing the study findings published in future.

