PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Effects of an Aboriginal and Torres Strait Islander Mental Health First Aid training program for non-suicidal self-injury on stigmatising attitudes, confidence in ability to assist, and intended and actual assisting actions: an uncontrolled trial with pre- and post-course measurement and six-month follow-up
AUTHORS	Armstrong, Gregory; Sutherland, Georgina; Pross, Eliza; Mackinnon, Andrew; Reavley, Nicola; Jorm, A

VERSION 1 – REVIEW

REVIEWER	Wilson, Marc Victoria University of Wellington, School of Psychology
REVIEW RETURNED	15-Aug-2022

GENERAL COMMENTS	I was pleased to see this work - there's not enough being done in this space. The terms NSSI and self-harm are used relatively interchangeably - it's common to see a brief distinction drawn between them. While I get that the focus here is on describing and evaluating an intervention, at least point the reader to where they can find out more about standard models of understanding NSSI, and the functions of NSSI. I appreciate the value of co-design of programmes, but it's also the case that there are a number of existing programmes focussing on NSSI education - were these not considered for integration? I'm interested in the choice of naming the programme (NSSI rather than self-harm) - qualitative research with indigenous people (in New Zealand, Canada, US) suggests that they see NSSI and self-harm as less distinct from each other than researchers. At the same time, I think it's potentially useful as a destigmatisation tool (given the connotations of "self-harm"?) While there isn't much out there looking at DSH/NSSI among indigenous people, I think there's more than the authors cite. I'd cite Black and Kisely's (2018) review of NSSI among indigneous people in Australia and NZ (Black, E. B., & Kisely, S. (2018). A systematic review: Non-suicidal self-injury in Australia and New Zealand's Indigenous populations. Australian psychologist, 53(1), 3-12). Am I misunderstanding something: "We recruited and obtained pre-course and post-course data from 49 participants, and 17 (51%) were retained at six-month follow-up." - isn't 17 out of 49 around a third? I'd probably move the analysis related to attrition earlier on (when the sample is described just prior to analysis?) It's

	reasonably common for people to report distress, and also that the opportunity or experience was a positive one - I think Tony Jorm published a review of participant experiences in suicide research (or 'sensitive' research) that might be relevant here for precedent but I wouldn't require it. The manuscript could do with a good proof read just in case a typo or grammatical issue has snuck through - I didn't see many and the most obvious one was very early on: (Abstract) "we developed used expert".

REVIEWER	Davaasambuu, Sarantsetseg Research Foundation of CUNY
REVIEW RETURNED	07-Nov-2022

GENERAL COMMENTS	Thank you for the opportunity to review this very interesting and important article. The article is well written and contains interesting information regarding non-suicidal self-injury (NSSI) gatekeeper training. I have a few recommendations to enhance the quality of the article: 1. Background section is well written. It clearly highlights the need of the training for frontline workers who provide services to the indigenous population of the Torres Strait Island. However, the Background needs to be organized little better, e.g., when I read the section, my understanding was that the training was delivered to family and friends because importance of family and friends was emphasized. In addition, I would recommend to make a connection between the needs of the gatekeeper training for the frontline workers and the MHFA training itself in the Background section. 2. My main concern about the article is the study design (one group pretest and post-test). First of all, training was only for 5 hours and the pre and post test were taken right before and after the training (5 hours apart). There is a significant testing effect treat related to the pre and post-tests. 3. In addition, there was a no comparison group which is subject to numerous validity threats. Researchers mentioned about ethical issues related to having control groups. I am not sure what type of ethical issues the authors have had since this is a gatekeeper training with frontline workers. 4. Six month follow up assessment is also questionable because of the participants lost. Only 17 (34.7%) individuals participated in the 6-month follow up and most of them were those who had previous mental health treatment trainings and non-indigenous participants group. I am not sure if the two test results are even comparable. Were there any significant differences between the group participated in the pre and post-tests and the follow up group? Since, it was not a randomized study with comparison groups, this follow up assessment is a subject to some validity related problems as well. 5. Therefore, these limitations need to be emphasized in the article and results need to be interpretated carefully. I do not think that the results are generalizable.

VERSION 1 – AUTHOR RESPONSE

Peer reviewer comments

Reviewer 1

1. ***I was pleased to see this work - there's not enough being done in this space.***

Thank you for this encouragement.

2. ***The terms NSSI and self-harm are used relatively interchangeably - it's common to see a brief distinction drawn between them. While I get that the focus here is on describing and evaluating an intervention, at least point the reader to where they can find out more about standard models of understanding NSSI, and the functions of NSSI. I appreciate the value of co-design of programmes, but it's also the case that there are a number of existing programmes focussing on NSSI education - were these not considered for integration? I'm interested in the choice of naming the programme (NSSI rather than self-harm) - qualitative research with indigenous people (in New Zealand, Canada, US) suggests that they see NSSI and self-harm as less distinct from each other than researchers. At the same time, I think it's potentially useful as a destigmatisation tool (given the connotations of "self-harm"?)***

We have added a brief distinction between the terms deliberate self-harm and NSSI at the beginning of the introduction section.

As highlighted in the methods, the training program was based on a Delphi expert consensus study, with helping actions being endorsed by a panel of Aboriginal and Torres Strait Islander experts in suicide and NSSI. The list of helping options provided to participants in the Delphi study was populated from a prior systematic review of peer reviewed and grey literature related to NSSI, which is largely from work with non-Indigenous populations. Given this, the course contains a lot of material that is also common to courses related to NSSI for the general population.

The course was given a focus on NSSI to make it distinct from another course we recently developed and evaluated that was focused specifically on suicidal thoughts and behaviours (see reference below). We agree that the distinction between NSSI and suicidal behaviours isn't always crystal clear, and this is acknowledged in the training materials.

Armstrong G et al. Talking About Suicide: an uncontrolled trial of the effects of an Aboriginal and Torres Strait Islander Mental Health First Aid program on knowledge, attitudes and intended and actual assisting actions. PloS one. 2020;15(12): e0244091.

3. ***While there isn't much out there looking at DSH/NSSI among indigenous people, I think there's more than the authors cite. I'd cite Black and Kisely's (2018) review of NSSI among indigenous people in Australia and NZ (Black, E. B., & Kisely, S. (2018). A systematic review: Non‐suicidal self‐injury in Australia and New Zealand's Indigenous populations. Australian psychologist, 53(1), 3-12).***

We have integrated this reference into the introduction.

4. ***Am I misunderstanding something: "We recruited and obtained pre-course and post-course data from 49 participants, and 17 (51%) were retained at six-month follow-up." - isn't 17 out of 49 around a third? I'd probably move the analysis related to attrition earlier on (when the sample is described just prior to analysis?) It's reasonably common for people to report distress, and also that the opportunity or experience was a positive one - I think Tony Jorm published a review of participant experiences in suicide research (or 'sensitive' research) that might be relevant here for precedent but I wouldn't require it.***

Thank you for picking up this important typo. We have changed this from 51% to 34.7%.

We have moved the analysis related to attrition to earlier in the results section, as suggested. We have also acknowledged the impact of this attrition in the discussion and limitations section.

Thank you for noting that it is common for people to report distress after such training interventions and that, regardless of this, it can also be a positive experience. We feel we have captured this in the presentation of the results and that there isn't a need to elaborate further on this in the discussion.

5. ***The manuscript could do with a good proof read just in case a typo or grammatical issue has snuck through - I didn't see many and the most obvious one was very early on: (Abstract) "we developed used expert".***

We have now undertaken a thorough review of the manuscript.

Reviewer 2

Thank you for the opportunity to review this very interesting and important article. The article is well written and contains interesting information regarding non-suicidal self-injury (NSSI) gatekeeper training.

Thank you for this encouragement.

1. ***Background section is well written. It clearly highlights the need of the training for frontline workers who provide services to the indigenous population of the Torres Strait Island. However, the Background needs to be organized little better, e.g., when I read the section, my understanding was that the training was delivered to family and friends because importance of family and friends was emphasized. In addition, I would recommend to make a connection between the needs of the gatekeeper training for the frontline workers and the MHFA training itself in the Background section.***

We have updated the background section to fix the issue raised by the reviewer. We believe it is now clearer that friends, family and frontline workers (e.g. teachers, sports coaches, etc) may be well positioned to provide initial assistance to individuals who engage in NSSI.

2. ***My main concern about the article is the study design (one group pretest and post-test). First of all, training was only for 5 hours and the pre and post test were taken right before and after the training (5 hours apart). There is a significant testing effect treat related to the pre and post-tests. In addition, there was a no comparison group which is subject to numerous validity threats. Researchers mentioned about ethical***

issues related to having control groups. I am not sure what type of ethical issues the authors have had since this is a gatekeeper training with frontline workers.

We acknowledge that 5-6 hours is a brief time window within which to conduct repeated questionnaire measurement, and this may have resulted in a testing effect. We now acknowledge this in the limitations section. We do note that significant effects were also observed at follow-up measurement, which was six-months later.

We have acknowledged that this was an uncontrolled trial in the title, abstract, methods and discussion sections. In the limitations we state:

'our study design was weakened by the absence of a control group and some of the improvements observed may have been due to the effect of repeated measurements.'

We note that the strengths and limitations statement under the abstract did have text stating that there was no control group 'for ethical reasons'. This reference to ethical reasons has been removed as this was a mistake.

It may have been possible to do a waitlisted control group who received the intervention a day later. However, this would have divided the sample into two groups when the N is not large, leaving the trial underpowered. It may also have been difficult to get a control group who agreed to do two questionnaires in person on the same day, which were 5-6 hours apart, with no intervention in between, and then to do the intervention the next day, especially considering no payments were being provided to participants. For future studies we will continue to explore designs that are acceptable to communities.

3. ***Six month follow up assessment is also questionable because of the participants lost. Only 17 (34.7%) individuals participated in the 6-month follow up and most of them were those who had previous mental health treatment trainings and non-indigenous participants group. I am not sure if the two test results are even comparable. Were there any significant differences between the group participated in the pre and post-tests and the follow up group? Since, it was not a randomized study with comparison groups, this follow up assessment is a subject to some validity related problems as well.***

We have also acknowledged the impact of this attrition in the results, discussion and limitations section. We have moved the analysis related to attrition to earlier in the results section, as suggested by reviewer 1, to make this limitation clear to the reader. The analysis of attrition highlights the groups most impacted by this attrition and spells out that:

'follow-up responses should be regarded as representing participants who were more experienced and knowledgeable about MHFA than the course participants as a whole.'

We have also added text to acknowledge that, in part, attrition at follow-up was impacted by 'sorry business' – the cultural protocols for death in Aboriginal communities. Where communities had been impacted by a death, particularly a suicide death, our ethical protocol was not to approach participants in these communities to participate in follow-up data collection. This was agreed to in the study design and with our Aboriginal-controlled community partner organisations.

6. ***Therefore, these limitations need to be emphasized in the article and results need to be interpreted carefully. I do not think that the results are generalizable.***

As noted above, and we have fully acknowledged these limitations throughout the manuscript.

VERSION 2 – REVIEW

REVIEWER	Wilson, Marc Victoria University of Wellington, School of Psychology
REVIEW RETURNED	05-Dec-2022

GENERAL COMMENTS	Kia ora, and thanks for your consideration of the questions and comments made regarding the previous submission of this work. Many of my comments were exactly that - comments that didn't actively require changes to the manuscript - but I do think the manuscript is better for the revision. There are some minor things in the revised manuscript that look odd (e.g., pagr 6, lines 14-17 "the term 'deliberate self-harm' is used in this manuscript to refer to self-harm behavio7urs that may or may not carry suicidal intent" but those may not appear in the final version... In short, I'm happy for this to be accepted.

REVIEWER	Davaasambuu, Sarantsetseg Research Foundation of CUNY
REVIEW RETURNED	02-Dec-2022

GENERAL COMMENTS	Thank you very much for the opportunity to review your article. As mentioned in the review, I still have some concerns related to the weak study design.