

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Disabling Chronic Low Back Pain as an Iatrogenic Disorder: A Qualitative Study in Aboriginal Australians
<b>AUTHORS</b>	Lin, Ivan; O'Sullivan, P; Coffin, Juli; Mak, Donna; Toussaint, Sandy; Straker, Leon

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Dr Rionach Casey Department of Architecture and Planning, Sheffield Hallam University  No competing interests
<b>REVIEW RETURNED</b>	08-Feb-2013

<b>REPORTING &amp; ETHICS</b>	It would have been appropriate to know more about what steps the researchers took to ensure that participants gave their fully informed consent to take part in the research. This would have been crucial in cases where participation was in Aboriginal English. Moreover, the entire sample could be categorised as 'vulnerable' by virtue of their culture, ethnicity and medical condition and the consideration of ethics should have reflected this fact.
<b>GENERAL COMMENTS</b>	The paper was a well written and theoretically grounded report of an original study. It convincingly set out to investigate the lower back pain beliefs of Aboriginal Australians and was successful in addressing its aims. It was methodologically appropriate and gave plenty of space for the 'voices' of participants to be heard. A little more detail on the 'yarning' technique as a tool in qualitative research would have been welcome as this may have applications in other cultural settings. However, these are minor comments on an otherwise excellent paper. Well done.

<b>REVIEWER</b>	Professor Lorraine H De Souza Head of School and Professor of Rehabilitation School of Health Sciences and Social Care Brunel University UK  No conflicts of interest.
<b>REVIEW RETURNED</b>	18-Feb-2013

<b>THE STUDY</b>	The research question is not defined, but the aim of this qualitative study is clearly stated and is appropriate to the exploratory nature of the research.  The research participants were purposively sampled and recruited
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	<p>as volunteers and by 'snowball sampling' and word of mouth. They appear fairly representative of their distinct communities.</p> <p>Methods: More detailed and specific description is needed on how raw data were synthesised, organised and sorted. The process of data analysis from transcripts to the final stages as reported require specification. Was NVivo used as an analytical tool (if so, how), or just for data organising and archiving? The authors state how analysis utilised comparisons. It is unclear if this was carried out within cases as well as between cases.</p> <p>As this is a qualitative research study, there is no outcome measure, as it is not appropriate to have one in this research design. Likewise, there are no statistical methods described, as these are not relevant to a qualitative research design.</p>
<b>RESULTS &amp; CONCLUSIONS</b>	The results meet the aim of the study, which is provided instead of a research question.
<b>REPORTING &amp; ETHICS</b>	It is not actually stated if individual's informed consent was obtained and each individual informed of their right to withdraw from the research study at any time, or to withdraw their data (interview narratives).
<b>GENERAL COMMENTS</b>	<p>This is an interesting paper with some important messages. It would be helpful to have clarity about if this is a descriptive account (i.e. what kinds of things were going on here?) or an explanatory account (i.e. how do we explain the patterns, linkages, processes or contradictions we found, and why do we think these exist?)</p> <p>The Interview Schedule should be briefly described to indicate to the reader what issues were triggered by application of the Schedule (relating to content) and how the issues were presented to the respondents (the nature of questioning during the interview). The reader should be informed as to why 3 interviews were not recorded. Is this an issue of consent, or one of equipment failure, or something else? How were the data from interviews that were not recorded incorporated into the data set? Linking to "Analysis", indicate if interviews that were not audio recorded were otherwise transcribed (how?) and if the transcripts had equal (or not) consideration within the analytical process.</p> <p>A brief explanation of why only 19 of the 32 participants were able to be followed up would be helpful. It would be pertinent to have an indication if those lost to follow-up represented any particular feature relevant to the research (sex, age, community location, or something else?). In 'Discussion', what is the impact on the findings of having approximately 60% follow-up rate?</p> <p>Limitations should address the issue of social desirability. Would the participants use the 'medical language' of the interviewers (who were health professionals) in order to be viewed more favourably?</p>

### VERSION 1 – AUTHOR RESPONSE

Responses to Dr Rionach Casey

1. It would have been appropriate to know more about what steps the researchers took to ensure that participants gave their fully informed consent to take part in the research. This would have been crucial in cases where participation was in Aboriginal English. Moreover, the entire sample could be categorised as 'vulnerable' by virtue of their culture, ethnicity and medical condition and the

consideration of ethics should have reflected this fact.

We have added additional information on the process used to explain the project and gain participant consent on page 6.

“Eligible participants were contacted either by IL, an Aboriginal co-investigator, or by an existing participant who explained the project. After the project had been described and following consent, arrangements were made for an extended discussion. Participants were advised they were free to withdraw from the study or withdraw their data with no consequences”.

2. The paper was a well written and theoretically grounded report of an original study. It convincingly set out to investigate the lower back pain beliefs of Aboriginal Australians and was successful in addressing its aims. It was methodologically appropriate and gave plenty of space for the 'voices' of participants to be heard. A little more detail on the 'yarning' technique as a tool in qualitative research would have been welcome as this may have applications in other cultural settings. However, these are minor comments on an otherwise excellent paper. Well done.

We have elaborated about yarning as a research technique by describing the 'social' and 'research' yarn approaches used during interviews (page 7).

“Interviews were conducted by IL and male or female Aboriginal co-investigators and typically begun with a 'social yarn' in which investigators established or re-affirmed an interpersonal connection, before moving on to a 'research yarn'”

Responses to Professor Lorraine H De Souza

1. The research question is not defined, but the aim of this qualitative study is clearly stated and is appropriate to the exploratory nature of the research.

The research participants were purposively sampled and recruited as volunteers and by 'snowball sampling' and word of mouth. They appear fairly representative of their distinct communities.

No response needed

2. Methods: More detailed and specific description is needed on how raw data were synthesised, organised and sorted. The process of data analysis from transcripts to the final stages as reported require specification. Was NVivo used as an analytical tool (if so, how), or just for data organising and archiving? The authors state how analysis utilised comparisons. It is unclear if this was carried out within cases as well as between cases.

We have clarified the process of analysis from raw data to final stage by clarifying the chronology of stages of the data analysis process (pages 6-7), and specifying the use of NVivo in data management and analysis – see also below.

We have clarified the use of NVivo as an analytical tool in addition to managing data.

We examined comparisons within and between cases. Our paper has been amended to reflect this (page 8). The section now reads:

“Transcripts were imported into NVivo qualitative data analysis software 30. Transcribed interviews and interview notes were repeatedly read by all members of the research team so all were familiar with the data. Equal weight was given to verbatim and interview note transcripts in the analysis. An initial analysis was undertaken by IL who had undertaken transcription. Initially a process of “describe-compare-relate” was undertaken 31. Related stories, statements, words and phrases related to

participants' beliefs about CLBP were coded into common themes in NVivo and a back and forth process between data undertaken to substantiate or challenge identified themes. Initial summaries of the data were reviewed by members of the interprofessional research team (physiotherapy, Aboriginal health, public health medicine, and anthropology), and Aboriginal co-investigators to include perspectives, themes and issues that might not otherwise have been considered. This informed ongoing writing and reflection, a process integral to data interpretation and analysis 31 32.

A deeper level of analysis was then undertaken by comparing data Data were compared between people who were more and less disabled. Participants were classified as high, moderate or low levels of disability informed by the multidimensional classification of Dunn et al 33 and our analysis of the impacts of CLBP including effects on life participation and emotional wellbeing 34. Comparisons were also made between cases by examining participants of different disability levels, genders, towns, ages, and across theme groupings by generating a series of matrices in NVivo. Patterns, Similarities, contradictions and exceptions were identified and informed ongoing analysis 35. The synthesis of this analysis was again discussed amongst the research team.

Preliminary findings were discussed during follow up interviews with 19 participants, including a description of the interpreted level of disability, to verify the accuracy of preliminary findings through member checking 35. Priority was given to those who were most disabled by CLBP. Otherwise there were no particular features of those who were able to be followed up (e.g. location, sex, age). All participants able to be contacted corroborated the content of initial interviews, and most elaborated upon initial data. Participants were not followed up if they moved away, did not attend arranged follow-up appointment times, or were unable to be contacted during the study period. Repeating the above steps by re-examining the findings against raw data and a second level of writing completed a second round of formal analysis. Refined written summaries circulated again to members of the research team for discussion, critique and a "reality check" 31 from which a finalised summary was developed".

3. As this is a qualitative research study, there is no outcome measure, as it is not appropriate to have one in this research design. Likewise, there are no statistical methods described, as these are not relevant to a qualitative research design.

No changes needed.

4. It is not actually stated if individual's informed consent was obtained and each individual informed of their right to withdraw from the research study at any time, or to withdraw their data (interview narratives).

We have provided more detail about how participants were informed of the study, provision of consent, and the right to withdraw without penalty (page 6).

"Eligible participants were contacted either by IL, an Aboriginal co-investigator, or by an existing participant who explained the project. After the project had been described and following consent, arrangements were made for an extended discussion. Participants were advised they were free to withdraw from the study or withdraw their data with no consequences".

5. This is an interesting paper with some important messages. It would be helpful to have clarity about if this is a descriptive account (i.e. what kinds of things were going on here?) or an explanatory account (i.e. how do we explain the patterns, linkages, processes or contradictions we found, and why do we think these exist?)

We position our work as an explanatory account. On page 5 we state, "The position of the

researchers was conceptualised as interpreting Aboriginal people's experiences within the context of contemporary understandings of CLBP, and the theoretical framework guiding the inquiry was a bio-psycho-social model of CLBP". In view of this we have not made additions to the paper.

6. The Interview Schedule should be briefly described to indicate to the reader what issues were triggered by application of the Schedule (relating to content) and how the issues were presented to the respondents (the nature of questioning during the interview). The reader should be informed as to why 3 interviews were not recorded. Is this an issue of consent, or one of equipment failure, or something else? How were the data from interviews that were not recorded incorporated into the data set? Linking to "Analysis", indicate if interviews that were not audio recorded were otherwise transcribed (how?) and if the transcripts had equal (or not) consideration within the analytical process.

We discuss the interview schedule on page 7 and have added a further example of an open ended question used to facilitate discussion.

As above we have added an additional example of a question from the interview schedule that assists clarity of content and nature. We have already described the nature of questioning as informal, the application of yarning as a technique (as clarified above) and the use of open ended questions on page 7.

We have clarified why 3 interviews were not recorded (page 7).

We have clarified that, in the case of non-recording, interview notes were maintained and transcribed. The section now reads:

"Interviews were conducted by IL and male or female Aboriginal co-investigators and typically begun with a 'social yarn' in which investigators established or re-affirmed an interpersonal connection, before moving on to a 'research yarn' 29. Most interviews were informal; however an interview schedule was developed to guide the research yarn. Interviews were conducted in English or Aboriginal English. The interview schedule included Open ended questions, (e.g. "tell us the story of your pain") were used with prompts to explore underlying beliefs (e.g. "what do you feel is causing your pain? How do you feel your pain will go in the future"). Interviews lasted from 30 minutes to two and a half hours (typically longer than one hour). With the exception of three interviews, all were audio-recorded. Three interviews were not recorded due to recorder malfunction or because the investigators judged that commencing recording may have disrupted the flow of an important yarn. Hand written notes were taken of non-recorded interviews."

We have clarified that equal weight was given to verbatim and interview note transcripts during analysis (page8).

"Equal weight was given to verbatim and interview note transcripts in the analysis."

7. A brief explanation of why only 19 of the 32 participants were able to be followed up would be helpful. It would be pertinent to have an indication if those lost to follow-up represented any particular feature relevant to the research (sex, age, community location, or something else?). In 'Discussion', what is the impact on the findings of having approximately 60% follow-up rate?

We already state on page 9 that "Participants were not followed up if they moved away, did not attend arranged follow-up appointment times, or were unable to be contacted during the study period." For brevity we have not added further information to this.

We have clarified that, apart from those of higher disability, "there were no particular features of those who were able to be followed up (e.g. location, sex, age)." – page 9.

We have added a statement reflecting on the impact of 60% follow up rate – page 19.

“Although it was not possible to follow up all participants the researchers are confident that all important issues were raised by those who did participate”

8. Limitations should address the issue of social desirability. Would the participants use the ‘medical language’ of the interviewers (who were health professionals) in order to be viewed more favourably?

We have addressed this potential issue in the limitations section – page 20.

“The issue of social desirability is a potential limitation, with participants responding in a manner perceived favourable to the researchers. We believe this is unlikely due to the application of culturally secure research methods, attendance to language, a de-medicalised approach using yarning, and the frank disclosure of participants’ during interviews.”