

## PEER REVIEW HISTORY

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## ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Cohort profile: The Western Australian Pregnancy Cohort (Raine) Study - Generation 1
<b>AUTHORS</b>	Dontje, Manon; Eastwood, Peter; Straker, Leon

## VERSION 1 - REVIEW

<b>REVIEWER</b>	Verity Cleland University of Tasmania, Australia
<b>REVIEW RETURNED</b>	19-Sep-2018

<b>GENERAL COMMENTS</b>	<p>This paper is a profile of the parents of a well-established birth cohort of West Australians followed from birth to 26 years (to date). So far, the majority of the focus of this work has been on the birth cohort (known as Generation 2), but this paper describes parental/carer (Generation 1) participation over time. While data collection has been more sporadic (varying from mothers to fathers to carers and various combinations of these at different times) and the measures have been less consistent in the Generation 1 cohort, the data still represent a useful source of information in which a range of research questions can be explored. The paper is thorough in its description of the cohort, its comparability with the general population, and its analysis of loss to follow-up and attrition over time. I have a few minor suggestions below which the authors may like to consider for improving the manuscript.</p> <p>1. Figure 1: Would the authors consider adding information about the numbers of other Generation 1 participants – for example, fathers or carers – at each timepoint? This could be done quite easily by adding another column or two of boxes to the flowchart</p> <p>2. Where reference is made to 'socioeconomic status', can the authors please clarify in the text that they mean 'area-level socioeconomic status' (when referring to the SEIFA indices) and 'individual-level socioeconomic status' if referring to measures such as income, employment or education?</p>
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<b>REVIEWER</b>	Emeline Rougeaux UCL GOS Institute of Child Health, UK
<b>REVIEW RETURNED</b>	05-Nov-2018

<b>GENERAL COMMENTS</b>	<p>Peer-review of 'Cohort profile: The Western Australian Pregnancy Cohort (Raine) Study – Generation 1'</p> <p>The Raine study is a cohort study of children born in 1989-1992 and surveyed until adult life. These children are referred to as Generation 2, while the main parental respondent (usually the mother) is referred to as Generation 1 and is the main focus of this Cohort Profile. The profile gives a good and succinct overview of the Generation 1 component of the Raine cohort. Authors describe why the cohort was set up, who it describes and what the major findings were, following Strobe guidance where relevant.</p> <p>There is understandably some overlap with the Generation 2 cohort profile (published in IJE, ref 3), particularly because research published to date explores Generation 2 outcomes. Nonetheless this Generation 1 cohort profile provides useful additional characteristics of Generation 1 as well as additional and more up to date research findings on Generation 2. This may not be immediately clear to a reader however and authors may want to consider being more explicit on what this cohort profile adds to the existing cohort profile.</p> <p>Below are some additional comments on sections of the manuscript where information is unclear or lacking for readers and which the authors should consider adding in or changing.</p> <p>1-Ethical approval &amp; consent: were these obtained, how and when?</p> <p>2-Cohort description: It isn't very clear how the cohort sample was selected, were all 2900 women enrolled in the RCT then invited to participate in the cohort study? Did all accept?</p> <p>3-Methods of Data Collection: It isn't clear how the information was gathered initially and at follow-up from participants, were the questionnaires self-completed and where, carried out by an interviewer etc. Were there also any measures put in place for sensitive questions? You also don't say much about the clinical assessments, where and by whom they were carried out.</p> <p>4-Measurements: I note some inconsistencies with previous reports on the Raine study in the lists of measurements taken, for example your Measurements table 3 appears to indicate fewer maternal blood sample measurements were taken at than what reported in the Generation 2 Cohort Profile (IJE).</p> <p>5-Tables: Table 3, referring to birth measurements as antenatal/neonatal rather than birth may confuse some readers (as the two previous sections are also antenatal). In tables 2a &amp; 2b TAFE is not clear for non-Australian readers. Footnotes would also be useful as you have under Table 1.</p> <p>6-Patient &amp; Public Involvement: you haven't said if there was any (also I believe it may now a requirement of BMJ to have a section on this in Methods)</p>
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	7-Data linkage: was any carried out or are there plans for this? Some readers may find this information useful.
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## VERSION 1 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

Reviewer Name: Verity Cleland

Institution and Country: University of Tasmania, Australia

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

This paper is a profile of the parents of a well-established birth cohort of West Australians followed from birth to 26 years (to date). So far, the majority of the focus of this work has been on the birth cohort (known as Generation 2), but this paper describes parental/carer (Generation 1) participation over time. While data collection has been more sporadic (varying from mothers to fathers to carers and various combinations of these at different times) and the measures have been less consistent in the Generation 1 cohort, the data still represent a useful source of information in which a range of research questions can be explored. The paper is thorough in its description of the cohort, its comparability with the general population, and its analysis of loss to follow-up and attrition over time. I have a few minor suggestions below which the authors may like to consider for improving the manuscript.

1. Figure 1: Would the authors consider adding information about the numbers of other Generation 1 participants – for example, fathers or carers – at each timepoint? This could be done quite easily by adding another column or two of boxes to the flowchart

Added as suggested.

2. Where reference is made to 'socioeconomic status', can the authors please clarify in the text that they mean 'area-level socioeconomic status' (when referring to the SEIFA indices) and 'individual-level socioeconomic status' if referring to measures such as income, employment or education?

Added as suggested.

Reviewer: 2

Reviewer Name: Emeline Rougeaux

Institution and Country: UCL GOS Institute of Child Health, UK

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

Peer-review of 'Cohort profile: The Western Australian Pregnancy Cohort (Raine) Study – Generation 1'

The Raine study is a cohort study of children born in 1989-1992 and surveyed until adult life. These children are referred to as Generation 2, while the main parental respondent (usually the mother) is referred to as Generation 1 and is the main focus of this Cohort Profile. The profile gives a good and succinct overview of the Generation 1 component of the Raine cohort. Authors describe why the cohort was set up, who it describes and what the major findings were, following Strobe guidance where relevant.

There is understandably some overlap with the Generation 2 cohort profile (published in IJE, ref 3), particularly because research published to date explores Generation 2 outcomes. Nonetheless this Generation 1 cohort profile provides useful additional characteristics of Generation 1 as well as additional and more up to date research findings on Generation 2. This may not be immediately clear to a reader however and authors may want to consider being more explicit on what this cohort profile adds to the existing cohort profile.

Clarified as suggested by adding "The current cohort profile paper provides additional characteristics of Generation 1." to the text.

Below are some additional comments on sections of the manuscript where information is unclear or lacking for readers and which the authors should consider adding in or changing.

1-Ethical approval & consent: were these obtained, how and when?

For every follow-up ethical approval and written informed consents were obtained. We have added to the text: "Each follow-up was approved by the institutional ethics committee and written informed consent from the participants was obtained for each follow-up."

2-Cohort description: It isn't very clear how the cohort sample was selected, were all 2900 women enrolled in the RCT then invited to participate in the cohort study? Did all accept?

Of the 2900 women, 2730 women gave birth to 2868 children and they were (all 2730 women) invited for the follow-up studies.

In the text, we have now referred to another paper where more detailed information about the selection and recruitment of the original sample of pregnant women can be found. In addition we have tried to clarify by adding "All" to "All these children are the index participants (Generation 2) of the Raine Study and have been regularly followed up since birth."

3-Methods of Data Collection: It isn't clear how the information was gathered initially and at follow-up from participants, were the questionnaires self-completed and where, carried out by an interviewer etc. Were there also any measures put in place for sensitive questions? You also don't say much about the clinical assessments, where and by whom they were carried out.

Added to the text: "Most questionnaires were self-completed by the participants, blood samples were collected by a trained phlebotomist, and clinical measurements were taken by a trained research assistant. If participants were not comfortable or willing to answer specific questions, partake in specific tests, or to give a blood sample, they were always given the option to opt out for that specific part."

4-Measurements: I note some inconsistencies with previous reports on the Raine study in the lists of measurements taken, for example your Measurements table 3 appears to indicate fewer maternal blood sample measurements were taken at than what reported in the Generation 2 Cohort Profile (IJE).

Thank you for pointing out the inconsistencies. Some differences between the papers are due to the list in this paper including all Generation 1 data, whereas in the Generation 2 paper the list was

focused on data for Generation 2 with only some Generation 1 data listed on the basis that it is commonly used for Generation 2 analysis (for example aspects of the in utero exposure). We are also progressively quality controlling all historical data and correcting our records. The figures in this paper are from the revised records of data for Generation 1.

5-Tables: Table 3, referring to birth measurements as antenatal/neonatal rather than birth may confuse some readers (as the two previous sections are also antenatal).

Changed “antenatal/neonatal” to “birth”.

In tables 2a & 2b TAFE is not clear for non-Australian readers.

TAFE = Technical and further education.

Footnotes would also be useful as you have under Table 1.

Added as suggested.

6-Patient & Public Involvement: you haven't said if there was any (also I believe it may now a requirement of BMJ to have a section on this in Methods)

Added to the text: “Patient and Public Involvement

The Raine Study values participant involvement in decisions about cohort assessments, activities and research projects. In the early years Raine Study participants were not involved in designing the study, developing research questions and outcome measures, but this has changed over the years. Generation 2 participants have been involved through the Community Advisory Committee since they were approximately 10 years old. Since 2017 participants of both Generation 1 and 2 are involved in all levels of the Raine Study management. Representatives of each Generation are present at the management meetings and play an important role in providing advice and feedback on proposed studies. They ensure that research protocols are acceptable from a participant's point of view. ”

7-Data linkage: was any carried out or are there plans for this? Some readers may find this information useful.

Added to the text: “Although Generation 2 data has been linked to a few administrative databases already, including educational records, there has not been any data linkage carried out with Generation 1 data yet. As it can be very useful for researchers to link Generation 1 data to certain administrative databases such as death registrations, cancer registrations, hospital admission records, or mental health information systems, the Raine Study team is exploring multiple data linkage possibilities at the moment.”

### VERSION 2 – REVIEW

<b>REVIEWER</b>	Verity Cleland University of Tasmania
<b>REVIEW RETURNED</b>	12-Mar-2019

<b>GENERAL COMMENTS</b>	Thank you, the authors have addressed my concerns adequately.
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<b>REVIEWER</b>	Emeline Rougeaux UCL GOS Institute of Child Health, London, UK
<b>REVIEW RETURNED</b>	25-Mar-2019

**GENERAL COMMENTS**

Thank you for responding to my comments from the first review and for addressing these in the updated version of the paper. I have no further comments or concerns.