Reviewer's report

Title: Ethnic discrimination prevalence and associations with health outcomes: data from a nationally representative cross-sectional survey of secondary school students in New Zealand

Version: 1 Date: 13 September 2011

Reviewer: Ricci Harris

Reviewer's report:

This paper examines experience of ethnic discrimination in a national sample of New Zealand secondary school students and its association with a range of health outcome measures. It makes an important contribution to knowledge and evidence on racism as a health determinant internationally, particularly in the relatively under-studied adolescent populations and for indigenous youth. It is based on a robust national survey and also contributes to the emerging New Zealand research in this area. There are some areas where it could be improved (see below).

Is the question posed by the authors well defined?

The research question is well defined. Slightly more detail in the introduction could be added and the introduction broken into paragraphs. There are also some papers that are not referenced that may add to the study (see below).

Are the methods appropriate and well described?

Yes, although some additional detail on description of the variables would be helpful.

Are the data sound?

They appear to be.

Does the manuscript adhere to the relevant standards for reporting and data deposition?

In general, yes, although improvements in the description and consistency of data presentation should be undertaken e.g. table titles and notes, number of decimal places for percentages and odds ratios (see below).

Are the discussion and conclusions well balanced and adequately supported by the data?

Yes.

Are limitations of the work clearly stated?

Yes

Do the authors clearly acknowledge any work upon which they are building, both
published and unpublished?
Yes

Do the title and abstract accurately convey what has been found?
Yes.

Is the writing acceptable?
Yes.

Discretionary Revisions (recommendations for improvement but can be ignored)

Abstract
Results. Last sentence. Could delete ‘remarkably’.

Introduction
It may be useful for readers to have detail on NZ’s ethnic makeup and adolescent health inequities to provide context on how racial discrimination may contribute to such inequalities and on representativeness of participants.

Results
I don’t think the prevalences of reporting ethnic discrimination for the total population are that important. Given that the biggest risk factor is ethnicity, the ethnic specific data are more important. This could be an area to cut back in order to address other comments.

Minor essential revisions

Overall
In general, the introduction is quite brief and could benefit from more detail, while the results could be shortened.

General use of terminology
Sometimes the term ‘discrimination’ is used on its own rather than ‘ethnic discrimination’. In some places it is obvious that the authors mean ethnic discrimination, but in others it is not. ‘Discrimination’ is a more general concept than ‘ethnic discrimination’ and the authors should be specific in their description as this can be a source of confusion in the literature.

Other references
There are a few key references that are not cited in this paper that the authors may want to consider incorporating into the background and discussion where appropriate, in particular the review by Pachter. If space is an issue, they could potentially replace some of the references to individual studies. These are:

Systematic reviews

Individual studies on racism and youth
There are some recent studies on racism and health among indigenous youth that may also be worth considering. See Priest et al. 2011 and Bals et al. 2010 for papers from Australia and Norway.

Abstract

Study design. Add survey year.

Study design. The second sentence starting…’Outcomes were the prevalence…..’ Suggest starting this sentence by just saying, ‘The prevalence of…. were analysed.’, as ‘outcomes’ may get confused with health outcomes in regression analyses. In this sentence also suggest using, ‘experience of ethnic discrimination by health professionals, by police, and….’. I don’t think it should be ‘or the police..’

Results. Sentence one. Specify ethnic discrimination.

Results. ORs are usually presented to 2 decimal places.

Introduction
The introduction was quite brief. It could benefit from more detail in some parts and breaking into paragraphs.

First two sentences. It is important to define ethnic discrimination and individual/institutional discrimination as the authors have done. However, it would also be useful to situate this definition in the wider construct of racism as a social system that results in power and resource inequities by ethnicity.

Sentence beginning, ‘Among adult populations….’ In health, research is wider than UK, US and NZ e.g. Australia, Europe, South Africa, Canada etc, although still dominated by the US. A more general comment regarding experience of racism across a number of countries, including NZ, may be better.

Sentence beginning, ‘A range of adverse…….’ Need to specify the link between experience of racial discrimination and adverse health outcomes in this sentence e.g. Experience of ethnic discrimination has also been linked to a range of adverse mental and physical health outcomes, and behavioural health-related measures. Should also mention the link to health service utilisation measures in this summary.

The introduction/background should also make the link between racial
discrimination and ethnic inequalities in health.

Introduction. Final sentence. Insert, …prevalence of ‘experience of’ ethnic discrimination….

Methods

Para 2. Specify the order of prioritization

Para 3. SEP is a broad construct. Either delete SEP and say, Three socioeconomic variables were included in the analyses: ….’ or, leave it in and say, ‘Three variables measuring aspects of SEP….’.

Para 3. Provide information on food security (i.e. never vs ???), housing mobility (i.e. more than x number of times vs ??) and age categories.

Para 4. Describe the ethnic discrimination categories/response options e.g. yes, no, unsure and timeframes.

Para 5. A bit more detail on how variables were categorised would be useful e.g. Self-rated health (poor/fair vs good/v good/excellent), etc.

Para 6. Sentence beginning, ‘Descriptive data analyses…’ Change ‘undertaken’ to ‘stratified’.

Para 6. Sentence beginning, ‘Logistic regression modeling…..’ Need to say, ‘was employed to analyse the association between ethnic discrimination and health outcome variables.

General. Need to comment on what was done with missing variables.

Results

Para 1. Sentence 1. ‘student’ should be ‘students’.

Para 1. Sentence 3. Repetition of the term ‘groups’ ie ethnic and age. Change ‘age groups’ to ‘ages’.

Para 1. An indication of age range would be useful as the categories of <=13 and >=17 suggest that the age range could be quite wide.


Para 3 beginning, ‘In unadjusted bivariate analyses…’. Data in this para refer to Table 3. There are a number of sentences in this para that begin with, ‘A significantly higher (or lower) proportion…’. While technically correct it is quite difficult to follow. Given that the main findings are the adjusted associations between racism and health in Table 4, I don’t think these results need as much description as they have. This para could be summarized and made shorter.

Para 3. Sentence beginning, ‘A significantly higher proportion…’ Need to say higher than what.
Para 3, next sentence beginning, ‘A significantly higher proportion of these participants (ie…). This was a bit confusing following the previous sentence. Clarify.

Para 4, beginning, ‘Logistic regression analysis….‘. Change ‘SEP variables’ to ‘socioeconomic variables’.

Tables
It is usual convention to present percentages to 1 decimal place and odds ratios to 2 decimal places.

Tables should be able to stand alone i.e. be read and interpreted without reference to the text. Some more detail in the titles, labeling and notes is therefore needed (see below).

Table 1
The title needs clarification. It does not seem to have any information on prevalence of discrimination as the title says. Delete this and clarify title. Specify the survey and year in the title.

Should NZDep96 in table be NZDep2006?

**p<0.0001 in the Table note. I’m not clear which significant differences this is referring to in each category or whether it is p for trend or proportions. Suggest deleting. The confidence intervals give enough information on precision and statistical significance.

Percentages should be to 1 decimal point.

Table 2
Because this table contains crude prevalences (or percentages) and adjusted comparisons between ethnic groups I suggest clarifying this in the title e.g. Ethnic discrimination, crude prevalences by ethnicity and adjusted comparisons between ethnic groups, Youth survey 2007. Then put table note that ORs compare the odds of reporting racial discrimination among each ethnic group compared to NZ European adjusted for x, x, x..

Should NZDep96 in table note be NZDep2006?

ORs should be to 2 decimal places.

Table note. The OR looks like it uses NZ European ethnic discrimination as the reference rather than ‘no discrimination’ as described. Clarify if this is the case. P<0.0001 delete. Again, the 95% CI provide enough information and I’m not sure this applies to all analyses but may apply to all logistic regression analyses.

Table 3
Title. Specify experience of ethnic discrimination, survey and year.

Labels. Sometimes 95% CI is broken over two lines.

Table 4
Specify ethnic discrimination in title and in the table heading.
Specify that results are ORs.
ORs should be 2 decimal places.
Should NZDep96 in table note be NZDep2006.

Discussion

General

There are some quite definitive statements about this study being the first to achieve certain things. This may well be the case, but the authors need to be quite sure about this otherwise qualify these statements.

A major strength of this study is that it contributes to the very limited evidence of racial discrimination and health for indigenous youth. I think this is worth mentioning in the discussion. Other authors who have published work in this particular area internationally include Whitbeck (US), Bals (Norway), Priest (Australia).

Para 1. Specify ethnic discrimination ie by health professionals etc

Para 1. I suggest rewording this para to be less definitive about it being the first study to do the things discussed here. I am aware of two other surveys that examine racial discrimination in youth and were undertaken at a national level and there may well be more, particularly outside of the health literature. These are the International Comparative Study of Ethno-Cultural Youth (which NZ was a part of), and the Norwegian Arctic Adolescent Health Study. I suggest rewording this para to discuss the findings in terms of the study contributing to a very limited field of literature internationally. Also a national, population-based study is not necessarily nationally representative which is what you may mean in the first sentence.

Para 3. Slightly repetitive of results.

Para 4. Reword, ‘Our findings found….’

Para 5. Sentence 1. Add ‘all other ethnic groups in the current study…’

Para 5. Last sentence. Also Norwegian paper by Bals et al. has data on ethnic-related bullying


Para 7. Suggest discussing findings for people who report ‘unsure’ for racial discrimination in the context of literature on ‘attributional ambiguity’ and ‘anticipated racism’.

Para 8. Reword, ‘…affect the effect estimates’.

Para 7. The authors should also comment on the limitation of the ethnic discrimination questions only capturing a limited experience i.e. ethnic
discrimination can be experienced in a number of other settings and in a number of different ways. Additionally, these are measures of individual experience of racial discrimination and may not capture subtle or institutional forms of discrimination well.

Major compulsory revisions

None

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare I have no competing interests