Reviewer's report

Title: Measuring use of research evidence in public health policy: A policy content analysis

Version: 3
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Reviewer: Margaret Douglas

Reviewer's report:

The authors have addressed some but not all of the concerns I noted in my review, I've detailed these below. I do not think the paper is scientifically unsound, but I still think it is not sufficiently thoughtful about the nature of evidence and different kinds of evidence needed to inform different kinds of policies. I have suggested it is accepted but also that the authors might consider some of the points below again.

1. The paper states that compensation schemes provide compensation for the 'costs of injury treatment and rehabilitation services' but they can also cover other expenses that people may incur due to an accident, and may pay people compensation for pain and suffering. It might be clearer at the start of the paper to recognise this broader range of compensation before saying that this study is only concerned with compensation for the costs of treatment and rehabilitation. It would also help those unfamiliar with the Transport Accident Commission to explain how these policies are used in practice by claims decision makers and by clinicians.

The authors have explained how the policies can be used in practice. They have not made any reference to the use of compensation schemes for other non-healthcare related expenses, pain and suffering. There is perhaps a cultural difference here that affects how different readers may understand this paper. In countries with comprehensive healthcare like the UK there much less need for people to use compensation schemes to pay for treatment and rehabilitation, hence my confusion when first reading this study. If the study is about evidence to inform compensation for treatment and rehabilitation of injuries, it is most relevant to nations like Australia and the US who will understand the nature of this kind of compensation scheme. If it is trying to make a point about ways to build evidence into policy more widely, it is more important to set the context in a way that readers from other countries can also understand.

2. As part of the justification for the study the authors quote studies that found poorer health outcomes in people who have received compensation compared to people who have not. It is implied that this might be because the policies relating to compensation are not evidence based. But it could also be that compensable injuries are more severe than non-compensable injuries (as seems very clearly the case in the Victorian study cited), or that individuals deliberately or
subconsciously prolong or exacerbate symptoms to justify payment of compensation. I think if the authors want to refer to this literature, it merits some more critical discussion.

The authors have noted that ‘compensation policy may not be the only factor affecting outcomes’. I don’t think this fully addresses my point and lower down that page they still make reference to poorer health outcomes in those receiving compensation as a part of the justification of the study.

3. Some further explanation of the range of policies analysed is needed to understand the relevance of findings. I found the December 2013 list of TAC policies relating to ‘treatment and support services’ online; this seems the current nearest equivalent to the list of ‘injury rehabilitation compensation policy documents’ that the authors downloaded in December 2010. It would be helpful for the paper to include a box or table listing their titles to help the reader understand the range of policies analysed. This should also indicate for each policy whether it was considered ‘treatment’ or ‘non-treatment’. (Or at the very least the authors should give some examples of ‘treatment’ and ‘non- treatment’ policies in the text). The paper should also give a reference for the TAC website that was the source of the material.

This has been addressed in the changes the authors have made. I think it is important for readers to be able to see the list of policies.

4. I thought the methods, and especially the use of statistical tests was unnecessarily complex for the questions being studied. The authors use statistical tests to compare the frequency of different kinds of evidence in treatment and non treatment policies, and between information supporting policy development and information supporting claims decision making. In the tables they present both the total number of references made to different kinds of evidence and the number and proportion of policies that reference them. Personally I think that just showing simple descriptive statistics showing the proportion of policies that reference each type of information would be clearer and more meaningful. I think the denominator should be number of policies rather than number of references, so the percentages given in the first column of the tables are unhelpful.

The authors disagree and have chosen not to address this point.

5. My major concern is that by putting the policies into just two categories – treatment and non-treatment and then doing this kind of quantitative analysis, the authors obscure the diversity of policies. They do not consider whether it would be reasonable to expect them all to be based on academic research evidence. Assuming the list of policies I viewed in 2013 is similar to the 2010 list that was analysed, it includes a broad range of different kinds of topics – from very specific drugs and treatments to broad service areas like ambulances, nursing and speech therapy. Whereas we might expect to be able to use scientific research evidence to develop a policy on whether a specific drug should be
funded for a specific set of conditions, this is much less likely for the broader policies. I think the paper would be greatly improved if this was recognised and the implications discussed in the discussion.

The authors say they have added text to address this but I cannot find it.

6. Throughout the paper, the authors imply that the policies should be based on academic research evidence and are critical of the other kinds of information that is references. But I think this is an over-simplistic perspective, partly because of the range of policies as mentioned above. But also because the policies presumably serve several purposes. For example, in the discussion, the authors are critical of the finding that most policies reference other policies. But since one purpose of the policies is to ensure consistency of decision making and many of the policies overlap, this seems quite appropriate to me.

As with point 5, although the authors say they have addressed this I cannot find it.

7. In the discussion, the authors describe different kinds of academic research evidence as ‘recent peer reviewed journal article’, ‘clinical trial’, ‘clinical research’ and ‘high quality evidence’. It looks as if these are quotes from the policies (rather than codes the authors have assigned) and its not clear whether the policies actually referenced research studies or just made these rather vague mentions of their existence. This needs greater explanation.

The discussion still makes reference to ‘recent peer reviewed journal article’ and I cant see the clarification requested.

8. Overall, the data show that few policies reference academic research but most reference related policies and clinical/medical evidence. The question this raises for me is what evidence clinicians use to recommend particular treatments. This is beyond the scope of this paper but seems an obvious recommendation for further research.

This point has been addressed.

9. The authors suggest that improving capacity of policy makers to use academic research evidence would improve compensation health outcomes because people would then receive more evidence-based treatment. This is only true a) if clinicians are not already using research evidence to inform care of people with compensable injuries, and b) if the TAC policies can cover the use of specific treatments in specific clinical scenarios to be used in this way. I think both of these points need to be discussed before reaching this conclusion. As I'm unfamiliar with the Australian healthcare environment, I'm not sure what other guidance clinicians would use but I note that TAC has a clinical framework that includes the principle that care should be based on best available research evidence. I'm not sure how this framework relates to the policies assessed in this study but it seems to be an alternative approach to using research to improve care and would be worthy of mention in the discussion.
The authors have mentioned the Clinical Justification Framework and Clinical Panel, although it is not clear how these are used.

**Level of interest:** An article whose findings are important to those with closely related research interests

**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