Reviewer's report

Title: A survey of Knowledge-to-Action pathways of aging policies and programs in the Arab region: the role of institutional arrangements

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Reviewer: Nigel Unwin

Reviewer's report:

I enjoyed reading this paper, and congratulate the authors on a well written, thought provoking paper on an area that is challenging to study. The authors’ interest in this paper is on knowledge to action pathways, but it is worth reflecting that the broader topic within which their paper is situated is what might be called the ‘understanding the policy process’ i.e. aiming to understand causal influences on the formulation and implementation of policy. In my view the major shortcoming of the current manuscript is that it over, and probably incorrectly, interprets the study’s findings. In addition, the theoretical framework requires some justification, and the methods of collection and the content of the data sources used require clarification. That said, this article represents a carefully thought through and executed piece of work. The approach taken I think will be of relevance to researchers internationally who are interested in understanding influences on the policy process, including those, of course, with a specific interest in knowledge translation.

Major compulsory revisions

The findings from the study are over-interpreted. The conclusions in the abstract and in the final paragraph of the discussion do not follow from what is presented in the paper. Firstly the data are cross sectional, and so whether one event (e.g. knowledge creation) preceded another (e.g. policy formulation) cannot be determined. Secondly the theoretical framework for influences of knowledge creation and translation on policy formation is very simple, and doesn’t take into account at all other possible influences on both knowledge creation and policy formation (e.g. policy transfer from external agencies). Finally, it is assumed in the interpretation of the data that the flow is from knowledge creation and institutional arrangements to policy. It could quite easily be in the opposite direction: policy is first established, and as part of the policy framework institutional arrangements are made and knowledge is created (e.g. national surveys are undertaken, as part of the policy). Examples of this ‘reverse causality’ are common in the areas I’m familiar with for non-communicable diseases. I think that the best interpretation that is possible with the data presented is that the data are compatible with the hypothesized relationships in the conceptual framework. However, other interpretations must be considered.

The conceptual framework requires some justification. At present it is simply described, at the top of page 11, ‘In our framework……’ without a single
supporting reference. I hope the authors’ won’t mind being challenged to provide a little evidence base for their framework, particularly as the paper is concerned with ‘evidence based policy’. Clearly the framework has a common sense or heuristic appeal to it, but what’s the evidence that the relationships between policy and knowledge are as outlined? What have others found?

I would like to know a bit more about the data sources, and have the authors more critically consider their robustness. For example, it is stated that the questionnaire developed by Help the Aged International comprehensively mapped six areas, and that data were collected by country investigators who interviewed representatives of governmental and non-governmental agencies. It is very likely that governmental and non-governmental representatives would give quite different accounts on at least some aspects of the policy environment given their different perspectives. So, for example, a government representative might report that a policy exists (e.g. a document) but a non-governmental person might report that to the best of their knowledge/experience there is no such policy, or that if it exists it s/he has seen no evidence of implementation. ‘Triangulation’ using a second survey may not be particularly helpful, simply because it is similar method prone to similar errors. Document review will at least get at what is written, but may give little insight into what is actually done. So really, I’d like to see some consideration of the uncertainty in the underlying data, and how this might influence the findings.

The list of indicators provides a neat way of creating quantitative data based on the domains of the conceptual framework. It is relevant to describe whether the list of indicators was created independently of the data sources, or whether the data sources were reviewed to determine what indicators were possible. So, were the data made to fit the indicators or vice versa?

The section on analysis should provide a referenced justification for using bootstrap methods and why 1000 samples was chosen e.g. how was it determined that this is the right number?

Discretionary revisions

There are two places in the introduction were terms are open to interpretation and where a short definition or clarification would be helpful.

• The last sentence of the first paragraph on page 6 reads at present like a slogan, ‘imperative…. that polices and service delivery be evidence based’. At the very least say what is meant by ‘evidence based’ e.g. is it meant based on epidemiological assessment of need, or following good systematic review evidence on interventions assessed by randomised control trials, or based on evidence reviews specific to context, or responding to local research as it is produced…? I’m being pedantic, but phrases along the lines of, ‘must be evidence based’ are widely assumed to mean something worthwhile but could mean a whole range for different things.

• In the next paragraph ‘knowledge translation platforms’ are referred to, and
again in the paragraph before the methods section. This would be helped by a clear definition.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

None