Response to letter from Dr Pluye

Broadening the evidence base and the mind when thinking about mixed methods research

On behalf of my co-authors, Dr Michael Larkin and Prof Paul Flowers, and I would like to thank Dr Pierre Pluye for his letter in response to our article. [1] Dr Pluye supported our argument that a broader evidence base is needed in evidence based healthcare. He provided the readers of this journal with important additional information which updates them on the progress in the area of mixed studies reviews and further detail about the Mixed Methods Appraisal Tool (MMAT). [2]

Since writing our article, I have used the MMAT in a mixed studies review (as yet unpublished) and can attest to its value when working with studies using a variety of methods because it takes into account the different priorities and assumptions in different quantitative research designs, qualitative designs and mixed designs.

Finally, we suggested that despite the rationale for mixed studies reviews becoming more widely accepted in evidence based healthcare and that tools for appraising mixed studies in a review are available, further work on the process of *synthesising* mixed data in mixed studies review was required. However, since receiving his letter, we have had time to consider Dr Pluye's assertion that that work is indeed in progress. Pluye's recent paper [3] describing methods for synthesis in mixed studies reviews adds clarity by categorizing these methods in a way which prioritises the review question. This clarifies the situation by articulating the crucial link between the objective of the review and the method of synthesis.

The only remaining concern about Pluye's description of mixed studies reviews is in his definition of mixed methods. [3] He follows Johnson [4] in his requirement that mixed methods research must include both qualitative and quantitative methods. I would argue that mixed design studies may be defined better as pluralist [5-6] and instead of requiring the presence of data made up of numbers and data made of up words, that they may include more than one qualitative method, more than one quantitative method, or methods using both numerical and textual data, i.e. quantitative and qualitative. Perhaps that is an argument for another day, but I think it is important to be open in our definitions of mixed designs at this pioneering stage in the work of mixed studies reviews so as not close the door to the breadth of evidence one may include in such a review and hence use in the development of good practice guidance.

Yours sincerely,

Dr Rachel Shaw

- 1. Shaw RL, Larkin M, Flowers P. Expanding the evidence within evidence-based healthcare: thinking about the context, acceptability and feasibility of interventions. Evid Based Med 2014;19:201-203. DOI:10.1136/eb-2014-101791.
- 2. Pluye P, Gagnon MP, Griffiths F, Johnson-Lafleur J. A scoring system for appraising mixed methods research, and concomitantly appraising qualitative, quantitative and mixed methods primary studies in mixed studies reviews. Int J Nurs Stud 2009;46:529-46.
- 3. Pluye P, Nha Hong Q. Combining the power of stories and the power of numbers: mixed methods research and mixed studies reviews. Annu Rev Public Health 2014;35:29-45. DOI: 10.1146/annurev-pubhealth-032013-182440.
- 4. Johnson RB, Onwuegbuzie AJ, Turner LA. Toward a definition of mixed methods research. K Mix Methods Res 2007;1:112-33.

- 5. Frost N, Shaw RL. Evolving mixed and multi-method approaches for psychology. In S. Hesse-Biber & B. Johnson (Eds.) *The Oxford handbook of mixed and multi-method research*. Oxford University Press; in press.
- 6. Frost N, Nolas SM, Brooks-Gordon B, Esin C, Holt A, Mehdizadeh L, Shinebourne P. (2010). Pluralism in qualitative research: The impact of different researchers and qualitative approaches on the analysis of qualitative data. Qualitative Research 2010;10(4):441–460.