Author's response to reviews

Title: The Beginning of the Research Stream in Family Medicine Residency Program at McMaster University

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Emma Veitch  
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Re: Manuscript number: 209658720834216

Dear Ms. Emma Veitch:

We are pleased to enclose a revised version of our paper entitled: The Beginning of the Research Stream in Family Medicine Residency Program at McMaster University. We have found the reviewers’ comments helpful and have tried to address and/or incorporate them in the revised version.

Our responses to comments by Gwyn Barley are as follows:

1. (Major) This study has a fatal design flaw that severely limits its importance and relevance. The residents that completed the survey self selected to be in the research stream or not. Therefore, discovering that the residents in the research stream value research more and were more positive towards primary care research than those that are not in the research stream and chose not to be is completely intuitive. I'm not sure what this paper contributes to new knowledge about residents and research.

In order to address this concern, we have changed somewhat the focus of our paper. More specifically, the objective was changed as follows: “Our principle objective in doing the survey was to describe family medicine residents in terms of their research background, attitudes, knowledge and skills with regard to primary care research and to determine whether there were important differences between residents who chose to participate in the research stream and those who chose to remain in the regular curriculum.”

The current structure of the main sections, including the tables, is consistent with that approach. We have added the following sentence at the beginning of the ‘Results’ in the abstract: “The vast majority of the residents reported previous research experience and/or some training in epidemiology and biostatistics.”

Intuitively, one could anticipate that research knowledge, skills, previous research experience or having advanced degrees might be associated with joining the research stream. Our study suggests that these factors have little
to do with involvement in the research activities during the residency program. This suggests that pre-selecting or targeting residents with prior research background or skills will not lead to a greater involvement of family medicine residents in the research activities during their residency. Another important take home message from this study is that there is a minority of self-selected family medicine residents who would benefit from enhanced research experience during the residency.

2. (Major) The sample size is small (74) with only 52 responding to the survey and of those 11 in the research stream. The research stream residents responded at a much higher rate than the residents not in the stream. I would expect this given the survey was on research attitudes.

While we agree that the sampling frame was small, its size was predetermined and it included all the family medicine residents enrolled in our program in the 1997/98 academic year. Furthermore, the overall response rate of 70% (52/74) was quite acceptable for this type of study. The higher response rate for those residents who were in the research stream is not surprising as one predictor of responding to surveys is interest in the subject matter. The response rate for the residents in the regular program, while lower (66%), was also satisfactory. Because the survey was focused on research attitudes, knowledge and skills, one can further speculate that non-respondents from the regular program were even less enthusiastic about the primary care research than those from among them who did respond. This suggests that the reported differences in terms of attitudes between the two groups of residents would be even larger than those reported if the response rate was higher for the residents in the regular program.

3. (Major) The survey instrument was not validated.

As indicated on page 6 of the manuscript “As there was no existing survey instrument, a questionnaire was developed and screened for content by the investigators. While the questionnaire had adequate face and content validity, it was also pilot-tested on a convenience sample of family medicine faculty at McMaster University and then further refined.” Despite the fact that a more comprehensive validation was not undertaken, it appears that our survey instrument was able to systematically differentiate between the two groups of residents across many of the survey items. The opening paragraph of Discussion clearly outlines the study limitations, including validation of the instrument, generalizability, and the small sample size.

4. (Major) The authors, on page 11, state that “this study suggests that it comes down to interest in research, rather than knowledge, skills, or prior research involvement.” How can the authors make that assertion from these data? This
study does not help us understand how the interest is developed or undeveloped and the relationship between knowledge and skills and interest.

We have arrived at this conclusion by comparing educational background, past research experience, attitudes and research knowledge and skills of the two groups of residents. The only area where the two groups of residents systematically differed were their attitudes towards the primary care research and research activities during residency program. Table 1 suggests that the two groups of residents were virtually identical in terms of previous research experience, having advanced degrees or reporting previous training in epidemiology and biostatistics. The issue of how research interest is developed and sustained, while very important, was not the focus of our study.

Thank you very much for the attention given to our paper. Please do hesitate to contact me if any additional information is required.

Sincerely yours,

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