Author’s response to reviews

Title: Health mediators as members of multidisciplinary group practice: lessons learned from a primary health care model programme in Hungary

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Author’s response to reviews:

Response to reviewers regarding manuscript FAMP-D-1900437R1 (“Health mediators as members of the multidisciplinary group practice: lessons learned from a primary health care model project in Hungary”) 20 Dec 2019
New sentences are shown in red, deleted sentences are crossed and highlighted in yellow in the revised version of the manuscript.

Reviewer reports:

WILLIAM HENRY SMITHSON (Reviewer 1): I recommend to the editor that the paper is acceptable for publication with the following minor caveats.
We thank dr. Smithson for his supportive opinion and helpful comments.

a. The conclusions must be guarded about not proving potential benefits of mediators to populations other than those targeted in this study.
Reference to health mediators transforming into community health workers was deleted from the last sentence of conclusion (page11 line 33-34).

b. An additional short sentence about the Hungary Swiss partnership would be useful and could perhaps be added on page 3 line 9
Two sentences were added on the Swiss-Hungarian cooperation (page3 line 8-10)

c. The discussion could also benefit from a brief description of why and how the changes from single
handed practice to multi-disciplinary larger practices came about and whether this system change led to improved health care for the study population and a comment about the affordability and sustainability of the large number of contact hours by the mediators.

We expanded the Discussion to explain the reasons for creating multidisciplinary teams in primary care (page 9 line 16-19), and the sustainability of the high number of contact hours by mediators (page 10 line 18-19). The outcome evaluation of the Programme population has still been ongoing, later publications will address the health changes in the target population. Our paper is one of the first to give an evaluative account of the Programme.

d. Quotation mark style needs changing to usual English (page 2 line 42 and page 3 line 12)
The quotation marks were corrected to the English style in both locations (page 2 line 24, page 4 line 10).

MARK HARRIS, MBBS FRACGP MD (Reviewer 2): This is an interesting paper describing the lessons learned from a project involving health mediators in encouraging patients to attend for a health check in Hungarian primary care. This has relevance in many other countries developing roles for community health workers in primary care.

We are very grateful to Professor Harris for his support and helpful questions to clarify important points.

However, there are some significant problems that need to be addressed:
1. There needs to be some more information on employment of mediators. Who employs them? What are their conditions of employment (casual/permanent, pay levels compared to other health workers)? Where do the funds come from (health insurance, local government?).
Mediators were employed by the GP clusters. Their salaries – along with the salaries of all newly employed professionals were included in the Programme budget that was provided to the GP clusters funded by the Swiss-Hungarian Cooperation specifically for the purpose of setting up multidisciplinary teams. GPs and practice nurses in single-handed practices (and in the multidisciplinary teams) are funded by the National Health Insurance Fund, the only payer in the Hungarian health care system. The employment conditions and funding of the health mediators are described in the Background (page 3 2nd paragraph); their contracts are described in the first paragraph on page 5 (“The Programme planned to employ 12 mediators per GP cluster or altogether 48 persons on part-time contracts equivalent to 20 work hours per week”).

2. What languages did the GPs, practice nurses and mediators speak? How did these relate to the languages spoken by their patients? Did the mediators role include translation or interpreting?
Professionals, health mediators and patients all spoke Hungarian, there was no need for translation. 99.58% of Hungarians speak Hungarian according to the last census (2011).

3. What were the characteristics of the mediators? - age, gender, languages spoken, cultural background (especially if Roma).
Health mediators were employed from July 2013 to February 2017. According to plan, 48 mediators or 12 per GP cluster were to be employed in half-time positions (20 hours per week), but their numbers and work hours changed during the implementation of the project as described in Methods (“Work performance of health mediators”) and the last paragraph of Results. Some of them left the Programme during implementation and new mediators were employed, some of them were switched to full-time positions as described in Methods.
Due to the long duration of the Programme and the numerous changes in the composition of the health mediator workforce, it is impossible to give a general description on health mediators beyond the
statement that the majority of the mediators were Hungarian-speaking women, living in the local communities, many of them identifying themselves as Roma. One sentence about this was added on page 5 line 3-4.

The indicators used to describe the work characteristics of health mediators in the Results (work minutes per client, work minutes per participant) were calculated to account for the differences in composition, length and type of employment (part-time, full-time) among the health mediators whose employment data for every individual employed for any length of time during the Programme were recorded by the Management.

4. What were the attendance rates? These are given as 1.3 -1.7 times higher, but the actual rates are not given in the figures.

Attendance of the health status assessment in all four GP clusters was 80% (page 8 line 2) meaning that 80% of all adult clients of the 24 GPs who were invited to the assessment actually attended it. This was compared to attendance at national screening programmes, such as attendance of the national breast cancer screening programme every 2 years among 45-65 year-old women that ranged from 45% in 2015 to 61% in 2002-2003; whereas 50% to 60% of women aged 25 to 65 years are estimated to undergo cervical screening on their own (80% compared to 45% and 60%).

5. The data is too clustered for a Pearson's exact test or correlation coefficient without adjusting for clustering. As the number of clusters is small it is unlikely to be significant.

We agree with Professor Harris on this point, that is why we made it explicit on page 8 line 22-23.

6. What were the numbers of patients in each practice? The number of participants data in Figure 3 needs to be adjusted for practice size.

The number of patients in the four clusters was around 29 thousand (min ~5 thousand, max 10 thousand persons). Regarding health status assessment, health mediators had to visit and individually engage with patients who did not show up at the health status assessment after receiving written invitation. Therefore, work minutes per health mediator per patient in each cluster was calculated as independent variable to account for the different numbers of patients in the clusters.

However, health mediators did not specifically engage with individual patients to organize community health promoting events. Rather, they helped the public health coordinator in organization, for example, to purchase items, to produce background material, to disseminate posters and invitations to schools and workplaces. In other words, their work tasks related to the organization of community events was not dependent on the number of patients in the GP clusters, therefore the total number of work minutes of health mediators was calculated as independent variable for Figure 3. Two sentences were added to results explaining the difference between Figures 2 and 3 described above.

7. It is stated in lines 42-46 on page 8 that patients were asked to report who motivated them to attend the health assessments. How was this survey conducted (who conducted it, when, how)? What were the number of respondents? What were the response rates?

One of the new services of the GP clusters was health status assessment as described in the last paragraph on page 3 and in full detail in Ref11. Who motivated the patient to come was recorded during the survey, and the response rate was 80% as described in Results and detailed at point 4.

8. What were the proportion of job leavers over the 43 months (say in 6 or 12 month intervals)? This should be discussed. It is attributed in the results as related to "integration" but this is unclear. It may have reflected many factors including the selection, tenure, remuneration, conditions, etc of mediators. 3 mediators left their job in the first year and 36 mediators left during the full duration of the Programme.
As we described under point 3, the specific demographic and employment features of health mediators and its changes during 4 years of the Programme were so complex as referred to in three subchapters of Background (Employment of support workers …. Training for health mediators, Work tasks of health mediators) that its description requires an in-depth analysis. We are working on a manuscript that will elaborate on the details of the employment particulars of the health mediators. One sentence was inserted into Discussion about this upcoming paper (page 10, line 29-30).

9. In line 1 on page 9 it is stated that the "high proportion of actually worked hours of mediators is due to their overemployment". It is unclear what this means. This and the rest of this paragraph is unclear and needs to be explained.

The criticised paragraph was rephrased, the cited sentence was deleted (page 9, lines4-8).

ATTACHMENT:
The restructuring as described by the author makes the paper much clearer.

It is an important service evaluation of a new service set up for hard to reach groups which has had an impact. It is worth publishing but care must be taken by the authors when they claim the potential benefit of health mediators to a wider population and this has not been proven.

Reference to health mediators transforming into community health workers was deleted from the last sentence of conclusion (page11 line 33-34).

A short sentence about the partnership between Hungary and Switzerland would be useful perhaps on p3 line 9

Two sentences were added on the Swiss-Hungarian cooperation (page3 line 8-10)

As health mediators were introduced during the change from single handed practices to larger multidisciplinary group practices, then a discussion about what led to improvements would be helpful.

We expanded the Discussion to explain the reasons for creating multidisciplinary teams in primary care (page9 line 16-19).

P2 line 42 p3 line 12 change quotation marks to usual format
The quotation marks were corrected to the English style in both locations (page2 line24, page4 line 10).

Number of hours contact by HM per client is large. Is this affordable in the medium term?
We inserted a sentence in the Discussion relating to the sustainability of the high number of contact hours by mediators (page10 line 18-19).

Results section is sparse
The Results was expanded by explaining why the independent variables differ between Figures 2 and 3, in line with the type of work related to the health status assessment versus community health promoting events the health mediators had to carry out.