Title: Are family practice trainers and their host practices any better? Comparing practice trainers and non-trainers and their practices

Aim: To examine the differences [in the structure and process measures] of trainers and non-trainers and training and non-training practices.

Methods:

Numbers: 203 practices (88 non training and 115 training). 138 were either group (n=76) or 2 handed practices (n=62). Do we infer that 65 were single handed practices? How many of these single handed practices were training? How many practitioners worked in training practices and how many non-trainers were there in training practices? This needs to be clarified.

Data collection: This was a voluntary data collection so presumably there is no issue of selection bias where the scores on the survey affected the training or non-training status. However we are not told by whom the data were collected. Was it self-report completed by the practice/practitioners or by independent external review by trained observers?

Measurements: VIP (ref 11) is a 228 (or 208) item schedule for practice assessment but a 227 practice level item questionnaire was used. The origin of the origin of the 142 practitioner level instrument is unclear.

Analysis: There is likely to be a complex interaction between trainer and practice and trainer and other practitioners in the practices: doctors who are not trainers but working in training practices are likely to have been attracted to working in training practices, having joined the practice have been positively affected by the milieu of the training practice, have been actively preparing to become trainers or have stepped down from being trainers. Therefore it seems odd to treat non-trainers as a homogenous group when an unspecified number of non-trainers work in training practices and are likely to be different from practitioners in non-training practices. Indeed the authors allude to this in the first paragraph of the discussion 'The presence of a FP trainer in a practice was
associated with a positive effect on non-trainers working in the same practice.’

It would be useful to compare non-trainers who work in training practices with those in non-training practices: if there was no difference it might suggest that trainers are different from non-trainers and the authors’ assumption may be valid. Alternatively, if they are there are differences between non trainers in training and non-training practices, it is likely that the authors have underestimated the effect sizes and a comparison of trainers vs non-trainers in non-training practices would give a more accurate estimate. There may be more complex ways of controlling for this (perhaps a multilevel analysis with practitioners clustered within practices) but this is beyond my skills.

Definitions:

Urbanisation: how were small village, medium to large town etc defined
‘Practice location’: what was the definition of ‘next to the doctors house’ and was it the same for a single and multi-practitioner practice?
‘Significantly higher’: (results, first paragraph) and confusion in nomenclature
‘differences between FP trainers and non-trainers that were significant after correction for covariates’: is this effect size or statistical significance and if so at what level?

Results:

I don’t understand the data for ‘Type of practice’, ‘Practice location’, ‘Urbanization level’: For ‘type of practice’ do the figures represent the average number of practitioners in each type of practice? For ‘practice location’ do the figures represent the distance in Km between the practice and the nearest doctor’s home? For ‘urbanisation’ do the figures represent the means for a scale on which small village is 1 and a large city 4? If so this is not an appropriate way to treat the data.

Discussion:

The results of the analysis are appropriately summarised although the statement ‘The presence of a FP trainer in a practice was associated with a positive effect on non-trainers working in the same practice’ is unsupported by the data presented.

The authors allude to the complexity of the relationship between having a trainer in a practice and the practice and the other practitioners in the second paragraph.

Limitations:

The comparison examined structure and process but not patient outcomes. This final leg of the evaluation triad is the most important and its absence should be considered and perhaps how it can be included in the future.

The non-training practices volunteered for the study. To what extent could they be better organised practices than the ‘average’ practice thus further diluting the effect size observed
Conclusion:
This is an important paper which has demonstrated but may have underestimated the differences between training and non-training practices. It will be of broad interest to educators, managers and clinicians.

1. Is the question posed by the authors well defined?
   Yes but limited

2. Are the methods appropriate and well described?
   Probably but poorly described, see above

3. Are the data sound?
   Probably but clarification required, see above

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   No, further clarification required.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   Mostly

6. Are limitations of the work clearly stated?
   Could be improved

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
   Yes

8. Do the title and abstract accurately convey what has been found?
   Yes

9. Is the writing acceptable?
   Yes

Essential revisions:
1. Review of the analysis or justification of the practitioner level comparison ignoring practice status and presentation of the data which shows the ‘positive effect of working in a training practice’.

2. Clarification of
   a. The study population
   b. Definitions
   c. Data in table 2

Minor essential revisions
1. Clarification of
   a. Data collection
b. Description of the instruments
Discretionary revisions
1. Discussion of the importance of patient outcome

**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:**

I declare that I have no competing interests