Author's response to reviews

**Title:** Career Choices and what influences Nepali Medical Students and young Doctors - a Cross-sectional Study

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Responses to Reviewers’ Critiques.

Referee 1:
In the discussion, there is some mention of medical graduates leaving Nepal, although I did not see this option raised in the survey instrument. It seems to me that this is an important issue which ought to be acknowledged and discussed in more depth in the article. It would be helpful to provide figures on the numbers and proportion of Nepal medical graduates who leave the country after graduation.
We did not specifically put this in the survey but it did come up in the focus groups as an option if unable to get into postgraduate courses.
We have added information from Reference 13 in Background – this study was specifically looking at actual place of work rather than intention as in this study.

My other comment is to suggest that the authors add to their conclusion with specific recommendations for changes in undergraduate medical education, incentives and supports for general and rural practice, and so on. On the face of it, the findings of this study are disastrous for Nepal and some forceful recommendations for specific interventions would seem to be in order. These recommendations might reference the World Health Organization global policy recommendations: Increasing access to health workers in remote and rural areas through improved retention (WHO Press. Geneva, 2010).

We have referenced this article and added some comments in the conclusion.

Referee 2:

My main question is whether seeking permission to conduct the study from hospital administrators equates to ethical clearance to collect data. This is particularly the case for the focus group data.
In Nepal, each of the medical colleges has their own system of approving this. We felt that we needed to approach each individually to get approval and that there was no one body who could give such ethical approval. One college approached, BP Koirala Institute of Health Sciences (BPKIHS) declined our request. In hindsight, perhaps we should have gone to the National Health and Medical Research Council, though we would still have needed approval for each individual institution. The leadership was given copies of the questionnaires and structured focus groups.
As far as the focus groups went, the procedure was explained and participation done on a voluntary basis. Confidentiality was maintained – we understood that voluntary participation under the auspices of the institution’s leadership was assumed consent.

There needs to be more detail on how the focus group data were analysed, themes chosen and checked (e.g. conflict between the people analysing focus group data being resolved by a third party).
Have changed the text in Methodology—the themes were chosen under the structured questionnaire headings. The two reviewers separate analysis were compared and combined under the question headings.

Also note that there is a bracket question "(? numbers)" in the last paragraph of the background section that has escaped the authors before submission.

We have replaced this (In 2012, there were still fewer than 200 Nepali MDGPs for a country with a population of 26,620,809 according to the 2011 census (15).

Referee 3:

1. The aim of the research was to understand participants' stated career preferences and the factors influencing these. However, the survey questionnaire did not explicitly seek respondents’ current intentions. It isn't clear that the series of questions "When you started Medical school, did you have a clear medical career choice in mind? If so what was it? Has it changed now?" would necessarily elicit all respondents' current intentions.

We were unsure how much background (including questionnaires) to submit so we did more of a summary of the information collected but have now changed Appendix 1 to the exact questionnaires we gave participants. Therefore this specific question was

14. When you started Medical school, did you have a clear medical specialty choice in mind? (yes……No….. )If yes , Please answer Q A and If No, please answer Q (B)

(A) If Yes, Subject……………………………. Has it changed now?
Yes…………….No…………..If Yes, which subject…………………..

(B) If No…………………………Do you have a clear choice now? Yes………No…………..If Yes, which subject…………………..

We hope this is clearer in regards to current intention.

2. While the survey instrument did not mention any specific specialty, the focus group questions were concerned mainly with general practice/community practice. This limited the opportunity for triangulation, which the researchers state as the intent of the focus groups.

We agree with this point so have changed the written purpose of focus groups to “For further clarification about career influences and specific issues of rural generalist practice,” as these were main aims of our study. (“to explore factors that influence medical students’ and young doctors’ medical career choices in Nepal and look at what would encourage them, including types of generalist training, to work in rural areas as generalists.”) There was some triangulation in asking about influences on career choices as noted.

3. Much of the baseline quantitative data is presented using bar graphs - tables
would be simpler and clearer. The table underneath Figure 1 is difficult to interpret without actual numbers of respondents in each category, not just percentages. We have added the actual numbers which also correspond to the bar graph. We have tried to improve the presentation to make these clearer.

Elsewhere many results are presented only as percentages - in general, the numerator and denominator should be provided as well. We have added appropriate numbers.

No title or column headings are provided for the table under Figure 3. The Table is under the same heading as the Bar graph to give actual figures. The percentages used in the bar graph allow easier visual comparison.

Figure 5 - what is the relevance of these data to the study aim? We felt it was good to see how choice had changed during the undergraduate course so as to have some marker of the influence of the course itself in choices.

What does the title of Table 1 mean? This is comparing demographic features according to urban vs rural background based on place where SLC was done.

“School Leaving Certificate” should be stated in full in the title of Table 2? This has been corrected.

4. The quantitative findings in the text of the Results section are difficult to follow, and again greater use of tables and of absolute numbers (numerators and denominators) would assist the reader. We have added more tables with absolute numbers. We are happy to delete Figure 2 bar graph if felt not to add anything though we believe it gives visual comparison.

5. The authors need to explain the place of the MD degree in Nepal – in North America and elsewhere this is generally the primary medical degree, whilst in other countries it is a research degree equivalent to, or higher than, a PhD. This has been added for explanation in the Background. “In Nepal, the General Practice postgraduate programme (MDGP) which started in 1982 was the first postgraduate programme in Nepal. It is a 3 year programme, initially started in the Institute of Medicine (IOM) and now also conducted in BP Koirala Institute of Health Sciences (BPKIHS) since 2001 and the National Academy of Health Sciences (NAMS) since 2005.”

6. The text needs subediting. The narrative is rambling in places, especially in parts of the Results and Discussion sections, and there are changes in tense (e.g. at the start of the Methods section). We have corrected changes of tense and edited to improve the text.
The authors appear to have left a note to themselves in the final paragraph of the Introduction.
We have replaced with - In 2012, there were still fewer than 200 Nepali MDGs for a country with a population of 26,620,809 according to the 2011 census (15).

7. The Discussion section should start with a succinct statement of the findings specifically in relation to the Aims of the study.
We had thought that the abstract gives this summary in the results section rather than beginning the discussion with this.

8. The list of references needs review: citations are given in inconsistent style; the author of reference 9 was Bunker, not "Brunker" and the volume was 38 not 30; reference 12 is incomplete.

Corrected