### PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

# **ARTICLE DETAILS**

TITLE (PROVISIONAL)	How do workplaces, working practices and colleagues affect UK doctors' career decisions? A qualitative study of junior doctors'
AUTHORS	career decision-making in the UK.  Spooner, Sharon; Pearson, Emma; Gibson, Jonathan; Checkland, Kath

### **VERSION 1 – REVIEW**

DEVIEWED	Freih, Flatakar
REVIEWER	Emily Fletcher
	University of Exeter Medical School, UK
REVIEW RETURNED	24-Jul-2017
GENERAL COMMENTS	Methods - in relation to research ethics, not enough information was given about the recruitment of F2 doctors to take part in interview for me to make a judgement on whether ethics was addressed

appropriately.

changes based on person experience.

Conclusion - the phrase 'balanced and fit-for-purpose workforce' is used a couple of times in quick succession which makes it feel repetitive.

Results - no need for 'Section 5' in heading of Career decision

General - it may be worth making the link with (or using this to emphasise the point of general practice now being less attractive) the decline in the existing GP workforce, i.e. not just fewer people entering the profession, but alarming numbers of GPs leaving/reducing their commitment and thus compounding the negative image.

REVIEWER	Helen Clark Waikato District Health Board
	Hamilton
	New Zealand
REVIEW RETURNED	06-Aug-2017

GENERAL COMMENTS	Thank you for allowing me the opportunity to review this paper. The method is sound and the themes elicited from the interviews are noteworthy. This paper is a good example of the depth of
	information and understanding that can be found using a qualitative approach.
	I have a few comments: Only one participant (GP0P17) indicated core surgical training as a
	City one participant (Or or 17) indicated core surgical training as a

preferred specialty. It would have been nice to have seen more of a representation from other participants who state a surgical pathway as their preferred specialty, as this might have provided different viewpoints and possibly attitudes. However, I note that GP0P17 was well represented in the quoted comments.

Given that the focus of this paper tended to centre on junior doctors attitudes to the GP pathway in particular, I felt that this was not really clear in the abstract. When reading the abstract for the first time, it appeared that this paper would be looking at other specific specialties. Therefore the abstract could be tightened up, in order to better reflect the direction of the paper.

Strengths and limitations were well identified. As the authors pointed out, it is not known from the paper at this stage whether participants remained fixed on their choices. This would certainly be worth wile to look at, and perhaps a longitudinal study can be considered.

I couldn't find any reference to ethics obtained?

Change of formatting of the comments occurred from pg 8 onwards. This needs to be consistent with the earlier pages.

Pg 9, line 30 - suggest replace "this doctor" with "the above doctor (GP0P17)...".

Pg 11, first line - as above.

Pg 11, line 30 (I think, my copy has printed out the line numbers funny) - there is reference to attitudes of friends and family. This was not apparent in any of the previous section comments at all. Do you have any transcripts that refer to this in particular? I suggest adding in if you do, given that you have mentioned this in the discussion.

Overall I think with minor revisions, that this is a manuscript worthy of publication.

# **VERSION 1 – AUTHOR RESPONSE**

# Response to comments from Reviewer 1

### Comment:

• Methods - in relation to research ethics, not enough information was given about the recruitment of F2 doctors to take part in interview for me to make a judgement on whether ethics was addressed appropriately.

#### Response:

Revised section in Methods:

'Doctors who completed the survey could opt to receive information about further participation through interviews focussing on They were also asked to supply contact details if willing to be interviewed about what had influenced their career choices. Full participant information was supplied and consent obtained in advance and in accordance with Ethics Committee approvals.'

• Results - no need for 'Section 5' in heading of Career decision changes based on person experience.

Response: 'Section 5' removed

• Conclusion - the phrase 'balanced and fit-for-purpose workforce' is used a couple of times in quick succession which makes it feel repetitive.

Response: Conclusion revised

• General - it may be worth making the link with (or using this to emphasise the point of general practice now being less attractive) the decline in the existing GP workforce, i.e. not just fewer people entering the profession, but alarming numbers of GPs leaving/reducing their commitment and thus compounding the negative image.

Response: Reference to retention concern and citation added in introduction

# Response to comments from Reviewer 2

• Only one participant (GP0P17) indicated core surgical training as a preferred specialty. It would have been nice to have seen more of a representation from other participants who state a surgical pathway as their preferred specialty, as this might have provided different viewpoints and possibly attitudes. However, I note that GP0P17 was well represented in the quoted comments.

Response: The authors are aware of this limitation. An additional sentence in the Strengths and Limitations sections explains the constraints.

'Despite efforts to achieve a diverse sample in terms of chosen specialty, it was not possible to recruit from all specialties due to limitations of participant consent and the scope of the study.'

• Given that the focus of this paper tended to centre on junior doctors attitudes to the GP pathway in particular, I felt that this was not really clear in the abstract. When reading the abstract for the first time, it appeared that this paper would be looking at other specific specialties. Therefore the abstract could be tightened up, in order to better reflect the direction of the paper.

Response: Revision made to 'Methods' section of the Abstract

• Strengths and limitations were well identified. As the authors pointed out, it is not known from the paper at this stage whether participants remained fixed on their choices. This would certainly be worth wile to look at, and perhaps a longitudinal study can be considered

Response: A recently- developed and comprehensive dataset has been developed to track individual doctors from medical school and through their careers. This will in due course allow tracking of several aspects of medical careers – but limited information regarding context will limit proper understanding of motivating or driving factors.

We have revised the 'Strengths and Limitations' section in the paper to clarify usefulness of longitudinal interview-based studies.

'As part of a longitudinal study, further interviews conducted after they have gained further experience of work would usefully add to our analysis of this decision-making process'

• I couldn't find any reference to ethics obtained?

Response: Statement added 'This Project Has Been Approved by the University of Manchester's Research Ethics Committee [UREC reference number 15370].'

• Change of formatting of the comments occurred from pg 8 onwards. This needs to be consistent with the earlier pages.

Response: Reformatted participant comments

• Pg 9, line 30 - suggest replace "this doctor" with "the above doctor (GP0P17)...".

Response: Revised as suggested

• Pg 11, first line - as above.

Response: Revised as suggested

• Pg 11, line 30 (I think, my copy has printed out the line numbers funny) - there is reference to attitudes of friends and family. This was not apparent in any of the previous section comments at all. Do you have any transcripts that refer to this in particular? I suggest adding in if you do, given that you have mentioned this in the discussion

Response: Added to Findings with two extracts to illustrate the point made

I believe these revisions should adequately address all aspects of editorial and reviewer comments on the paper.

# **VERSION 2 - REVIEW**

REVIEWER	Emily Fletcher
	University of Exeter Medical School
	I have recently been part of a 4-person shared conference workshop
	on GP workforce with Dr Spooner, and we are writing up a short
	report of the workshop. However, we have not shared work on any
	papers Dr Spooner has submitted or the research behind them - and
	we have not developed a plan to work in the same research team.
REVIEW RETURNED	16-Aug-2017

GENERAL COMMENTS	Thank you for the opportunity to read and review this paper. Examining the issues affecting this critical group of junior doctors is essential in order to support the ambition of the 10 point plan to increase the numbers of GPs in the UK primary care workforce, in light of the vast numbers of existing GPs leaving or working part-time.
	Results - personally, I would find the quotes easier to follow if the GP ID included text to describe if GP was first/second choice (or not chosen), rather than in numbers. Table 1 is OK with the numbers.
	Discussion - It seems that rather more female doctors were interviewed, which I suppose might be expected, but there is no mention of this in discussion of the themes arising.
	I feel some mention of the gender imbalance (i.e. feminisation) of the current and future workforce is worthy of mention, particularly in terms of its likely impact on the number of GPs that will work part-time at various points in their careers.

REVIEWER	Dr Helen Clark
	Waikato District Health Board
	Hamilton
	New Zealand
REVIEW RETURNED	30-Aug-2017

GENERAL COMMENTS	Suggested minor wording change to the abstract Change wording to "workforce, with views on general practice (GP) careers of particular interest because of current recruitment difficulties"
	Remove "for" from "for their wider future"
	Happy with the other changes made.

### **VERSION 2 – AUTHOR RESPONSE**

#### Reviewer 1

felt we should make some mention of the gender imbalance (i.e. feminisation) of the current and future workforce is worthy of mention, particularly in terms of its likely impact on the number of GPs that will work part-time at various points in their careers.

Response: We have made added text and a citation to the Limitations section - recognising the increasing feminisation of the medical workforce, which particularly affects general practice.

We have revised the abstract as suggested by Reviewer 2.

We have carefully considered the preference stated by Reviewer 1 to see participants' quotes identified by a longer version of their Study ID.

For example, this would replace:

'I think potentially the biggest thing you can do is ensure that people have an experience of it in their foundation training really.' GP2P5

with a longer version:

'I think potentially the biggest thing you can do is ensure that people have an experience of it in their foundation training really.' GP second choice P5

We feel that this is a somewhat cumbersome way of indicating participant IDs, and not really necessary given the inclusion of an explanation of the meaning of GP1, GP2 and GP0 and also a Table with details of stated first and second preferences. Nor is it necessary for the reader to associate each participants' career preference with every quotation since these are mostly general quotes on what influences decision-making rather than direct statements of intent i.e. 'I chose specialty x because...'

I have prepared and uploaded main documents both the longer (v5) and shortened (v4) formats - and will be happy for an editorial decision to use either.

COREQ - I have revised the page numbers listed in the checklist to match the Main Document v4 untracked version. I believe all items have a response and those that are mentioned in the paper have been linked to a page number - those not included (for reasons that they did not happen or have not been relevant etc.) are designated as N/A.