PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Determinants of wellbeing and their interconnections in Australian general practitioners—a qualitative study
AUTHORS	Naehrig, Diana; Glozier, Nick; Klinner, Christiane; Acland, Louise; Goodger, Brendan; Hickie, Ian; Milton, Alyssa

VERSION 1 – REVIEW

REVIEWER	Stone, Louise Australian National University, Academic Unit of General Practice
REVIEW RETURNED	22-Nov-2021

GENERAL COMMENTS	Thank you for the opportunity to review this paper, which explores an important area of practice. Although the study design is sound, I am concerned that there is insufficient depth in the data and analysis, and therefore the conclusions offer little novel insight into this field. The literature review is light, and I am concerned that it fails to address important areas that are critical to the paper. There is substantial literature on doctors' health, and this has not been discussed at all. I was surprised to see no mention of the work of Clare Gerada and Margaret Kay, both GPs in the UK and Australia respectively who have written extensively about the health and well being of doctors. Although the authors say there is limited evidence around how to increase wellbeing in General Practice, there is certainly ample evidence of threats to wellbeing in reports on doctors' health. Given this paper is not focussing on interventions as such, it would be appropriate to at least mention this evidence. In addition, there are multiple organisations involved in providing healthcare to doctors, including the RACGP, but also the AMA and other standalone support services. I have read the authors' systematic review on the evidence for interventions around well being, and while it has it's place, it does not address the topic of this paper: "how GPs conceptualise wellbeing and what determines it." I think there needs to be a definition of well being for the paper to rest on. I find the comments on the GP workforce concerning, and overly simplistic. While it is true that the gap between urban and rural medical workforce is widening, it is also true that there is a projected shortfall of GPs. The most obvious is the Deloitte report which suggests a likely shortfall of 9500 full time equivalent GPs by 2030 (report is at https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-general-practitioners-workforce-2019-021219.pdf). I also think it is a brave statement to say that "a shift towards more women entering GP training…afflict[s} Australia". Given the evidence that women may produce better outcomes in medical care (eg Tsugawa et al's study in JAMA) it seems inappropriate to see the feminisation of the workforce as an "affliction". I think the methodology of the paper is sound, but I question the depth of the study. 20 participants is a small number, but I am more concerned at the length of the interviews and the depth of the findings. 30 minutes is a short period of time to explore the breadth of issues discussed here, and it is likely that saturation was reached because the interviewers were unable to explore the themes in sufficient depth. While there is nothing wrong with an overview of the field, there is little here

	to explore the aim of understanding how GPs conceptualise wellbeing. I was surprised, for instance, to see no mention of the pandemic, despite it appearing in the interview schedule. In terms of the diagrams, I am not clear that the figures add value. In particular, the figure on the determinants of wellbeing in GPs states that "bubble size reflects attributed importance of the determinant". I am not sure how the authors decided how important each "bubble" is; if it is on the frequency of comment, this is not methodologically sound, and if the participants were asked to "size" each "bubble" this should have been mentioned in the methodology. Overall, then, this paper explores an interesting area, but I believe insufficient depth of interview has led to early saturation, and insufficient analytic strength. I do not believe this paper will add substantially to the literature, and would encourage the authors to consider how to add to this relatively light, initial examination of the field in the future.

REVIEWER	Johnson, Judith University of Leeds Faculty of Biological Sciences
REVIEW RETURNED	30-Nov-2021

GENERAL COMMENTS	Abstract When the authors refer to financial aspects, do they mean personal salary/pay or the extent to which services themselves are funded? This would help bring clarity to both the results and conclusions sections of the abstract. Strengths and limitations '• It is necessary to understand drivers and barriers of wellbeing in view of developing strategies to better support and enable GP wellbeing.' This is more of a rationale/reason to do the research than a strength of the research, and should be deleted. Introduction The authors present the topic as if no qualitative research has been done on this before. A quick google scholar search identifies several qual studies have been done before on this topic in GPs, and they should be mentioned and discussed. The gap being addressed in the current study should be mentioned. It seems possible that no previous studies have been done in Australia, and that this might be a first study of its kind post-Covid, for example. Examples of previous qual studies in this area: Hall, L. H., Johnson, J., Heyhoe, J., Watt, I., Anderson, K., & O'Connor, D. B. (2018). Strategies to improve general practitioner well-being: findings from a focus group study. Family practice, 35(4), 511-516. Cheshire, A., Ridge, D., Hughes, J., Peters, D., Panagioti, M., Simon, C., & Lewith, G. (2017). Influences on GP coping and resilience: a qualitative study in primary care. British Journal of General Practice, 67(659), e428-e436. Riley, R., Spiers, J., Buszewicz, M., Taylor, A. K., Thornton, G., & Chew-Graham, C. A. (2018). What are the sources of stress and distress for general practitioners working in England? A qualitative study. BMJ open, 8(1), e017361. Results Table 1 – did the authors record ethnicity? This should be reported. If unavailable, this is a limitation which needs reference in the limitations section. Table 2 – this doesn't seem to map onto the theme structure, with one quote listed as 'identity/system', no quotes for the 'profession' theme and one quote listed as 'overall'. I would have expected to see

	here a table with the themes as presented in the results and example quotes for each theme. The three major themes identified at the start of the results section (participants' conceptualisation of wellbeing; determinants of wellbeing; and strategies for wellbeing) don't map on to the subsequent themes presented (Identity; organisation; profession; health care system; finances) which is confusing. The 'identity' theme felt a bit descriptive and didn't hang together very well – including everything from GPs saying they don't take their own health advice to saying they prefer having varied work, to saying they like having mentors to model things for them. Could the authors either change the theme structure of the results section or make a stronger case for why these are all aspects of professional identity? Mentoring comes up in both the theme of 'identity' and the second theme of 'organisation', which leads me to think that the theme structure could be improved. The second theme is called 'organisation' but also includes a section referring to GPs' complaints about patient attitudes, which doesn't seem to fit with the theme name. The theme entitled 'health care system' refers to GPs feeling unappreciated ('a sense of not being valued, and a lack of appreciation, respect, and support. Whilst this mostly related to the systems level, it was found throughout, and attributed to almost every section of society'), which ties in with comments included in the identity theme ('Determinants of professional wellbeing were offset by a sense of being perceived as 'less than' a specialist by the public, other doctors and often internalised by the GP'). I think there needs to be a bit more consideration as to how the themes are constructed. Discussion The summary paragraph at the start doesn't seem to map on to either the theme structure presented in the results. As indicated in my comments about the intro, the authors seem to be unaware of several qualitative studies which already exist on this topic. I think it's inaccurate to say that there is 'little qualitative research' on this. In the discussion, the authors refer to the study as focusing on 'GPs' satisfaction' which doesn't map onto the study's title or stated aim (which suggest the study focused on wellbeing).

VERSION 1 – AUTHOR RESPONSE

RESPONSE TO REVIEWER 1

Introduction

1. The literature review is light, and I am concerned that it fails to address important areas that are critical to the paper. There is substantial literature on doctors' health, and this has not been discussed at all. I was surprised to see no mention of the work of Clare Gerada and Margaret Kay, both GPs in the UK and Australia respectively who have written extensively about the health and wellbeing of doctors. Although the authors say there is limited evidence around how to increase wellbeing in General Practice, there is certainly ample evidence of threats to wellbeing in reports on doctors' health. Given this paper is not focussing on interventions as such, it would be appropriate to at least mention this evidence.

Accepted and revised.

The reviewer's comments demonstrate knowledge and interest in doctors' health, and it was pointed out, that there is substantial literature. We agree. There is a large and burgeoning literature—both peer reviewed, and non-peer reviewed—on the negative aspects of doctor's mental health (distress, burnout, depression, anxiety, substance abuse, trauma, moral injury, intention to leave the profession, and suicide). Several large systematic reviews and meta-analyses have reported on the prevalence, risk factors and interventions for these (2-4).

However, there is a lot less research that deliberately examines positive constructs, and aims to better understand what contributes to wellbeing in GPs. We believe there is merit in expanding the negative focus approach typically taken with the clinical model (mitigating or treating negative outcomes), and complementing this by tapping into positive psychology to understand what enables individuals to thrive, and be well, in order to take an integrated approach. This was the focus of our research, and this is how we have contextualised it.

Our approach appears to be shared by UK authors who have chosen to apply a positive lens, and have similarly indicated that there is relatively little research exploring wellbeing as a positive constructs in GPs (5-7). More recently this focus has gained traction, for example, including two systematic reviews of wellbeing in GPs (1, 6), and one in physicians more generally (8). We are pleased, that more research is emerging on positive psychology outcomes in health care professionals.

We also appreciate the mention of additional literature of interest, and based on the reviewer's suggestions, we've bolstered the literature review to include research by UK groups and Australian Margaret Kay. We added a new paragraph. Specifically, we now state (p. 4, Introduction):

> *"Doctors' health research is typically informed by the clinical model, and there is a substantial body of literature aiming to explore and mitigate burnout, distress, and mental ill health (2-4, 9-13), and improve doctors' uptake of health services across different settings (14-18). There is comparatively little research—particularly qualitative—that deliberately applies a positive lens, and explores how GPs keep well and thrive. Of note, research groups in the UK focused on psychological wellbeing in GPs (5, 6) whereby one publication was a survey, the other a systematic review; another group explored GP wellbeing as distinct from burnout (7, 19), publishing a qualitative exploration and survey results. We aimed to add to this burgeoning approach, and explore GPs wellbeing in the Australian context."*

We have also specifically added to the discussion section (comparison with existing literature, p. 13).

"We contextualised our findings within qualitative research on wellbeing, as seen through a positive lens, and related constructs such as satisfaction. We contrasted our findings with selected quantitative research directly relevant to the Australian general practice landscape. A UK group conducted focus groups with 25 GPs to identify factors that contribute to burnout and poor wellbeing, and strategies to improve both. Similar to our results, they identified the importance of team support, taking breaks, variety of, and control over their work, on an internal level; and wider governmental and public support, resources, and funding on an external level (20). British GP trainee focus groups (n=16) discussed the benefits of supportive professional relationships (i.e., supportive trainers), control over workload, and barriers to wellbeing of 'not being valued', and work-life imbalance (21)."

"In the UK, a qualitative study examined why GPs leave direct patient care. Reasons were complex, but in alignment with our cohort, included personal and professional identity issues, the value perception of general practice within the health system, and risk (i.e., medical litigation) (22). In our interviews, stress of formal patient complaints and audits surfaced repeatedly. Similarly, a patients' complaints culture, and defensive practice were also described as stressors in focus groups exploring GP resilience and coping (23)."

2. In addition, there are multiple organisations involved in providing healthcare to doctors, including the RACGP, but also the AMA and other standalone support services.

Accepted and revised.

We agree with this comment. However, in our study population, GPs were only partially aware of these services, and nobody reported significant interactions with them.

We adapted the following sentence (p. 4, Introduction)

"Professional organisations are aware of this and are endeavouring to address wellbeing by offering support (i.e., RACGP programmes and resources (24, 25)), and funding research into GP wellbeing."

3. I have read the authors' systematic review on the evidence for interventions around wellbeing, and while it has its place, it does not address the topic of this paper: "how GPs conceptualise wellbeing and what determines it." I think there needs to be a definition of wellbeing for the paper to rest on.

Thank you for taking the time to read our systematic review.

We were very specific in NOT defining wellbeing for our participants but rather letting them use their own conceptualisation. There are numerous definitions and subtypes of wellbeing – subjective, affective, cognitive, the five PERMA constructs (26), etc – and by defining it we potentially could have biased participants' answers. The analysis resulted in a 'determinants focus' on wellbeing, which ultimately describes a bigger picture, rather than synthesising what wellbeing means into 1 or 2 sentences. This gives a more descriptive, meaningful, and pragmatic understanding of what wellbeing meant to GPs.

We have stated the study aims more clearly in the context of our previous systematic review, and the new paragraph describing the gap in the literature that we aimed to address (also see reply to comment 1, and p. 4 Introduction).

> *"A robust and sustainable generalist workforce is important. In order to bolster the wellbeing of Australian GPs, and ultimately address the gap in the literature regarding effective wellbeing interventions for GPs as seen through a positive lens, we aimed to:*
>
> - *apply a positive framework to explore GPs' wellbeing, and key, potentially modifiable, factors that determine it.*
> - *qualitatively analyse how these determinants are inter-connected, and what the underlying drivers are."*

We fully agree that reporting on determinants and their inter-connections, will not suffice in formulating strategies, or designing further reaching interventions to address GP wellbeing. However, considering the journal's word count guidance—combined with a documented lack of research in this area which emphasises the importance of giving voice to the results—we felt that splitting our report on our qualitative analysis into a series of publications with specific focuses (i.e. (i) Determinants of wellbeing in this paper; (ii) strategies to improve GP wellbeing; and, (iii) the impact of COVID on GP wellbeing) based on the findings was best way to ensure the results were illuminated sufficiently in the academic literature.

4. I find the comments on the GP workforce concerning, and overly simplistic. While it is true that the gap between urban and rural medical workforce is widening, it is also true that there is a projected shortfall of GPs. The most obvious is the Deloitte report which suggests a likely shortfall of 9500 full time equivalent GPs by 2030 (report is at https://protect-au.mimecast.com/s/YqvyC4QOPEiBW2r84fOakTE?domain=www2.deloitte.com). I also think it is a brave statement to say that "a shift towards more women entering GP training…afflict[s} Australia". Given the evidence that women may produce better outcomes in medical care (e.g., Tsugawa et al's study in JAMA) it seems inappropriate to see the feminisation of the workforce as an "affliction".

We completely agree that there is an expected GP workforce shortage in the future, which we perhaps did not describe very clearly in our writing. Thank you for bringing this to our attention, and also for supplying the link to the Deloitte report of which we were not aware. We have now referenced and incorporated this into the manuscript (p. 4).

“Concerningly, a recent Australian report forecasts a 37% increased demand in GP services, with a likely undersupply of 9,298 full time equivalent GPs by 2030, particularly for urban areas (27).”

Furthermore, it was not our intention to diminish or disrespect female GPs in any way. It was merely a reflection of a worldwide trend that is also visible in Australia, and more women entering the primary care workforce may mean less full-time equivalents in the GP workforce, which would exacerbate the predicted shortfall of practitioners. We have reworded the entire paragraph accordingly. Specifically, we now state (p. 4)

“Global factors including an aging GP workforce, impending retirements, a shift towards more women entering GP training, with a trend towards reduced work hours also affect Australia (28-30), and will likely further contribute to an imbalance in generalist capacity versus service demand.”

Methods

5. I think the methodology of the paper is sound, but I question the depth of the study. 20 participants are a small number, but I am more concerned at the length of the interviews and the depth of the findings.

We appreciate the comment that the methodology is sound.

In terms of the depth of the study, it is not uncommon to have around 20 participants in a qualitative study, see for example (7, 21). We initially planned 20 interviews, leaving the option of conducting further interviews. As described in our methods section, and after iterative discussion of the themes emerging, no new themes emerged (31), which is why we did not continue with accrual. (See p. 6, Data collection and management).

“We planned 20 interviews with the potential for further interviews. After independent analysis of half the transcripts (DN, CK) no new codes or themes were identified (32). Interviews were continued to capture GPs from various geographical locations and experience levels. No additional themes emerged, meeting the criteria for thematic data saturation (33). We concluded at 20 participants as intended.”

6. 30 minutes is a short period of time to explore the breadth of issues discussed here, and it is likely that saturation was reached because the interviewers were unable to explore the themes in sufficient depth.

We agree a mean duration of 32 minutes (range 20 – 43 minutes) is indeed on the shorter side. However, getting longer interviews during COVID vaccination rollout was impossible. We have added a sentence to indicate this where we state (p. 15, Strengths and limitations):

"Mean interview duration was 32 minutes. Conducting longer interviews with busy GPs during a global pandemic was impossible."

7. While there is nothing wrong with an overview of the field, there is little here to explore the aim of understanding how GPs conceptualise wellbeing. I was surprised,
8. for instance, to see no mention of the pandemic, despite it appearing in the interview schedule.

Please also see our revised introduction and objectives section (p. 4), including our reply to reviewer 1, comment 3.

Whilst we covered several aspects of wellbeing in the interviews, we deliberately decided to focus on reporting determinants of wellbeing only in this paper (due to wordcount). This may explain the comment regarding depth and breadth of our study. As highlighted above, we will report on 2 of the other aspects: (i) strategies for wellbeing, and (ii) the specific effects of COVID-19 in separate papers (see p. 6, 7, Results).

"The interviews captured participants' conceptualisation of wellbeing; determinants of wellbeing; and strategies for wellbeing. Running through each was a current focus on COVID-19 influences and impacts on GPs' wellbeing.

Here we report on determinants of wellbeing that emerged in the interviews. For determinants we discerned five themes, each with several subthemes. We charted these (Figure 1), and important interconnections were analysed.

Strategies for wellbeing, and the COVID-19 specific influences on GP wellbeing are presented elsewhere."

Diagrams

8. In terms of the diagrams, I am not clear that the figures add value. In particular, the figure on the determinants of wellbeing in GPs states that "bubble size reflects attributed importance of the determinant". I am not sure how the authors decided how important each "bubble" is; if it is on the frequency of comment, this is not methodologically sound, and if the participants were asked to "size" each "bubble" this should have been mentioned in the methodology.

Accepted and revised. We have resized the "bubbles" based on your feedback by making them uniform (see figure 1).

We believe that the figures are helpful for some readers, particularly for readers who appreciate visual representations. Hence, we feel with these suggested improvements from the reviewer they are fit for purpose to be included in the manuscript.

Conclusion

9. Overall, then, this paper explores an interesting area, but I believe insufficient depth of interview has led to early saturation, and insufficient analytic strength. I do not believe this paper will add substantially to the literature, and would encourage the authors to consider how to add to this relatively light, initial examination of the field in the future.

Thank you for highlighting that this is an interesting area of research.

In terms of depth, please refer to our above explanation (answers to reviewer 1, comments 5 and 6, where we address depth and saturation).

In addition, we have highlighted in “strengths and limitations” section (p. 15) that selection bias should be taken into account and have recommended that these findings need to be verified more broadly, for example in an Australia wide survey. We also specifically state (p.15, Strengths and limitations)

> *“Sample sizes in qualitative research are generally small (n=20 in this study), hence, we suggest these findings be verified more broadly in an Australia-wide survey, using a dedicated wellbeing metric.”*

Please also see our response to reviewer 1, comment 3, with updated introduction and objectives.

RESPONSE TO REVIEWER 2

Abstract

1. When the authors refer to financial aspects, do they mean personal salary/pay or the extent to which services themselves are funded? This would help bring clarity to both the results and conclusions sections of the abstract.

Accepted and revised.

We have reworded a sentence in the results section of the Abstract to clarify the reference to financial aspects. Specifically, we now state (page 2):

"*Both personal finances, and funding structures emerged as important moderators of the inter-connections between these themes.*"

Strengths and limitations

2. It is necessary to understand drivers and barriers of wellbeing in view of developing strategies to better support and enable GP wellbeing.' This is more of a rationale/reason to do the research than a strength of the research, and should be deleted.

Accepted and revised.

We deleted above point (p. 3, strengths and limitations box).

~~Strengths~~

- A positive framework was deliberately selected to examine GPs' wellbeing, which complements literature on mitigating burnout.
- Qualitative inquiry assists in understanding complex interactions between different determinants of wellbeing.
- Our diverse sample includes GPs working in a wide range of clinical settings in Australia.

Limitations

- Our results may not be generalisable to all GPs, particularly those working outside of the Australian context.
- Selection bias needs to be considered in any voluntary research participation.

Introduction

3. The authors present the topic as if no qualitative research has been done on this before. A quick google scholar search identifies several qual studies have been done before on this topic in GPs, and they should be mentioned and discussed.

Accepted and revised.

The reviewer's comments demonstrate knowledge and interest in doctors' health, and it was pointed out, that there is substantial literature. We agree. There is a large and burgeoning literature—both peer reviewed, and non-peer reviewed—on the negative aspects of doctor's mental health (distress, burnout, depression, anxiety, substance abuse, trauma, moral injury, intention to leave the profession, and suicide). Several large systematic reviews and meta-analyses have reported on the prevalence, risk factors and interventions for these (2-4).

However, there is a lot less research that deliberately examines positive constructs, and aims to better understand what contributes to wellbeing in GPs. We believe there is merit in expanding the negative focus approach typically taken with the clinical model (mitigating or treating negative outcomes), and complementing this by tapping into positive psychology to understand what enables individuals to thrive, and be well, in order to take an integrated

approach. This was the focus of our research, and this is how we have contextualised it.

Our approach appears to be shared by UK authors who have chosen to apply a positive lens, and have similarly indicated that there is relatively little research exploring wellbeing as a positive construct in GPs (5-7). More recently this focus has gained traction, for example, including two systematic reviews of wellbeing in GPs (1, 6), and one in physicians more generally (8). We are pleased, that more research is emerging on positive psychology outcomes in health care professionals.

We are aware that there are a number of excellent, qualitative studies conducted with GPs in the UK (including one co-authored by reviewer 2). Whilst some elements may be the same for GPs worldwide, there are fundamental differences in practice between Australia and UK (and elsewhere). These include a fee for service payment model, common use of co-payments and many open access services.

We also appreciate the mention of additional literature of interest, and we've included further citations in the introduction and the discussion to bolster aforementioned sections. Based on the reviewer's suggestions, we have revised the introduction sections to state our aims and the context of our research more

clearly. We added a new paragraph. Specifically, we now state (p. 4, Introduction):

> *"Doctors' health research is typically informed by the clinical model, and there is a substantial body of literature aiming to explore and mitigate burnout, distress, and mental ill health (2-4, 9-13), and improve doctors' uptake of health services across different settings (14-18). There is comparatively little research—particularly qualitative—that deliberately applies a positive lens, and explores how GPs keep well and thrive. Of note, research groups in the UK focused on psychological wellbeing in GPs (5, 6) whereby one publication was a survey, the other a systematic review; another group explored GP wellbeing as distinct from burnout (7, 19), publishing a qualitative exploration and survey results. We aimed to*
>
> *add to this burgeoning approach, and explore GPs wellbeing in the Australian context."*

4. The gap being addressed in the current study should be mentioned. It seems possible that no previous studies have been done in Australia, and that this might be a first study of its kind post-Covid, for example.

We have stated the study aims more clearly in the context of our previous systematic review, and the new paragraph describing the gap in the literature that we aimed to address.

> *"A robust and sustainable generalist workforce is important. In order to bolster the wellbeing of Australian GPs, and ultimately address the gap in the literature regarding effective wellbeing interventions for GPs as seen through a positive lens, we aimed to:*
>
> - *apply a positive framework to explore GPs' wellbeing, and key, potentially modifiable, factors that determine it.*
> - *qualitatively analyse how these determinants are inter-connected, and what the underlying drivers are."*

Reporting on determinants and their inter-connections, will not suffice in formulating strategies, or designing further reaching interventions to address GP wellbeing. However, considering the journal's word count guidance—combined with a documented lack of research in this area which emphasises the importance of giving voice to the results—we felt that splitting our report on our qualitative analysis into a series of publications with specific focuses (i.e. (i) Determinants of wellbeing in this paper; (ii) strategies to improve GP wellbeing; and, (iii) the impact of COVID on GP wellbeing) based on the findings was best way to ensure the results were illuminated sufficiently in the academic literature.

Results

5. Table 1 – did the authors record ethnicity? This should be reported. If unavailable, this is a limitation which needs reference in the limitations section.

We did not record ethnicity. Instead, we have reported on previous experience working overseas a which is a proxy for this. Our participants did note their prior experience as colouring their views of determinants but not their ethnicity per se. As such we disagree that this is a limitation.

6. Table 2 – this doesn't seem to map onto the theme structure, with one quote listed as 'identity/system', no quotes for the 'profession' theme and one quote listed as 'overall'. I would have expected to see here a table with the themes as presented in the results and example quotes for each theme.

   Thank you for pointing this out. We have modified the table including consistent labelling of the theme structure between text, table 2, and figure 1. Also, please note that table 2 is an overflow table to capture verbatim quotes that did not fit in the main body of the manuscript (due to wordcount). We have added this information to the Table footnote which now states:

   "Table 2. *This table contains further verbatim quotes (overflow table) in addition to those embedded in the text."*

7. The three major themes identified at the start of the results section (participants' conceptualisation of wellbeing; determinants of wellbeing; and strategies for wellbeing) don't map on to the subsequent themes presented (Identity; organisation; profession; health care system; finances) which is confusing.

   Thank you for pointing this out. We have now made changes to the manuscript to improve the clarity of the document based on this feedback. Specifically, we clarified which themes are presented in this manuscript. (p. 7, Discussion)

   "The interviews captured participants' conceptualisation of wellbeing; determinants of wellbeing; and strategies for wellbeing. Running through each was a current focus on COVID-19 influences and impacts on GPs' wellbeing.

   Here we report on determinants of wellbeing that emerged in the interviews. For determinants we discerned five themes, each with

   several subthemes. We charted these (Figure 1), and important interconnections were analysed.

   Strategies for wellbeing, and the COVID-19 specific influences on GP wellbeing are presented elsewhere."

8. The 'identity' theme felt a bit descriptive and didn't hang together very well – including everything from GPs saying they don't take their own health advice to saying they prefer having varied work, to saying they like having mentors to model things for them. Could the authors either change the theme structure of the results

section or make a stronger case for why these are all aspects of professional identity?

> A major aspect of analysing qualitative data is the need to organise or classify the data into meaningful groupings from which one can draw useful inferences. Each attempt to do so relies upon familiarity with the data, as well as the philosophical and epistemological background of the researchers. There is no "ground truth", or gold standard. We have tried to take a multilevel matrix view derived from the interviews that fits with a pragmatic occupational and coaching psychology approach, without imposing our views of "what" is wellbeing. There will always be different interpretations, but we believe that our deeply considered framework provides specific inferences from which changes to improve wellbeing might be designed and implemented at different theme levels. As we showed in our recent review (1) the current focus of the academic research examining GP wellbeing is seemingly limited to a small number of individual level interventions.

> We believe that not taking their own health advice is an important observation, and it reflects a personal WB behaviour (subtheme), and thus sits under identity

> / self. Please note that some subthemes span both personal and professional identity.

> Variation of work was described as a deliberate choice to improve wellbeing, it is about not always being the GP, but i.e., also being the researcher, the educator, etc. As such we describe it as a subtheme that sits under identity / self in a professional context.

Mentoring comes up in both the theme of 'identity' and the second theme of 'organisation', which leads me to think that the theme structure could be improved.

Thank you for pointing this out. We rephrased to 'being a role model' so it fits under the professional identity. It is distinct from receiving mentoring, which is why we have added 'mentoring' to the 'organisation'. (See p 9, under organisation).

> *"Having a mentor or supervisor who modelled how to maintain personal wellbeing was seen as important to learning how to prioritise personal wellbeing, particularly for GP registrars.*
>
> > *'…I think we need to be modelling. Because I think if people are going through the training and not experiencing any different, we shouldn't be surprised that they then become like 30, 40, 50-year-old GPs who are totally burnt out, and have no sense of what's actually important for their self-care.' (GP12)"*

(See updated figure 1).

9. The second theme is called ‘organisation’ but also includes a section referring to GPs’ complaints about patient attitudes, which doesn’t seem to fit with the theme name.

Organisation is used to denote the individual’s immediate workplace/practice. This is where GPs mostly encounter patient complaints, which is why we have placed this subtheme here. This is in contrast to complaints brought against GPs at a systemic level via ‘organisations’ such as the HCCC. We have reworded slightly to hopefully make this clearer. We now state on page 8:

“Additionally, GPs frequently encountered unrealistic expectations from patients at their practice, including to receive services for free (Table 2i).”

10. The theme entitled ‘health care system’ refers to GPs feeling unappreciated (‘a sense of not being valued, and a lack of appreciation, respect, and support. Whilst this mostly related to the systems level, it was found throughout, and attributed to almost every section of society’), which ties in with comments included in the identity theme (‘Determinants of professional wellbeing were offset by a sense of

being perceived as ‘less than’ a specialist by the public, other doctors and often internalised by the GP’). I think there needs to be a bit more consideration as to how the themes are constructed.

Our participants reported feeling unappreciated from several sources e.g., family, colleagues and patients but consistently reported that by far the most impactful effects on their wellbeing were those emanating from the systems level. The lack of being valued manifested in financial terms, compounded by a large power differential between an individual GP and national structures such as Medicare, or HCCC. This does not mean that being undervalued wasn’t determined by factors operating at other levels such as an organisational / practice level, such as through an abusive patient, or on the level of identity by comparing themselves to specialists who seem to be more valued. We intend to leave the structure of the determinants as is, however, we have added a little more context (p. 12, discussion).

“*GP wellbeing - or lack thereof - is a complex interplay between different determinants, and stakeholders. The main, underlying determinant of wellbeing - correlated with, and represented by remuneration - seems to be inadequate professional value and recognition. Our participants reported feeling unappreciated from several sources, but consistently reported that by far the most impactful effects on their wellbeing were those emanating from the system.”*

DISCUSSION

11. The summary paragraph at the start doesn’t seem to map on to either the theme structure presented in the results.

Accepted and revised. (see specifically page 12, discussion).

"Determinants of wellbeing were qualitatively explored in the interviews. We presented five themes each with subthemes: identity / self, organisation, profession, system, and finances. They are all are strongly interconnected, and each has several subthemes (see figure 1)."

12. As indicated in my comments about the intro, the authors seem to be unaware of several qualitative studies which already exist on this topic. I think it's inaccurate to say that there is 'little qualitative research' on this.

We have bolstered both introduction sections with further literature. Please also see our reply to reviewer 2, comment 3.

Following reviewer 2's suggestions, we have also specifically added to the discussion section (comparison with existing literature, p. 13), incorporated the suggested literature by Hall 2018, Cheshire 2017, and added Ansell 2020.

"We contextualised our findings within qualitative research on wellbeing, as seen through a positive lens, and related constructs such as satisfaction. We contrasted our findings with selected quantitative research directly relevant to the Australian general practice landscape. A UK group conducted focus groups with 25 GPs to identify factors that contribute to burnout and poor wellbeing, and strategies to improve both. Similar to our results, they identified the importance of team support, taking breaks, variety of, and control over their work, on an internal level; and wider governmental and public support, resources, and funding on an external level (20). British GP trainee focus groups (n=16) discussed the benefits of supportive professional relationships (i.e., supportive trainers), control over workload, and barriers to wellbeing of 'not being valued', and work-life imbalance (21)."

"In the UK, a qualitative study examined why GPs leave direct patient care. Reasons were complex, but in alignment with our cohort, included personal and professional identity issues, the value perception of general practice within the health system, and risk (i.e., medical litigation) (22). In our interviews, stress of formal patient complaints and audits surfaced repeatedly. Similarly, a patients' complaints culture, and defensive practice were also described as stressors in focus groups exploring GP resilience and coping (23)."

13. In the discussion, the authors refer to the study as focusing on 'GPs' satisfaction' which doesn't map onto the study's title or stated aim (which suggest the study focused on wellbeing).

We have revised the discussion to address this comment. See response to reviewer 2, comment 12.

"We contextualised our findings within qualitative research on wellbeing, as seen through a positive lens, and related constructs such as satisfaction. We contrasted our findings with selected quantitative research directly relevant to the Australian general practice landscape."

We have retained some of the references to satisfaction, particularly a large qualitative European study, and quantitative results relevant to the Australian context. But we have also added additional references suggested by reviewer 2 (Hall 2018, Cheshire 2017), and added Ansell 2020.

"A UK group conducted focus groups with 25 GPs to identify factors that contribute to burnout and poor wellbeing, and strategies to improve both. Similar to our results, they identified the importance of team support, taking breaks, variety of, and control over their work, on an internal level; and wider governmental and public support, resources, and funding on an external level (20). British GP trainee focus groups (n=16) discussed the benefits of supportive professional relationships (i.e., supportive trainers), control over workload, and barriers to wellbeing of 'not being valued', and work-life imbalance (21)."

In addition, as highlighted in our response to reviewer 2, comment 12, we specifically reference research looking into other positive constructs that are related to wellbeing—which includes satisfaction but also now extends to resilience.

"Similarly, a patients' complaints culture, and defensive practice were also described as stressors in focus groups exploring GP resilience and coping (23)."

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VERSION 2 – REVIEW

REVIEWER	Stone, Louise Australian National University, Academic Unit of General Practice
REVIEW RETURNED	22-Jan-2022

GENERAL COMMENTS	Thank you for the opportunity to review this paper again, and to provide comments. I can see that the authors have made significant attempts to refine this paper, but I believe there are at least three fundamental flaws that restrict the academic merit of the paper. The first is the mismatch between the stated aims of the paper, and the findings. The authors have not provided a model of wellbeing, or a theoretical framework with which to analyse the findings. While this is not a fundamental flaw in itself, I found the majority of the outcomes were negative. Poor remuneration, lack of connectedness, poor support from the College, lack of respect from the community and so on. While this clearly adds to the literature on burnout, it doesn't really add much to the authors' aims of a positive model of wellbeing. It tells us a lot about why GPs feel undervalued, but not how to bolster a sense of wellbeing, however we conceptualise this. Perhaps this is due to the second flaw, which is very short interviews, potentially with insufficient depth. Early saturation may well have been achieved because the concepts raised were not explored deeply enough. It would be possible to write an entire paper on the first idea, how professional and personal identity supports well-being, but as it

	stands, there is little novel in the findings. Ideas of identity, recognition, support and appropriate remuneration appear in the doctors' health literature, and in broader literature around the wellbeing of any member of the workforce. With such a small sample, and short interviews it is impossible to provide the depth that is necessary to move this analysis beyond a top level scan of common concerns to a deeper analysis of the way GPs actually cope with the hostile environment they work in. Finally, a structural issue. I do understand the challenges of meeting a word count, but I didn't find shifting quotes into a table made the paper richer. In fact, I found reading down the table after the paper confusing, and toggling between the results and the table was difficult. Overall, though, I was left with the uncomfortable question of why GPs are still there? If we are to examine their wellbeing, we need to question this very fundamental question. In the wake of poor remuneration, poor respect, poor support and increasing workloads, what keeps them going? I was looking forward to hearing more about this question, but found the paper unsatisfying. If I were to approach this as a GP who needed to improve their wellbeing, perhaps using a positive framework, I would be unable to do so, and so the aims of the paper remain unmet.

REVIEWER	Johnson, Judith University of Leeds Faculty of Biological Sciences
REVIEW RETURNED	01-Feb-2022

GENERAL COMMENTS	The authors have addressed most of my comments, but a few have not been addressed: -Failing to record ethnicity is definitely a limitation as ethnicity cannot be approximated with knowing whether people have worked/trained abroad. A large and growing literature highlights that doctors from minority ethnic backgrounds are disadvantaged in multiple ways. Understanding the proportion of participants from minority ethnic backgrounds is therefore useful in understanding the sample and not recording this is a limitation. -Whilst qualitative analyses are subjective, they do still need to have face validity and follow coherent narratives. I continue to struggle to see how 'varying workload' is part of a doctor's identity and suggest that either a strong rationale is provided in the text for how workload variation impacts identity (and this in turn impacts wellbeing), or that this is simply removed from the theme. -I also don't understand how patient attitudes fit with organisation, as there is no apparent organisational impact on patient attitudes (and no suggestions for how organisations could improve patient attitudes). If anything, this seems to fit better with the 'system' subtheme which talks about how the public don't understand GPs.

VERSION 2 – AUTHOR RESPONSE

RESPONSE TO REVIEWER 1

Thank you for the opportunity to review this paper again, and to provide comments. I can see that the authors have made significant attempts to refine this paper, but I believe there are at least three fundamental flaws that restrict the academic merit of the paper.

First point

The first is the mismatch between the stated aims of the paper, and the findings. The authors have not

provided a model of wellbeing, or a theoretical framework with which to analyse the findings. While this is not a fundamental flaw in itself, I found the majority of the outcomes were negative. Poor remuneration, lack of connectedness, poor support from the College, lack of respect from the community and so on. While this clearly adds to the literature on burnout, it doesn't really add much to the authors' aims of a positive model of wellbeing. It tells us a lot about why GPs feel undervalued, but not how to bolster a sense of wellbeing, however we conceptualise this.

A. We have significantly re-written the introduction. We shortened the first paragraph of the introduction (p. 3, 4), so as to include definitions of wellbeing from positive psychology, and more clearly delineate the approach we took in exploring wellbeing, as distinct from burnout and mental ill health (second, and third paragraphs, p. 4). We go on to contextualise our approach as compared to other research groups, and finish with our systematic review on interventions, and why we decided to research the determinants of wellbeing (fourth paragraph, p. 4, 5).

Introduction, first paragraph (p. 3, 4):

Health care typically aims to improve patient care, population health and cost effectiveness (1, 2). The wellbeing of health care professionals has been recognised as a priority, and further key component of the wider goals for health care in the USA, and Canada (1-5). In Australia, the 'National medical workforce strategy' developed a joint vision to provide effective, universally accessible, and sustainable health care across the entire population (6), whereby doctor wellbeing, and insufficient generalist capacity, have been identified as top concerns (6, 7).
General practice is ideally placed to address health care goals by crucially providing cost-effective care to patients, and underpinning population health. However, demand for generalist services outweighs supply in many countries, including the UK, the USA, and Australia, with an even greater undersupply of Australian GPs forecast by 2030 (8-14). The additional strain of the pandemic (15) highlights the urgency of prioritising GP wellbeing. Professional organisations are aware, and endeavouring to address this by offering support (i.e., Royal Australian College of General Practitioners (RACGP) programmes and resources (16, 17)), and funding research into GPs' health and wellbeing.

Introduction, second paragraph, third paragraph (p.4):

Doctors' health research is typically informed by the clinical model, and there is a substantial body of literature aiming to explore and mitigate burnout, distress, and mental ill health (18-25), and improve doctors' uptake of health services across different settings (26-30). There is comparatively little research—particularly qualitative—that deliberately applies a positive lens, and explores how GPs keep well and thrive. We aim to explore this gap by drawing on positive psychology to complement the clinical model. The field of positive psychology provides several theories, definitions and measures of wellbeing, and most are defined as multi-dimensional constructs (31). Diener's theory of subjective wellbeing comprises cognitive, often assessed as (life) satisfaction, and affective (emotional) components (32). Cognitive wellbeing is more stable over time than affective wellbeing, and is linked to factors such as status, life events, and income that may involve an appraisal of wellbeing over time (33-35). Ryff's 'psychological wellbeing" (36) includes six dimensions: positive relations with others, autonomy, environmental mastery, purpose in life, personal growth, and self-acceptance. Flourishing or PERMA, as construed by Seligman is a wellbeing theory described by positive emotion, engagement, relationships, meaning, and accomplishment (37).

We conceptualise wellbeing, and mental ill health / burnout as distinct, albeit related constructs, which merit separate consideration. Other research groups have similarly recognised the importance of exploring wellbeing in its own right. For example, a UK group focused on 'psychological wellbeing', and 'mental wellbeing' in GPs (38, 39). Another group qualitatively explored 'wellbeing' in GPs as distinct from 'burnout' (40). We aimed to add to this burgeoning approach, and explore GPs wellbeing in the Australian context.

Introduction, fourth paragraph (p. 4, 5):

Overall, there is remarkably little evidence on how to effectively increase GP wellbeing, and related positive constructs (41). Our recent systematic review of both trials and policy changes exemplified the

use of a wide variety of interventions, constructs, and metrics. (41). The review showed that these interventions had no consistent definition of wellbeing or its components, a lack of consensus on how to measure it (often with a scattergun set of measures), and few theoretical links between the intervention content and wellbeing target. Interventions were typically aimed at the individual GP, involved mindfulness practice, and showed low to moderate effectiveness. Very few interventions targeted organisations, or health systems yet much of the discourse suggests interventions to improve wellbeing should be delivered at these levels. If this is the case, we also need to know what determinants of wellbeing such interventions should focus on enhancing.

B. Reviewer 1 has made an astute, and very important observation. When asked about wellbeing without further guidance (i.e., by providing a definition), many of our interviewees attributed importance to aspects that undermine wellbeing, rather than promote it (particularly for the systems level). This partial mismatch between aims and findings may not be a flaw, nor a sign of insufficient interview depth, but may actually be an important insight in its own right.

Clearly, there are significant barriers to wellbeing on a systems level, professional body level, and finance level, and as reviewer 1 states herself, GPs are working in a hostile environment.

This is particularly well encapsulated by the quote 2o, Table 2:

'But the wellbeing that GPs achieve, is by their own measures, and they are to counteract the negative pressures that come from outside this room. So…the forces that are negative, are Medicare, and the way GPs are treated…. (GP9).'

To address this important reviewer comment, we've modified the Discussion, Summary, last third of the paragraph (p. 13)

It is noteworthy, that without guidance or provision of a definition of wellbeing, many GPs tended to focus on aspects of the system as barriers, rather than enablers of wellbeing. This was likely due to significant systemic pressures, GPs' perceived lack of agency regarding systemic and professional issues, and the frustration this causes. It may also be that GPs expect to look after themselves, or don't see how the system and professional bodies could bolster their wellbeing for example by co-designing organisational or policy interventions. Seen through this lens, it becomes clear that resilience and wellbeing seminars designed for individual practitioners will not suffice, nor be embraced, especially when they are offered by the very organisations and systems that GPs deem responsible for hindering their wellbeing.

C. Having described the above, we took care to provide a number of verbatim quotes that reflected enablers of wellbeing, mostly on the levels of self/identity (see Table 2, quotes 2b, 2d, 2e):

'So that's probably exercise, and eating healthy, and being with friends and family is probably what keeps me well. … I suppose having your work / life in balance, and still being able to function at work at an optimal level, and still be able to maintain all your responsibilities outside of work, with family and recreation, I suppose. And being happy with both aspects of your life.' (GP18)

'I expect myself to be more resilient [than others]. And I expect myself to cope with hardships.' (GP8)

'If I work five, six, seven days [per week] in a general practice it really starts to affect you mentally. So, mixing it up is a fantastic way of keeping sane.' (GP5)

and practice level (see p. 9 quote by GP3):

'Ahh, having a good bunch of people to work with, people who are working together in an environment that is safe, there is timetabling of patients, that we are able to have a tea break, toilet break, lunch break, and be able to respond to patients' needs as they arise, at the same time. That is important in a clinical setting', GP3).

We have made further slight modifications to the results section, re-arranged some of the verbatim quotes, and added select quotes to highlight the enablers more clearly. (See tracked changes p. 8, 9, 10).

See added body of text to the Profession subheading (p. 9):
Determinants of wellbeing also originated from within the GP community, and their representative bodies.
Several GP trainees, and educators described that training organisations, and the college representing rural practitioners offered tangible support. Examples included providing vouchers for gym memberships, facilitating discussion rounds on GP trainee days about keeping well, and the importance of self-care.

Lastly, we modified the sentence in the summary section of the discussion to describe both enablers and barriers to WB (see tracked changes, discussion, first half of the paragraph, p. 13).

GPs provided examples of enablers and barriers to their wellbeing. Enablers of wellbeing were mostly described in their personal lives, and in their practices. Whilst the main, underlying barriers to wellbeing—inadequate professional value and recognition—mostly emanated from the system, and were underpinned by remuneration. GPs largely counter-balance barriers to wellbeing as best they can personally, and crucially, through informal peer support.

D. We then revisited the positive psychology models of wellbeing in the discussion section to better contextualise our results.

See discussion, comparison with existing literature (p. 13):

Although GPs defined wellbeing in fairly limited ways they described components of affective wellbeing (32), psychological wellbeing (36), and flourishing (37) when discussing what promotes wellbeing on a personal and practice level (i.e., social connections at work, autonomy and flexibility of work, sense of pride in their abilities). Interpreting the barriers to wellbeing is more complex. Whilst, for example, remuneration and valuation are determinants of how one might appraise cognitive wellbeing, these seemed viewed as something that could only detracted from wellbeing, i.e. as drivers of burnout? If we conceptualise wellbeing as a distinct construct—albeit related to burnout, then the answer is likely more nuanced than both being directly opposing sides of the same spectrum. Could improving remuneration or valuation actually improve wellbeing? Whilst some may see the answer as obvious (as life satisfaction continues to rise with income, albeit slowly at the income level of doctors (34)) this remains an empirical question.

Second point

Perhaps this is due to the second flaw, which is very short interviews, potentially with insufficient depth. Early saturation may well have been achieved because the concepts raised were not explored deeply enough. It would be possible to write an entire paper on the first idea, how professional and personal identity supports well-being, but as it stands, there is little novel in the findings. Ideas of identity, recognition, support, and appropriate remuneration appear in the doctors' health literature, and in broader literature around the wellbeing of any member of the workforce. With such a small sample, and short interviews it is impossible to provide the depth that is necessary to move this analysis beyond a top-level scan of common concerns to a deeper analysis of the way GPs actually cope with the hostile environment they work in.

We would like to address the comments on depth and novelty of our work.
This is a broad paper on determinants across different levels, and how these are inter-connected. As indicated in our correspondence of 5 January, and in the manuscript, due to the richness of the data, and wordcount we had to partition the data into separate publications. This is the first in a series of

papers based on these interviews, whereby one paper builds on the previous one, and we are writing a paper specifically on the strategies for GP wellbeing.

We do not agree that the interviews provide insufficient depth for an overview of different determinants of wellbeing across different levels and their inter-connections, such as we have done. Untangling these determinants provides a good basis to decide where (on which level) to focus further research and interventions. As such, each of these levels could be explored more closely. Hence, we agree that it would be of great value to write a paper on the first idea of how professional and personal identity supports wellbeing, as suggested by reviewer 1, in which case, yes, this area would need to be explored in more depth. This would be an excellent topic for a follow-on project, however, this was not the aim of this paper. We stand by our statement that data saturation was reached.

We have slightly modified the discussion section strengths and limitations to reflect this (see p. 15, discussion, strengths, and limitations), and highlighted the importance of the mismatch between barriers and enablers of wellbeing.

Strengths include the diversity of participants and their combined wealth of experience (Table 1), which allowed for a broad exploration and analysis of multiple determinants of GP wellbeing, and their interconnections. Sample sizes in qualitative research are generally small (n=20 in this study), however data saturation was reached.
Limitations include selection bias often inherent in qualitative research with voluntary participation. We purposely only included GPs working in Australia for practicability reasons, and local relevance. These results may not equally apply to GPs working elsewhere, different factors may be present for GPs in other countries, particularly around funding structures and policy.
There are many definitions and metrics of wellbeing in the literature (31, 42), which adds complexity to research in this space. For quantitative studies a wellbeing definition and dedicated measure can and should be selected (31, 41). We did not define wellbeing for our participants, but rather let them use their own conceptualisation, so as to not bias participants' answers.

Whilst not all determinants raised by GPs are exclusive to GPs, nor are they entirely new in a workforce setting, we believe that discussing the data in this form is useful and novel, and has enabled to highlight connections between determinants which to our knowledge has not been presented in this form before. As indicated in our previous correspondence and references to publications by other authors, applying a positive lens to researching GP wellbeing is a rather recent approach, and is under-researched to date. We have modified the discussion section on implications for research and/or practice, p. 15) to reflect this.

To prioritise Australian GPs' wellbeing, we need to understand the full breadth of determinants (enablers and barriers) of wellbeing, and how they interplay. Moving beyond individual wellbeing interventions, our data suggests why organisational, professional, and systemic structures need to be targeted. This will require advocacy, commitment, and funding. It will take careful planning by professional bodies, organisations and policy makers in collaboration with practitioners.
In terms of research implications, wellbeing must be clearly defined, it must be distinguished from burnout both when it comes to designing interventions, and selecting metrics to assess their effectiveness.
Strategies to advance wellbeing were discussed in the interviews, and are detailed in our subsequent publication.

Third point

Finally, a structural issue. I do understand the challenges of meeting a word count, but I didn't find shifting quotes into a table made the paper richer. In fact, I found reading down the table after the paper confusing, and toggling between the results and the table was difficult.

Despite word count considerations, we deliberately kept some quotes in the main body of the manuscript, trying to leave one quote to exemplify a paragraph, where possible. We appreciate that toggling between paper and table can be a little cumbersome, however, this is not unusual for

qualitative papers, quantitative papers, or systematic reviews where results are often presented separately in a table, figure, or graph, whilst being described more broadly in the results section. We have modified the table to include coloured sections, which correspond to figure 1, so that readers can see more easily where the verbatim quotes fit into the themes and subthemes. (See Table 2).

Overall

Overall, though, I was left with the uncomfortable question of why GPs are still there? If we are to examine their wellbeing, we need to question this very fundamental question. In the wake of poor remuneration, poor respect, poor support and increasing workloads, what keeps them going? I was looking forward to hearing more about this question, but found the paper unsatisfying. If I were to approach this as a GP who needed to improve their wellbeing, perhaps using a positive framework, I would be unable to do so, and so the aims of the paper remain unmet.

This is indeed a good question, and whilst we did not set out to explicitly examine 'why GPs are still there', some of the answers provided by participants highlight what enables wellbeing for GPs, for example engaging in personal wellbeing practice, maintaining social connections (quote 2b), the flexibility and autonomy at work,
'And I think that in general practice we're lucky that we have somewhat well, we do have quite good control of our hours in that sense, particularly as a part time worker balancing a family at home' (GP19),

the possibility of varying work and working part-time clinically (quote 2e), and the social connectedness, and support from GPs in their practice.

'Ahh, having a good bunch of people to work with, people who are working together in an environment that is safe, there is timetabling of patients, that we are able to have a tea break, toilet break, lunch break, and be able to respond to patients' needs as they arise, at the same time. That is important in a clinical setting.' (GP3)

So, if a GP wanted to improve their wellbeing by applying a positive framework these determinants would be useful to consider. As added in the discussion, the enablers of wellbeing align with several dimensions of wellbeing as described in the positive psychology literature, and care needs to be taken to not further erode these. In addition, barriers to wellbeing need to be considered in order to be addressed. We are reporting on strategies to improve wellbeing in a subsequent publication. (See response to second point, and discussion, implications for research and practice, p.16).

Determinants are comprised of enablers and barriers. Hence, we disagree with the aims (of understanding what determines GPs wellbeing) not having been met.

RESPONSE TO REVIEWER 2

The authors have addressed most of my comments, but a few have not been addressed:
-Failing to record ethnicity is definitely a limitation as ethnicity cannot be approximated with knowing whether people have worked/trained abroad. A large and growing literature highlights that doctors from minority ethnic backgrounds are disadvantaged in multiple ways. Understanding the proportion of participants from minority ethnic backgrounds is therefore useful in understanding the sample and not recording this is a limitation.

Thank you. We are pleased that most of your comments were addressed to your satisfaction. In addition, we have now added the following sentence (see tracked changes under discussion, strengths and limitations, p. 16):

Ethnicity of participants was not recorded.

-Whilst qualitative analyses are subjective, they do still need to have face validity and follow coherent narratives. I continue to struggle to see how 'varying workload' is part of a doctor's identity and suggest that either a strong rationale is provided in the text for how workload variation impacts identity (and this in turn impacts wellbeing), or that this is simply removed from the theme.

Variation of work pertains to different roles, or types of job, for example working part-time as a GP, and the remainder as an academic, researcher, or even as a surgery assistant to another doctor. This expands the identity of a GP to not only being a primary care provider, but also a tertiary educator, researcher, etc.
We have clarified this in the text (see tracked changes, p. 8, under self / identity).

Choosing variation in the type of work carried out was another determinant of keeping well, through avoiding monotony and isolation, deliberately taking on different roles, and by temporarily relinquishing the burden of patient responsibility…

And in figure 1 (bubble professional identity we have amended the sub-bubble to 'variation of roles at work').

-I also don't understand how patient attitudes fit with organisation, as there is no apparent organisational impact on patient attitudes (and no suggestions for how organisations could improve patient attitudes). If anything, this seems to fit better with the 'system' subtheme which talks about how the public don't understand GPs.

On further reflection, we agree that patient expectations can be viewed as a systemic issue, which is why we have newly placed it under systems (see updated and tracked results section in the manuscript, under system, p. 10).

Lastly, GPs frequently encountered unrealistic expectations from patients, including to receive services for free (Table 2n).
'...You see a number of patients that basically see you as the local Coles [supermarket]. "OK, doctor, I need my prescription, and I need my referral…" And you know, you are just a dispensing machine, an ATM. And it doesn't cost them anything because you are bulk billing.' (GP14)

We have updated figure 1, bubble 'system' with new sub-bubble 'patient expectations').

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VERSION 3 – REVIEW

REVIEWER	Johnson, Judith University of Leeds Faculty of Biological Sciences
REVIEW RETURNED	31-Mar-2022

GENERAL COMMENTS	I don't have any further comments.