**ARTICLE DETAILS**

<table>
<thead>
<tr>
<th><strong>TITLE (PROVISIONAL)</strong></th>
<th>Usefulness and practicality of a multi-disease screening programme targeting migrant patients in Primary Care in Spain: a qualitative study of General Practitioners</th>
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<td><strong>AUTHORS</strong></td>
<td>Gonçalves, Alessandra; Sequeira-Aymar, Ethel; Aguilar Martín, Carina; Dalmau, Rosa María; Cruz, Angelina; Evangelidou, Stella; Hargreaves, Sally; Requena-Mendez, Ana; Jacques-Aviñó, Constanza</td>
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</tbody>
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**VERSION 1 – REVIEW**

| **REVIEWER** | Lindenmeyer, Antje  
|              | University of Birmingham |
| **REVIEW RETURNED** | 05-Jul-2022 |

**GENERAL COMMENTS**

Overall, this article addresses an important research question that will be important across different European primary care systems and so I would be happy to recommend publication of an amended version of the article. I have however a few queries, especially regarding the reporting of qualitative methods, which I am outlining below.

The abstract is overall clear but in need of a proof read – e.g. a CDSS would be implemented within primary care, and acceptability will be to, not by GPs. Also, it is not clear what is meant by ‘pragmatic utilitarianism’ – isn’t ‘pragmatic’ enough?

The introduction is overall clear and sets out the context – I would however like some more information on the Spanish primary care system and health care entitlements of migrants. In addition to highlighting the potentially added health needs of migrants it might also be worthwhile highlighting the ‘healthy migrant effect’ of a predominantly younger and male population. In the context of asymptomatic illness, would this mean that they could be carriers of undiagnosed illness if they don’t think it necessary to seek healthcare while they feel healthy? Maybe, for context, also a short introduction to the tool and how it was developed rather than just the reference? And especially, if it is going to be widely rolled out, how will it be updated in relation to changing situations in particular countries?

The methods section would need a bit more detail, in particular a definition of Patton’s ‘pragmatic utilitarianism’ and why it is appropriate here. If all GPs in Catalonia invited, your sample wasn’t really purposive (as you are aiming to sample as many as possible, inviting the whole population). How many PHCs are there in Catalonia, and how many GPs from each of these volunteered? Were you checking the characteristics of those who volunteered to
take part to see whether they had the range of demographics you needed, e.g. enough GPs from practices in practice in high-diversity areas? What type of thematic analysis did you use? The 6-step method accommodates a range of approaches; Braun & Clarke’s more recent article "Reflecting on reflexive thematic analysis" (2019) will be helpful.

Findings section: The 4 themes are quite closely related to the main FG questions so they do not strictly ‘emerge’ from the data – it is fine to report the results in that way, guided by the main domains/topic areas but it would make sense to have ‘subheadings’ of the different issues e.g. cultural competence training, the right time to introduce screening to the patient etc. to orient the reader. The points made are well developed, with good quotes – but sometimes more clarity is needed, e.g. do GPs talk about general perceptions of particular groups, their own perceptions, or both?

The discussion section clearly outlines the usefulness and potential improvement of the programme – it would be nice as well however to pick up on the more complex issues that are raised by the GPs, e.g. whether targeted screening could be perceived as stigmatizing/the need for trust before screening can be introduced – this is done with mental health but there is a bit more in the Findings that could be discussed. Strengths and limitations are clearly outlined, and the conclusions are clear.

Overall the article is clearly written and reads well – I would however recommend a thorough proofread by a native or near-native speaker of English as there are some grammatical errors, mainly incorrect propositions.

REVIEWER
Robakowska, M
Medical University of Gdansk

REVIEW RETURNED
06-Jul-2022

GENERAL COMMENTS
About limitations - Also, further studies should evaluate the perception of citizens and systemic health care costs?
About all paper - good research idea, a well-designed study, it might be worth extending it to include the costs of such activities and their impact on health care system-important from the point of view of the research funders as well.
Did GP mention a possible increase in the workload and higher employment in the event of increased admissions, especially of migrants who may have a language problem?

REVIEWER
Gabster, Amanda
Gorgas Memorial Institute for Health Studies, Genomics and Proteomics

REVIEW RETURNED
01-Aug-2022

GENERAL COMMENTS
This is a very timely paper and the findings may help guide clinical use of the screening tool.

Some things to review-
As a general comment- the paper discusses different points on revising country of residence, understanding the length of time in Spain may impact undertaking the screening and results of tests. However the authors use the term ‘migrants’ throughout as if all individuals in question are temporary in Spain. It would be good to
understand a bit more about how time since arrival plays into the screening tool use and if there is a cut off? This is perhaps a separate section?

In general, the manuscript should be edited for grammar. GP vs GPs vs GP’s needs to be homogenized (recommend GPs for plural. GP for singular)

Mental health seems to be grouped in with other screened diseases, and perhaps could merit a section of its own, if data allow.

Abstract:
the results especially need to match the findings (instead of a general ‘4 key themes were found’)

All sections should be checked for readability, some are hard to follow

Soften the conclusions.

Editorial sections (what is known on the topic, what it adds, etc) Should be written in more clear sentences and checked against the abstract and body of the text for similar focuses on the findings.

language related to the larger impact of the study should be softened. ‘Should and could’ are stronger than may. (I argue that may should be used)

Introduction
Last sentence of paragraph one is confusing (I think the parenthesis are out of place?)

Methods
It should be explained what the pragmatic utilitarianism approach was used for.
pg 7, Line 34- what aspects of Migrant Health?

Participants and settings
writing is confusing- what does GP recruited mean? Is it that participants were GPs who were recruited?

All GPs accepted participation of the 12 who were accepted participation at each center were included?

why 12 limit?

pg 8, line 38: discontinuation in regard to key themes or in regard to what?

Results:

The objective seems to be: to explore the views and concerns of front-line clinicians (comment- use the same terminology throughout the paper to be consistent) around approaches to multi-disease testing, gaps and potential strategies, and the extent to which prompting tools could be useful. Do all result sections (thinking on 3.2 and 3.3) respond to this? Some seem to talk about primary care in general instead of the prompting tool.
There is a clear unbalance of males and females in participants - is this a possible limitation?

Table 1: Key themes are backed up by one quote each. Can more information be given? ‘migrants at risk’ at risk for what?

Section 3.2 title ‘prejudices’ towards whom or by whom? Perhaps cultural perspectives is more correct?

The results on gender and culture are very interesting, but it seems like it is out of the realm of the screening tool and the objective of the study? Can you bring it back to the tool? does the tool include FGC?

There are some quotations that are unclear. Example: what does ‘they have relationships with each other’ mean? Perhaps only include (need to recheck all quotes) data in the quote that is pertinent to the theme being discussed.

Discussion

The first sentence does not address the research at hand, but instead the tool. It would be good to incorporate more of the findings related to the objective of the study in the discussion.

Policy and programme recommendations: It would be helpful to see a more polished paragraph on how the last part of the objective ‘potential strategies’ to implement the prompting tool could come to be. How do we overcome the limitations the GPs see? There’s lot of implementation science literature on the uptake of new tools.

Limitations

A more complete limitations section should be thought out.

Conclusions

One could include a wider range of the concluded findings- of strengths and limitations (not only acceptability).

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**VERSION 1 – AUTHOR RESPONSE**

Reviewer 1

The abstract is overall clear but in need of a proof read – e.g. a CDSS would be implemented within primary care, and acceptability will be to, not by GPs. Also, it is not clear what is meant by ‘pragmatic utilitarianism’ – isn’t ‘pragmatic’ enough?

The abstract was proofread and ameliorated.

Concerning the concept of “pragmatic utilitarianism”, we have used the term “pragmatic utilitarianism” according to the reference provided in the manuscript (Patton 2002). This approach is used for studies on program evaluation without delving into theoretical models, since it is based on the adoption of standards that require evaluations to be useful, practical, ethical, and accurate. We have reinforced it in the methods section (page 10, lines 195-199)

“We did a qualitative descriptive study design using focus groups (FG) and we used a pragmatic
utilitarianism approach.24 This approach is used for programme evaluation studies, based on the adoption of standards that require evaluations to be useful, practical, ethical, and accurate.22 Patton MQ. Two Decades of Developments in Qualitative Inquiry: A Personal, Experiential Perspective. Qual Soc Work 2002; 1: 261–83.

The introduction is overall clear and sets out the context – I would however like some more information on the Spanish primary care system and health care entitlements of migrants. In addition to highlighting the potentially added health needs of migrants it might also be worthwhile highlighting the ‘healthy migrant effect’ of a predominantly younger and male population. In the context of asymptomatic illness, would this mean that they could be carriers of undiagnosed illness if they don’t think it necessary to seek healthcare while they feel healthy? Maybe, for context, also a short introduction to the tool and how it was developed rather than just the reference? And especially, if it is going to be widely rolled out, how will it be updated in relation to changing situations in particular countries?

We thank the reviewer this comment. We have now updated the introduction with reviewer’s suggestions regarding the health care entitlements of migrants (lines 122-126) and regarding the health migrant effect (lines 127-130). We have also provided more information about the tool (lines 158-178) and about possible updates in the future (lines 179-182).

Page 7, line 122-126
“Migrants are entitled to full access to primary healthcare in Spain; The current legislation in Spain also allows for the provision of healthcare to undocumented immigrants, but there are barriers regarding proof of residency and the lack of both legal and administrative clarity that are limiting the benefits”.

Page 7, line 127-130
“Although on the whole migrants are healthy, vulnerable migrants, in particular those in an irregular situation, asylum seekers and refugees, are disproportionately affected by key infectious diseases, including tuberculosis (TB), HIV or viral hepatitis64 and other imported diseases that have low incidence in Spain”.

Page 7-8, line 158-178
“During the pilot, the tool was integrated in the electronic patient record (EPR) of primary care in Catalonia and displays prompts on screening recommendations based on an individualized approach that uses three variables—sex, age, and country of origin. These variables are routinely registered in the EPR system of health centres; therefore, it is a passive tool that makes it practical for health professional who will receive a prompt with screening recommendations based on this person’s background characteristics when a migrant approaches the centre for any reason. In our study, we defined migrants as foreign-born people, independent of the arrival time in Spain.23 No exclusion criteria were set concerning the year of arrival to provide the screening recommendation, except for tuberculosis. This criterium was established due to all infections (except for TB) being chronic and also because for several infections the risk remains after the migration. We also organized training sessions on specific areas in migrant health (infectious diseases, mental health and FGM) in all centres involved in the study. A guideline was written with the screening recommendations and made available for GPs in digital format. Our pilot study highlighted, an increasing yield of infections in the centres where the tool was implemented compared with centres that followed the routine care.23”

Page 9, line 179-182
“The tool can easily be adapted to epidemiological changes of the disease included, and to include other risk population (e.g., travellers), other settings and other conditions such as rare infections in migrants but also other neglected topics such as mental health which is not included systematically in health assessments for migrants.23”
The methods section would need a bit more detail, in particular a definition of Patton’s ‘pragmatic utilitarianism’ and why it is appropriate here. If all GPs in Catalonia invited, your sample wasn’t really purposive (as you are aiming to sample as many as possible, inviting the whole population). How many PHCs are there in Catalonia, and how many GPs from each of these volunteered? Were you checking the characteristics of those who volunteered to take part to see whether they had the range of demographics you needed, e.g. enough GPs from practices in practice in high-diversity areas?

What type of thematic analysis did you use? The 6-step method accommodates a range of approaches; Braun & Clarke’s more recent article "Reflecting on reflexive thematic analysis" (2019) will be helpful.

We agree with the reviewer, and we have added in the methods more information about the “pragmatic utilitarianism” (line 195-199).

“We did a qualitative descriptive study design using focus groups (FG) and we used a pragmatic utilitarian approach. This approach is used for programme evaluation studies, based on the adoption of standards that require evaluations to be useful, practical, ethical, and accurate. Regarding the sampling, our study comprises all the 4 PHC that participated in the intervention arm of the pilot study (since the tool was only activated in 4 PHC of which all GPs received the prompts). Therefore, we invited the GPs of these PHC to participate in FGs. We have therefore improved the text in this regard, making now clearer that the sample is purposive (lines 215). As suggested by the reviewer, we have now indicated in the text the total number of GPs by PHC (lines 213-217).

Participants of the FG were GPs from the four PHC centres in Catalonia, Spain, that composed the intervention arm of the pilot study of the IS-MiHealth tool. GPs were recruited using purposive sampling. The distribution of GPs by PHC centre was: 32 in Barcelona, 18 in Lleida, 17 in Manresa, 29 in Tortosa. Other characteristics of the PHC centres are detailed in a previous publication. We used a thematic content analysis (line 239). We thank the reviewer the suggestion about the 6-step method and have added it including the new reference suggested and we have also reinforced the characteristics of the analysis carried out in our study.

“A thematic content analysis was used to evaluate the data. It consisted of six-phases: become familiar with the data, generate initial codes, search for themes, review themes, define final themes and write-up. The analysis was iterative by themes. In order to validate the data, reflexivity was carried out in the different phases of the study. In addition, the coding and final categories were triangulated by the research team. The diversity of perspectives of the research team helped to discuss and analyse the data until a consensus was reached."


Findings section: The 4 themes are quite closely related to the main FG questions so they do not strictly ‘emerge’ from the data – it is fine to report the results in that way, guided by the main domains/topic areas but it would make sense to have ‘subheadings’ of the different issues e.g. cultural competence training, the right time to introduce screening to the patient etc. to orient the reader. The points made are well developed, with good quotes – but sometimes more clarity is needed, e.g. do GPs talk about general perceptions of particular groups, their own perceptions, or both?

We thank the reviewer this comment. We have rephrased the text to avoid “emerge” and we also added subthemes for the different themes.

“Four key themes were identified from the FGs. The first theme comprised four subthemes covering the benefits of the training on migrant health, the usefulness of the screening tool and challenges and barriers for screening in PHC. The second theme consisted of three subthemes that described the difficulties in clinical practice ….”.

Concerning the GPs perceptions, we have made some inclusions to clarify better this issue:
The discussion section clearly outlines the usefulness and potential improvement of the programme – it would be nice as well however to pick up on the more complex issues that are raised by the GPs, e.g. whether targeted screening could be perceived as stigmatizing/ the need for trust before screening can be introduced – this is done with mental health but there is a bit more in the Findings that could be discussed. Strengths and limitations are clearly outlined, and the conclusions are clear.

We thank the reviewer this comment. We have now introduced as suggested aspects related to stigma in this section (lines 596-606).

Page 29, line (596-606)

“This was also perceived in our study in which GPs recognized the presence of prejudices towards the migrant population that could affect their clinical practice; and likewise, the feeling that they could stigmatize migrants by offering screening of certain infections, since only migrant communities were included in the screening programme. In the study by Seedat et al, migrant community leaders highlighted the stigma as a barrier in their migrant screening programme.44 In another study, the stigma did not have the expected weight, but rather the trust generated with health professionals through providing them with a clear and simple explanation of those test results that were a cause for concern among the migrants.”

Also, a new text and verbatim about this aspect were introduced in the result section (lines 384-385). “… she expresses herself through someone else and you know, you’re missing a lot of information.(FG1)”

The aspect related to “trust” was reinforced in lines 379-383.

Page 18, line 379-383

“The perception from GPs about the lack of autonomy, especially in Maghreb women and the cultural differences between physician and patients make communication more difficult. Some GPs expressed the feeling of powerlessness, because of not being able to understand properly these patients in order to offer them an adequate care”.

Overall the article is clearly written and reads well – I would however recommend a thorough proofread by a native or near-native speaker of English as there are some grammatical errors, mainly incorrect propositions.

The manuscript has now been reviewed by an English native speaker.

Reviewer 2

About limitations - Also, further studies should evaluate the perception of citizens and systemic health care costs?

We already included a statement about the need of addressing the perception of migrant populations
Also, further studies should evaluate the perception of migrant communities about the screening programme focused on migrant populations."

This aspect has been also remarked in the conclusions section (lines 664-667).

"GPs also remarked the urgent need of change towards a holistic care in PHC considering social determinants in health, with resource investment. Further qualitative studies should evaluate other views (from migrants and stakeholders) about the screening programme."

In the pilot study we estimated the cost of the implementation of the screening tool, but a proper cost-analysis and cost-effectiveness was not carried out. This is currently being planned as part of another robust trial that is aimed to validate the tool at a larger scale. We have included this information in the discussion section.

"The IS-MiHealth tool is low cost to run (estimated around 10,000 e including its maintenance for 5 years in one EPR system)23, but further cost effectiveness and cost analysis are now warranted and next steps are to re-design and validate the screening tool at a larger scale through a robust trial, including a cost-analysis and a cost-effectiveness analysis of the intervention and to further explore testing of the clinical decision support system in other high-migrant receiving EU/EEA countries."

About all paper - good research idea, a well-designed study, it might be worth extending it to include the costs of such activities and their impact on health care system-important from the point of view of the research funders as well.

As explained in the previous comment, our current research project is aimed to validate the screening tool and will include an evaluation of the cost of the tool and cost-effectiveness of the intervention. We have reinforced this aspect in the discussion section.

"The IS-MiHealth tool is low cost to run (estimated around 10,000 e including its maintenance for 5 years in one EPR system)23, but further cost effectiveness and cost analysis are now warranted and next steps are to re-design and validate the screening tool at a larger scale through a robust trial, including a cost-analysis and a cost-effectiveness analysis of the intervention and to further explore testing of the clinical decision support system in other high-migrant receiving EU/EEA countries."

Did GP mention a possible increase in the workload and higher employment in the event of increased admissions, especially of migrants who may have a language problem?

We thank the reviewer for this interesting comment. The GPs only mentioned that the current workload could be a barrier to the definitive implementation of the screening program. To better clarify this topic, the following information has been added (lines 329-333):

Furthermore, the lack of time during the clinical visit due to the high workload currently experienced by GPs in primary care was also highlighted as another barrier during the implementation of the screening programme but this work overload was not related to the introduction of the ISMiHealth tool”.

This aspect is also now remarked in the discussion section lines 518-521.

"Also, they remarked the habitual workload that GPs are experiencing in primary care as a barrier although this was not related to the introduction of the screening tool."

The GPs did not comment anything on the “workload or higher employment” in the case of increased admissions, since the programme is an opportunistic screening programme that should not increase the number of visits. However, they commented that there is a lack of resources in PC, especially for
specific programs with cultural mediators.

Page 20, lines 432-437

"However, some GPs agreed that there are few resources allocated to the reception of migrants (i.e., specific programmes for migrant care with intercultural mediators) and that there is also a lack of resources to address the social problems of the migrant population in PHC."

We have also reinforced this aspect in the discussion section:

Page 29, lines 610-612

"However, they remarked that there is a lack of resources targeting the reception of migrants or the social and health needs of migrant populations in PHC centres."

Language barriers has been also reinforced in the discussion section (lines 551-554).

Page 27, lines 551-554

“Language and cultural barriers in everyday clinical practice, and also during the implementation of a screening programme were highlighted by GPs as additional challenges when implementing programmes targeting migrant populations”.

Reviewer 3

As a general comment- the paper discusses different points on revising country of residence, understanding the length of time in Spain may impact undertaking the screening and results of tests. However, the authors use the term “migrants” throughout as if all individuals in question are temporary in Spain. It would be good to understand a bit more about how time since arrival plays into the screening tool use and if there is a cut off? This is perhaps a separate section?

We defined migrants as foreign-born people, independent of the arrival time in Spain (this definition was now included in introduction, lines 166-172). The tool did not include a cut-off date regarding the arrival to Spain, except for tuberculosis screening, for which a recommendation was only made to those migrants from high endemic areas who arrived within the last 5 years to Spain. This criterion was established due to all infections (except for TB) being chronic and also to the fact that for some of them, particularly HIV, the infection risk remains after the migration.

Page 9, lines 166-172

“In our study, we defined migrants as foreign-born people, independent of the arrival time in Spain. No exclusion criteria were set concerning the year of arrival to provide the screening recommendation, except for tuberculosis. This criterion was established due to all infections (except for TB) being chronic and also because for several infections the risk remains after the migration.”

As suggested by GPs on FGs, we are currently working in adding a new indicator to the screening algorithm: “time of residence” in Spain.

Page 26, lines 526-530

“IS-MiHealth tool has also room for improvement and some approaches have been suggested such as adding other indicators such as time since arrival to the host country, establishing organized and efficient referrals to specialized International Health units and improving the registry of follow-up and outcomes.”

In general, the manuscript should be edited for grammar.

GP vs GPs vs GP’s needs to be homogenized (recommend GPs for plural. GP for singular)

We thank the reviewer this comment. The manuscript has been reviewed by an English native speaker.

Mental health seems to be grouped in with other screened diseases, and perhaps could merit a section of its own, if data allow.

We reorganized the result section with themes and subthemes, as demanded by reviewer 1 and one of the subthemes is related to mental health. We hope this is clearer now.
Abstract:
the results especially need to match the findings (instead of a general ´4 key themes were found´)
All sections should be checked for readability, some are hard to follow
Soften the conclusions.
The abstract was improved in all these aspects.

Editorial sections (what is known on the topic, what it adds, etc)
Should be written in more clear sentences and checked against the abstract and body of the text for
similar focuses on the findings.
This section was suppressed from the manuscript as requested by the editor.

language related to the larger impact of the study should be softened. ´Should and could´ are stronger
than may. (I argue that may should be used)
We agree with the reviewer, and we have edited as suggested throughout the text.

Introduction
Last sentence of paragraph one is confusing (I think the parenthesis are out of place?)
The sentence was rewritten (lines 120-121)
Page 7, lines 120-121

"In Spain, according to 2021 data, there were more than 5 million migrants (defined as foreign-born),
which represents 11.3% of its total population."

Methods
It should be explained what the pragmatic utilitarianism approach was used for.
pg 7, Line 34- what aspects of Migrant Health?
The use of the pragmatic utilitarianism approach was justified in the following way (lines 195-199):
Page 10, lines 195-199

"We did a qualitative descriptive study design using focus groups (FG) and we used a pragmatic
utilitarianism approach.24 This approach is used for programme evaluation studies, based on the
adoption of standards that require evaluations to be useful, practical, ethical, and accurate.22 "
The training on migrant health was related to infectious diseases, mental health and FGM. We have
emphasized it in the following way (lines 172-175):

"We also organized training sessions on specific areas in migrant health (infectious diseases, mental
health and FGM) in all centres involved in the study. A guideline was written with the screening
recommendations and made available for GPs in digital format."

Participants and settings
writing is confusing- what does GP recruited mean? Is it that participants were GPs who were recruited?
All GPs accepted participation of the 12 who were accepted participation at each center were included?

This section was improved (lines 213-215). Participants included were GPs from the four PHC centres in Catalonia, Spain, that composed the intervention branch of the piloted study of the IS-MiHealth tool implementation.

"Participants of the FG were GPs from the four PHC centres in Catalonia, Spain, that composed the intervention arm of the pilot study of the IS-MiHealth tool. GPs were recruited using purposive sampling".

why 12 limit?
The limit of 12 is a standard for FG, frequently cited in publications about the technique. We offer a
reference for FG in the manuscript. In our case, after inviting the GPs to the FGs, the number of volunteers who expressed interest in participating did not exceed this limit. We have rewritten in the following way (lines 220-222).

"Because the number of GPs that accepted participation were within the maximum limit of participants that are usually allowed per FG (limit of 12), all of them were included.

pg 8, line 38: discontinuation in regard to key themes or in regard to what?
This sentence was eliminated (it was a mistake), because we conducted focus group in the totality of the PCH centres (four) that participated in the intervention branch of the pilot study.

Results:
The objective seems to be: to explore the views and concerns of front-line clinicians (comment- use the same terminology throughout the paper to be consistent) around approaches to multi-disease testing, gaps and potential strategies, and the extent to which prompting tools could be useful. Do all result sections (thinking on 3.2 and 3.3) respond to this? Some seem to talk about primary care in general instead of the prompting tool.
We think that the (old) topics 3.2 and 3.3 also responded to the objective as they express GPs’ visions or concerns after the screening experience that may represent barriers for the future implementation of the screening tool. Identifying these barriers is essential to identifying aspects of the tool to be improved. However, we have modified the presentation of the results since we have now included “subthemes”, according to the request of reviewer 1. We hope this is clearer now.

There is a clear unbalance of males and females in participants- is this a possible limitation? The gender unbalance is a reality in the Spanish primary care since most of the health professionals are females. However, it is possible that women are usually more motivated than men in participate in this type of voluntary studies. For example, in the study of Serrano-Ripoll et al 2020 (doi: doi:10.1093/fampra/cmaa051), PHC professionals were invited by email, by the snowballing process, and only 14% of the participants in the GFs or interviews were men. We have now included and discussed this limitation in the corresponding section (lines 647-652).

"In this sense, the gender imbalance among the participants is remarkable, with a clear predominance of women. Although there is a natural predominance of professional women in PHCs in Catalonia, it is possible that they are more motivated than men to participate voluntarily in certain types of studies. New strategies should be proved to obtain the male vision in qualitative studies."

Table 1: Key themes are backed up by one quote each. Can more information be given? ‘migrants at risk’ at risk for what?
There was an error in the previous version of the manuscript. Table 1 is only about GPs’ proposals and has been moved to the correct place.
In table 1, the subthemes are available now including one subtheme with the following title: “Group approach in PC: psychoeducational groups for migrants at risk of mental health problems”

Section 3.2 title ‘prejudices’ towards whom or by whom?
Perhaps cultural perspectives is more correct?
We thank the reviewer this comment. It was changed to “cultural perspectives” (line 341)

The results on gender and culture are very interesting, but it seems like it is out of the realm of the screening tool and the objective of the study? Can you bring it back to the tool? does the tool include FGC?
This is an interesting point. The results on gender and culture indicate that these issues are important barriers to the implementation of the screening that must be taken into account for future training on the subject of interculturality. We have contextualized it now with the example of FGM in our study
They also stated that the trust gained over time with some women substantially improves the quality of the relationship, which was highlighted to be key, for example, to approach the FGM. Therefore, addressing these cultural and gender barriers when designing the implementation of the screening tool is essential if certain health aspects such as FGM or mental health are included.

There are some quotations that are unclear. Example: what does “they have relationships with each other” mean? Perhaps only include (need to recheck all quotes) data in the quote that is pertinent to the theme being discussed.

All the quotations were revised, and some adjustments have been done. The quotation exemplified by the reviewer was improved for better understanding (lines 407-409). “They are locked up at home, they communicate much less, and...they have only relationships with women from their own cultural group (FG4).” Some have been reordered in order to be close to the referent text (lines 351-352; 356-358; 361-363; 419-423). Others were shortened in some words (line 375-378). In the subtheme “migration process and mental health” the last paragraph was rewritten (lines 415-418) in order to better fit to the quotation in lines 419-423.

Page 19, lines 415-418
“A participant, although aware of the emotional impact of ablation on women, expressed the difficulty of addressing FGM and the need to approach other cultures from humility and with cultural competence.”

Page 19, lines 419-423
“Of course...that woman who does not get ablated is brutal, because...she is taken out of the village, she is not allowed to eat because she is “unclean” and...she will make sick in the village. Of course, dismantling this belief is very complex. It has to be done without the arrogance of the “white coat”...(FG3)"

Discussion

The first sentence does not address the research at hand, but instead the tool. The first sentence was changed and now it addresses the perceptions of GPs about the overall benefit of the programme in the following way (page 25, lines 497-500):
“Our findings suggest that the multi-disease screening tool targeting migrant population that was piloted in four PHC at Spain, was positively valued by GPs and it may help them to individualize the screening decision making process based on epidemiological evidence”.

It would be good to incorporate more of the findings related to the objective of the study in the discussion. We thank the reviewer this comment. We have accordingly improved the first paragraph with regards to some aspects (lines 497-500), and added a new paragraph (the second now, lines 503-509). Also lines 472-479.
Lines 497-500
“Our findings suggest that the multi-disease screening tool targeting migrant population that was piloted in four PHC at Spain, was positively valued by GPs and it may help them to individualize the screening decision making process based on epidemiological evidence”.

Lines 503-509
“The qualitative analysis based on GPs’ opinions indicated that the screening approach had good acceptability. In fact, the training on specific migrant health expanded the GPs’ knowledge in migrant health related topics and the active participation in the screening intervention improved GPs
sensitivity of migrant related health problems and brought out the need of continuous training on migrant health related problems and in culturally competent care”.

Lines 514-525.

“Among the barriers in the implementation of the screening programme, some GPs reported the difficulty of screening during the first visit, due to the lack of patient-care practitioner relation of trust and the challenge of performing follow-up visits in a highly mobile population with a high number of lost to follow-up in some migrant groups. Also, they remarked the overload of work that GPs are usually having in primary care as a barrier although this fact was not related to the introduction of the screening ISMiHealth tool. The GPs’ questioned the utility of the screening for migrants that live in Spain for many years suggesting that more epidemiological and clinical aspects of these health problems should be remarked on trainings since most of the health conditions included in the programme are chronic and should be addressed irrespective of arrival-time to the host country”.

Policy and programme recommendations: It would be helpful to see a more polished paragraph on how the last part of the objective ‘potential strategies’ to implement the prompting tool could come to be. How do we overcome the limitations the GPs see? There’s lot of implementation science literature on the uptake of new tools.

We agree with the reviewer and a new paragraph has been added to reinforce these aspects (lines 620-632)

“With the aim of implementing this kind of screening programmes in the future, it will be necessary to adapt such programmes according to the GPs’ experiences and views and reinforce a participatory research approach by expanding the qualitative study to migrants and other PHC stakeholders to obtain other relevant opinions. A policy brief could recompile the final recommendations for PHC improvements. Up to now some relevant policy recommendations are (i) the allocation of more human and economic resources for the holistic care of the migrant population, (ii) the improvement of continuous training for health professionals, including aspects such as cultural competence, (iii) the upgrade of clinical guidelines and (iv) the creation of quality indicators for screening of migrant health problems. In addition, it is important to offer a service that responds to the needs of the population while taking care not to stigmatize certain groups because of their origin or raze.46”

Limitations
A more complete limitations section should be thought out. This section has been strengthened (lines 642-654)

“The study has limitations. Firstly, targeted groups were constituted by GPs from PHC and no other health professionals including nurses or administrative staff, potentially limiting thereby, the introduction of other themes during the discussion. Other limitations include lack of response among some health professionals since the possibility to attend FGs was given primarily to the more motivated GPs, implying thereby, a reduction of diversity in the whole GP group. In this sense, the gender imbalance among the participants is remarkable, with a clear predominance of women. Although there is a natural predominance of professional women in PHCs in Catalonia, it is possible that they are more motivated than men to participate voluntarily in certain types of studies.47 New strategies should be proved to obtain the male vision in qualitative studies. Also, further studies should evaluate the perception of migrant communities about the screening programme targeting migrant groups.”

Conclusions
One could include a wider range of the concluded findings- of strengths and limitations (not only acceptability)
We agree with the reviewer, and we have emphasized these aspects in the conclusions (lines 657-667).

“Conclusions
This study shows the acceptability and positive evaluation by GPs of implementing a screening programme for migrant populations through a clinical decision support system implemented at PHC, since the tool helps health professionals to identify health problems in migrants. GPs highlighted the importance of specific training on screening at PHC including training on cultural competence. Intercultural participatory approaches should be adopted during the implementation process to address language and cultural barriers among migrant communities related to healthcare access or lack of follow-up. GPs also remarked the urgent need of change towards a holistic care in PHC considering social determinants in health, with resource investment. Further qualitative studies should evaluate other views (from migrants and stakeholders) about the screening programme."

**VERSION 2 – REVIEW**

<table>
<thead>
<tr>
<th>REVIEWER</th>
<th>Lindenmeyer, Antje</th>
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<tbody>
<tr>
<td></td>
<td>University of Birmingham</td>
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<tr>
<td>REVIEW RETURNED</td>
<td>20-Sep-2022</td>
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</tbody>
</table>

**GENERAL COMMENTS**

This is a lot clearer in the introduction/methods reporting and reviewer concerns are addressed. The only niggle I have is that it is not really ‘purposive’ sampling if you write to all GPs in the areas where the screening tool was rolled out - it is more a ‘whole population’ sample and you can write a line or two to say why this was appropriate.

<table>
<thead>
<tr>
<th>REVIEWER</th>
<th>Gabster, Amanda</th>
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<tr>
<td></td>
<td>Gorgas Memorial Institute for Health Studies, Genomics and Proteomics</td>
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<td>REVIEW RETURNED</td>
<td>12-Sep-2022</td>
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</tbody>
</table>

**GENERAL COMMENTS**

I thank the authors for addressing the comments. There are still some errors with the English. For example:

- Abstract methods and in Introduction section: ‘We did’ to me sounds like it should be ‘we undertook’
- Throughout manuscript: GPs/GPs’/GP’s still seem to be misused.
- Section 2.3 ‘properly’ seems like it should be ‘formally’
- ‘Raze’ (line 513) vs race (?) among others...

Could the authors do a good comb-through of the writing?

**VERSION 2 – AUTHOR RESPONSE**

Reviewer 1

This is a lot clearer in the introduction/methods reporting and reviewer concerns are addressed. The only niggle I have is that it is not really ‘purposive’ sampling if you write to all GPs in the areas where the screening tool was rolled out - it is more a ‘whole population’ sample and you can write a line or two to say why this was appropriate.
We would like to thank the reviewer the comment regarding the sampling. This issue was discussed again among our research team. In our study, GPs from the four primary care centres that participated in the intervention arm, i.e., who were aware of and had used the screening tool, were invited to participate. In this sense, we think our sampling is purposive because the GPs who were invited, met the selection criteria for participation in the FGs and maximum variability was sought. This is specified in this sentence (lines 175-177): The participants in the FGs were GPs from the four PHC centres in Catalonia, Spain, that made up the intervention arm of the pilot study of the IS-MiHealth tool.

After discussion and reflection with the research team we decided that it is appropriate to add that the sample is also a convenience sample due to the participation of volunteers. In other words, the GPs who participated in the FGs were those who voluntarily expressed their motivation to participate, as indicated in the sentence (lines 182-184): "Because the number of GPs who agreed to participate was within the maximum limit of participants usually allowed per FG (limit of 12), the final sample consisted of all volunteer GPs who met inclusion criteria."

In order to improve the comprehensibility of the text, the position of some sentences in the paragraph on lines 174-184 was changed and some adjustments were made to the text.

"2.2 Study setting and participants
We performed one FG per centre. Participants of the FGs were GPs from the four PHC centres in Catalonia, Spain, that composed the intervention arm of the pilot study of the IS-MiHealth tool. The distribution of GPs by PHC centre was: 32 in Barcelona, 18 in Lleida, 17 in Manresa, 29 in Tortosa. Other characteristics of the PHC centres are detailed in a previous publication[23]. GPs were recruited using purposive and convenience sampling (ref). All GPs from each centre were invited by e-mail to participate in the FG. A reminder email was sent 48 hours before each scheduled FG in order to avoid absenteeism. Because the number of GPs that accepted participation were within the maximum limit of participants that are usually allowed per FG (limit of 12)[24], the final sample was made up of all volunteered GPs that accomplished criteria."

A reference to sampling was also added (Denzin and Lincoln, 2011).

Reviewer 2
There are still some errors with the English. For example:

Abstract methods and in Introduction section: ‘We did’to me sounds like it should be ‘we undertook’
- Throughout manuscript: GPs/GPs’/GP’s still seem to be misused.
- Section 2.3 ‘properly’ seems like it should be ‘formally’
- ‘Raze’ (line 513) vs race (?)
Could the authors do a good comb-through of the writing?

We thank the reviewer this comment and he have done a new proof-reading of the manuscript.