

PEER REVIEW HISTORY

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

ARTICLE DETAILS

TITLE (PROVISIONAL)	General practitioners' perceptions towards the use of digital health services for citizens in primary care: a qualitative interview study
AUTHORS	Fagerlund, Asbjørn Johansen; Holm, Inger Marie; Zanaboni, Paolo

VERSION 1 - REVIEW

REVIEWER	John Campbell University of Exeter
REVIEW RETURNED	19-Dec-2018

GENERAL COMMENTS	<p>See attached Needs major revision English Small study with over-claimed findings Methods /analysis best section Dysjunction between methods and results Inadequate presentation of qualitative data and important lack of presenting evidence for assertions made in text Not accounting for international context and literature</p> <p>The reviewer provided a marked copy with additional comments. Please contact the publisher for full details.</p>
-------------------------	--

REVIEWER	Dr Jennifer G Walker The University of Melbourne, Australia
REVIEW RETURNED	21-Dec-2018

GENERAL COMMENTS	<p>This manuscript addresses a very interesting and contemporary issue. I am not recommending it should be accepted outright for publication for a few reasons. 1. I believe this should have had ethics approval even though the participants are a voluntary group and the potential harm is minimal. This might be different in Norway, but it would be current practice in my research institute to have the study approved by an ethics committee. 2. The sample size is very small, even for a qualitative study, and whilst I understand they do not have to be representative, it would be good to have some basic demographics for the group. 3. The publication itself would benefit from editing, just to tidy up some of the grammar and syntax.</p> <p>Overall, in my opinion, the study is valuable and important, but requires some major changes.</p>
-------------------------	---

REVIEWER	Tim Holt Oxford University, UK
REVIEW RETURNED	06-Jan-2019

GENERAL COMMENTS	<p>This is an interesting paper and investigates an important aspect of health care delivery. The study is limited as the participants were early adopters but this limitation is recognised.</p> <p>The Abstract refers to 'all four services' but these are not described until the main text, so this needs correcting.</p> <p>For the electronic prescribing, this service is now widely adopted in many countries so this part of the study is less informative, but should of course still be included. The more interesting area was the electronic consulting which is still at a relatively early stage and this study identifies some of the problems very clearly.</p> <p>There are a number of grammatical errors that would need correcting before publication but these are infrequent and it is generally clear.</p> <p>I would like to see:</p> <ol style="list-style-type: none"> 1. A brief description of the populations served by participating practices in terms of their rurality/distance from the clinics. This is very relevant to the study findings. Are the GPs serving communities in rural north Norway where patients might be more than 50 miles away? Or is this study largely town/city based? This is relevant to the utility of digital access and communication. 2. The use of telephone consultations have become important in the UK and elsewhere in an attempt to overcome access issues and workload. For most of this manuscript, it sounds as if the electronic consultations are being compared with traditional face to face contacts. Could the authors give an idea of the (approximate) proportion of a GP's day that is taken up on the telephone versus clinic based face to face encounters? 3. I was also unsure of the exact format of the electronic consultations. It sounds as if they were SMS rather than email. Were the consultations transferred into the electronic record (I assume so)? If so, did the GP do this, and how exactly? For email it is relatively easy to cut and paste text from one to the other, but it is less clear how this would work for SMS on a separate device and this could be clarified. Were the GPs using a dedicated mobile phone, or their own phone? How was this access regulated? <p>Generally I thought this was a useful study and the analytical method appears to be appropriate and well conducted.</p>
-------------------------	--

VERSION 1 – AUTHOR RESPONSE

Reviewer(s)' Comments to Author:

Reviewer: 1

Reviewer Name: John Campbell

Institution and Country: University of Exeter

Please state any competing interests or state 'None declared': None

Please leave your comments for the authors below

See attached

Thank you for your thorough and critical read of the manuscript that has contributed substantially to its improvement. Some of the comments points to grammatical and syntactical improvements, which we hope is addressed in our proofread version. For the other comments, we have made changes in the text, and will here give a changelog with the page and line number from your .pdf file as reference.

3-18 Wrote more clearly about the organization of GPs in the Norwegian primary health care system.

5-10 Described more clearly how the number of GPs were decided on. I wish to note that in a highly competent and professionally uniform population, and using and focusing on a narrow theme in the interview, data saturation can be achieved with a relatively low number of participants.

7-16 Rephrased the sentence for more clarity, as per your suggestion.

7-26 Moved the quote so that it fits the text better.

7-39 Removed the percentage and made it clear that this was a statement made by one of the GPs.

8-44 Modified to make it less confusing.

9-12 Yes, prescription review is the proper term. Changed it accordingly.

9-26 We agree, changed the phrasing to make is clear that this was the view of the interviewees, not a conclusion of the study.

9-30 The GPs have a longitudinal doctor-patient relation with their patients, and would mostly have a overview of their medical status. The organization of the GPs in Norway translates loosely to something resembling "the personal doctor arrangement". Therefore, it is safe to assume that they know many of their chronic patients well.

10-32 Changed the text so that it is clear that it refers to this particular system, as you suggested.

11-16 Added "perceived" to make it clear that this was a view of the GPs.

11-21 There were three short quotes in a short passage of text. We removed one of them.

13-4 Rephrased the sentence as per your suggestion.

13-10 We agree, and changed it so that is clear that this was a concern raised by some of the GPs.

13-43 We agree and changed the phrasing so that it is clear to the reader that we did not do a measurement of the user volume for e-consultations.

Needs major revision English

-As suggested, we had the paper proofread by a native English-speaking professional. We hope that this have improved the quality of the grammar and syntax.

Small study with over-claimed findings

-We understand the concerns regarding generalization of the findings. This was clearly not the intent of the present study. With the qualitative methodology we conducted, we aimed to point out challenges and tendencies- not to make claims about efficiency or outcomes. We have made a text-wide attempt to make it more clearly to the reader that the claims are in fact opinions of some of the interviewees.

Methods /analysis best section

-Thank you for the feedback.

Disjunction between methods and results

-We have tried to alleviate this by correcting the instances that you pointed out in the pdf.

Inadequate presentation of qualitative data and important lack of presenting evidence for assertions made in text

-We have revised the text to reduce the instances of claims that appear to be conclusions, but were in fact the opinions of some of the GPs. We hope to have made a more clear distinction between conclusive claims and reports from the interviewees.

Not accounting for international context and literature

-We added the reference to Atherton et al. as suggested in the .pdf.

Reviewer: 2

Reviewer Name: Dr Jennifer G Walker

Institution and Country: The University of Melbourne, Australia

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

This manuscript addresses a very interesting and contemporary issue. I am not recommending it should be accepted outright for publication for a few reasons.

Thank you for considering this paper for publication. As suggested, we have addressed the comments below and submitted a revised version of the manuscript which we hope it is now suitable for publication.

1. I believe this should have had ethics approval even though the participants are a voluntary group and the potential harm is minimal. This might be different in Norway, but it would be current practice in my research institute to have the study approved by an ethics committee.

- According to the Norwegian laws, the present study did not require ethics committee approval. We have named the relevant legal regulations in the text. In Norway, ethics approval is requested for "all medical and health research on human beings, human biological material or personal health data" (§ 2). According to the Act on medical and health research, Medical and health research is defined as "activity conducted using scientific methods to generate new knowledge about health and disease" (§ 4). Moreover, personal health data are defined as "confidential information [...] and other information and assessments concerning health issues or that are significant for health issues that can be linked to an individual person". Interviews with health professionals does not require ethics committee approval. They are not defined as medical and health research and they do not use personal health data. The case would have been different if we wanted to test an e-health intervention for a specific disease/health conditions using more traditional clinical methods, like clinical trials. In addition, consent is not required for research on anonymous human biological material and anonymous data (§ 20). Despite that ethics approval was not required, this study had to be approved by the Data Protection Officer of the University Hospital of North Norway.

2. The sample size is very small, even for a qualitative study, and whilst I understand they do not have to be representative, it would be good to have some basic demographics for the group.

- We agree that basic demographics should be presented, and have added a table with this information. Regarding sample size: When designing the present study, we aimed at enrolling 8-12 GPs. The aim of our qualitative methodology was not to generalize, but to identify themes that are important. This can be achieved with a relatively small sample size. After nine interviews we observed that the content emerged from the interviewees began to repeat the main themes with regards to the scope of the present study. As a consequence, we concluded that we reached acceptable saturation.

3. The publication itself would benefit from editing, just to tidy up some of the grammar and syntax.

Overall, in my opinion, the study is valuable and important, but requires some major changes.

- Thanks for the valuable comments. As suggested, we had proofread the paper with particular attention to grammar and syntax, and to our best effort incorporated the suggested changes.

Reviewer: 3

Reviewer Name: Tim Holt

Institution and Country: Oxford University, UK

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below. This is an interesting paper and investigates an important aspect of health care delivery. The study is limited as the participants were early adopters but this limitation is recognised.

- Thank for reviewing the paper, and considering it as interesting and with an important topic.

The Abstract refers to 'all four services' but these are not described until the main text, so this needs correcting

- We agree that that the four services should be briefly described in the abstract, and have replaced the "all four services" with a better description.

For the electronic prescribing, this service is now widely adopted in many countries so this part of the study is less informative, but should of course still be included. The more interesting area was the electronic consulting which is still at a relatively early stage and this study identifies some of the problems very clearly.

- Thank you. We agree that e-consultation represents the most interesting service. This is why we focused more attention towards e-consultations than towards the other services in the results and discussions.

There are a number of grammatical errors that would need correcting before publication but these are infrequent and it is generally clear.

-As suggested, we had the manuscript proofread by a native English speaker and revised it to improve the grammar and syntax.

I would like to see:

1. A brief description of the populations served by participating practices in terms of their rurality/distance from the clinics. This is very relevant to the study findings. Are the GPs serving communities in rural north Norway where patients might be more than 50 miles away? Or is this study largely town/city based? This is relevant to the utility of digital access and communication.

- We agree, and have added a table describing the area where each of the GPs are practicing, as well as some demographic background on the GP themselves.

2. The use of telephone consultations have become important in the UK and elsewhere in an attempt to overcome access issues and workload. For most of this manuscript, it sounds as if the electronic consultations are being compared with traditional face to face contacts. Could the authors give an idea of the (approximate) proportion of a GP's day that is taken up on the telephone versus clinic based face to face encounters?

-This would indeed have been interesting. However, the data on traditional vs face to face is not readily available. The main reason for this is that in Norway, contact over the telephone has not been intended to be equivalent to a consultation with the GP. This is also reflected in the codes that the GPs use to claim refund for their services, which are different for physical face to face, and telephone. Moreover, the patient have to pay a fee for both physical and e-consultation, but not for telephone. On the other hand, e-consultations were indeed intended to be more of an equivalent to traditional consultations, and consequently have the same refund rate as physical consultations.

3. I was also unsure of the exact format of the electronic consultations. It sounds as if they were SMS rather than email. Were the consultations transferred into the electronic record (I assume so)? If so, did the GP do this, and how exactly? For email it is relatively easy to cut and paste text from one to the other, but it is less clear how this would work for SMS on a separate device and this could be clarified. Were the GPs using a dedicated mobile phone, or their own phone? How was this access regulated?

- We agree that that the description of the service was insufficient to make the reader understand how the procedure for using the service is. We have now written more clearly about the service (in the introduction) so that the reader can better understand how it works.

Generally I thought this was a useful study and the analytical method appears to be appropriate and well conducted.

- Thank you for you insightful comments and suggestions, that clearly have helped substantially improve the manuscript.

VERSION 2 – REVIEW

REVIEWER	Jennifer Walker University of Melbourne, Australia=
REVIEW RETURNED	25-Feb-2019

GENERAL COMMENTS	Thank you for addressing the reviewers' concerns. The manuscript is vastly improved in content and expression and is acceptable for publication.
-------------------------	--