PEER REVIEW HISTORY

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ARTICLE DETAILS

<table>
<thead>
<tr>
<th>TITLE (PROVISIONAL)</th>
<th>What drives quality improvement in chronic kidney disease (CKD) in primary care: process evaluation of the Quality Improvement in Chronic Kidney Disease (QICKD) trial</th>
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</thead>
<tbody>
<tr>
<td>AUTHORS</td>
<td>Nihat, Akin; de Lusignan, Simon; Thomas, Nicola; Tahir, Mohammad; Gallagher, Hugh</td>
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VERSION 1 - REVIEW

<table>
<thead>
<tr>
<th>REVIEWER</th>
<th>Donal O'Donoghue</th>
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<td></td>
<td>Salford Royal FT</td>
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<tr>
<td>REVIEW RETURNED</td>
<td>08-Oct-2015</td>
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| GENERAL COMMENTS     | Clearly written and a useful contribution to the QI primary care literature. The themes and quotes have face validity and the qualitative information will be valuable to researchers and QI colleagues in future design of studies and interventions in KD and other areas of practice |

<table>
<thead>
<tr>
<th>REVIEWER</th>
<th>Chris Farmer</th>
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<td></td>
<td>Department of Renal Medicine</td>
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<td></td>
<td>East Kent University NHS Foundation Trust</td>
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<td>Ethelbert Road</td>
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<td>Canterbury</td>
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<td>REVIEW RETURNED</td>
<td>19-Oct-2015</td>
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| GENERAL COMMENTS     | General Comments:
This is a limited qualitative analysis of drivers of quality improvement in CKD with particular reference to the QICKD trial. Researchers recruited 4 practices across the UK. They describe recruiting depending on urban/rural location, type of intervention and geographical location this seems rather odd given the total number of practices recruited was four. There was no information provided about the practices selected or the selection method, clearly choosing practices keen to participate would introduce bias.

The researchers mention the fact that interviewing opinion leaders [in practices] may influence their results but then simply refer to perceptions described as those of “practitioners” without further qualification. It would be interesting to know who was interviewed and if this differed across practices.

There is no doubt that this paper provides useful insights into perceptions around CKD, these may help policy makers in this areas |
and other in the NHS. Particularly useful insights included “The BP guidance...” Page 11 line 5 and “and there was a whole load of audit stuff...”. The second remark was not explored further as to the reasons why audit data would be ignored.

I am not sure how the authors can come to the general conclusion on page 14 line 17 with such a sampling technique.

Minor Comments:
I think the use of the term “social stigma” (page 10 line 10) is rather overstating the case.

REVIEWER
Li Zuo
Department of Nephrology
Peking University People's Hospital
Beijing
China
REVIEW RETURNED 28-Oct-2015

GENERAL COMMENTS
this is a descriptive.

REVIEWER
P E Stevens
East Kent Hospitals University NHS Foundation Trust, United Kingdom
REVIEW RETURNED 23-Nov-2015

GENERAL COMMENTS
I enjoyed reading the paper but was left with a feeling of ok so what now and concern over the generalizability of the findings given the sampling. A couple of the sentences in the discussion don't quite make sense (lines 1-14 on page 16 and lines 40-42 on page 17)

REVIEWER
Allison Tong
The University of Sydney
REVIEW RETURNED 02-Dec-2015

GENERAL COMMENTS
This is a qualitative process evaluation of a quality improvement trial in chronic kidney disease that compared audit-based education and clinical guidelines and prompts with usual practice. Process evaluations are important for informing the design of interventions, as well as strategies for implementation. In this study, the aim was to describe the staff members' awareness of the intervention and their perceived changes in practice.

Abstract
- please clarify the context/trial in a little more detail (what were the outcomes that the intervention was designed to improve)
- delete " to limit geographical bias (this is to obtain a breadth of view across regions). This sampling strategy is reasonable.
- the information provided in the setting and participants are duplicative. Instead, define the staff members. Delete "no selection for role or sex." (though ideally it would be good to purposively sample to obtain a range of demographic and years of experience). It seems that participants (staff members) were comprehensively
sampled within a purposive sample of primary care practices.
- provide more information about the participant characteristics
- need to amend grammatical/punctuation in the results section.
- The results do not indicate perspectives about clinical practice
guidelines or pay for performance incentives, hence the conclusions
do not appear to be supported by the results.

Method
Information about the trial can be briefly outlined under a
subheading "context or description of the trial."
Please use standard subheadings e.g. participants and recruitment,
data collection, data analysis.
The sampling strategy is provided and justified (to obtain a range of
perspectives across different geographical areas). Delete "limit
geographic bias."
Provide a rationale for the two different time frames. Were these
prospective focus groups (with the same participants?) How many
participants were invited for each group? Does it accord with the
recommended 6-8 per group? Also, a minimum of three focus
groups are recommended for each characteristics of interest (in this
case region).
The statement, "focus groups are advantageous in their ability to
extract the attitudes and beliefs of participants, and are more likely
to do so when compared with individual interviews or observation" does not make sense. Focus groups are used when investigators
want to capitalise on group dynamics (e.g. brainstorming, exploring
reasons for consensus or divergent opinions). What is meant by a
set of non-prescriptive themes (themes are generally the results), do
the authors mean focus group question guide?
Who facilitated the groups? Was a note take present to record non
verbal communication and group dynamics. Please discuss potential
"power" issues if staff members were known to each other. The
focus group question guide could be provided.
Report the duration and venue of focus groups.
Some of the "four areas" do not seem to be questions/aims that are
addressed using qualitative research. Qualitative research is used to
elicit and describe people’s attitudes, beliefs, expectation etc.
However, these areas seems to address the effect of interventions
(that would be assessed in the trial?), and which practices were
aware of the interventions (but the data are collected at the
individual level), and identify factors that impacted quality of CKD
(again more appropriately answered using a quantitative design).
Please change interviews to focus groups. They are different forms
of data collection.
Provide some justification for using a framework approach (how is
this different to thematic analysis). Was software used to facilitate
coding and analysis? Was investigator triangulation or member
checking applied in any form?
Please provide the name of the ethics committee that approved the
process evaluation.

Results (not findings)
Provide a table 1 of participants - participant characteristics are
missing.
The results (including quotations) are interesting and have relevance
in terms of informing quality improvement strategies. The
interventions may need to be better described to set the findings in
context.

Minor
- limit use of non-standard acronyms for better flow (e.g. ABE, UP, G&P)
- BMJ open will usually request reporting using COREQ as this is a focus groups study

Please note, my review is focused on methodology and based on the the first manuscript. There seems to be two versions of the manuscript in the pdf that was uploaded.

**VERSION 1 – AUTHOR RESPONSE**

Abstract

- please clarify the context/trial in a little more detail (what were the outcomes that the intervention was designed to improve)

  *Authors’ response:*

  > The abstract now includes the QICKD trial primary outcome (control of systolic blood pressure in CKD patients in primary care).

- delete " to limit geographical bias (this is to obtain a breadth of view across regions). This sampling strategy is reasonable.

  *Authors’ response:*

  > The text has been altered as requested.

- the information provided in the setting and participants are duplicative. Instead, define the staff members. Delete "no selection for role or sex." (though ideally it would be good to purposively sample to obtain a range of demographic and years of experience). It seems that participants (staff members) were comprehensively sampled within a purposive sample of primary care practices.

  *Authors’ response:*

  > We have deleted the phrase: “no selection for role or sex.”

  > Our intention was to be purposive!

- provide more information about the participant characteristics

  *Authors’ response:*

  > The following text has been added to the “Data Collection” portion of the Methods, to clarify focus group characteristics:

  > “The focus groups comprised 6 to 9 health professionals, GPs were a majority in all, other professions were practice manager and practice nurse.”

- The results do not indicate perspectives about clinical practice guidelines or pay for performance incentives, hence the conclusions do not appear to be supported by the results.
The results section of the abstract now better reflects the study results—including the finding that practitioners were more driven to change practice by pay-for-performance guidance.

Method

Information about the trial can be briefly outlined under a subheading "context or description of the trial."

Authors’ response:>>

Text edited as requested.

Please use standard subheadings e.g. participants and recruitment, data collection, data analysis. The sampling strategy is provided and justified (to obtain a range of perspectives across different geographical areas). Delete "limit geographic bias."

Authors’ response:>>

The suggested subheadings have been included, and necessary portions of text deleted.

Provide a rationale for the two different time frames. Were these prospective focus groups (with the same participants?) How many participants were invited for each group? Does it accord with the recommended 6-8 per group? Also, a minimum of three focus groups are recommended for each characteristics of interest (in this case region).

Authors’ response:>>

The focus groups were carried out at two different time frames in order to explore whether the practitioners’ confidence, and their perceptions of competence, changed during the trial. As the trial intervention was education-based, we felt it was reasonable to assess whether it altered knowledge about and confidence in managing CKD, which indeed emerged as one of the results. The results of the change in confidence are due to be published in a peer-reviewed journal.

The following text has been added to the “Data Collection” portion of the Methods, to clarify focus group characteristics:

“The focus groups comprised 6 to 9 health professionals, GPs were a majority in all, other professions were practice manager and practice nurse.”

In addition, after checking our data to identify the participant numbers, we discovered that we had actually undertaken eight focus groups at the end of the project (with four additional practices that were not part of the original in-depth evaluation. This also improved how representative the findings were to all practices in the study. This error has been amended in the text with additional commentary.

The statement, "focus groups are advantageous in their ability to extract the attitudes and beliefs of participants, and are more likely to do so when compared with individual interviews or observation" does not make sense. Focus groups are used when investigators want to capitalise on group
dynamics (e.g. brainstorming, exploring reasons for consensus or divergent opinions). What is meant by a set of non-prescriptive themes (themes are generally the results), do the authors mean focus group question guide?

Authors’ response:>>

Thank you for these helpful comments; we agree that the description of focus groups and their utility is confusing, and does not best explain our intentions. We have altered the text to state:

“Focus groups are advantageous in utilising a group dynamic to elicit attitudes and beliefs that may otherwise be inaccessible during interviews.”

We have also changed the phrase “non-prescriptive themes” to “focus group question guide”.

Who facilitated the groups? Was a note take present to record non-verbal communication and group dynamics. Please discuss potential “power” issues if staff members were known to each other. The focus group question guide could be provided.

Authors’ response:>>

The focus groups were facilitated by NT. NT is an experienced qualitative researcher, with small group facilitation skills. As only one researcher was present, it was not possible to take notes during the focus group.

We acknowledge the potential effect of “power issues” in the Limitations section of the text, and have added:

“The practices contained a larger number of individuals and it is possible that opinion leaders within those practices, or practices and localities within which they were based may have adopted procedures and processes that were not representative of the study practices as a whole. Additionally, these individuals may have unduly dominated the focus group discussion, compared with more junior practice members.”

Report the duration and venue of focus groups.

Authors’ response:>>

The focus groups took place in the general practices – to facilitate attendance, and to provide a convenient and familiar location.

The focus groups were booked a time convenient for practices over lunchtime and early afternoon or in the evening. The focus groups lasted for 45-60 minutes.

Some of the "four areas" do not seem to be questions/aims that are addressed using qualitative research. Qualitative research is used to elicit and describe people's attitudes, beliefs, expectation etc. However, these areas seems to address the effect of interventions (that would be assessed in the trial?), and which practices were aware of the interventions (but the data are collected at the individual level), and identify factors that impacted quality of CKD (again more appropriately answered using a quantitative design).

Authors’ response:>>
Although less used in qualitative research the stance of the researchers is one of positivism, where the “knowable reality” is evidence-based practice. There were also a pragmatist element (some might say critical realism) in that we also wanted to understand what works/what worked and had an impact on quality improvement.

The “quality of CKD (management)” – i.e. evidence-based practice was accepted in a positivist sense by the researchers as truly better care. However, we felt it important to study why this might have happened. Including such an approach is included in, for example, the MRC Frameworks for the evaluation of complex interventions.

Provide some justification for using a framework approach (how is this different to thematic analysis). Was software used to facilitate coding and analysis? Was investigator triangulation or member checking applied in any form?

Authors’ response: >>

The following has been added to the text to justify use of a framework approach:

“The Framework method was selected because it is a method that is considered suitable for use in teams where not all members have experience of qualitative research.”

Gale et al (2013) states that “...with the leadership of an experienced qualitative researcher, the Framework Method is a systematic and flexible approach to analysing qualitative data and is appropriate for use in research teams even where not all members have previous experience of conducting qualitative research.”

In response to additional comments regarding this method: Although it has its roots in grounded theory (Pope C. BMJ, 2000) with ideas arising from the data; it is a thematic process. Its first stage is familiarisation with the data from reading and re-reading to identify ideas and themes. The next stages are identifying a thematic framework; then indexing that (thematic) framework; then charting and rearranging the (thematic) framework.

We did not use software. In other studies we have used NVIVO, but for this the researcher worked with textual data. The findings and themes were discussed in research meetings and data revisited and discussed where there were issues.

Please provide the name of the ethics committee that approved the process evaluation.

Authors’ response: >>

The ethics committee that approved the study was: Oxford Ethics B. Details are contained in the published protocol and trial registration.

Results (not findings)

Provide a table 1 of participants - participant characteristics are missing.

Authors’ response: >>
We did not think Table 1 as proposed necessary, however we have added the following sentence to the “Data Collection” portion of the Methods:

“The focus groups comprised 6 to 9 health professionals, GPs were a majority in all, other professions were practice manager and practice nurse.”

The results (including quotations) are interesting and have relevance in terms of informing quality improvement strategies. The interventions may need to be better described to set the findings in context.

References:


What drives quality improvement in chronic kidney disease (CKD) in primary care: process evaluation of the Quality Improvement in Chronic Kidney Disease (QICKD) trial

Akin Nihat, Simon de Lusignan, Nicola Thomas, Mohammad Aumran Tahir and Hugh Gallagher

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