

## 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

<b>TITLE (PROVISIONAL)</b>	'Keeping your body and mind active': an ethnographic study of aspirations for healthy ageing
<b>AUTHORS</b>	Guell, Cornelia; Shefer, Guy; Griffin, Simon; Ogilvie, David

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Márcia Rodrigues Costa Franco Departamento de Fisioterapia, Faculdade de Ciências e Tecnologia, UNESP – Univ Estadual Paulista, Presidente Prudente, São Paulo, Brazil
<b>REVIEW RETURNED</b>	30-Sep-2015

<b>GENERAL COMMENTS</b>	<p>Thank you for the opportunity to review this manuscript. It is an interesting and well-written study that enhances our understanding on older people's perceptions of active living in later life. The title is clear and demonstrates focus on the subject area.</p> <p><b>Introduction</b> The literature review is brief and could do with a broader perspective on qualitative studies undertaken thus far on active living, which is a combination of physical activity and recreation activities aimed at the general public to encourage a healthier lifestyle. Authors cite a recent published qualitative systematic review investigating older people's perceptions on physical activity and state that "...little is known about perceptions, practice and motivations of active living at any life stage". If there is any previous published study focused on active living, authors should reference them to set the context of what has been done before and what this study adds to the existing literature.</p> <p><b>Methods</b> The quality of reporting and transparency of this study can be improved by following the COREQ (Consolidated criteria for reporting qualitative studies) - Tong A et al, International Journal for Quality in Health Care, 2007. For instance, authors can describe whether a relationship between researchers and participants was established prior to study commencement, whether data saturation was reached, the use of software to manage and organize the data, etc...</p> <p>The description of the participants is insufficient. Although some of this is reported in Table 1 (age, activity level, living status), more information can be provided, for example, comorbidities, physical independence, mobility-related disability.</p>
-------------------------	--

	<p>Results Results are clearly written and original participants' quotations are presented in Box 2.</p> <p>The sub-themes of social motivators and social limitations described within the theme of Social context of active living seem to be two sides of the same sub-theme, one side perceiving it as a motivator and one as a barrier. It would be interesting to group the sub-themes and maybe describe them as 'Social influences' or 'Social circumstances'.</p> <p>Page 10, line 54. Revise the commas.</p> <p>Discussion The Discussion is well structured.</p> <p>In page 12, authors state that '... few studies have capitalized on the range of qualitative methods to explore deliberate and incidental active living', but if there is similar studies to the current manuscript, i.e. focused on active living, the results of those studies should be compared and contrasted to the current study. This would allow a comparison of the similarities and differences, as well as help to demonstrate the contribution of this research.</p>
--	--

<b>REVIEWER</b>	Nicola O'Brien Research Methodologist Institute of Health and Society Newcastle University UK
<b>REVIEW RETURNED</b>	08-Oct-2015

<b>GENERAL COMMENTS</b>	<p>This is a well written paper on an important topic. The use of methodology triangulation using interviews and observations is innovative and should be commended.</p> <p>I have the following comments and suggestions to improve the paper:</p> <ol style="list-style-type: none"> <li>1. Table 1 - activity level is categorised into Active and Sedentary; however, when describing the sampling strategy and presenting the quotes, participants are referred to as Active or Inactive. The distinction between Sedentary and Inactive is a debated one; can Table 1 use the labels of Active and Inactive to avoid confusion?</li> <li>2. Personally I like to see the acceptance rate (%) in addition to the raw figures of people approached and agreeing to participate (for interviews and observations)</li> <li>3. What were the participants' told the purpose of the observations was? Does this have any implications for the potential bias of the observer effect discussed in the limitations?</li> <li>4. A recognised limitation of this work is that the participants were sampled from what may be a particularly healthy and health conscious group of people through their involvement in the EPIC-Norfolk cohort study. These participants have remained in the study for 13 years and have attended four health checks in this time - it would seem highly likely that they differ from the wider population. This is a significant limitation and I am not clear how the findings can be used to 'learn from our participants' thoughts and practical insights' (page 16 line 12)?</li> <li>5. It is noted in the findings about tensions between staying busy, active or fit that some participants' descriptions of the keeping active</li> </ol>
-------------------------	--

	<p>did not match their accelerometry counts - this can also be seen in some of the quotes. It would be good if this discrepancy could be discussed in the discussion section and the potential implications thereof for the specific study findings and more widely for the development of public health interventions to promote active living and healthy ageing.</p> <p>6. Moreover, an expanded discussion of the potential wider implications of the overall findings would be beneficial in terms of how the data could be used to inform future interventions - currently there is only a brief mention of this in the conclusion. These proposed implications need to clearly reflect the limitation of the sample.</p>
--	---

### VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Márcia Rodrigues Costa Franco Institution and Country: UNESP – Univ Estadual Paulista, Presidente Prudente, São Paulo, Brazil.

Thank you for the opportunity to review this manuscript. It is an interesting and well-written study that enhances our understanding on older people’s perceptions of active living in later life. The title is clear and demonstrates focus on the subject area.

RESPONSE: We thank the reviewer for her interest and positive evaluation of our study.

Introduction

The literature review is brief and could do with a broader perspective on qualitative studies undertaken thus far on active living, which is a combination of physical activity and recreation activities aimed at the general public to encourage a healthier lifestyle. Authors cite a recent published qualitative systematic review investigating older people’s perceptions on physical activity and state that “...little is known about perceptions, practice and motivations of active living at any life stage”. If there is any previous published study focused on active living, authors should reference them to set the context of what has been done before and what this study adds to the existing literature.

RESPONSE: The literature review was kept brief with the particular journal and audience in mind, but we recognise that more detail can be given. We added new references to studies that were more broadly interested in active living and the social environment in which this takes place on page 4/5. The added paragraph now reads (without the citations included here): ‘Qualitative research can provide valuable insights to help understand how best to develop, promote and support such preventive strategies by exploring people’s aspirations to be active and their social contexts. Much of the literature has focused on structured exercise, with only limited consideration of other (what are sometimes referred to as ‘unsupervised’) physical activities, mainly walking, and little is known about perceptions, practices and motivations of active living more generally at any life stage. Those who have investigated physical activity beyond exercise participation have shown an increasing interest in the physical and social environments in which these activities take place. However, most qualitative research in this area has used a limited set of methods, predominantly interviews and focus groups. It has been suggested that studies could benefit from integrating more spatial methods to allow for fuller and more nuanced descriptions of environmental factors, with photovoice proving a particularly popular method. Similarly, it could be argued that the use of qualitative observational methods enables a more in-depth appreciation of the complex social context, as well as other aspects of the environment that participants may not reflect on explicitly in interviews. In this study, therefore, we aimed to investigate and describe in depth how active living relates to later life experiences and to

aspirations and strategies of healthy ageing, using an ethnographic research design that combined interviews with participant observation.'

#### Methods

The quality of reporting and transparency of this study can be improved by following the COREQ (Consolidated criteria for reporting qualitative studies) - Tong A et al, International Journal for Quality in Health Care, 2007. For instance, authors can describe whether a relationship between researchers and participants was established prior to study commencement, whether data saturation was reached, the use of software to manage and organize the data, etc...

RESPONSE: The COREQ checklist was completed and included as a supporting file. Additional information has been added to the methods section on page 6/7 such as the relationship of the researchers with the participants, more details on recruitment and use of software.

The description of the participants is insufficient. Although some of this is reported in Table 1 (age, activity level, living status), more information can be provided, for example, comorbidities, physical independence, mobility-related disability.

RESPONSE: In Table 1 we reported only those participant characteristics to which we had access from the EPIC-Norfolk study for recruitment. We did not have access to any health information about the participants. However, we have some unstructured health information from our participants as narrated during the interviews or participant observations; more ill-health might have been experienced but was chosen not to be disclosed to us. Information on health has been added on page 6. We summarise experienced ill-health as: limiting musculoskeletal complaints such as osteoarthritis, living with the chronic diseases cancer, CVD and diabetes, and limitations of activity partners. All participants had to be physically independent to be eligible to participate.

#### Results

Results are clearly written and original participants' quotations are presented in Box 2.

The sub-themes of social motivators and social limitations described within the theme of Social context of active living seem to be two sides of the same sub-theme, one side perceiving it as a motivator and one as a barrier. It would be interesting to group the sub-themes and maybe describe them as 'Social influences' or 'Social circumstances'.

RESPONSE: We would like to maintain the division into two subthemes which we understand to be facilitators/motivators and barriers/limitations. The first subtheme is about social context as a facilitator for physical activity, sometimes in positive ways, and sometimes more negatively such as social norms encouraging housework to fulfil social expectations. The second subtheme is about social context – again positive and negative – that limits physical activity. Social ties such as spouses act as activity companions but their physical limitations might ultimately be a barriers to more vigorous activity. This difference, but also the complexity, might be quite an important finding. To be clearer, we added the wording 'as facilitators' and 'as barriers' to the subthemes, on page 11 and 12.

Page 10, line 54. Revise the commas.

RESPONSE: We believe the commas are grammatically correct but we appreciate that it might not be the most readable sentence. We revised slightly so the sentence now reads on page 11: 'Dogs were

also appreciated as both a reason for walking and social company when walking.'

#### Discussion

The Discussion is well structured.

In page 12, authors state that '... few studies have capitalized on the range of qualitative methods to explore deliberate and incidental active living', but if there is similar studies to the current manuscript, i.e. focused on active living, the results of those studies should be compared and contrasted to the current study. This would allow a comparison of the similarities and differences, as well as help to demonstrate the contribution of this research.

RESPONSE: Yes, we appreciate that this was kept too short; we added more references and comparison with similarities and differences of other active living studies in the discussion on page 13 and 14. These now also help to put in context the additional discussion on the implications for interventions as suggested by reviewer 2.

This part of the paragraph now reads (without citations here): 'Studies taking a broader focus on active living have generally echoed our findings that continuing lifelong activities (albeit adapted when necessary) was an important motivator, as was the notion that activities should be purposeful. Furthermore, it seems important that activities can be integrated into everyday life. Using ethnographic methods, we were able to observe and discuss in depth with our participants their ordinary everyday activities as contributors to active living, and the interplay of aspirations of healthy ageing, lifelong ways of living and social context. While many studies have found healthy ageing to be a motivator for staying active, and physical limitations and ill-health to be a barrier to realising these ambitions, to our knowledge our study is the first to observe and describe participants' challenges in adapting not only to their own physical limitations in later life, but also to those of their activity companions.'

Reviewer: 2

Reviewer Name: Nicola O'Brien

Institution and Country: Research Methodologist, Institute of Health and Society, Newcastle University, UK.

This is a well written paper on an important topic. The use of methodology triangulation using interviews and observations is innovative and should be commended.

RESPONSE: We thank the reviewer for her interest and positive evaluation of our study and research design.

I have the following comments and suggestions to improve the paper:

1. Table 1 - activity level is categorised into Active and Sedentary; however, when describing the sampling strategy and presenting the quotes, participants are referred to as Active or Inactive. The distinction between Sedentary and Inactive is a debated one; can Table 1 use the labels of Active and Inactive to avoid confusion?

RESPONSE: Yes, we should have known better and not used 'sedentary' and 'inactive' interchangeably; we changed it to inactive in the table and its description on page 6/7.

2. Personally I like to see the acceptance rate (%) in addition to the raw figures of people approached and agreeing to participate (for interviews and observations)

RESPONSE: Added, also for the observations, on page 6.

3. What were the participants' told the purpose of the observations was? Does this have any implications for the potential bias of the observer effect discussed in the limitations?

RESPONSE: Yes, an important point and apologies that we omitted this before. We added the explanation on page 7/8; which now reads:

'Participants and researchers discussed the purpose of these observations at the end of the interview in the course of selecting the activity and organising the visit. We explained that we did not aim to assess the quantity or intensity of physical activity involved in the activities, but rather to find out about the social and physical environment in which these were taking place. Although few participants chose a primarily sedentary activity for observation, we were nonetheless able to observe sedentary activities as these were often linked to more active pursuits, such as having a tea or coffee before or after a walk or exercise session.'

4. A recognised limitation of this work is that the participants were sampled from what may be a particularly healthy and health conscious group of people through their involvement in the EPIC-Norfolk cohort study. These participants have remained in the study for 13 years and have attended four health checks in this time - it would seem highly likely that they differ from the wider population. This is a significant limitation and I am not clear how the findings can be used to 'learn from our participants' thoughts and practical insights' (page 16 line 12)?

RESPONSE: We believe that reflective participants with an interest in seeking solutions for barriers to physical activity can help identify facilitators that are meaningful to their peers. While our participants may have been particularly health conscious, they, nonetheless, experienced common barriers such as physical limitations through osteoarthritis which should resonate with older populations elsewhere. Solutions that they had proactively identified, such as the two participants in our case studies, should be considered as practical participant-driven, 'expert by experience', insights. We clarified the wording in the 'strengths and limitations box' on page 3 and also added more explanation in the discussion on page 17, which now reads:

'Another limitation was that participants were sampled from the long-running EPIC-Norfolk study, which perhaps produced a particularly healthy, health-conscious pool of participants. In principle reflective participants are desirable for qualitative research, but the transferability of our findings to the wider population might be more usefully considered in terms of learning from our participants' thoughts and practical insights, rather than as necessarily reflecting population patterns in a representative way. In other words, while our participants experienced barriers to active living such as osteoarthritis or widowhood that should resonate with older people elsewhere, they may have identified solutions more proactively than less health-conscious peers and may therefore be somewhat unusual in this regard. Nevertheless, the solutions they found should be valued as practical and meaningful examples of participant-driven facilitators that others could adopt.'

5. It is noted in the findings about tensions between staying busy, active or fit that some participants' descriptions of the keeping active did not match their accelerometry counts - this can also be seen in some of the quotes. It would be good if this discrepancy could be discussed in the discussion section and the potential implications thereof for the specific study findings and more widely for the

development of public health interventions to promote active living and healthy ageing.

6. Moreover, an expanded discussion of the potential wider implications of the overall findings would be beneficial in terms of how the data could be used to inform future interventions - currently there is only a brief mention of this in the conclusion. These proposed implications need to clearly reflect the limitation of the sample.

RESPONSE to 5 and 6: Yes, we agree, there could be more discussion about implications for future interventions. We are currently preparing a second manuscript that describes our participants in terms of different activity types and relate these to different intervention approaches but this should not have been an excuse to not discuss this in this paper. As we also added more reference to similar findings in other studies as suggested by reviewer 1, we hope that our added discussion of potential interventions can be read in view of a larger body of evidence than our clearly limited study in isolation.

We added more detail on the recommendation of physical activity advice to be given by health professionals – with reference to a qualitative study that echoed our suggestion that while there might be limited evidence that their advice is effective to increase physical activity, their advice on how to address mobility and health challenges was welcomed by patients. We also added pedometer-based intervention examples that relate to our participants’ preference (and those in other studies we now reference) for physical activity to be integrated in everyday life and activities. We are also aware of a few new interventions such as the ACE (Active, Connected, Engaged) Project that try to develop ‘getting out of the house’ interventions, but these have not yet produced any dissemination outputs. The new addition on page 16 now reads (without citations here): ‘To date, public health strategies to promote active living have tended to focus on changing the physical environment to support active travel; or on individualised approaches that allow for different ways of fitting activeness into everyday lives, such as pedometer-based interventions that allow for flexibility in how steps can be accrued within and outside the house. A new focus on ‘activeness’ as an everyday way of living should encourage further development of intervention strategies to encourage ‘getting out of the house’ by providing opportunities for meaningful or social activities. Key in these interventions will be to give advice that is acceptable and feasible for older adults, for example how to accrue incidental physical activity through such purposeful activities, or how to negotiate physical limitations within a social group. One challenge will be to encourage ‘active enough’ lives; as some of our participants noted, while ‘being busy’ can be a great motivator for being active, a busy life can also easily preclude being sufficiently physically active. Another challenge will be to integrate messages about the value of reducing sedentary lifestyles with related but slightly different evidence that recommends particular levels of moderate or vigorous physical activity as necessary for effective healthy ageing.’

#### VERSION 2 – REVIEW

<b>REVIEWER</b>	Márcia Rodrigues Costa Franco Universidade Estadual Paulista (UNESP), São Paulo, Brasil.
<b>REVIEW RETURNED</b>	27-Oct-2015

<b>GENERAL COMMENTS</b>	The reviewer completed the checklist but made no further comments.
-------------------------	--

<b>REVIEWER</b>	Nicola O'Brien Institute of Health & Society, Newcastle University, UK
<b>REVIEW RETURNED</b>	28-Oct-2015

<b>GENERAL COMMENTS</b>	The reviewer completed the checklist but made no further comments.
-------------------------	--