**PEER REVIEW HISTORY**

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**ARTICLE DETAILS**

<table>
<thead>
<tr>
<th>TITLE (PROVISIONAL)</th>
<th>Engagement with regular asymptomatic COVID-19 testing in young people in North West England: a qualitative focus group study</th>
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<tbody>
<tr>
<td>AUTHORS</td>
<td>Thorpe, Lisa; Carter, Holly; Robin, Charlotte</td>
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**VERSION 1 – REVIEW**

<table>
<thead>
<tr>
<th>REVIEWER</th>
<th>Gaio, Vânia</th>
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<td></td>
<td>Instituto Nacional de Saúde Doutor Ricardo Jorge</td>
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<tr>
<td>REVIEW RETURNED</td>
<td>02-Jan-2023</td>
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</table>

| GENERAL COMMENTS                              | Overall, this manuscript is clear and concise. It addresses a very important topic and includes recommendations that may be useful for future pandemics. I only have a few questions before recommending it for publication: 1. The title should indicate that it is a qualitative focus group study; 2. The background information is not very robust. Some studies already published on the engagement of covid-19 testing should be included. Specifically, if there are previous qualitative studies on this subject, they should also be cited; 3. Participants are from a region with a high incidence of covid-19 so they may be more concerned about infecting those around them, but would this happen in a population where the incidence is lower? I think this issue should be further discussed in the discussion section; 4. Why did you just use the focus group methodology to perform this study? 5. Is there any relevant personal characteristics or perspectives of members of the research team that may influence the study? If yes, they must be described and discussed. 6. Reference 13: unpublished works should not be referenced. |

<table>
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<th>REVIEWER</th>
<th>Woodland, Lisa</th>
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<td>King's College London</td>
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<td>REVIEW RETURNED</td>
<td>17-Mar-2023</td>
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| GENERAL COMMENTS                              | The article about engagement with regular asymptomatic COVID-19 testing in young people in North West England covers a topic of research that is needed. Primarily the findings that COVID-19 information was not targeted to younger audiences and that the language used in information about testing is complex. In addition, that access to COVID-19 tests was a challenge for younger people. As such, support the publication of this article. However, this article could benefit from some areas, particularly the methodology and use of ‘young people’ being clarified before publication. |
Introduction
1. The authors may want to consider including more information (a sentence or two) about COVID-19 testing in the introduction to provide additional context to the findings. Specifically (1) that COVID-19 tests were available to people who had symptom(s) of the Government’s listed symptoms of COVID-19. However, people may have COVID-19 without displaying any symptoms of disease, which is why asymptomatic testing is important to reduce transmission and (2) clarify how people received their test results, such as the results were displayed on the LFT test kit (commonly within 30 minutes of taking an LFT), although people were encouraged to report their test results (positive or negative) via a website to the Government.

Methodology
2. Could the authors provide more information about the design of the focus groups? It was reported (line 162) that the focus groups were conducted by a UKHSA employee, presuming none of the authors. Can you report who led the focus group discussion and if this is the same person who took the field notes?
3. Can the authors expand on what becoming familiarised with the data entails (line 157)? For example, listening to the audio and transcripts of the focus groups, and how often and how many of them. Or had the first author only read four transcripts when the codebook was developed? In addition, once the first author had developed the codebook, did they continue to analyse the rest of the data, or was this someone else? The author contributions report that CR also analysed the data; where does their role fit within the analysis process?
4. The authors report that an inductive approach was used; can this be expanded? I suspect this may have been related to the study aims and that only data about the barriers and facilitators linked with asymptomatic testing were analysed. However, this is not clear.
5. Were the participants paid, and how long did the focus groups last?
6. It is reported in the limitations that the parents were a part of the same organisation as the participants in the 12 to 15 year old focus groups. However, were any of the parent participants, parents to or cared for any of the children who took part in the young people’s focus groups?

Results
7. The supporting quote starting line 204 appears ill-suited to the theme of the lack of young people’s autonomy and more suited to the theme of protecting others. Can the authors use a more appropriate quote to support the theme of the lack of young people’s autonomy?

Discussion
8. Paragraph 347 to 356: would the authors be able to suggest a reason for why parents were less inclined to seek a COVID-19 test when symptoms were not present compared to young people? The article and reference [13] report that participants were concerned about the impact of receiving a positive test result, are these findings connected? Or could the finding relate to differences between how parents and young people perceive and respond to symptoms of illness?
9. The authors may consider re-organising Table 2 so that the ‘barriers’ are listed in the same order as the findings. In addition, it seems appropriate that the recommendations reported in Table 2 counter the barriers found in the study. However, Table 2 could be improved by including the facilitators within the recommendations, therefore highlighting the factors that should continue and be encouraged to increase engagement with testing.

Other
10. The authors may want to state how they use ‘young people’ and to keep the terminology the same throughout the article. Young people is commonly used, although line 357 mentions young people of all ages, which suggests differences between how young people is used in the article. It could be clearer if the authors used young people (12 to 25 years old) unless otherwise stated (e.g., lines 200, 284 and 299). Still, how the focus groups are reported in the method and how the quotes are identified are required.

VERSION 1 – AUTHOR RESPONSE

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**Reviewer 2**

**Introduction**

1. The authors may want to consider including more information (a sentence or two) about COVID-19 testing in the introduction to provide additional context to the findings.

Specifically (1) that COVID-19 tests were available to people who had symptom(s) of the Government’s listed symptoms of COVID-19. However, people may have COVID-19 without displaying any symptoms of disease, which is why asymptomatic testing is important to reduce transmission) via a website to the Government.

(2) clarify how people received their test results, such as the results were displayed on the LFT test kit (commonly within 30 minutes of taking an LFT), although people were encouraged to report their test results (positive or negative

Additional information on testing has been included in the introduction (lines 71-73).

Additional information on test results has been included in the introduction (lines 80-82).
### Methodology

2. Could the authors provide more information about the design of the focus groups? It was reported (line 162) that the focus groups were conducted by a UKHSA employee, presuming none of the authors. Can you report who led the focus group discussion and if this is the same person who took the field notes?

| The lead author was a UKHSA employee, who also conducted the focus groups, took the field notes and led on the analysis. This has been clarified (line 170). In addition, a reflexive statement discusses the potential impact of the position of the lead researcher on the data collection and analysis (lines 170-172). |

3. Can the authors expand on what becoming familiarised with the data entails (line 157)? For example, listening to the audio and transcripts of the focus groups, and how often and how many of them. Or had the first author only read four transcripts when the codebook was developed? In addition, once the first author had developed the codebook, did they continue to analyse the rest of the data, or was this someone else? The author contributions report that CR also analysed the data; where does their role fit within the analysis process?

| Additional information about the analysis process has been added to clarify how coding was performed (lines 165-176). |

4. The authors report that an inductive approach was used; can this be expanded? I suspect this may have been related to the study aims and that only data about the barriers and facilitators linked with asymptomatic testing were analysed. However, this is not clear.

| The inductive approach used for the analysis followed Charmaz’s method of qualitative analysis e.g. using open coding to identify codes from the data, rather than using a pre-determined coding framework based on barriers/facilitators identified from other research. All data were coded, not just data related to barriers and facilitators. This has been clarified in the analysis section (lines 165-173). |

5. Were the participants paid, and how long did the focus groups last?

| The focus groups lasted up to one hour and participants were paid for their time. Adult participants were paid with a £25 shopping voucher (in line with UKHSA policy for reimbursing study participants). Children were paid with a £10 shopping voucher. This information has been added to the methods (lines 155-157). |

6. It is reported in the limitations that the parents were a part of the same organisation as the participants in the 12 to 15 year old focus groups. However, were any of the parent participants, parents to or cared for any of the children who took part in the young people’s focus groups?

| There were no parent participants who were parents to or cared for the young people in the study. |
7. The supporting quote starting line 204 appears ill-suited to the theme of the lack of young people's autonomy and more suited to the theme of protecting others. Can the authors use a more appropriate quote to support the theme of the lack of young people's autonomy?

We have now updated this quote to the following, which we feel better represents young people's lack of autonomy (lines 231-232):

“For people our age, we would have to go through our parents. But I know my sister did and she is over 18. So, she just ordered it and it came through the post.”

Discussion

8. Paragraph 347 to 356: would the authors be able to suggest a reason for why parents were less inclined to seek a COVID-19 test when symptoms were not present compared to young people? The article and reference [13] report that participants were concerned about the impact of receiving a positive test result, are these findings connected? Or could the finding relate to differences between how parents and young people perceive and respond to symptoms of illness?

The current study and the study on schools testing [13] are not connected, however we did note some similarities in our findings.

Exploring the different in testing engagement between parents and children was not was of the key objectives of this study, however there are likely to be several reasons why parents might view testing differently. One of the key factors could be the environment within which testing is offered to young people e.g. the school environment, which socially and culturally may be different from the home environment and children may be more inclined to test when they see their peers doing it. Further qualitative research focusing on parents and children e.g. triad interviews/family interviews would be a helpful way to explore the testing dynamic in families in more depth. We have added some additional information to this effect in the discussion (lines 384-388).

9. The authors may consider re-organising Table 2 so that the ‘barriers’ are listed in the same order as the findings. In addition, it seems appropriate that the recommendations reported in Table 2 counter the barriers found in the study. However, Table 2 could be improved by including the facilitators within the recommendations, therefore highlighting the factors that should continue and be encouraged to increase engagement with testing.

We have now reorganised Table 2.

10. The authors may want to state how they use ‘young people’ and to keep the terminology the same throughout the article. Young people is commonly used, although line 357 mentions young people of all ages, which suggests differences between how young people is used

This has been clarified (lines 132-134):

We use the term “young people” throughout to describe the participants age 12-25 years, to
in the article. It could be clearer if the authors used young people (12 to 25 years old) unless otherwise stated (e.g., lines 200, 284 and 299). Still, how the focus groups are reported in the method and how the quotes are identified are required.

take into account these participants include children and young adults.

VERSION 2 – REVIEW

REVIEWER
Gaio, Vânia
Instituto Nacional de Saúde Doutor Ricardo Jorge

REVIEWER
Woodland, Lisa
King's College London

When I originally reviewed this article I was affiliated with King's College London. However, upon completion of my studies I have since started a job at UKHSA from 24.04.23. However, I have not worked with the authors or have had any interaction with them that may influence the review process.

REVIEW RETURNED 09-Jun-2023

REVIEW RETURNED 05-Jun-2023

GENERAL COMMENTS
The authors have provided an improved version of the paper. Therefore, based on these improvements, I recommend that the paper be accepted for publication.

GENERAL COMMENTS
The authors have adequately addressed the comments that were put to them, and I suggest that this article is sufficient for publication and will enhance the current literature. However, more detail could be provided in relation to lines 278-271 that report about a participant who had inaccurately read a LFT test. The authors may want to add that the ‘C’ means control and to indicate that the test is working or add to the introduction for clarity. The article will also need reviewing as I did notice a couple typos: (1) suggest using ‘cases’ in line 84 rather than ‘case;’ (2) suggest using ‘aged’ in line 143 rather than ‘age’ (3) lines 184 and 185 needs revision.

VERSION 2 – AUTHOR RESPONSE

We thank the reviewers for their time in reviewing our manuscript. We have made the suggested changes and submitted a revised copy. To address all the reviewers suggestions, our manuscript is now over the recommended word count.