# PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

## ARTICLE DETAILS

### Title (Provisional)

Healthy Eating and Active Living for Diabetes (HEAL-D) Online: A mixed methods evaluation exploring the feasibility of implementing a virtual culturally tailored diabetes self-management programme for African and Caribbean communities.

### Authors

Low, Joseph T S; Lowry, Sophie; Goff, Louise M; Irwin, Sally; Brady, Oliver; Curran, Natasha; Sevdalis, Nick; Walker, Andrew

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## VERSION 1 - REVIEW

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| **Reviewer** | **1** |
| **Name** | **Lowther-Payne, Hayley** |
| **Affiliation** | **University of Central Lancashire** |
| **Date** | **30-Apr-2024** |
| **COI** | **I have no competing interests to declare.** |

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This is a really interesting manuscript providing detail on a comprehensive mixed methods evaluation of a much needed intervention, particularly in the context of the COVID-19 pandemic. It is well-written, and both clear and concise in it's content. The data collected for the evaluation appears to be both appropriate and useful for assessing the feasibility and acceptability of the programme. The findings are helpful for things to consider going forward to adapt the programme and consider implementing elsewhere.

Introduction (page 5) - The need for culturally tailored programmes for these underserved groups alongside the focus of virtual delivery during COVID-19 could be also be discussed. As part of the research questions, was the feasibility of maintaining the culturally tailored aspect of the programme through virtual delivery considered?

Objectives (page 5) - I am not sure that these are actually objectives, just the factors that are being studied through the evaluation, these could be written more clearly.

Setting (page 6) - Who could refer patients? All types of staff in primary care or just GPs? Questions about experience of being referred/how did they find out about the programme were included in the questionnaire and interview guide, but this wasn't discussed in the

findings? I think this information would add more context to how the programme is accessed.

Procedure (page 6) - It would be helpful to have a brief outline of the HEAL-D Online programme (e.g. underlying key concepts), rather than requiring the reader to go to the protocol paper for this.

Qualitative methods interviews (page 7) - When were the interviews with service users and staff conducted? How long after they had participated in the programme? This would be useful information for the methods section and replicability.

Qualitative methods observations (page 7) - Was consent from service users in those sessions obtained? If so, how was consent obtained, and it would be useful to say so in the methods.

PPI (page 9) - Were those in the reference group also participants? Clarification on this should be added to the PPI section.

Table 1 (page 10) - It says n=4 next to age in the table, what does this mean? That only 4 participants provided their age?

Appendices (29-43) - It's really useful that the survey, interview guide, and checklists have been included in the manuscript.

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| **Reviewer** | **2** |
| **Name** | **Kumar, Alok** |
| **Affiliation** | **Indiab Foundation/MK Diabetes Clinic** |
| **Date** | **19-May-2024** |
| **COI** | **NA** |

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Study titled HEAD-D online by Low et al. is of great importance in current times when digital penetration in healthcare is increasing at an exponential rate. However, I have few suggestions & queries below:

Title: To mention full form of HEAL-D in the title for clarity.

Methods: Describe details about the ethical clearance for the study.

Strengths & Limitation: It would be appropriate to mention strengths & limitation separately.

Results: It is suggested to elaborate the results under different headings instead of a question format, for e.g on page 15 point 3 instead of writing Is HEAL-D Online feasible for service delivery staff to deliver?, authors can simply mention Online feasibility for easy understanding. Please avoid individual's statement under different sub headings on page 12-16. Results should be described concisely and clearly.

Was the questionnaire used a validated one? If yes, please provide appropriate reference.

In table 2 on page 11, was there any specific reason to assess cultural heritage of service delivery staff? If so, please describe in the text.

Further, authors are suggested to add few recent references in the manuscript, if possible

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| **Reviewer** | **3** |
| **Name** | **Brown , Sarah** |
| **Affiliation** | **University of Oxford, Nuffield Department of Primary Care Health Sciences** |
| **Date** | **18-Jun-2024** |
| **COI** | **None** |

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This manuscript covered a number of currently topical areas in relation to service transformation involving novel evidence based approaches to delivering care (on-line for this programme) and the challenges/ opportunities in relation to implementation for a specific community group.

The abstract provides a good summary of the project, with the conclusion reflecting the objective. The methods are overall clear and I have included some specific points of note in the attached document. The results section was well structured and use of relevant quotes from the interviews supported the findings. The key learnings where improvements need to be considered before any future spread and scale of HEAL-D are inciteful, and could also be transferable to other similar online programmes, particularly around the safety for exercise group and ongoing support for patients once initial programme has completed. This may be where VCSE's have a role.

Some points for consideration:

You make brief reference to a strength being the project was joint between the ARC & HIN (was AHSN). This is no further explanation within the manuscript to expand on this statement. To be useful for a broader audience more detail would be helpful or perhaps consider removing. This also applies to where reference is made to the NIPP, including the overall NIPP website as a reference would be helpful to give the reader more context.

Whilst recognising this was a service evaluation, more information could be included around how you still followed an ethical approach when undertaking the interviews etc.

Finally, there is insufficient detail to support the statements around the online version achieving similar goals to the face to face version of HEALD. A reference is included but a busy clinician/ service manager may not have time to read both papers.

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| Line 34/ 104 | Is it important to include the specific name of the trust? Maybe just geographical area as per line 96/97 and relevant demographic information. What is the contextual importance of naming the trust? |
| Line 66 | Do HIN and NIHR ARC need to be in full? Others less familiar may not be aware what these organisations are. |
| Line 91-94 | This can read as a negative around being part of the NIPP and programme wasn't designed to consider digital exclusion. Health inequalities and wider social determinants of health were an important part of the application process and purpose of the programme. |
| Line 129 | Line 36 & 37 advise 53 completed questionnaire and 14 interviewed. Line 129 = 15 service users consent to be approached for interview and 55 complete questionnaire.<br>This is slightly confusing for the reader. |
| Overall comment on Qualitative methods section | Whilst following guidance on the suggested content for this section, words are taken up explaining the skills of the team and who did which aspects, but it's not clear of the influence of this on the research. Is it possible to balance this more with explaining how the interviews were still conducted ethically, although ethics wasn't needed as this was a service evaluation. What information was provided to participants around how their data would be used and stored. |
| Line 133 | States 14 service users- see above comment re number of participants. Might be helpful to state 14 out of the 15 who provided consent to be approached for interview, agreed to participate in the interviews, for clarity. |
| Line 135 | Why did the service lead identify staff for interview? Was this because it wasn't possible to advise staff of the evaluation and opportunity for interview using other methods e.g. email/ poster etc |
| Line 145 | Did SL/ JL listen to any of each other's interviews to check for accuracy of content on the transcripts? |
| Line 161-163 | These sentences are not easy to read. It's not immediately obvious how some of the metrics can be measured using frequencies and percentages |
| Line 170 | A framework method or The Framework Method? Did you both independently code the first few transcripts to compare? Was NVivo (or another product) to help with thematic analysis? |
| Line 184 | Did the reference group only include people of African and Caribbean heritage who had completed the course or was it open to others from within these groups who could bring relevant cultural experiences/ had diabetes but not yet completed the programme. Were any VCSE's included within the reference group to help with wider engagement and knowledge mobilisation/ bring broader perspective, in addition to those with lived experience? |
| Line 249 | Might be helpful to clarify why 32/53 were asked whether HEAL-D met their expectations. If this is included somewhere not obvious to reader. |
| Line 457 | A comparison with the in person version of the programme would be helpful. |
| Line 463 | Digital access of capability issues is unusual wording- suggest rephrase- maybe digital poverty and digital literacy<br>There could be many barriers to access, e.g. due to lack of access to Wifi, financial situation not just capability |
| Line 585 | NHS Accelerated Access Collaborative rather than just Accelerated Access Collaborative |

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| | NIPP = NHS Insights Prioritisation Programme (not Priorities) |
| Line 591 | What process did you follow to confirm it was service evaluation e.g. 'This project is classified as service evaluation, using the definitions provided by ……..(specify committee) and as such did not require ethics review approval'.<br>Might be helpful to add how you followed ethical principles throughout the evaluation even though you didn't need ethics. e.g. how was consent obtained to take part in the interviews. Did any participants need interpreter to support. How were participants advised how their data would be managed and stored. |

## VERSION 1 - AUTHOR RESPONSE

Dear Dr Reeves

Thank you for the detailed and useful comments that all three reviewers have provided.

On behalf of all the authors, I have pleasure in submitting the following documents for your attention:

1) Revised manuscript (clean version)

2) Revised manuscript (with tracked changes)

3) Response to reviewers.

We have rewritten sections of the manuscript to address these comments and a separate documents in which we have detailed how we have addressed each of the reviewers' comments.

We believe that the revised manuscript is both clearer and more robust following the reviewers' comments. However, in order to address the reviewers' valuable but numerous comments, we have had exceeded the word count by 358 words (5358 words). We hope that this acceptable to you.

We look forward to hearing the reviewers' response to our revised manuscript

Kind regards

Joe Low

| Reviewers Comments | Responses to reviewers' comments |
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| **Reviewer #1** | |
| This is a really interesting manuscript providing detail on a comprehensive mixed methods evaluation of a much-needed intervention, particularly in the context of the COVID-19 pandemic. It is well-written, and both clear and concise in it's content. The data collected for the evaluation appears to be both appropriate and useful for assessing the feasibility and acceptability of the programme. The findings are helpful for things to consider going forward to adapt the programme and consider implementing elsewhere. | Thank you for this positive comment. |
| Introduction (page 5) - The need for culturally tailored programmes for these underserved groups alongside the focus of virtual delivery during COVID-19 could also be discussed.<br><br>As part of the research questions, was the feasibility of maintaining the culturally tailored aspect of the programme through virtual delivery considered? | Thank you for this comment. We have added the following sentence at the beginning "The COVID-19 lockdown has disproportionately affected minoritised groups (Kings Funds – The health of people from ethnic minority groups in England 2023), so it was important to maintain services which addressed health inequalities in this group."<br><br>Thank you for this comment. In short, we did not specifically consider if the virtual delivery of HEAL-D Online was maintained – this was outside the scope and funding of the project. What our data does suggest if that all participants interviewed were happy with the contents and that many commented on its appropriateness for the African and Caribbean community. We mention this as a limitation in the Discussion and an area of subsequent investigation. |
| Objectives (page 5) - I am not sure that these are actually objectives, just the factors that are being studied through the evaluation, these could be written more clearly. | Thank you for this comment. We have reworded this sentence to "The evaluation aims to examine the following factors: ..." |
| Setting (page 6) - Who could refer patients? All types of staff in primary care or just GPs? | Thank you for this comment. Referrals can be made from any primary care professional responsible for patient diabetes care, who could access "Diabetes Book and Learn". (central booking system for Diabetes structured education in south London). We have rewritten this sentence as follows: "Patients could be referred by any healthcare professionals from primary care via a central booking system" |

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| Questions about experience of being referred/how did they find out about the programme were included in the questionnaire and interview guide, but this wasn't discussed in the findings? I think this information would add more context to how the programme is accessed. | We agree with this comment and did have this information included in earlier drafts. However, due to the word limit restrictions, we focused the findings more specifically at how HEAL-D online was delivered and users' perception of the service. We are conscious that the additions requested will push us nearer the word limit. Our reasons for not including it in our final version is that we needed to prioritise the issues that were important in answering the questions about the feasibility of delivering the HEAL-D Online intervention and discussing the referral process did not answer the evaluation objectives proposed. |
| Procedure (page 6) - It would be helpful to have a brief outline of the HEAL-D Online programme (e.g. underlying key concepts), rather than requiring the reader to go to the protocol paper for this. | Thank you for this comment. We have added a brief description of HEAL-D Online in the introduction (p5) ". This consists of seven 2-hour sessions of culturally tailored education, behaviour change support and participatory physical activity, delivered by a lay educator of black-British ethnicity and a diabetes specialist registered dietitian (no specific ethnicity). Physical activity classes, delivered by exercise instructors trained in rehabilitation exercise, were included in five sessions. " |
| Qualitative methods interviews (page 7) - When were the interviews with service users and staff conducted? How long after they had participated in the programme? This would be useful information for the methods section and replicability. | Thank you for this comment. We have added this detail to the manuscript - "All interviews with service users were conducted between 1-3 months after they had completed the HEAL-D Online course. All interviews with service delivery staff were conducted while they were still delivering the HEAL-D Online course." |
| Qualitative methods observations (page 7) - Was consent from service users in those sessions obtained? If so, how was consent obtained, and it would be useful to say so in the methods. | Thank you for this comment. We have added the following detail to clarify this: "Service users were informed about the purpose of the observation and permission was gained from the service users before SL and JL were allowed to observe their sessions." |
| PPI (page 9) - Were those in the reference group also participants? Clarification on this should be added to the PPI section. | Thank you for this comment and apologies for the confusion.<br><br>We have added further clarification to the composition of the reference group:<br>"with the recruitment of a group of people of African and Caribbean heritage who had been involved either in the original co-design |

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| | research or had completed the online course to form a reference group." |
| Table 1 (page 10) - It says n=4 next to age in the table, what does this mean? That only 4 participants provided their age? | Thank you for this comment. We have added the following detail to a footnote in Table 1. "only available for n=4 participants." |
| Appendices (29-43) - It's really useful that the survey, interview guide, and checklists have been included in the manuscript. | Thank you for this acknowledgement. We have aimed to be transparent in how we have collected the data and hope it will be of benefit to colleagues planning to undertake similar evaluations. |
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| **Reviewer #2** | |
| Study titled HEAD-D online by Low et al. is of great importance in current times when digital penetration in healthcare is increasing at an exponential rate. | Thank you for this acknowledgement. |
| Title: To mention full form of HEAL-D in the title for clarity. | Thank you for this comment. We have now written this in full form - Healthy Eating and Active Living for Diabetes |
| Methods: Describe details about the ethical clearance for the study. | Thank you for this comment, which is a comment also raised by Reviewer 3.<br><br>We used the UK Health Research Authority guidance and Decision Tool [https://www.hra-decisiontools.org.uk/research/] which identified that this was a service evaluation and did not require ethics approval. We also sought approval from the Trust's Information Governance approval process.<br><br>In the Ethics section, we have written the following:<br>"This was a service evaluation, which does not require ethics approval in the UK. The UK Health Research Authority guidance and Decision Tool were used to identify the project as a service evaluation. To ensure that the evaluation was conducted ethically, the same recruitment procedures used for ethically approved research were used in recruited participants. Information Governance approval was obtained from Guy's and St Thomas' NHS Foundation Trust. All data were processed and stored in according with UK data protection legislation and information governance rules." |

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| Strengths & Limitation: It would be appropriate to mention strengths & limitation separately. | Thank you for this comment. This section is formatted in line with the journal's requirements. |
| Results: It is suggested to elaborate the results under different headings instead of a question format, for e.g on page 15 point 3 instead of writing Is HEAL-D Online feasible for service delivery staff to deliver?, authors can simply mention Online feasibility for easy understanding.<br><br>Please avoid individual's statement under different sub-headings on page 12-16. Results should be described concisely and clearly. | Thank you for your comments on the methodology.<br><br>In response to your comments concerning the headings, we have rewritten these so that they are not in a question format.<br><br>In response to your second point re: individual statement", these are quotes from participants used in supporting the themes. These are key evidence used to support and substantiate the theme identified, a standard technique used in qualitative research. Equivalence to the test statistic in quantitative research. |
| Was the questionnaire used a validated one? If yes, please provide appropriate reference. | Thank you for this comment.<br>The questionnaire contained both a validated measure (PAID-5 used to assess diabetes related distress which we have referenced) and a non-validated questions to assess the acceptability of HEAL-D Online. We have rewritten this section to reflect these comments. |
| In table 2 on page 11, was there any specific reason to assess cultural heritage of service delivery staff? If so, please describe in the text. | Thank you for this comment.<br><br>Data on culture heritage of staff has been provided for completeness, because there is some evidence in the literature about the benefits of having staff delivery care who share the same culture heritage of the users of health services (e.g. Jetty, A., Jabbarpour, Y., Pollack, J. et al. Patient-Physician Racial Concordance Associated with Improved Healthcare Use and Lower Healthcare Expenditures in Minority Populations. J. Racial and Ethnic Health Disparities 9, 68–81 (2022). https://doi.org/10.1007/s40615-020-00930-4.)<br><br>We have added the following sentence to the result section:<br>"Data on culture heritage has been provided for completeness, as the literature notes there are potential benefits to service users when delivery staff sharing the same cultural heritage." |

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| Further, authors are suggested to add few recent references in the manuscript, if possible | Thank you for this comment.<br>We have added two additional references in addressing all the reviewers' comments. |
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| **Reviewer #3** | |
| This manuscript covered a number of currently topical areas in relation to service transformation involving novel evidence based approaches to delivering care (on-line for this programme) and the challenges/ opportunities in relation to implementation for a specific community group.<br>The abstract provides a good summary of the project, with the conclusion reflecting the objective. The methods are overall clear and I have included some specific points of note in the attached document. The results section was well structured and use of relevant quotes from the interviews supported the findings. The key learnings where improvements need to be considered before any future spread and scale of HEAL-D are inciteful, and could also be transferable to other similar online programmes, particularly around the safety for exercise group and ongoing support for patients once initial programme has completed. This may be where VCSE's have a role. | Thank for your positive comments about the different aspects of this manuscript, including the novelty value of this evaluation.<br><br>Thank you. We have addressed this in the appropriate section of the methods. |
| You make brief reference to a strength being the project was joint between the ARC & HIN (was AHSN). This is no further explanation within the manuscript to expand on this statement. To be useful for a broader audience more detail would be helpful or perhaps consider removing. This also applies to where reference is made to the NIPP, including the overall NIPP website as a reference would be helpful to give the reader more context. | Thank you for this suggestion. We agree with the reviewer's second suggestion and removing the reference to the ARC, NIPP and HIN. On reflection, we agree that including the reference to the ARC, NIPP and HIN does not contribute to answering the aims of the evaluation and not necessarily relevant to a broader audience. Therefore, we have removed l.97-102. |
| Whilst recognising this was a service evaluation, more information could be included around how you still followed an ethical approach when undertaking the interviews etc | Thank you for your comment.<br><br>In the methodology section, we have added the following sentence to highlight that we followed strict ethical procedure in ensuring that participants were recruited:<br>"To ensure ethical procedures were followed in recruiting participants for the qualitative interviews, these service users were first contacted via an introductory email by the evaluation team (JL, SL, LB, ZZ - all with |

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| | postgraduate qualification and at least 5 years mixed methods experience in health services research/evaluation, including qualitative data collection methods). The email had an information sheet explaining the purpose of the evaluation, reason for being invited to interview, and how their personal data would be used and stored. All participants were given at least 72 hours before being contacted by telephone. The evaluation team checked whether people understood the contents of the information sheet and were given opportunities to ask questions. They were informed that they could withdraw from the evaluation at any time without any impact on them. Fourteen of the 15 service users agreed to participate and provided verbally recorded informed consent." |
| Finally, there is insufficient detail to support the statements around the online version achieving similar goals to the face to face version of HEALD. A reference is included but a busy clinician/ service manager may not have time to read both papers. | Thank you for this observation. We have decided to delete this reference as it is not relevant to this point. The purpose of the original feasibility HEAL-D was to assess the feasibility of recruiting for a future RCT and assessing acceptance of HEAL-D to both patient participants and those delivering the service. |
| **Specific comments from Reviewer # 3** | |
| l.34/104: Is it important to include the specific name of the trust? Maybe just geographical area as per line 96/97 and relevant demographic information. What is the contextual importance of naming the trust? | Thank you for this comment.<br><br>We have renamed the Trust by its geographical location "London." |
| l.66: Do HIN and NIHR ARC need to be in full? Others less familiar may not be aware what these organisations are. | Thank you for this comment. On reflection, we have removed the reference to both the HIN and the NIHR ARC which will not have meaning to an international audience and changed the emphasis to highlight the strength of the evaluation was the collaboration between researchers, health care professionals and people from African and Caribbean communities with a lived experience of diabetes. |
| L 91-94: This can read as a negative around being part of the NIPP and programme wasn't designed to consider digital exclusion. Health inequalities and wider social determinants of health were an important part of the | Thank you for this clarification.<br><br>In line with comments from other reviewers about the relevance of the NIPP funding |

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| application process and purpose of the programme. | programme to the aims of the study and a broader audience, we have removed specific reference to the NIPP programme. |
| l.129: Line 36 & 37 advise 53 completed questionnaire and 14 interviewed.<br>Line 129 = 15 service users consent to be approached for interview<br>and 55 complete questionnaire.<br>This is slightly confusing for the reader. | Thank you for pointing this out and apologies for the confusion.<br><br>We have rechecked the figures for the quantitative data (n=53) and the qualitative interviews (n=14). We have rewritten this in the appropriate sections to be clear that 15 participants agreed to be approached for interview, but only 14 gave consent to be interviewed. |
| Overall comment on Qualitative methods section: Whilst following guidance on the suggested content for this section, words are taken up explaining the skills of the team and who did which aspects, but it's not clear of the influence of this on the<br>research. Is it possible to balance this more with explaining how the interviews were still conducted ethically, although ethics wasn't needed as this was a service evaluation.<br>What information was provided to participants around how their data would be used and stored. | Thank for your comments.<br><br>To address this concern, we have added the following sentence outlining how we collected the data ethically.<br><br>"To ensure ethical procedures were followed in recruiting participants for the qualitative interviews, these service users were first contacted via an introductory email by the evaluation team (JL, SL, LB, ZZ - all with postgraduate qualification and at least 5 years mixed methods experience in health services research/evaluation, including qualitative data collection methods). The email had an information sheet explaining the purpose of the evaluation, reason for being invited to interview, and how their personal data would be used and stored. All participants were given at least 72 hours before being contacted by telephone. The evaluation team checked whether people understood the contents of the information sheet and were given opportunities to ask questions. They were informed that they could withdraw from the evaluation at any time without any impact on them. Fourteen of the 15 service users agreed to participate and provided verbally recorded informed consent." |
| l.133: States 14 service users- see above comment re number of participants. Might be helpful to state 14 out of the 15 who provided consent to be approached for interview, agreed to participate in the<br>interviews, for clarity. | Thank you for this suggestion.<br><br>We have rechecked the figures for the quantitative data (n=53) and the qualitative interviews (n=14). We have rewritten this in the appropriate sections to be clear that 15 |

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| | participants agreed to be approached for interview, but only 14 gave consent to be interviewed. |
| l.135: Why did the service lead identify staff for interview? Was this because it wasn't possible to advise staff of the evaluation and opportunity for interview using other methods e.g. email/ poster etc | Thank you for this question. The 12 staff identified by the service lead were all the staff who were extensively involved in the delivery of HEAL-D (e.g. the main physios / dieticians / community facilitators)<br><br>We have rewritten as follows: 'The service lead identified the 12 staff members who were actively involved in the ongoing delivery of HEAL-D, all were invited to interview by SL or JL and seven agreed to participate in the interviews'. |
| l.145: Did SL/ JL listen to any of each other's interviews to check for accuracy of content on the transcripts? | Thank you for this comment. JL and SL each checked 2 of their respective interviews for accuracy. In addition, JL checked the accuracy of LB's two interviews. We have added the following "To ensure that the interviewers were accurately transcribed, JL and SL checked two of each other's interviews for accuracy. In addition, JL checked the accuracy of two interviews conducted by LB." |
| l. 161-163: These sentences are not easy to read. It's not immediately obvious how some of the metrics can be measured using frequencies and percentages. | Thank you for this comment. We have rewritten this sentence as follows: "Frequencies and percentages were used to describe the level of service users' engagement, their satisfaction with the delivery of HEAL-D Online and any self-reported health benefits gained from participating in HEAL-D Online." |
| l.170: A framework method or The Framework Method?<br><br>Did you both independently code the first few transcripts to compare?<br><br>Was NVivo (or another product) to help with thematic analysis? | Thank you for this comment.<br>We have capitalised 'The Framework Method."<br><br>We did perform an independent analysis of the analysis and have written the following: "To check on the accuracy of the analysis, JL and SL both independently coded two of their respective interviews."<br><br>In this evaluation, we did not use NVIVO, but used an Excel spreadsheet to organise the data and identify themes. We have added the |

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| | following: “Excel was used to organise the data” |
| l.184: Did the reference group only include people of African and Caribbean heritage who had completed the course or was it open to others from within these groups who could bring relevant cultural experiences/had diabetes but not yet completed the programme. Were any VCSE’s included within the reference group to help with wider engagement and knowledge mobilisation/ bring broader perspective, in addition to those with lived experience? | Thank you for this comment.<br>Please see our response to the related point by Reviewer 1:<br><br>We have rewritten this section to say:<br><br>“with the recruitment of a group of people of African and Caribbean heritage who had been in different stages of the development of HEAL-D to form a reference group”<br><br>There are 2 references to the two developmental studies. |
| L.249: Might be helpful to clarify why 32/53 were asked whether HEAL-D met their expectations. If this is included somewhere not obvious to reader. | Thank you for highlighting this. In short, this was an additional question added to the post-course questionnaire after 21 participants had already responded. This was added following recommendations from the HEAL-D Reference group.<br><br>We have now added this to the quantitative methods section to make it transparent why and why the question was added. |
| l.457: A comparison with the in person version of the programme would be helpful. | Thank you for this comment.<br><br>Unfortunately, the original in-person HEAL-D delivery was conducted as part of a feasibility RCT, which was testing the acceptability of HEAL-D versus usual care. Therefore, it is not possible to make a direct comparison.<br><br>However, a multi-site RCT is currently underway, which is comparing the clinical and cost effectiveness of HEAL-D Online, HEAL-D in-person and usual care (https://heal-d.org/research/clinical-and-cost-effective-trial/). |
| l.463: Digital access of capability issues is unusual wording- suggest rephrase- maybe digital poverty and digital literacy. There could be many barriers to access, e.g. due to lack of access to Wifi, financial situation not just capability | Thank you for this suggestion. We have rephrased using your suggestion. |
| l.585: NHS Accelerated Access Collaborative rather than just Accelerated<br>Access Collaborative | Thank you for the correction. We have amended accordingly. |

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| NIPP = NHS Insights Prioritisation Programme (not Priorities) | |
| l.591: What process did you follow to confirm it was service evaluation e.g.<br>'This project is classified as service evaluation, using the definitions provided by ……..(specify committee) and as such did not require ethics review approval'.<br><br>Might be helpful to add how you followed ethical principles throughout the evaluation even though you didn't need ethics. e.g. how was consent obtained to take part in the interviews. | Thank you for this question.<br><br>We used the UK Health Research Authority guidance and Decision Tool [https://www.hra-decisiontools.org.uk/research/] which identified that this was a service evaluation and did not required ethics approval.<br><br>In the Ethics section, we have written the following:<br>"This was a service evaluation, which does not require ethics approval in the UK. The UK Health Research Authority guidance and Decision Tool were used to identify the project as a service evaluation. To ensure that the evaluation was conducted ethically, the same recruitment procedures used for ethically approved research were used in recruited participants. Information Governance approval was obtained from Guy's and St Thomas' NHS Foundation Trust. All data were processed and stored in according with UK data protection legislation and information governance rules. "<br><br>We have added a sentence to outline the ethical principle that we followed in recruiting and interviewing participants. We have described this in response to an earlier comment.<br><br>"To ensure ethical procedures were followed in recruiting participants for the qualitative interviews, these service users were first contacted via an introductory email by the evaluation team (JL, SL, LB, ZZ - all with postgraduate qualification and at least 5 years mixed methods experience in health services research/evaluation, including qualitative data collection methods). The email had an information sheet explaining the purpose of the evaluation, reason for being invited to interview, and how their personal data would be used and stored. All participants were given at least 72 hours before being contacted by telephone. The evaluation team checked whether people understood the contents of the information |

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| | sheet and were given opportunities to ask questions. They were informed that they could withdraw from the evaluation at any time without any impact on them. Fourteen of the 15 service users agreed to participate and provided verbally recorded informed consent." |
| Did any participants need interpreter to support? | No interpreter was required as all participants had proficient English language skills. |
| How were participants advised how their data would be managed and stored? | We have added information to the methods section to explain that participants were told in the information sheet about how their personal data would be processed and stored. |

## VERSION 2 - REVIEW

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| **Reviewer** | **1** |
| **Name** | **Lowther-Payne, Hayley** |
| **Affiliation** | **University of Central Lancashire** |
| **Date** | **03-Sep-2024** |
| **COI** | **I have no competing interests to declare.** |

As per my last review, I think that this is a really interesting manuscript providing detail on a comprehensive mixed methods evaluation of a much-need intervention, particularly in the context of the COVID-19 pandemic and health inequalities. It continues to be well-written and both clear and concise in it's content. I believe that the authors have adequately addressed both mine and the other reviewers' comments in order to improve the manuscript and it's content. I think it will be a useful addition to the wider literature not only for diabetes management but how virtual care delivery works for different population groups.

| | |
|---|---|
| **Reviewer** | **2** |
| **Name** | **Kumar, Alok** |
| **Affiliation** | **Indiab Foundation/MK Diabetes Clinic** |
| **Date** | **19-Aug-2024** |

**COI** **None**

No specific comments

## VERSION 2 - AUTHOR RESPONSE

| Reviewers Comments | Responses to reviewers' comments |
|---|---|
| **Reviewer #1** | |
| As per my last review, I think that this is a really interesting manuscript providing detail on a comprehensive mixed methods evaluation of a much-need intervention, particularly in the context of the COVID-19 pandemic and health inequalities. It continues to be well-written and both clear and concise in it's content. I believe that the authors have adequately addressed both mine and the other reviewers' comments in order to improve the manuscript and it's content. I think it will be a useful addition to the wider literature not only for diabetes management but how virtual care delivery works for different population groups. | Thank you for this positive comment. We are pleased that we have successfully addressed all 3 reviewers' comments. |
| | |
| **Reviewer #2** | |
| No specific comments | We are pleased to hear we have addressed all of Reviewer 2's comments. |
| | |