PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	A scoping review of remote rehabilitation (telerehabilitation) services to support people with vision impairment.
AUTHORS	Jones, Lee; Lee, Matthew; Castle, Claire L.; Heinze, Nikki; Gomes, Renata S.M.

VERSION 1 – REVIEW

REVIEWER	Lorenzini, Marie-Celine Universite de Montreal, School of Optometry
REVIEW RETURNED	07-Feb-2022

GENERAL COMMENTS	- The abstract is not complete, please report the results of your research on grey literature. - The results of each study, as well as the synthesis of the findings are not adequately reported. For all outcomes, a presentation for each study of a summary statistics and an effect estimate and its precision is required when available. - Please insert into the existing table (i.e., Data extraction table), or create a new one, the scores associated with quality appraisal and indicate the corresponding risk of bias for each study (i.e., high, moderate, low). Please create a new table where the 11 mentioned organizations of your grey literature are identified and provide a description of telerehabilitation service provided, when this information is available. General comments This review focuses on the nature of telerehabilitation services available to individuals with vision impairment and reports the benefits in terms of health-related outcomes, well-being and cost-effectiveness. Although the question is relevant as the vision rehabilitation continues to advance and capitalize on how optimize intervention, the structure of the project departs in several ways from the best practices for a sy[1]stematic review, which is a well-established domain of study. In particular: - Several important items of the PRISMA checklist are not validated, in particular regarding the methodology and the results (e.g., specifications for each outcome of the effect measures used in the synthesis, presentation of the results of all sensitivity analyses…) - The results of each study, as well as the synthesis of the findings are not adequately reported. For all outcomes, a presentation for each study of a summary statistics and an effect estimate and its precision is required when available. - Context of qualitative data synthesis review: I wonder if there are sufficient complementary contextual factors to integrate the qualitative and quantitative

	data. Importantly, specific guidelines are relevant to the type of qualitative data synthesis undertaken and help with specifying key information for extraction and improve the methodology. For example, the template for intervention descriptilist (Hoffmann et al 2011) and the iCAT_SR tool (Lewin et al 2017) should have been implemented. - Although a quality appraisal was conducted using a method that allows for the evaluation of both qualitative and quantitative studies, I question the ability to meet the objectives of the study, particularly regarding the evidence for the effectiveness of telerehabilitation. Thus, I would consider this study more as a scoping review, drawing a picture of the literature that currently exists on the nature and benefits of telerehabilitation in the context of vision impairment. **ABSTRACT** - Line 24, p3: The term “effectiveness” may be not appropriate in this context. I would reformulate by « summarise available evidence in terms of health-related outcomes, well-being and cost-effectiveness ». - Line 29, p.3: I would use the more global term “benefits” instead of “effectiveness”, as you refer to a wide range of judgement criteria (i.e., functional, quality-of-life, satisfaction…). - Line 35, p3: “Measures of benefits included […] cost-effectiveness” - Line 41: Please report the results of your research on grey literature. - Line 43: Please specify the nature of the telerehabilitation services available (e.g., synchronous or not...) Strengths and limitations of this study -Line 54: The grey literature has not been sufficiently described to make this statement. Please summarize the findings about the nature of the interventions and their potential impact. **Introduction** - Line 90, p6: I would prioritise the term "e-learning" for the field of education. E-learning is a broad concept that involves the provision of educational programmes through electronic systems (Clark 2011). Clark RC, Mayer RE. E-learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning. 3rd Edition. San Francisco: John Wiley & Sons, 2011. - Lines 103-104, p6: Please provide some references to support this statement. - Line 106,p6: Please indicate “previous systematic review”. - Lines 108-111, p6: What area are you referring to? Objectives - Line 116, p6: Please explain what the nature of the intervention refers to? - Line 118, p6: Considering that you can't systematically provide evidence, given the nature of the selected studies and the methodology used, I would change to the term “insight” instead.

METHODS

General comment:
Specific guidelines are relevant to the type of synthesis undertaken and help with specifying key information for extraction. For example, the template for intervention description and replication TIDieR check-list (Hoffmann et al 2011) and the iCAT-SR tool (Lewin et al 2017). Please refer to the section “Qualitative evidence” of the Cochrane Handbook for Systematic Reviews of Interventions, 2019 to reinforce the methodology.

- Please indicate that you conduct a topic-based research and that you did not apply study filters. Yet study filters may facilitate efficient retrieval by study types (e.g., qualitative, quantitative, mixed methods). A robust strategy of research is needed because qualitative studies may not be adequately indexed. A CLUSTER method has been developed to help identification of qualitative sudies.
- Lines 125-127, p7: You refer to the PRISMA-P (2015) protocol but you implemented the PRISMA (2009), instead. Yet the PRISMA-P (2015) is more comprehensive and the current main standard for systematic literature review methodology as it takes into account criteria commonly established by the Cochrane, Prospero and PRISMA groups.
- Line 127, p7: Please add « without date restrictions ».
- Line 137, p7: Did you search the following trial registries for ongoing and completed trials?
Word Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP) (www.who.int/ictrp/en) and ClinicalTrials.gov, US National Institutes of Health (NIH). If this is not the case you would need to update your research or point it out as a limitation of the study.
-Line 162, p8: Could you please indicate whether the two authors independently assessed for quality the studies or not?

RESULTS

General comments:
- For all outcomes, you need to present for each study a summary statistics and an effect estimate and its precision. Please provide this information when available.
- Please add a reference to each study and any scales or standardized tools reported in the manuscript.

- Line 192, p9: Please insert into the existing table, or create a new one, the scores associated with quality appraisal and indicate the corresponding risk of bias for each study (i.e., high, moderate, low). Please report a synthesis of these risks of bias in the results section.
- Line 197, p9: Do you think this proportion as having no influence on the original objectives of this review, or not as potential sources of bias to your findings? I would remove this statement and move this to the limitation section.
- Line 201-204: Please include references associated with the reported studies.
- Line 3, p10: Patient satisfaction and recommendations: I would remove the term “recommendations” as this aspect is not completely addressed.

	- Lines 5 and 7: Please include references associated with the reported studies. - Line 25: Please include a reference associated with The Durham Reading and Exploration Training (DREX). -Line 33, p10: Please indicate whether this is a synchronous or non-synchronous telerehabilitation intervention. - Lines 37-39, p10: Any statistic parameters should be reported to support the reported findings. - Line 54, p10: I would add the terms « attractive/stimulating to avoid disengagement » - Line 42, p11: « randomised feasibility study » - Line 42, p11: Please make this rectification « a head-mounted display and a tele-health platform to deliver synchronous » - Lines 46-47, p11: The intervention reported did not focus on the technical but on functional aspects. Please correct this point. - Line 54, p11: “randomly allocated” - Line 37, p12: The name of this section “Vision training” is not clear and does not seem to reflect its content. It would need to be renamed or merged with other sections. What criteria do you use to talk about vision optimization (reading speed, functional scale score, quality of life or satisfaction score...)? For example, Lorenzini & Wittich have also studied the impact of training on functional vision and thus could as well be reported in this section. - Line 55-56, p12: Please indicate whether this is a synchronous or non-synchronous telerehabilitation intervention. - Line 5, p13: Please provide the measurements and associated statistical parameters to support the reported findings. - Lines 7-10 p13: I would remove this sentence unless you associate it to the context of telerehabilitation. - Line 30, p13: Please provide the measurements and associated statistical parameters to support the reported findings. - Lines 31-33: I would remove this sentence because it does not provide any new insight with regard to the previously reported results. - Line 40, p13: Please add references associated with the four studies mentioned. - Line 43, p13: As previously mentioned, I would replace the term “effectiveness” by “benefits”, as you refer to a wide range of judgement criteria (i.e., functional, quality of life, satisfaction...). - Line 45, p13: Please add references associated with the four studies mentioned. - Lines 57-58: The Veterans Affairs Low Vision Visual Functioning Questionnaire (VA LV VFQ-48) is a scale that measures functional vision status. I would move these results to the "functional vision and visual function outcomes" section that would replace the existing "Vision training" section. Please associate a reference associated with this scale. - Lines 12-18, p14: Please move this section because it refers to the evaluation of functional vision. - Line 21, p14: Like the Veterans Affairs Low Vision Visual Functioning Questionnaire (VA LV VFQ-48), the National Eye Institute Visual Function Questionnaire (NEI-VFQ-25) is also a scale that measures functional vision status. I would move these results to the " visual function and functional vision outcomes" section which would replace the existing "Vision training" section. Please associate a reference associated with this scale. - Lines 24 and 30, p14: Please provide the measurements and associated statistical parameters to support the reported findings.

	- Line 35, p14: You need to include a reference associated with the Cawthorne-Cooksey exercises. - Line 44, p14: Please indicate whether this is a synchronous or non-synchronous telerehabilitation intervention. - Lines 46 and 49,p14: Please provide the measurements and associated statistical parameters to support the reported findings. - Line 53, p14: Please be consistent when reporting your reference (location) and check the journal's guidelines. -Lines 7-8, p15: The total number of calls made, number of calls met with a response, and length of calls refer to functional measurements and are not quality-of-life related outcomes. You should consider a new section to report outcomes related to functional vision. - Line 20, p16: Please add a reference associated with the reported study. - Line 25, p16: Please indicate whether members of the rehabilitation team are researchers or clinicians. - Line 25, p16: “therapeutic education”. - Line 38, p16: The statement is not clear. Are you referring to the study you are reporting? Do you mean that the outcome is not measurable? Cost-effectiveness - Please confirm that the following study does not meet your eligibility criteria: hrig C. Rural healthcare pilot clinic: Low vision clinical video telehealth. J Optometric Ed 2014;40:14–16 PubMed . - Line 18, p16 “Grey literature”: Additional descriptions are needed for this section. Please indicate the nature of the telerehabilitation intervention. Please add a table where the 11 organizations are identified and provide a description of telerehabilitation service when available. - Lines 36 and 42: A more detailed description of the experimental methods and telerehabilitation framework provided is needed. - Line 47, p16: “Trend in publishing”: You should update your research by searching trial registries, to ensure that you have not omitted potential ongoing and completed trials. - Line 49, p16: Please specify on which parameter you rely for this statement. - Line 60, p16: In the discussion section, please add a comparison of these results with impairments other than vision (i.e., motor, cognitive…). **DISCUSSION** - Lines 11-12, p17: In the results section, please clearly distinguish synchronous and asynchronous approaches for each study. Do you consider any other criteria to describe the nature of the interventions (e.g., technology used, professionals involved, single session or repeated sessions…). If so, please clearly indicate this information. - Lines 14 and 30, p17: Please add references associated with the reported studies. Lines 44-45, p17: What effects are you referring to? Important differences exist among measures of functional vision, visual function, and overall quality of life-related outcomes. - Line 54, p17: You indicate that studies in this review described

	intensive programmes of telerehabilitation, please specify which ones? - Line 47, p18 and Line 3, p19: As previously mentioned, I would replace the term “effectiveness” by “benefits”, as you refer to a wide range of judgement criteria (i.e., functional, quality of life, satisfaction...). - Line 17, p19: You state that acceptability is a “multifaceted concept », please indicate the other aspect(s) of acceptability and that may represent areas to address in future research - Line 22, p19: Please indicate how many studies referred to a theoretical framework and identify which ones. If no models are reported, please provide some hypotheses on which ones could be applied to telerehabilitation in the context of visual impairment? - Line 24, p19: What was the acceptable threshold? Please clarify. - You indicate that studies “have evaluated telerehabilitation over a relatively short period of time ». Please clarify. - Please indicate how many of the selected studies are randomised controlled clinical trials. Please note that in the Supplementary material – Data extraction table, the two following studies 33. Lorenzini, MC, Wittich W. Personalized Telerehabilitation for a Head-mounted Low Vision Aid: A Randomized Feasibility Study. Optometry and Vision Science, 2021; 98(6): 570-581. 34.Lorenzini, MC, Wittich, W. Head-mounted Visual Assistive Technology–related Quality of Life Changes after Telerehabilitation. Optometry and Vision Science, 2021; 98(6): 582-591 are not considered as observational and case-control, but as interventional and randomised controlled studies. Please address these modifications. -Line 59, p19: I would add that studies that compare traditional face-to-face and telerehabilitation services remain essential to understand the challenges associated with telerehabilitation in the specific context of vision impairment. - Line 19-20, p20: The grey literature has not been sufficiently described to make this statement. Please summarize the results (nature of the interventions and their potential impact). - Lines 32-38, p20: This information should be moved to the results section. - Line 54, p20: For consistency, I would keep the same chronology when you report the study findings as the one presented in the results section of the manuscript. - Line 15, p21: You state that “a self-select approach may be the most practical means of ensuring effective implementation of remote services. ». This statement contradicts the limitation that has been pointed out regarding self-selection bias. Do you want to refer to individualized intervention instead? - Line 20, p21: Please remove “begins to”. - Line 22, p21: As previously mentioned, I would replace the term “effectiveness” by “benefits”, as you refer to a wide range of judgement criteria (i.e., functional, quality of life, satisfaction...).

REVIEWER	Anil, Krithika University of Plymouth
REVIEW RETURNED	25-Feb-2022

GENERAL COMMENTS	General comments: This is a well-written manuscript and contributes to the field of telerehab for vision impairment. However, this is a scoping review

	rather than a systematic review. This review maps out and summarises the available evidence. A systematic review would have appraised evidence of telerehab practices to identify variations in practice, identify practice effectiveness, or another trend specific to telerehab practices. Before publication, the below specific comments should be addressed. Specific comments: Abstract – Please list the grey literature sources that were searched. Abstract – The results section can be more informative by summarising the findings/conclusions from the included studies rather than listing the research topics of the included studies. Methods – Please identify the framework used for this review, e.g. PICO, PCC, SAPO, etc., and add structure the methods section according to framework's respective headings. Methods – Which sources were searched for the online conference proceedings? Web of Science or similar database? Or were individual conference websites searched? Methods – Please rephrase "address the exposure of interest" in this sentence: "Studies were further required to address the exposure of interest"? It doesn't make sense as it is. Results – The results of the quality appraisal for all studies should be added as a table in the manuscript or as a supplementary table. Results – "Vision training" is a very different category from the other results. The other results summarise telerehab outcomes from general practices while "vision training" refers to a specific practice for optimising vision. Why was no other telerehab practices examined? Results – It seems odd that only one study (i.e. Senjam et al) was categorised as "managing symptoms". Wouldn't the other telerehab practices also involve some level of symptom management? Perhaps a definition of what is meant by "managing symptoms" would help clarify. Results – The subheading "grey literature" doesn't reflect the content of that section. The section describes telerehab practices conducted by charities. I would expect grey literature to also include unpubished/non-peer reviewed research studies. Was this the only grey literature found or was research grey literature included in any of the other subheadings? If the latter, I would rename this section to something more reflective of the charity-related content. Discussion – The authors mention cost predictions by Lancioni et al, yet this wasn't included in the cost-effectiveness section of the results. Was this because Lancioni et al didn't evaluate cost-effectiveness and the "$2000" they mentioned was an estimate? Or for another reason? Discussion – The summary states that this review's findings illustrate the effectiveness of telerehab for vision impairment. However, this is not true. The review maps out and summarises existing evidence

	but does not specifically compare telerehab practices for effectiveness.

REVIEWER	Capri, Tindara University of Messina
REVIEW RETURNED	28-Feb-2022

GENERAL COMMENTS	In this article, the authors performed a systematic review of remote rehabilitation (telerehabilitation) services to support people with vision impairment. The manuscript is well written. The methods are appropriate. I have a minor concers about the coverage of theories and discussion of results considering recent previous studies. I would suggest the authors further emphasize the possible contributions of their work considering the practical implications. I suggest to discuss their results considering recent review articles (27. Caprì, T., Nucita, A., Iannizzotto, G., Stasolla, F., Romano, A. .... Fabio, R.A. (2020). Telerehabilitation for Improving Adaptive Skills of Children and Young Adults with Multiple Disabilities: a Systematic Review. Review Journal of Autism and Developmental Disorders, 8(2), 244-252. https://doi.org/10.1007/s40489-020-00214-x).

REVIEWER	Allegue, Dorra Université de Montréal
REVIEW RETURNED	02-Mar-2022

GENERAL COMMENTS	There is no introduction /context at the beginning of the abstract. Minor comments: Line 90-92 : Can you provide a reference Line 108: can you please give examples of services emerging during COVID-19? And add a reference. Line 40 p 10: please correct: "Lorenzini and Wittich reported outcomes"

VERSION 1 – AUTHOR RESPONSE

Reviewer 1

We thank the reviewer for their feedback.

The abstract is not complete, please report the results of your research on grey literature.

DONE: As described in our response to the editor, the abstract has been amended:

> *'Analysis of grey literature indicated there are no completed clinical trials relating to low vision telerehabilitation. Charity services had implemented a range of digital skills training to help beneficiaries become proficient with communication technology during the pandemic.'*

The results of each study, as well as the synthesis of the findings are not adequately reported. For all outcomes, a presentation for each study of a summary statistics and an effect estimate and its precision is required when available.

The review has been adjusted to a scoping review with an aim to map the broad range of topics identified. Effect sizes and precision estimates are no longer applicable as these analyses are specific to the purposes of systematic reviews and meta-analyses.

Please insert into the existing table (i.e., Data extraction table), or create a new one, the scores associated with quality appraisal and indicate the corresponding risk of bias for each study (i.e., high, moderate, low). Please create a new table where the 11 mentioned organizations of your grey literature are identified and provide a description of telerehabilitation service provided, when this information is available.

DONE: As detailed in the response to the Editor, we now provide a table (Supplementary Table 1) which include all quality appraisal checklist items and the scores for each item for each study. In addition, we have included a table (Supplementary Table 3) including the charity organisations identified through the grey literature search with descriptions of the nature of remote rehabilitation service delivery.

Reviewer 2

This is a well-written manuscript and contributes to the field of telerehab for vision impairment. However, this is a scoping review rather than a systematic review. [EDITOR: we agree this should be a scoping review]. This review maps out and summarises the available evidence. A systematic review would have appraised evidence of telerehab practices to identify variations in practice, identify practice effectiveness, or another trend specific to telerehab practices.

We thank the reviewer for their positive comments and helpful feedback. We agree that the evidence relating to remote rehabilitation identified in our review is heterogenous and more amenable to a scoping review. The review has been amended to a scoping review and follows the PRISMA extension for scoping reviews.

Abstract – Please list the grey literature sources that were searched.

DONE: As described in our response to the editor, the abstract has been amended. Specific details on changes regarding grey literature sources are shown below:

> *'Sources of grey literature were also examined, including charity and government websites, conference proceedings, and clinical trial databases.'*

Abstract – The results section can be more informative by summarising the findings/conclusions from the included studies rather than listing the research topics of the included studies.

DONE: As described in our response to the editor, the abstract has been amended:

> ***'Results:*** *Of 4,472 articles, 10 eligible studies were included. Outcomes addressed in these were patient satisfaction (n=4, 33.3%), quality-of-life, activities of daily living, and well-being (n=4, 33.3%), objective visual function (n=2, 16.6%), and knowledge relating to ocular symptoms (n=1, 8.3%). Of these, two studies addressed multiple outcomes. Cost-effectiveness was addressed in one article (8.3%). Patients were generally satisfied with their experiences, which had a range of positive benefits on functional and quality-of-life outcomes in areas relating to daily activities (e.g., reading, making phone calls). Telerehabilitation allowed patients to undertake vision optimisation training to prevent vision deterioration. Grey literature indicated there are no completed clinical trials relating to low vision telerehabilitation. Charity services had implemented digital skills training to help beneficiaries communicate remotely.'*
>
> ***Conclusion:*** *While acceptability of telerehabilitation was mostly high, limited real-world data are available which raises questions around the long-term desirability of this*

approach. Further trials are needed to evaluate telerehabilitation using a robust set of outcome measures.

Methods – Please identify the framework used for this review, e.g. PICO, PCC, SAPO, etc., and add structure the methods section according to framework's respective headings.

DONE: These frameworks are intended to guide the more specific research questions of a systematic review, whereas this review aims to provide a broader summary of telerehabilitation in the area of vision impairment. However, we have now added subheadings relating to the population and intervention(s) of interest in the methods section.

Methods – Which sources were searched for the online conference proceedings? Web of Science or similar database? Or were individual conference websites searched?

DONE: Individual conference websites were searched. We have now included details:

'…we reviewed online conference proceedings for relevant abstracts by searching the websites of the International Society of Physical and Rehabilitation Medicine; American Congress of Rehabilitation Medicine; Association for Research in Vision and Ophthalmology; American Academy of Ophthalmology; European Association for Vision and Eye Research.'

Methods – Please rephrase "address the exposure of interest" in this sentence: "Studies were further required to address the exposure of interest"? It doesn't make sense as it is.

DONE: We have now made this clearer:

'Studies were required to address the intervention (telerehabilitation) and population of interest (adults with visual impairment).'

Results – The results of the quality appraisal for all studies should be added as a table in the manuscript or as a supplementary table.

DONE: As detailed in our response to the Editor, we now provide a table (Supplementary Table 1) which include all quality appraisal checklist items and the scores for each item for each study.

Results – "Vision training" is a very different category from the other results. The other results summarise telerehab outcomes from general practices while "vision training" refers to a specific practice for optimising vision. Why was no other telerehab practices examined?

DONE: This section has been restructured and now relates specifically to the outcome 'Objective visual function' wherein studies adopting vision training interventions are described.

Results – It seems odd that only one study (i.e. Senjam et al) was categorised as "managing symptoms". Wouldn't the other telerehab practices also involve some level of symptom management? Perhaps a definition of what is meant by "managing symptoms" would help clarify.

DONE: We agree that 'managing symptoms' is a broad concept and therefore have amended this section to relate to the outcome of 'knowledge relating to ocular symptoms'.

Results – The subheading "grey literature" doesn't reflect the content of that section. The section describes telerehab practices conducted by charities. I would expect grey literature to also include

unpubished/non-peer reviewed research studies. Was this the only grey literature found or was research grey literature included in any of the other subheadings? If the latter, I would rename this section to something more reflective of the charity-related content.

DONE: The grey literature section has been significantly revised to include the search and results of published and non-published trials in the area of vision impairment and telerehabilitation and more details on the types of telerehabilitation across the charity networks.

Discussion – The authors mention cost predictions by Lancioni et al, yet this wasn't included in the cost-effectiveness section of the results. Was this because Lancioni et al didn't evaluate cost-effectiveness and the "$2000" they mentioned was an estimate? Or for another reason?

The $2000 costs described by Lancioni et al. were not included in the cost-effectiveness section as the authors did not assess the cost-effectiveness of the device. Calculation of cost-effectiveness requires full costings including staff, transport, equipment, administrative time etc. We refer to the $2000 cost in the discussion section as an example of costs per unit for a device used for telerehabilitation.

Discussion – The summary states that this review's findings illustrate the effectiveness of telerehab for vision impairment. However, this is not true. The review maps out and summarises existing evidence but does not specifically compare telerehab practices for effectiveness.

DONE: We have now amended this section:

> *'The findings to date illustrate the ~~effectiveness~~ benefits of remote rehabilitation services, but more research is needed to better understand its overall effectiveness, scalability and longevity.'*

Reviewer 3

In this article, the authors performed a systematic review of remote rehabilitation (telerehabilitation) services to support people with vision impairment. The manuscript is well written. The methods are appropriate. I have a minor concern about the coverage of theories and discussion of results considering recent previous studies. I would suggest the authors further emphasize the possible contributions of their work considering the practical implications. I suggest to discuss their results considering recent review articles - Caprì, T., Nucita, A., Iannizzotto, G., Stasolla, F., Romano, A. Fabio, R.A. (2020). Telerehabilitation for Improving Adaptive Skills of Children and Young Adults with Multiple Disabilities: A Systematic Review. Review Journal of Autism and Developmental Disorders, 8(2), 244-252.

We thank the reviewer for their feedback.

DONE: We have now referred to the systematic review on adaptive skills telerehabilitation for people with multiple disabilities in the context of overall acceptability and satisfaction with remote rehabilitation services:

> *'Similar findings regarding the acceptability of telerehabilitation have been described in a recent systematic review of telerehabilitation for improving adaptive skills in people with multiple disabilities [57], which found that patients are particularly satisfied with the convenience of undergoing rehabilitation from home. However, studies in this review described intensive programmes of telerehabilitation, in some instances requiring several hours of engagement per week. Further research using real-world data on patterns of engagement with telerehabilitation will be a valuable addition to the literature and could help*

to identify factors associated with adherence and withdrawal, and behavioural strategies to encourage adoption.'

Reviewer 4

We thank the reviewer for their feedback.

There is no introduction /context at the beginning of the abstract.

DONE: As described in our response to the editor, the abstract has been amended. Specific details on changes to the beginning of the abstract are shown below:

> *'**Objective:** Telerehabilitation for individuals with vision impairment aims to maintain maximum physical and/or psychological functioning through remote service delivery. This review aims to describe the type of telerehabilitation services available to people with vision impairment and summarise evidence on health-related outcomes, well-being and cost-effectiveness.'*

Line 90-92 : Can you provide a reference

DONE: We now include a reference for World Health Organisation (2021).

Line 108: can you please give examples of services emerging during COVID-19? And add a reference.

DONE: References are provided for studies describing an increased trend in telerehabilitation during the pandemic. This section has been rephrased as follows:

> *'Additionally, new services such as remote delivery of clinical care (telehealth) are likely to have emerged during the COVID-19 pandemic which have yet to be reviewed. This is significant given the rapid and extensive scale-up of telehealth services since the beginning of the pandemic [24, 25].'*

Line 40 p 10: please correct: "Lorenzini and Wittich reported outcomes"
DONE

Additional comments in attachment (2022-02-07)

This review focuses on the nature of telerehabilitation services available to individuals with vision impairment and reports the benefits in terms of health-related outcomes, well-being and cost-effectiveness. Although the question is relevant as the vision rehabilitation continues to advance and capitalize on how optimize intervention, the structure of the project departs in several ways from the best practices for a systematic review, which is a well-established domain of study. In particular: - Several important items of the PRISMA checklist are not validated, in particular regarding the methodology and the results (e.g., specifications for each outcome of the effect measures used in the synthesis, presentation of the results of all sensitivity analyses…) - The results of each study, as well as the synthesis of the findings are not adequately reported. For all outcomes, a presentation for each study of a summary statistics and an effect estimate and its precision is required when available. - Context of qualitative data synthesis review: I wonder if there are sufficient complementary contextual factors to integrate the qualitative and quantitative data. Importantly, specific guidelines are relevant to the type of qualitative data synthesis undertaken and help with specifying key information for extraction and improve the methodology. For example, the template for intervention description and replication TIDieR checklist (Hoffmann et al 2011) and the iCAT_SR tool (Lewin et al 2017) should

have been implemented. - Although a quality appraisal was conducted using a method that allows for the evaluation of both qualitative and quantitative studies, I question the ability to meet the objectives of the study, particularly regarding the evidence for the effectiveness of telerehabilitation. Thus, I would consider this study more as a scoping review, drawing a picture of the literature that currently exists on the nature and benefits of telerehabilitation in the context of vision impairment.

We thank the reviewer for their feedback. As described in our response to Reviewer 2, the review has been rewritten as a scoping review which follows the PRISMA-ScR checklist. Our objective for this review was to summarise a broad range of evidence relating to vision impairment and telerehabilitation in terms of its nature, features, and volume, and we believe the scoping approach is more amenable to achieve this. As a consequence of this change, the reviewer's comments regarding missing effect sizes and sensitivity analyses etc. are no longer applicable as these analyses are specific to the purposes of systematic reviews and meta-analyses. Similarly, the intervention checklists suggested by the reviewer (TIDieR; iCAT_SR) have been developed to facilitate systematic reviewing of health interventions. Given that the aim of the review is now to provide a thoughtful critical reflection of the broad range of evidence relating to telerehabilitation, the authors believe the use of the Kmet quality assessment criteria is most applicable to the purposes of the review.

Abstract

Line 24, p3: The term "effectiveness" may be not appropriate in this context. I would reformulate by « summarise available evidence in terms of health-related outcomes, well-being and cost-effectiveness ».

DONE: We have amended the objectives as follows:

1. *'Describe the ~~nature~~ type of telerehabilitation services available to people with vision impairment*
2. *~~Collect and summarise evidence~~ Provide insight on the impact of telerehabilitation in terms of health-related outcomes, well-being and cost-effectiveness'*

Line 29, p.3: I would use the more global term "benefits" instead of "effectiveness", as you refer to a wide range of judgement criteria (i.e., functional, quality-of-life, satisfaction…).

DONE: We have now replaced 'effectiveness' with 'benefit'.

Line 35, p3: "Measures of benefits included […] cost-effectiveness"

DONE: We have now replaced 'effectiveness' with 'benefit'.

Line 41: Please report the results of your research on grey literature.

DONE: As described in our response to the editor, the abstract has been amended.

> *'Analysis of grey literature indicated there are no completed clinical trials relating to low vision telerehabilitation. Charity services had implemented a range of digital skills training to help beneficiaries become proficient with communication technology during the pandemic.'*

Line 43: Please specify the nature of the telerehabilitation services available (e.g., synchronous or not...)

DONE: We have now amended the abstract and results section of the review to include these details:

> *'Six studies used a synchronous modality whereas four studies were asynchronous in nature.'*

Line 54: The grey literature has not been sufficiently described to make this statement. Please summarize the findings about the nature of the interventions and their potential impact.

DONE: As described in our earlier response, the abstract has been amended.

Introduction

Line 90, p6: I would prioritise the term "e-learning" for the field of education. E-learning is a broad concept that involves the provision of educational programmes through electronic systems (Clark 2011). Clark RC, Mayer RE. E-learning and the Science of Instruction: Proven Guidelines for Consumers and Designers of Multimedia Learning. 3rd Edition. San Francisco: John Wiley & Sons, 2011.

DONE: We have deleted the term e-learning when referring to telerehabilitation. Articles which focused only on an educational context were excluded, and we now clarify that articles relating to e-learning were excluded.

Lines 103-104, p6: Please provide some references to support this statement.

DONE: References 19, 20, and 21 have been added.

Line 106, p6: Please indicate “previous systematic review”.

DONE: ‘systematic’ has been added.

Lines 108-111, p6: What area are you referring to?

DONE: We have amended this wording to clarify that the previous systematic review found no studies comparing outcomes between face-to-face and virtual rehabilitation services. The section now appears as follows:

> *‘For example, a previous systematic review sought to compare outcomes between face-to-face and virtual vision rehabilitation services, yet no completed studies ~~in this area~~ were found [(22)].’*

Line 116, p6: Please explain what the nature of the intervention refers to?

DONE: We have amended this objective as follows:

> ‘Describe the ~~nature~~ type of telerehabilitation services available to people with vision impairment’

Line 118, p6: Considering that you can't systematically provide evidence, given the nature of the selected studies and the methodology used, I would change to the term “insight” instead.

DONE: We have amended this objective as follows:

> *‘~~Collect and summarise evidence~~ Provide insight on the impact of telerehabilitation in terms of health-related outcomes, well-being and cost-effectiveness.’*

Methods

Specific guidelines are relevant to the type of synthesis undertaken and help with specifying key information for extraction. For example, the template for intervention description and replication TIDieR check-list (Hoffmann et al 2011) and the iCAT-SR tool (Lewin et al 2017). Please refer to the section “Qualitative evidence” of the Cochrane Handbook for Systematic Reviews of Interventions, 2019 to reinforce the methodology.

The intervention checklists suggested by the reviewer (TIDieR; iCAT_SR) have been developed to facilitate systematic reviewing of health interventions. As the review has now been re-written as a scoping review, we believe the Kmet quality assessment criteria is most applicable to the purposes of the review.

- Please indicate that you conduct a topic-based research and that you did not apply study filters. Yet study filters may facilitate efficient retrieval by study types (e.g., qualitative, quantitative, mixed

methods). A robust strategy of research is needed because qualitative studies may not be adequately indexed. A CLUSTER method has been developed to help identification of qualitative studies.

DONE: Topic filters may be useful to reduce the size of large retrieval search outputs, however they risk excluding relevant studies because of the large variety of terms used to describe study types. Moreover, indexing of this type is a relatively recent addition in major databases which may limit the benefits of applying filters. We now state that topic filters were not applied:

'A search of….was undertaken without date restrictions or topic filters.'

Lines 125-127, p7: You refer to the PRISMA-P (2015) protocol but you implemented the PRISMA (2009), instead. Yet the PRISMA-P (2015) is more comprehensive and the current main standard for systematic literature review methodology as it takes into account criteria commonly established by the Cochrane, Prospero and PRISMA groups.

DONE: The review now follows the PRISMA-ScR checklist for scoping reviews.

Line 127, p7: Please add « without date restrictions ».

DONE

Line 137, p7: Did you search the following trial registries for ongoing and completed trials? Word Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP) (www.who.int/ictrp/en) and ClinicalTrials.gov, US National Institutes of Health (NIH). If this is not the case you would need to update your research or point it out as a limitation of the study.

DONE: We have now added details of the search of clinical trial databases:

> *'World Health Organisation International Clinical Trials Registry Platform (ICTRP) and the US National Institute of Health trial register (ClinicalTrials.gov) were searched for ongoing and completed trials relating to vision impairment and telerehabilitation.'*
>
> *'The search of clinical trial databases returned two ongoing trials relevant to telerehabilitation for visually impaired people, which are briefly described here. Van der Aa and colleagues (Trial ID: NTR6337) will examine the feasibility of an e-mental health treatment for patients with retinal exudative diseases receiving anti-VEGF treatment. The cognitive behavioural therapy-based intervention is offered via the Internet through the guidance of a social worker. The trial will deliver training and information which aim to help patients in dealing with their eye condition and managing uncertainties around treatment. The primary outcomes relate to measurements of depression, anxiety, and quality of life. Another trial (NCT04926974) will evaluate the efficacy of a mobile phone application to improve quality of life in older adults with low vision. The application features include real-time remote personal assistance with visual tasks, optical character recognition which allows text to be converted to audio and read aloud, and magnifiers to aid vision. The study seeks to understand the potential of these technologies to improve daily activities, community participation, independence, and self-sufficiency in people with low vision. Notably, there are a range of ongoing or completed trials relating to telemedicine or telemonitoring of visually impaired people, such as validation of home-based measurement tools (e.g., remote visual field testing). Given such studes are intended to address the broader concept of home monitoring and are not specifically within the context of rehabilitation, these trials were not included.'*

Line 162, p8: Could you please indicate whether the two authors independently assessed for quality the studies or not?

DONE: We have now clarified:

> *'Two authors (LJ and ML) independently assessed the quality of all 10 studies'.*

Results

For all outcomes, you need to present for each study a summary statistic and an effect estimate and its precision. Please provide this information when available.

The review has been adjusted to a scoping review with an aim to map the broad range of topics identified. Effect sizes and precision estimates are no longer applicable as these analyses are specific to the purposes of systematic reviews and meta-analyses.

Please add a reference to each study and any scales or standardized tools reported in the manuscript.

DONE: References have now been added for each standardised scale.

Line 192, p9: Please insert into the existing table, or create a new one, the scores associated with quality appraisal and indicate the corresponding risk of bias for each study (i.e., high, moderate, low). Please report a synthesis of these risks of bias in the results section.

DONE: As detailed in our response to the Editor, we now provide a table (Supplementary Table 1) which include all quality appraisal checklist items and the scores for each item for each study.

Line 197, p9: Do you think this proportion as having no influence on the original objectives of this review, or not as potential sources of bias to your findings? I would remove this statement and move this to the limitation section.

DONE: We have moved this section describing frequent issues with study reporting according to the Kmet et al. criteria to the 'limitations with identified studies' section of the discussion. As stated by the authors, no studies were formally excluded on the basis of insufficient quality. As such, we do not consider the few studies to score poorly on some items of the checklist to influence the original objectives or add bias. Notably, quality appraisal is not typically performed when undertaking a scoping review, however the authors have included the results of the quality appraisal to help orientate readers regarding the standards of the evidence in this area.

Line 201-204: Please include references associated with the reported studies.

DONE: We now refer to each of the studies identified in this review

> 'Four studies (33.3%) addressed patient satisfaction[30, 31, 32, 33], two studies (16.6%) related to objective visual function [34, 35], four studies (33.3%) measured patient-reported outcomes, activities of daily living, and well-being [33, 34, 36, 37], one study (8.3%) addressed knowledge relating to ocular symptoms [38], and a further one study (8.3%) was an analysis of cost-effectiveness [39].'

Line 3, p10: Patient satisfaction and recommendations: I would remove the term "recommendations" as this aspect is not completely addressed.

DONE: We now refer to 'patient satisfaction' only.

Lines 5 and 7: Please include references associated with the reported studies.

DONE: references added.

Line 25: Please include a reference associated with The Durham Reading and Exploration Training (DREX).

DONE: reference added.

-Line 33, p10: Please indicate whether this is a synchronous or non-synchronous telerehabilitation intervention.

DONE: We have clarified that the DREX application is an asynchronous telerehabilitation tool:

> *'In the context of rehabilitation, the application is asynchronous in nature whereby healthcare professionals can access and review patients' results at a later time through a clinical portal.'*

Lines 37-39, p10: Any statistic parameters should be reported to support the reported findings.

DONE: We have now added the statistical findings:

> *'Significantly greater gains were observed in visual exploration (12.9%, 95% confidence interval [CI] = 8.4 to 17.3%) and reading (18.5%, 95% CI = 9.9 to 27.0%) following DREX than the control intervention for both tasks, respectively (exploration = 4.8%, 95% CI = 0.1 to 9.5%; reading = 1.6%, 95% CI = −4.8 to 8.7%)'*

- Line 54, p10: I would add the terms « attractive/stimulating to avoid disengagement »

DONE: Amended as follows:

> *'Thus, measures should be taken to ensure telerehabilitation tools remain accessible and stimulating to avoid disengagement.'*

Line 42, p11: « randomised feasibility study »

DONE. This sentence has been amended accordingly.

Line 42, p11: Please make this rectification « a head-mounted display and a tele-health platform to deliver synchronous »

DONE. This sentence has been amended accordingly.

Lines 46-47, p11: The intervention reported did not focus on the technical but on functional aspects. Please correct this point.

DONE. This sentence has been amended accordingly.

Line 54, p11: "randomly allocated"

DONE. This sentence has been amended accordingly.

Line 37, p12: The name of this section "Vision training" is not clear and does not seem to reflect its content. It would need to be renamed or merged with other sections. What criteria do you use to talk about vision optimization (reading speed, functional scale score, quality of life or satisfaction score...)? For example, Lorenzini & Wittich have also studied the impact of training on functional vision and thus could as well be reported in this section.

DONE: We have now renamed this section 'objective visual function' and clarify the nature of studies which were categorised in this section:

> *'The studies use visual exploration and ocular movement tasks to activate neuroplasticity to compensate for visual loss.'*

Line 55-56, p12: Please indicate whether this is a synchronous or non-synchronous telerehabilitation intervention.

DONE: Amended to:

> *'Sabel and Gudlin compared outcomes of asynchronous behavioural training…'*

Line 5, p13: Please provide the measurements and associated statistical parameters to support the reported findings.

DONE: This section has been amended to include measurements and statistical parameters:

> *'Vision restoration exercises led to improved vision-related performance in detection accuracy as determined by high-resolution perimetry (p=0.007). Pre versus post differences after vision training for glaucoma were greater compared with placebo in all perimetry tests (p=0.02 for high-resolution perimetry; p=0.04 for white-on-white perimetry; p=0.04 for blue on yellow perimetry), without affecting eye movements. Moreover, the vision restoration training led to faster reaction time for the glaucoma group (p=0.009).'*

Lines 7-10 p13: I would remove this sentence unless you associate it to the context of telerehabilitation.

DONE: We have rephrased this sentence within the context of telerehabilitation:

> *'The authors conclude that a telerehabilitation system designed to promote visual system plasticity can be ~~retained into~~ used among older age adults despite widespread visual deterioration and activation of residual vision may partly reverse vision loss.'*

Line 30, p13: Please provide the measurements and associated statistical parameters to support the reported findings.

DONE: We have now provided more details of the measurements and descriptive detail about statistical parameters:

> *'Participants showed some improvements in visual detection abilities, which was assessed using two procedures (a unimodal test using only visual stimuli presented at one of 12 spatial locations lasting 100 milliseconds, and a bimodal audio-visual test whereby visual stimuli was paired with sound), with the strongest effect on both testing procedures observed when participants were free to use eye movements to detect targets, rather than the fixed eye condition.'*

Lines 31-33: I would remove this sentence because it does not provide any new insight with regard to the previously reported results.

DONE: We have removed this sentence:

> ~~*'The authors conclude that the device may contribute to better visual outcomes and could be used to reduce the need for one-to-one hospital visits.'*~~

Line 40, p13: Please add references associated with the four studies mentioned.

DONE. References have been added accordingly

> 'Four articles assessed outcomes relating to quality-of-life, activities of daily living, and well-being following telerehabilitation [33, 34, 36, 37].'

Line 43, p13: As previously mentioned, I would replace the term "effectiveness" by "benefits", as you refer to a wide range of judgement criteria (i.e., functional, quality of life, satisfaction...).

DONE. The terminology has been changed throughout the article to refer to 'benefits' instead of 'effectiveness'.

Line 45, p13: Please add references associated with the four studies mentioned.

DONE. References have been added accordingly.

> 'Two articles are case reports [36, 37], and two articles describe the quality-of-life outcomes from the eSight eyewear [33], and vision restoration training programmes [34], described in an earlier section.'

Lines 57-58: The Veterans Affairs Low Vision Visual Functioning Questionnaire (VA LV VFQ-48) is a scale that measures functional vision status. I would move these results to the "functional vision and visual function outcomes" section that would replace the existing "Vision training" section. Please associate a reference associated with this scale.

The previous 'Vision training' section has been reclassified as 'Objective visual function', as the studies within this section are specific to psychophysiological training strategies to compensate for visual loss. Thus, this study would not align with other literature in this section. Patient-reported outcome measures, such as the VA LV VFQ-48 and NEI-VFQ-25 indeed measure subjective functional vision, but are most frequently used to understand individual perceptions of quality-of-life (of which functional vision has significant influence). The functional vision items on the VA LV VFQ-25 and NEI VFQ-25 relate to activities of daily living such as problems with reading and mobility, which are components used to measure quality-of-life. All four studies in this section refer to patient-reported outcomes following telerehabilitation. As such, we have renamed this section 'Quality-of-life, activities of daily living, and well-being'.

DONE: We have included references associated with the scale.

Lines 12-18, p14: Please move this section because it refers to the evaluation of functional vision.

Please refer to above response describing changing the description of the subsections in the results.

Line 21, p14: Like the Veterans Affairs Low Vision Visual Functioning Questionnaire (VA LV VFQ-48), the National Eye Institute Visual Function Questionnaire (NEI-VFQ-25) is also a scale that measures functional vision status. I would move these results to the " visual function and functional vision outcomes" section which would replace the existing "Vision training" section. Please associate a reference associated with this scale.

Please refer to above response regarding changing the description of the subsections in the results.

DONE: We have included a reference associated with this scale.

Lines 24 and 30, p14: Please provide the measurements and associated statistical parameters to support the reported findings.

DONE: We now include the statistical parameters associated with the PIADS and VA LV VFQ-25 measurements

Line 35, p14: You need to include a reference associated with the Cawthorne-Cooksey exercises.

DONE: References have now been added for Cawthorne-Cooksey exercises

Line 44, p14: Please indicate whether this is a synchronous or non-synchronous telerehabilitation intervention.

DONE: *'Exercises were delivered synchronously through WhatsApp video calls over 30 sessions.'*

Lines 46 and 49,p14: Please provide the measurements and associated statistical parameters to support the reported findings.

DONE: We have added that gaze restriction as assessed through ophthalmic examination. Changes in quality-of-life were reported only descriptively, with no statistical analysis presented.

> *'Comparison of pre- and post- eye examinations suggested gaze restriction as determined through ophthalmic examination, had improved and that the patient had fewer self-reported double vision complaints. Pre- and post-intervention quality-of-life was assessed using the SF-36 measure of general health. Analysis was based on descriptive reporting of changes in scores, with no statistical analysis reported.'*

Line 53, p14: Please be consistent when reporting your reference (location) and check the journal's guidelines.

DONE. Reference location has been amended.

Lines 7-8, p15: The total number of calls made, number of calls met with a response, and length of calls refer to functional measurements and are not quality-of-life related outcomes. You should consider a new section to report outcomes related to functional vision.

This section has been reclassified as 'Quality-of-life, activities of daily living, and well-being'. The telerehabilitation system to support visually impaired participants to make phone calls relates to activities of daily living.

Line 20, p16: Please add a reference associated with the reported study.

DONE. Reference has been added accordingly.

Line 25, p16: Please indicate whether members of the rehabilitation team are researchers or clinicians.

DONE: Amended to:

'…rehabilitation practitioners at a tertiary eye centre in India…'

Line 25, p16: "therapeutic education".

DONE. The sentence has been amended accordingly.

Line 38, p16: The statement is not clear. Are you referring to the study you are reporting? Do you mean that the outcome is not measurable?

DONE: This sentence has now been removed.

> ~~*'The study suggests that preventative strategies to help manage ocular symptoms could be delivered through telerehabilitation, although the outcome of interventions was not known.'*~~

Please confirm that the following study does not meet your eligibility criteria: Ihrig C. Rural healthcare pilot clinic: Low vision clinical video telehealth. J Optometric Ed 2014; 40:14–16.

DONE: The above article was published as a feature in Optometric Education, a publication from The Journal of the Association of Schools and Colleges of Optometry, which is not indexed in the databases used in this search. We contacted the author for access to the full article which allowed us to review its eligibility. The article is wholly descriptive, outlining a low vision telehealth service. The service consists of a remote low vision assessment and home adaptive skills training, where necessary. As the article is not a research report (i.e., it does not specifically report patient outcomes following intervention), it does not meet the inclusion criteria for this review. A paper from the same author describing the cost-effectiveness of this remote rehabilitation service is included in the review. Although the article does not meet the review inclusion criteria, it includes relevant information about the nature of training and education which is provided by the service and therefore we have used the article to provide greater detail in the cost-effectiveness paragraph in the results section.

> *'The rehabilitation intervention included home adaptive skills training, which includes a home safety checklist, orientation and mobility training and computer training, as well as training with vision-related activities such as meal management, financial planning, personal care, and leisure time activities (Ihrig, 2014).'*

Line 18, p16 "Grey literature": Additional descriptions are needed for this section. Please indicate the nature of the telerehabilitation intervention.

DONE: We have now amended this section with details of the nature of telerehabilitation identified and provide a supplementary table outlining the nature of service delivery at all organisations identified in the search.

> *'The full list of organisations and the nature of service delivery are described in Supplementary Table 3.'*
>
> *'Most of the organisations described implementing digital skills training to enable beneficiaries to become more proficient with computers and technology, such as making video calls and downloading smartphone applications. There were also examples of internal service evaluations to identify preferences in rehabilitation delivery.'*

Please add a table where the 11 organizations are identified and provide a description of telerehabilitation service when available.

DONE: We have now added a table (Supplementary Table 3) listing the organisations providing remote rehabilitation and the nature of service delivery.

Lines 36 and 42: A more detailed description of the experimental methods and telerehabilitation framework provided is needed.

DONE: We have now removed this sentence as we believe addition of the Supplementary Table 3 will help to clarify the nature of telerehabilitation service delivery.

Line 47, p16: "Trend in publishing": You should update your research by searching trial registries, to ensure that you have not omitted potential ongoing and completed trials.

DONE: We have now included details of two ongoing clinical trials in the grey literature section of the review.

Line 49, p16: Please specify on which parameter you rely for this statement.

DONE: The parameter showing increasing literature being published in the area of telerehabilitation and vision impairment are the findings of this review. This sentence has been rephrased to avoid ambiguity:

> 'There has been an increase over time in published As shown by the results of this review, studies evaluating the impact of telerehabilitation on people with a vision impairment are beginning to emerge among the published literature.'

Line 60, p16: In the discussion section, please add a comparison of these results with 5 impairments other than vision (i.e., motor, cognitive…).

The research team believe this addition goes beyond the remit of the current objectives of the review, which was to describe the landscape of telerehabilitation for visually impaired individuals. Although interesting, inclusion of additional searches will negatively impact on the readability of the current manuscript.

Discussion

Lines 11-12, p17: In the results section, please clearly distinguish synchronous and asynchronous approaches for each study. Do you consider any other criteria to describe the nature of the interventions (e.g., technology used, professionals involved, single session or repeated sessions…). If so, please clearly indicate this information.

DONE: When reporting studies in the results section, we now clarify whether the interventions used were synchronous or asynchronous in nature. A description of the nature of technology used, testing regimen and professionals involved (where available) is also included throughout the results. A critical reflection on aspects such as testing regimen are already described in the discussion section.

Lines 14 and 30, p17: Please add references associated with the reported studies.

DONE. References have been added accordingly.

> *'Studies using patient-reported outcome measures suggest telerehabilitation can lead to improved outcomes relating to daily functioning and quality-of-life [33, 34, 36, 37]. In addition, there is generally a high level of acceptability from patients for this shift in service delivery [31, 32, 33].'*

Lines 44-45, p17: What effects are you referring to? Important differences exist among measures of functional vision, visual function, and overall quality of life-related outcomes.

DONE: This has been amended to:

'Rehabilitation is, by nature, highly repetitive and often requires engagement over long periods of time before measurable improvements in areas such as functional vision can be observed.'

Line 54, p17: You indicate that studies in this review described intensive programmes of telerehabilitation, please specify which ones?

DONE: We have rephrased to:

'However, studies in this review described potentially intensive programmes of telerehabilitation, in some instances requiring several hours of engagement on consecutive days per week. For example, Tinelli and colleagues' [36] participants were asked to use the telerehabilitation tools for 5-days per week for up to 12-months.'

Line 47, p18 and Line 3, p19: As previously mentioned, I would replace the term "effectiveness" by "benefits", as you refer to a wide range of judgement criteria (i.e., functional, quality of life, satisfaction...).

DONE. This has been amended throughout the manuscript.

Line 17, p19: You state that acceptability is a "multifaceted concept », please indicate the other aspect(s) of acceptability and that may represent areas to address in future research

DONE: Amended to:

'…acceptability is a multifaceted concept which may not be fully explained by quantitative behaviour metrics such as the degree of adherence or engagement with an intervention, but also relates to affective attitudes, opportunity costs, ethicality, and self-efficacy; thus, future studies...'

Line 22, p19: Please indicate how many studies referred to a theoretical framework and identify which ones. If no models are reported, please provide some hypotheses on which ones could be applied to telerehabilitation in the context of visual impairment?

DONE: We now include more details regarding use of an acceptability framework and how such a tool can be beneficial in the context of telerehabilitation and vision impairment:

'Yet, acceptability is a multifaceted concept which may not be fully explained by quantitative behaviour metrics such as the degree of adherence or engagement with an intervention. No studies included in this review describe a framework for acceptability, indicating further research is needed to understand acceptability of telerehabilitation using a robust assessment of relevant factors such as affective attitudes, opportunity costs, ethicality, and self-efficacy; thus, future studies investigating acceptability may benefit from a theoretical framework to guide the assessment of acceptability [55].'

Line 24, p19: What was the acceptable threshold? Please clarify.

Done: A non-conservative quality threshold of 0.55 was applied.

'Although no studies were formally excluded on the basis of insufficient quality (inclusion threshold set at 55% [0.55]), some common study limitations were identified.'

You indicate that studies "have evaluated telerehabilitation over a relatively short period of time ». Please clarify.

DONE: Amended to:

'In addition, the studies in this review ~~study findings to date have evaluated~~ report the outcomes of telerehabilitation ~~over~~ after a relatively short period of time (i.e., less than 1-year).'

Please indicate how many of the selected studies are randomised controlled clinical trials. Please note that in the Supplementary material – Data extraction table, the two following studies 33. Lorenzini, MC, Wittich W. Personalized Telerehabilitation for a Head-mounted Low Vision Aid: A Randomized Feasibility Study. Optometry and Vision Science, 2021; 98(6): 570-581. 34.Lorenzini, MC, Wittich, W. Head-mounted Visual Assistive Technology–related Quality of Life Changes after Telerehabilitation. Optometry and Vision Science, 2021; 98(6): 582-591 are not considered as observational and case-control, but as interventional and randomised controlled studies. Please address these modifications.

DONE: We have made this modification in the data extraction table and report the number of papers which were randomised controlled trials:

> *'There are currently very few randomised controlled clinical trials evaluating patient outcomes in telerehabilitation, for example, three of the ten studies identified in this review used random allocation to an intervention and control group [33, 34, 35], and we propose this would be an important avenue for further research.'*

Line 59, p19: I would add that studies that compare traditional face-to-face and telerehabilitation services remain essential to understand the challenges associated with telerehabilitation in the specific context of vision impairment.

DONE: We have made this addition:

> *'…as well as comparisons between traditional face-to-face and telerehabilitation services to understand the challenges associated with telerehabilitation in the specific context of vision impairment.'*

Line 19-20, p20: The grey literature has not been sufficiently described to make this statement. Please summarize the results (nature of the interventions and their potential impact).

> DONE: As described in our earlier responses, the grey literature section has been revised and further details of the interventions are provided in Supplementary material 3.

Lines 32-38, p20: This information should be moved to the results section.

DONE: We have moved the findings relating to the availability of telerehabilitation across the charity services network to the results section.

Line 54, p20: For consistency, I would keep the same chronology when you report the study findings as the one presented in the results section of the manuscript.

DONE: The discussion has been restructured to match the description of the studies in the results section.

Line 15, p21: You state that "a self-select approach may be the most practical means of ensuring effective implementation of remote services. ». This statement contradicts the limitation that has been pointed out regarding self-selection bias. Do you want to refer to individualized intervention instead?

Self-selection bias is a limitation of the research studies included in this review, as the conclusions drawn from the results will not be representative of the whole population (i.e., not accounting for those who do not have willing to take part in research). Our point that a self-select approach may be most practical refers to the use of telerehabilitation in practise (i.e., outside a research context). This reflection takes into account that the evidence in the review will incur some level of self-selection bias, and therefore it may be most practical to allow individuals to opt-in to telerehabilitation programmes, as opposed to making them the standard of care. For this reason, we do not think the statement is contradictory, however, we have made the following adjustment:

'Given the variability in patients' aptitude and motivation to sustainably engage with telerehabilitation, a self-select approach which allows patients to choose their preferred mode of rehabilitation delivery or individualised interventions may be the most practical means of ensuring effective implementation of remote services'.

Line 20, p21: Please remove "begins to".

DONE. This has been removed.

'The findings to date ~~begin to~~ illustrate the ~~effectiveness~~ benefits of remote rehabilitation services…'

Line 22, p21: As previously mentioned, I would replace the term "effectiveness" by "benefits", as you refer to a wide range of judgement criteria (i.e., functional, quality of life, satisfaction...)

DONE. This has been amended accordingly (see response above).

VERSION 2 – REVIEW

REVIEWER	Lorenzini, Marie-Celine Universite de Montreal, School of Optometry
REVIEW RETURNED	13-Jun-2022

GENERAL COMMENTS	Thank you for addressing the previous concerns and making the appropriate edits to the manuscript. In particular: -The systematic review has been amended to a scoping review and follows the PRISMA extension for scoping reviews. -The grey literature section has been revised and further details of the interventions have been provided. I have no further comments.

REVIEWER	Anil, Krithika University of Plymouth
REVIEW RETURNED	07-Jun-2022

GENERAL COMMENTS	Thank you to the authors for their work on improving this manuscript. This is ready for publication. Just to note for future, please add the author responses to review comments for the re-submission as it's easier to track the changes.