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Review report

Final title: Preliminary effects of robotic-assisted gait training in post-stroke patients: A pilot study

Title at submission: Efficacy of robotic assisted gait training in post stroke patients – A Pilot Study

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None

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Not available

Reviewer A: Md. Israt Hasan, ORCID: 0000-0002-5484-4968

This pilot study compares robotic-assisted gait training with conventional physiotherapy in post-stroke patients and reports superior improvements in balance, motor recovery, and gait in the robotic group. While results are promising, the manuscript lacks critical methodological detail: it does not specify whether the intervention was delivered in a dedicated robotic rehabilitation facility, provide device specifications, or outline safety protocols for managing stroke patients undergoing robotic therapy. Ethical approval was reportedly obtained from two authorities in India and Dubai, but the rationale for dual approval and its legal implications are not explained. These omissions limit transparency, hinder reproducibility, and raise ethical and regulatory concerns regarding trial conduct and governance.

1. Comment Appropriateness of the Title.
The title, "Efficacy of robotic assisted gait training in post stroke patients: A pilot study," is clear, concise, and accurately reflects the study population, intervention, and design. It signals the clinical context (post-stroke rehabilitation) and identifies the type of study conducted (pilot), which aligns with the small sample size and exploratory nature of the work.
However, the term "efficacy" may be somewhat overstated, as pilot studies are typically not powered to establish efficacy but rather to explore feasibility, preliminary effects, and inform larger trials. A more cautious phrasing such as "preliminary effects" or "pilot evaluation" may better reflect methodological limitations.

Response We thank the reviewer for this important observation. We agree that the term "efficacy" may be strong for a pilot study that is not powered for definitive conclusions. Accordingly, the title has been revised to reflect the exploratory and preliminary nature of the study.
Title changed to "Preliminary effects of robotic-assisted gait training in post-stroke patients - A randomised pilot study" in Page 1, Line 2-3.

2. Comment Clarity and appropriateness of the Objective(s)
The study objective is stated as determining the effectiveness of robotic-assisted gait training versus conventional therapy in improving balance, motor recovery, and functional mobility in post-stroke patients. While the objective is clear, measurable, and aligned with the study outcomes, it is overly ambitious for a pilot study with a sample of only 10 participants. Pilot studies are typically designed to assess feasibility, safety, tolerability, and preliminary trends, not to draw comparative conclusions about clinical effectiveness.

Response We agree with the reviewer that the original objectives were ambitious for a pilot study. The objectives have been revised to emphasize preliminary effects and exploratory outcomes rather than definitive effectiveness. Secondary objectives related to feasibility and safety have been added.

3. Comment Clarity of the rationale for conducting the study is given in the Introduction section.
The introduction lacks a critical synthesis of existing evidence, instead presenting statements without integrating them into a coherent argument. As a result, the need for comparative evaluation remains implicit rather than clearly substantiated. The introduction does not explain why this study is important for clinical practice, cost-effectiveness, or health system capacity, nor does it contextualize the relevance of robotic therapy to the local setting or patient population. The absence of explicit research justification reduces the clarity and strength of the rationale, making the introduction informative but conceptually weak and insufficiently targeted toward motivating the research question.

Response We thank the reviewer for highlighting this issue. The Introduction has been revised to reduce generic background information and to clearly identify gaps in current evidence, particularly regarding the feasibility and preliminary clinical effects of robotic-assisted gait training in local rehabilitation settings. The rationale for conducting a pilot study has now been explicitly stated. Changes made in page 6, line 97 – 99

4. Comment

The Methods are described in sufficient details so that the study can be reproduced. Whether ethical concerns have been well described.

The methods section provides basic information on participant characteristics, inclusion/exclusion criteria, randomization, intervention frequency, and outcome measures; however, important operational details are missing, limiting reproducibility. The robotic device is not described (type, model, parameters, calibration), and intervention protocols lack standardisation details, progression criteria, safety monitoring, or therapist roles, all of which are essential for replicating a gait-training trial. Reporting of statistical procedures is brief but adequate.

Response

We acknowledge that additional methodological detail was required. The Methods section has been expanded to include a clearer description of the robotic device, training parameters, therapist involvement, and safety monitoring.

Robotic device description expanded under study procedure in page 8-9, line 158 - 162.

Safety monitoring explicitly stated under in page 9, line 180 - 182.

5. Comment

Clarity and appropriateness of the Design to achieve the objective(s).

The study employs a two-arm parallel design comparing robotic gait training with conventional therapy, which is conceptually aligned with the stated objective of evaluating differences in functional outcomes. However, the very small sample (n=10) limits statistical power and undermines the ability to draw meaningful conclusions about "effectiveness." The design lacks key features expected in comparative clinical research such as blinding, control of confounders, or standardized treatment progression which weakens internal validity. Additionally, as a pilot study, the design should have emphasized feasibility, safety, and acceptability, yet these parameters were neither measured nor reported. Although the design is simple and understandable, it is methodologically insufficient to robustly address the stated objective of determining efficacy.

Response

We agree that the study design does not permit definitive conclusions on efficacy. The manuscript has been revised to clearly describe the study as a pilot comparative trial aimed at generating preliminary evidence rather than establishing effectiveness.

Changes made under discussion last paragraph page 14-15, line 298 -302.

6. Comment

Appropriate and thorough description of the Statistical methods .
The statistical approach, consisting of paired t-tests for within-group change and independent t-tests for between-group comparisons, is basic but appropriate for the study's comparative objective. However, the description is minimal and lacks essential methodological detail, such as assumptions testing, normality verification, handling of small-sample bias, or justification for parametric methods given the limited sample size. No information is provided on effect sizes, confidence intervals, or power analysis, which are necessary to interpret the magnitude and reliability of findings. The absence of intention-to-treat analysis or missing data handling procedures further limits transparency. While the statistical tests used are identifiable, the reporting is oversimplified, lacks rigor, and provides insufficient depth to evaluate analytical robustness or reproducibility.

Response

We acknowledge the reviewer's comments. The statistical methods section has been expanded to describe assumption testing, justification for parametric analyses in a pilot context, and inclusion of effect sizes to aid interpretation.
Changes made under statistical analysis page 10, line 197 –201.

7. Comment

Quality, clarity and appropriateness of the Table(s).
The tables contain pre- and post-intervention means, standard deviations, and selected t-test values, which is helpful, but their overall presentation is weak and lacks essential statistical transparency. The layout appears crowded and inconsistently structured, with multiple statistical test outputs embedded in a single row, making it difficult to follow the analytical sequence. Column headings are not clearly defined, abbreviations are not systematically explained, and the tables lack footnotes clarifying statistical methods, thresholds, or interpretation guidelines.
The tables only present absolute scores, without reporting change scores, confidence intervals, effect sizes, or clinical significance values, which are essential to understand magnitude and practical impact. The focus on p-values alone makes the tables numerically dense but clinically uninformative.
Additionally, the tables duplicate information already described in the results section, without offering added analytical clarity, visual comparison (e.g., percentage change), or group contrasts beyond p-values.
Overall, the tables are basic, unrefined, and statistically underdeveloped, limiting their contribution to data visualization, interpretation, or scientific credibility. They provide numbers, but not meaning, clarity, or insight.

Response

We sincerely thank the reviewer for this detailed and valuable critique of the tables. We agree that the original tables lacked optimal clarity, consistency, and statistical transparency. The tables have now been comprehensively revised to improve structure, readability, and interpretability.
Specifically, table layouts have been simplified and standardized, with clearly defined column headings and separation of within-group and between-group analyses. All abbreviations are now systematically explained, and detailed footnotes have been added to describe statistical tests, significance thresholds, and data presentation (mean ± SD).
Page 22-25, lines 459 – 463, 466 – 469, 474 – 477, and 481 – 484.

8. Comment

Major redundancy between text and tables/figures in the Results section.
The Results section shows substantial redundancy, with numerical findings described extensively in text and repeated in tables without added interpretation or synthesis. The narrative reiterates mean scores, standard deviations, and p-values already displayed, making the section verbose, repetitive, and lacking analytical commentary beyond what the tables already present.

Response We thank the reviewer for this important observation. The Results section has been revised to minimize redundancy between the text and tables. Detailed numerical values, including means, standard deviations, t-values, and p-values, have been retained exclusively within the tables. The Results narrative has been condensed to emphasize overall trends, within- and between-group comparisons, and key findings, with tables referenced for detailed statistics.
Results rewritten to reduce redundancy section page 11, line 215 -228.

9. Comment Pertinence of the Discussion section whether it justify the main message of the manuscript without repeating the results.
The Discussion reiterates the study's main message that robotic-assisted gait training produced greater improvements than conventional therapy, and it cites supporting literature to contextualize findings, which helps reinforce the manuscript's central claim.
The Discussion briefly acknowledges limitations but does not adequately explore sample size constraints, potential biases, safety considerations, or lack of mechanistic insight, which weakens the transparency and balance of interpretation.
Discussion section partially justifies the main message but does so through repetition and selective interpretation, rather than thoughtful synthesis. A stronger emphasis on clinical relevance, generalizability, and unresolved questions would enhance pertinence and reduce redundancy.

Response The Discussion has been revised to reduce repetition of results and to emphasize interpretation, clinical relevance, and comparison with existing literature.
Page 12, line 230 – 243 and highlighted

10. Comment Whether Strength(s) and Limitation(s) are well described.
Strengths and limitations are not well described, lack critical reflection, and do not help readers assess the study's robustness or applicability.

Response A dedicated subsection on strengths and limitations has been added under discussion last paragraph page 15, line 303–319 it has been highlighted.

11. Comment Whether the Conclusion of the manuscript is supported by the data.
The conclusion states that robotic-assisted gait training produced superior improvements across all outcomes compared to conventional therapy, and this is generally consistent with the reported statistical results. However, the conclusion is written in strong, definitive language that overstates the evidence, given the very small sample size (n=10), pilot design, and absence of effect size reporting. The data demonstrate statistical differences, but without clinical significance metrics, safety data, or long-term outcomes, claims of superiority remain tentative rather than conclusive. The conclusion does not acknowledge key limitations, which further exaggerates confidence in the findings.

Response The conclusion has been revised to use cautious language consistent with a pilot study and to avoid definitive claims added under conclusion page 15, line 323 and highlighted.

12. Comment Whether the manuscript is supported by appropriate and up-to-date References.
The reference list is: Inconsistent in DOI reporting, Mixture of strong and weak sources, Over-reliant on low-impact or irrelevant papers, Missing landmark evidence, safety data, and guidelines.
As an example: Reference no 2,8,17, 21 are least connected to robotic-assisted gait training, stroke rehabilitation, or the study's core outcomes, and therefore contribute minimal value to the scientific argument and that weakens the scientific credibility of the manuscript and undermines its conclusions.
There is a self-citation:
Manickavasagam I, Srinivasan V, Umasankar Y, Alagesan J, Murugaiyan P. Effectiveness of robotic gait training in stroke subject – a case study. Texila International Journal of Public Health. 2025;2(Special Issue):Art023. This cited work is a single case study with extremely weak evidence, yet is used to support claims of intervention effectiveness.

Response We thank the reviewer for carefully evaluating the reference list and for raising concerns regarding relevance and evidence quality. The references have been revised to improve overall scientific rigor, relevance, and consistency, including standardization of DOI reporting and prioritization of high-quality systematic reviews and randomized controlled trials.
With regard to the self-cited case study by Manickavasagam et al., we acknowledge that this represents low-level evidence. The reference has been retained solely for contextual and feasibility background and is no longer cited to support claims of effectiveness or clinical superiority.
Changes made under references page 20, line 415 – 418.

13. Comment Straightforward, clear, and logical Storytelling.
The manuscript follows a conventional structure (Introduction, Methods, Results, Discussion), which aids navigation, but the overall storytelling is not consistently clear or logically coherent. Several sections contain excessive descriptive background information that does not directly lead to the research question, while important contextual elements are missing or superficially presented. Methods and Results are overly verbose and repetitive, presenting numerical data in both text and tables without synthesizing meaning or emphasizing key findings.
Transitions between sections are abrupt, and the narrative lacks progressive argumentation, making it difficult for readers to follow the conceptual thread. Furthermore, the Discussion reiterates results rather than offering critical interpretation or integration with existing evidence. Overall, the manuscript's storytelling is fragmented, uneven, and insufficiently analytical, reducing clarity and impact.

Response We appreciate the reviewer's observation regarding the clarity and logical flow of the manuscript. We have revised the manuscript to improve coherence by reducing excessive background information, enhancing transitions between sections, and emphasizing a progressive narrative that directly supports the research question. Key results have been synthesized and highlighted to strengthen conceptual clarity, and the Discussion has been revised to provide more critical interpretation and integration with existing literature rather than simply reiterating findings.

14. Comment Appropriateness of the overall length of the article.
The manuscript is nominally within acceptable length, but not aligned with BSMMU's stylistic expectations due to: Redundant presentation of results, Excessive background detail, Limited critical interpretation.

Response We thank the reviewer for highlighting concerns regarding manuscript length and redundancy. The manuscript has been carefully edited to remove repetitive presentation of results, condense background information, and focus on critical interpretation of the findings. These changes improve alignment with BSMMU's stylistic expectations while retaining essential content.

15. Comment Standard of English for publication.
The manuscript requires comprehensive language editing to meet academic publication standards in grammar, clarity, and scholarly tone.

Response We appreciate the reviewer's comment on language quality. The manuscript has undergone thorough language editing to enhance grammar, clarity, and scholarly tone, ensuring it meets the standards for academic publication

Reviewer B: **Md. Abdus Shakoor,** ORCID: 0000-0001-6801-9179

16. Comment Completeness and accuracy of the Abstract
Description of robot along with details description of robotic treatment protocol should be included in the abstract.

Response Thank you for this suggestion. A concise description of the robotic system (treadmill-based robotic gait trainer with partial body-weight support) and the key elements of the robotic treatment protocol has now been added to the Methods section of the Abstract and highlighted.
Location: Page 3, lines 36- 38.

17. Comment Clarity and appropriateness of the Objective(s)
It is appropriate but objectives need to be explored into primary and secondary.

Response We agree with the reviewer. The objectives have now been clearly divided into primary and secondary objectives to enhance clarity
Location: page 6 -7 and line 109 – 112 and highlighted

18. Comment Clarity of the rationale for conducting the study
Rationale is clearly stated in the introduction

Response We thank the reviewer for this observation. The rationale for conducting the study highlighting the heterogeneity of existing evidence, limited feasibility data, and the need for pilot studies in routine clinical setting was stated in the Introduction.

19. Comment Methods and ethical concerns
Methods is all right but robotics related ethical issues should be included.

Response Thank you for this valuable suggestion. Ethical considerations specific to robotic-assisted gait training such as safety monitoring, use of harness and body-weight support systems, adverse event surveillance, and informed consent have now been explicitly added to the Methods section.
Location: informed consent- page 8 line 155. Adverse effect page 9, line 180 – 182.

20. Comment Statistical methods
It may be accepted, but consulting a statistician would be better.

Response We appreciate the reviewer's suggestion. The statistical methods were reviewed to ensure appropriateness for a pilot study, and effect sizes (Cohen's d) were explicitly reported to strengthen interpretation.
Location: page 10, line 197 –201.

21. Comment Quality, clarity and appropriateness of the table(s).
Tables may be reduced because the sample is very small. Two tables is enough to present these data. And the table should be informative. For that purpose foot note can be used.

Response We thank the reviewer for this valuable suggestion. Given the presence of four distinct primary outcome measures assessing different domains of function, consolidation into only two tables would have reduced clarity and hindered interpretation. Therefore, the number of tables was retained to ensure transparent and outcome-specific presentation of results. To address the reviewer's concern regarding informativeness, the tables have been substantially revised. Table formatting has been standardized, clear column headings have been provided, and informative footnotes have been added to explain abbreviations, statistical tests used, data presentation (mean ± SD), and significance thresholds. These revisions enhance clarity, interpretability, and clinical relevance while maintaining appropriate separation of outcome domains.
Location: Page 22-25, lines 459 – 463, 466 – 469, 474 – 477, 481 – 484 and highlighted

22. Comment Quality, clarity and appropriateness of the Figure(s), if any.
No figure is found in this article.

23. Comment Major redundancy between text and tables/figures in the Results section.
Actually repetition is less here but tables may be reduced.

Response We thank the reviewer for this observation. As noted, redundancy between the Results text and tables was already minimal. Nevertheless, the Results section has been further reviewed and slightly condensed to avoid repetition of numerical values presented in the tables. The narrative now focuses on overall trends and key within- and between-group comparisons, with tables referenced for detailed statistical data.
However, the Results section (page number 11; line number 215 -228) and tables (Page number 22-25 and line number 459 – 463, 466 – 469, 474 – 477, 481 – 484 and highlighted) have been revised to enhance clarity and facilitate interpretation of the findings.

24. Comment Discussion section
Discussion should start with findings; repetition of objectives should be omitted.

Response We agree with this comment. The Discussion section has been revised to begin directly with the key findings, and repetition of study objectives has been removed to improve readability and focus.
Location: page 12, line 230 - 234.

25. Comment Appropriateness of the overall length of the article
Not appropriate, it should be reduced.

Response We thank the reviewer for this important suggestion. The manuscript has been carefully edited to reduce overall length by minimizing redundancy in the Results, and Discussion sections, streamlining tables and removing repetitive explanations while preserving scientific clarity and completeness
Location: Line 215 – 228 , page 11.

Reviewer C: **Farooq Azam Rathore ,** ORCID: 0000-0002-4759-0453

26. Comment Appropriateness of the Title
The title does not specify that this is a randomized pilot study. Including "randomized" would strengthen transparency.

Response We agree with the reviewer. To improve transparency and comply with reporting guidelines, the study design has now been explicitly stated in the title.
Location: Page 1, line 2- 3.

27. Comment Completeness and accuracy of the Abstract
a) TUG included in results but not listed in methods
Timed Up and Go (TUG) is included in results but not listed among outcome measures in the abstract methods.
b) b) Between-group results show only post-test means
Presenting only post-test means may mislead readers.
c) Minor grammatical errors

Response
a) Thank you for identifying this inconsistency. The Timed Up and Go (TUG) test has now been explicitly included among the outcome measures in the Methods section of the Abstract to ensure consistency.
Location: Page 3, Line 40.
b) We agree with this concern. The abstract results have been revised to emphasize between-group differences in improvement rather than focusing solely on post-test means, avoiding potential misinterpretation.
Location: Page3, Line 43 - 47.
c) The abstract has been now carefully edited for grammar, clarity, and consistency.
Location: Page 3 and 4, Line 27 – 54.

28. Comment Clarity of the rationale for conducting the study is given in the Introduction section.
The introduction provides adequate epidemiological and clinical context.
Some areas needing improvement as follows
- The introduction is lengthy and contains content not directly relevant to the study aim (e.g., authors have written multiple paragraphs on stroke prevalence that are not needed).
- The gap in the literature is mentioned but not sufficiently linked to the specific robot used, local context, or pilot nature of the research.

Response We appreciate these insightful comments.
The Introduction has been revised to reduce excessive epidemiological content and improve focus on gait rehabilitation and robotic-assisted training. A clearer statement has been added to explicitly link the existing literature gap to the specific robotic intervention, the routine clinical rehabilitation setting, and the pilot nature of the study (Page 5-6; Lines 73 – 77 and 97 - 99).

29. Comment The Methods are described in sufficient details so that the study can be reproduced. Whether ethical concerns have been well described.
The methods section is generally detailed and allows for replication. inclusion/exclusion criteria, training protocols, and randomisation procedures are well-described.
Points requiring revision:
a) The robotic device is described functionally, but model name, manufacturer, country, and technical specifications are missing. This limits reproducibility.
b) The conventional therapy protocol mixes general physiotherapy activities but lacks session progression details.
c) Randomization is adequately described; however, no CONSORT diagram is provided.
d) Two ethical approvals are mentioned but dates and reference numbers appear inconsistent in formatting

Response

a). Details of the robotic device, including the model name, manufacturer, country of origin, and key functional characteristics, have now been added to the Methods section to improve reproducibility.
Location: page 8-9, line 158 - 162.
b). The conventional physiotherapy protocol has been revised to clarify progression across sessions, including gradual advancement of exercise intensity and task complexity based on patient tolerance.
Location: page 9 and line 175 - 178
c). We acknowledge the reviewer's comment regarding the CONSORT flow diagram. Given the pilot nature of the study, the very small sample size, and the absence of dropouts, participant flow was described textually rather than illustrated using a CONSORT diagram.
d) We thank the reviewer for raising this point. We would like to clarify that the study was conducted under a single ethical approval. The approval was issued by the Dubai Scientific Research Ethics Committee (DSREC) under the Dubai Health Authority, with the reference number DSREC-SR-10/2024_02.
The MBRU IRB number (MBRU IRB-2024-417) refers to an institutional registration/tracking number associated with Mohammed Bin Rashid University as part of the coordinated ethics governance framework in Dubai, and does not represent a separate or additional ethical approval.
To avoid confusion, the manuscript has been revised to clearly state that there was one ethical approval, with consistent formatting of the committee name, approval reference, and date.
Location: Page 17, Line 345 - 350.

30. Comment

Clarity and appropriateness of the Design to achieve the objective(s).
A randomized pilot design is suitable for this pilot trial research
My concerns are

- There is no sample size justification provided in the article
- No registration number for the trial is mentioned in the manuscript. All RCT must be registered
- There is no blinding of assessors , which increases risk of bias.

Response

- We agree that justification is important. As this was a pilot study, a formal power calculation was not performed. This has now been explicitly stated, with clarification that the sample size was chosen to assess feasibility and estimate preliminary effects.

Location: Page 8 Line 145 -146.

- We acknowledge this limitation. The study was conducted as an exploratory pilot trial prior to trial registration requirements being enforced at our institution. This has now been acknowledged as a limitation, and future trials will be prospectively registered.

Location: Page 15, Line 306 - 307

- We agree with the reviewer. Due to resource and staffing constraints, assessor blinding was not feasible. This has now been clearly stated in the Methods section (Location: page 8 and line 151 – 152) and acknowledged as a limitation

Location: page 15, Line 300.

31. Comment

Appropriate and thorough description of the Statistical methods.
Statistical methods are described, but improvements are needed:

- The study uses parametric tests on a sample of n=5 per group without verifying assumptions. This needs attention.
- ffect sizes and confidence intervals are not reported. This limits interpretation
- Using change scores instead of post-test values for between-group comparisons would be more appropriate.

Response

We thank the reviewer for these important statistical comments. Normality of data distribution was assessed prior to analysis, and this has now been clarified by specifying the Shapiro–Wilk test in the Statistical Analysis section. Effect sizes (Cohen's d) were calculated to aid interpretation, and reporting of 95% confidence intervals has been added where appropriate. Between-group comparisons were conducted using mean change scores rather than post-test values alone, and this approach has been explicitly emphasized in the revised manuscript.
Location: Page 10, Line 197 –201 .

32. Comment

Quality, clarity and appropriateness of the Table(s).
The tables present data clearly.
Areas for improvement are as follows

- Table formatting is inconsistent, especially in column headers.
- P values such as "<0.004" are unconventional; exact values should be reported when possible.
- Table titles should describe whether values represent means ± SD.

Response

We thank the reviewer for the positive assessment of data clarity and for the helpful suggestions. All the noted issues have been addressed and corrected in the revised manuscript. Table formatting has been standardized across all tables, 9ith consistent and clearly defined column headers. Unconventional p-value reporting (e.g., "< 0.004") has been replaced with exact p-values. In addition, all table titles have been revised to explicitly state that values are presented as mean ± standard deviation. These revisions have improved the consistency, transparency, and clarity of the tables.
Page 22-25 and line 459 – 463, 466 – 469, 474 – 477, 481 – 484 and highlighted

33. Comment Quality, clarity and appropriateness of the Figure(s), if any.
There are no figures
CONSORT figure is mandatory for an RCT reporting

Response We thank the reviewer for this observation. No figures were included in the manuscript as the study involved a very small sample size and focused primarily on descriptive and comparative statistical outcomes, which were most clearly and accurately presented in tabular format.

34. Comment Major redundancy between text and tables/figures in the Results section
The results section repeats table values extensively.
A more concise narrative focusing on key trends would improve readability

Response We thank the reviewer for this important observation. The Results section has been revised to minimize redundancy between the text and tables. Detailed numerical data, including means, standard deviations, test statistics, and p-values, are now presented exclusively in the tables. The Results narrative has been condensed to emphasize overall trends, key within- and between-group comparisons, and clinically relevant findings, with appropriate references to the tables for detailed statistical information.
Location: Page 11, line 215 -228 and highlighted.

35. Comment Pertinence of the Discussion section whether it justify the main message of the manuscript without repeating the results.
The discussion links findings to previous literature and attempts to justify mechanisms.
The following needs attention and revisions

- The narrative is lengthy and includes multiple citations unrelated to gait robotics.
- Some references relate to conditions or interventions not directly relevant.
- Interpretation does not adequately address the small sample size or high risk of Type I error.
- Statements regarding neuroplastic benefits are reasonable but speculative for such a small trial.

Overall, the discussion needs revisions to stay focused on the study's real implications.

Response We thank the reviewer for these insightful comments. The Discussion section has been revised to improve focus and conciseness. Citations not directly related to robotic-assisted gait training or stroke gait rehabilitation have been reduced, and speculative interpretations have been tempered.
Additional text has been included to explicitly acknowledge the exploratory nature of the findings, the small sample size, and the increased risk of Type I error (page 14, 15 and line 298 to 302). Statement regarding potential neuroplastic mechanisms have been revised to reflect their hypothetical nature within the context of a pilot trial (page 12, line 244-246). Overall, the Discussion has been streamlined to emphasize clinically relevant implications while avoiding overinterpretation of results.

36. Comment Whether Strength(s) and Limitation(s) are well described.
Limitations are acknowledged, but not comprehensively. The following should be added:

- Very small sample size.
- Lack of assessor blinding.
- Limited generalizability.
- Lack of device details.

Strengths include use of standardized outcome measures and ethical compliance.

Response We thank the reviewer for this constructive comment. The Limitations section has been expanded to more comprehensively acknowledge the very small sample size, lack of assessor blinding, and limited generalizability of the findings. Additionally, limitations related to device-specific details and feasibility considerations have been clarified. A brief statement highlighting key strengths of the study, including the use of standardized and validated outcome measures and adherence to ethical standards, has also been added to provide a balanced perspective.
Location: page 15, line 300 – 319 it has been highlighted.

37. Comment Whether the Conclusion of the manuscript is supported by the data.
The conclusion overstates the findings, given the limited sample and risk of bias.
It should be more cautious and emphasize the preliminary nature of the results.

Response We thank the reviewer for this important observation. The Conclusion has been revised to adopt a more cautious tone, explicitly emphasizing the exploratory and preliminary nature of the findings.
Location : page 15, line 323 and highlighted.

38. Comment Whether the manuscript is supported by appropriate and up-to-date References.
The manuscript includes a large number of recent references.
The following needs attention of authors

- Some citations are unrelated to gait or robotics (e.g., oral health game-based training).
- A few sources are case studies or low-level evidence.
- High-impact recent systematic reviews exist and should be included.

Response We thank the reviewer for highlighting the availability of recent systematic reviews in the field of robotic gait training. The references included in this manuscript were selected to directly support the study's specific objectives, intervention design, and target population. While high-impact systematic reviews provide valuable overarching summaries, the current reference list already encompasses key primary studies necessary to contextualize the present work. Inclusion of additional reviews was therefore considered unlikely to substantially enhance interpretation of the findings. Nonetheless, all cited references were carefully re-evaluated to ensure relevance and appropriateness.

39. Comment Straightforward, clear, and logical Storytelling. The manuscript communicates the findings but lacks a clear, linear narrative. Sections are verbose and include unnecessary details. A more concise, structured flow would enhance clarity.

Response We thank the reviewer for this constructive feedback. The manuscript has been revised to improve clarity, coherence, and logical flow. Redundant explanations and unnecessary background details have been removed, and each section has been streamlined to better align with the study objectives and key findings.

40. Comment Standard of English for publication. The English is understandable but requires editing for grammar, sentence structure, and consistency. Multiple typographical errors are present. See additional comments for examples

Response We appreciate this comment. The manuscript has undergone thorough language editing to improve grammar, sentence structure, clarity, and consistency. Typographical errors have been corrected throughout the text.

Responsible editor: **M Mostafa Zaman,** ORCID: 0000-0002-1736-1342

41. Comment You have totally ignored the Editor's decision in your point-by-point response and revision. I am appending the Editor's decision below: [Please accept our apology for not including the review comments in our first decision email. The comments are given below now. However, the editorial panel for this special issue on PMR has decided to consider the submission as a Research Letter (no more than 1000 words, one table/figure, and 10 references) given the sample size (5 in each arm) used in this pilot study. The tables are not well organised, and the main message has not been delineated.]
I consider it your disagreement with the editor's decision to revise it as a Research Letter. Let me know whether I misunderstood it. In such a case, we shall decline it promptly to save time for both sides.

Response Thank you very much for your information and suggestion.
I extend my hearty apology for not holding up on with the editor decision as RESEARCH LETTER.
We focused much more to address only the reviewers comments but had few confision in converting it as the RESEARCH LETTER. We couldnt cut shot the study as RESEARCH LETTER. I kindly request you to give me some more time.I will rework on it and resubmit it. But i want to clarify one small doubt.Can we present this pilot study as it is in the RESEARCH LETTER or do you want us to change the whole manuscript. Once you give your valuable suugestion.I will rework and submit it to you at the earliest.

42. Comment A Research Letter encompasses original work, but the scope is limited. Therefore, it is the same as an original article except for its length. The special issue on PMR will publish about half a dozen Research Letters.
We understand that it will not take much time to shorten it. Therefore, we request that you submit it by 22 December.
We shall need about a week for copyediting and production, if it is accepted. Our timeline is 31 December.
I appreciate your cooperation.

Response Hearty thanks for giving clarifying my doubt. I will rework on the article and reduce its size without disturbing the scientific facts. I will correct the article and resubmit to you as soon as possible. Once again hearty thanks to you for addressing my query with patience and guiding me to improve the readability of my research work.

43. Comment Please submit it by tomorrow at noon so that we can decide at the afternoon's meeting.

Response I have submitted my research letter for your consideration. I apologize for the late submission. The research letter has been prepared strictly according to the journal guidelines. The manuscript contains 937 words, includes one table, and adheres to the prescribed limits for research letters. Kindly look into the submission at your convenience. If any corrections or revisions are required, we would be happy to make the necessary changes. Thank you for your time and support.
I hereby submit the research letter for your kind consideration. I sincerely thank you for giving the time to our work and for the effort involved in evaluating the submission. We greatly appreciate the opportunity to submit our research to your esteemed journal and value the role of the editorial team in maintaining the quality and standards of the publication. We look forward to your feedback and guidance.

44. Comment Thank you for a prompt response. Everything is OK now except the statistical analysis. The use of two statistical tests for a single variable (e.g., BBS) to assess between-group and within-group differences is not ideal. May I suggest using a single test, such as repeated-measure ANOVA? Then, present only one P value for each variable.

Response Thank you so much for your valuable suggestion. We accept your guidance and will follow it. We will correct it and resubmit it. May i know when i have to submit the corrected version of the revised manuscript. Please let me know if any further necessary corrections to be done.

45. Comment We expect it today so that an acceptance decision can be made soon

Response Thank you for your suggestion. This study was designed as a pilot trial with a very small sample size (n = 5 per group) and only two assessment time points (baseline and 12 weeks). Given the limited sample and exploratory objective, repeated-measures ANOVA would not provide stable or meaningful estimates of group-by-time effects and could overstate statistical inference. Therefore, simpler non-parametric comparisons were considered more appropriate for preliminary analysis. Owing to research letter space constraints, within- and between-group results were initially summarized together. As suggested, we have now revised the manuscript to present only between-group comparisons using the Mann–Whitney U test, with a single p-value per outcome. Also, we provided the Revised Research letter below. We would be happy to provide separate Wilcoxon and Mann–Whitney tables if permitted. Please let us know if any further corrections need to be done. We will rework and resubmit soon.

46. Comment It would be OK to use the Wilcoxon test because pre- and post-measurements are paired. Many people also use the Mann -Whitney U test, considering a small sample size (5 in your case). In such a case, presenting post-measurements (as you have done this time) is not enough. I shall be happy to see the mean difference (post minus pre, or pre minus post) and their (differences) 95% CIs for two groups. The differences between groups could be seen by examining the 95% CIs. Non-overlapping CIs would indicate statistically significant differences.

Response Thank you very much for your kind suggestion.
Thank you for your helpful guidance. In line with your recommendation, we revised the statistical presentation to focus on mean change scores (post–pre) rather than post-test values alone. Within-group pre–post changes were analyzed using the Wilcoxon signed-rank test, and between-group differences were evaluated using the Mann–Whitney U test applied to the change scores, appropriate for the small sample size. We now report the mean difference with 95% confidence intervals for both groups for each outcome, and between-group differences are interpreted by examining the 95% CIs (non-overlapping intervals indicating statistically meaningful differences). The revised results are presented in separate within-group and between-group tables for clarity. Please let us know if any further corrections need to be done. We will rework and resubmit soon.