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**June 2022 edition**

# Introduction

Welcome to **June 2022** **GPA Evidence Updates**, bringing you latest evidence updates on physiotherapy interventions in some common conditions seen within the Ghanaian physiotherapy context. In this and subsequent editions, we bring you updates on Cerebral palsy, Low back pain, Stroke and Parkinson’s disease. We look forward to expanding the condition portfolio based on your interest and uptake, and the formation of an evidence-based practice group within GPA to further this agenda.

[GPA Evidence Updates](https://physioghana.org/gpa-evidence-updates/)is brought to you by the **Evidence-based Practice Research Group**, a research group within Ghana Physiotherapy Association (GPA) to promote evidence-based practice culture amongst physiotherapists and other colleagues within the rehabilitation community.

These updatespresent new systematic reviews and clinical practice guidelines identified and compiled from comprehensive searches of the [PubMed](https://pubmed.ncbi.nlm.nih.gov/advanced/) database based on search strategies developed by Dr Beatrice Sankah, a systematic reviewer and evidence-based practice expert. An archive of the monthly updates is available [here](http://physioghana.org/gpa-evidence-updates/evidence-archives/)**.**

In this update, each article title provides a link to the abstract in PubMed. For open-access articles, full text articles are accessible by clicking the Free full text link (indicted in red text near article title). Where you are interested in a full text article that is not available, please contact the team and efforts will be made to access it for your use. It is important to critically appraise the quality of the systematic reviews and clinical practice guidelines before applying them to your practice, we therefore recommend the [SIGN checklist](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.sign.ac.uk%2Fmedia%2F1721%2Fsrchecklist.doc&wdOrigin=BROWSELINK) for systematic reviews and the [AGREE tool](https://www.agreetrust.org/resource-centre/agree-ii/) for clinical practice guidelines.

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## Guidelines

*No guidelines found this month for Cerebral palsy, low back pain, stroke, and Parkinson’s disease****.***

## Systematic Reviews

### Cerebral palsy

*No systematic reviews found this month for Cerebral palsy.*

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### Low back pain

[Practicable performance-based outcome measures of trunk muscle strength and their measurement properties: A systematic review and narrative synthesis](https://pubmed.ncbi.nlm.nih.gov/35714149/) [Free Full text article](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0270101)

Althobaiti S, Rushton A, Aldahas A et al.

PLoS One. 2022 Jun 17;17(6):e0270101. doi: 10.1371/journal.pone.0270101.

**Results**: Of the 34 included studies, 15 different performance-based outcome measures (PBOMs) were identified that have been investigated for reliability and validity, none evaluated responsiveness. In asymptomatic individuals, high quality evidence supports intra-rater reliability of digital-loading cells and moderate quality evidence supports the criterion validity of the hand-held dynamometer. Very low-quality evidence exists for the reliability and validity estimates of testing tools among individuals with spinal pain.

**Conclusion:** Findings underpin a cautious recommendation for the use of practicable PBOMs to evaluate muscle strength in individuals with spinal pain in clinical practice due to the level of evidence and the heterogeneity of the protocols used.

[Effects of exercise on balance in patients with non-specific low back pain: a systematic review and meta-analysis](https://pubmed.ncbi.nlm.nih.gov/34636528/)

Dal Farra F, Arippa F, Arru M et al.

Eur J Phys Rehabil Med 2022; 58:423-34. DOI: 10.23736/S1973-9087.21.07293-2

**Results:** Twelve articles were included in the review, eight in the meta-analysis. None of the studies were judged at low risk of bias (RoB). There is very low-quality evidence that exercise is effective in reducing Centre of Pressure (CoP) displacement (-16.99 [-27.29, -6.68]; P=0.001) and in improving single-leg stance test performance (-28.7 [-48.84, -8.67]; P=0.005) and dynamic balance (-4.74 [-8.02, -1.46]; P=0.005). Conversely, no significant results were observed in “ellipse area” and in “limits of stability” indexes. Other results were summarized in a qualitative synthesis.

**Conclusion:** Exercise could be effective in improving both static and dynamic balance in patients with Non-specific low back pain (NS-LBP) over a short-term period. However, quality of evidence was estimated as very low, hence further double blinded, high-quality RCTs are needed to address clinical practice and research.

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### Stroke

*No systematic reviews found this month for stroke*

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### Parkinson’s disease

[Effects of dance therapy on non-motor symptoms in patients with Parkinson's disease: a systematic review and meta-analysis](https://pubmed.ncbi.nlm.nih.gov/35091970/) [Free Full text article](https://link.springer.com/article/10.1007/s40520-021-02030-7)

Li-Li Wang, Cai-Jie Sun, Yan Wang et al.

Aging Clin Exp Res. 2022 Jun; 34(6):1201-1208. doi: 10.1007/s40520-021-02030-7.

**Results:**Nine literatures were analyzed for the meta-analysis with a total of 307 patients. Random effects showed that DT significantly improved cognitive of PD (MD = 1.50, 95% CI [0.52, 2.48], P = 0.0003; I2 = 51%). However, this meta-analysis demonstrated that dance therapy had no significance for improving depression (MD = - 1.33, 95% CI [- 4.11, 1.45], P = 0.35; I2 = 79%), fatigue (MD = 0.26, 95% CI [- 0.31, 0.83], P = 0.37; I2 = 0%), and apathy (MD = 0.07, 95% CI [- 2.55, 2.69], P = 0.96; I2 = 50%).

**Conclusion:**The meta-analysis suggests that dance can improve cognitive function in PD.

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# Notes

*Please note that the links provided to each identified record should not be taken as endorsement of records. We have made reasonable efforts to ensure accuracy of all articles, however we cannot guarantee total accuracy or completeness. Hence, as advised earlier, please endeavor to critically appraise the papers before use.*

For all feedbacks, comments, and recommendations for improvements, please contact us

**Evidence-based Practice Research Group**

Ghana Physiotherapy Association

P. O. Box KB 77 Korle-Bu, Accra, Ghana

Email: [evidenceupdates\_gpa@outlook.com](mailto:evidenceupdates_gpa@outlook.com)

Website: [www.physioghana.com](http://www.physioghana.com)

## Acknowledgement

We acknowledge all researchers within the team for working diligently to produce this edition of the Newsletter: **Beatrice Sankah** - Researcher, University of Southampton, UK

**Mary W Agoriwo** - Assistant lecturer, University of Health and Allied Sciences, Ho, Ghana

**Martin Ackah** – Senior Physiotherapist and Biostatistician, Korle Bu Teaching Hospital, Accra, Ghana

**Akua Bilson** - Senior Physiotherapist and researcher, the Trust Hospital, Accra, Ghana

**Cosmos Yarfi** - Lecturer, University of Health and Allied Sciences, Ho, Ghana

**Adjoa Banson** - Assistant lecturer, University of Health and Allied Sciences, Ho, Ghana

**Hosea Boakye** - Senior Physiotherapist and researcher, LEKMA hospital, Accra, Ghana

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