POST-STROKE OUTCOMES: A SYSTEMATIC REVIEW AND META-ANALYSIS

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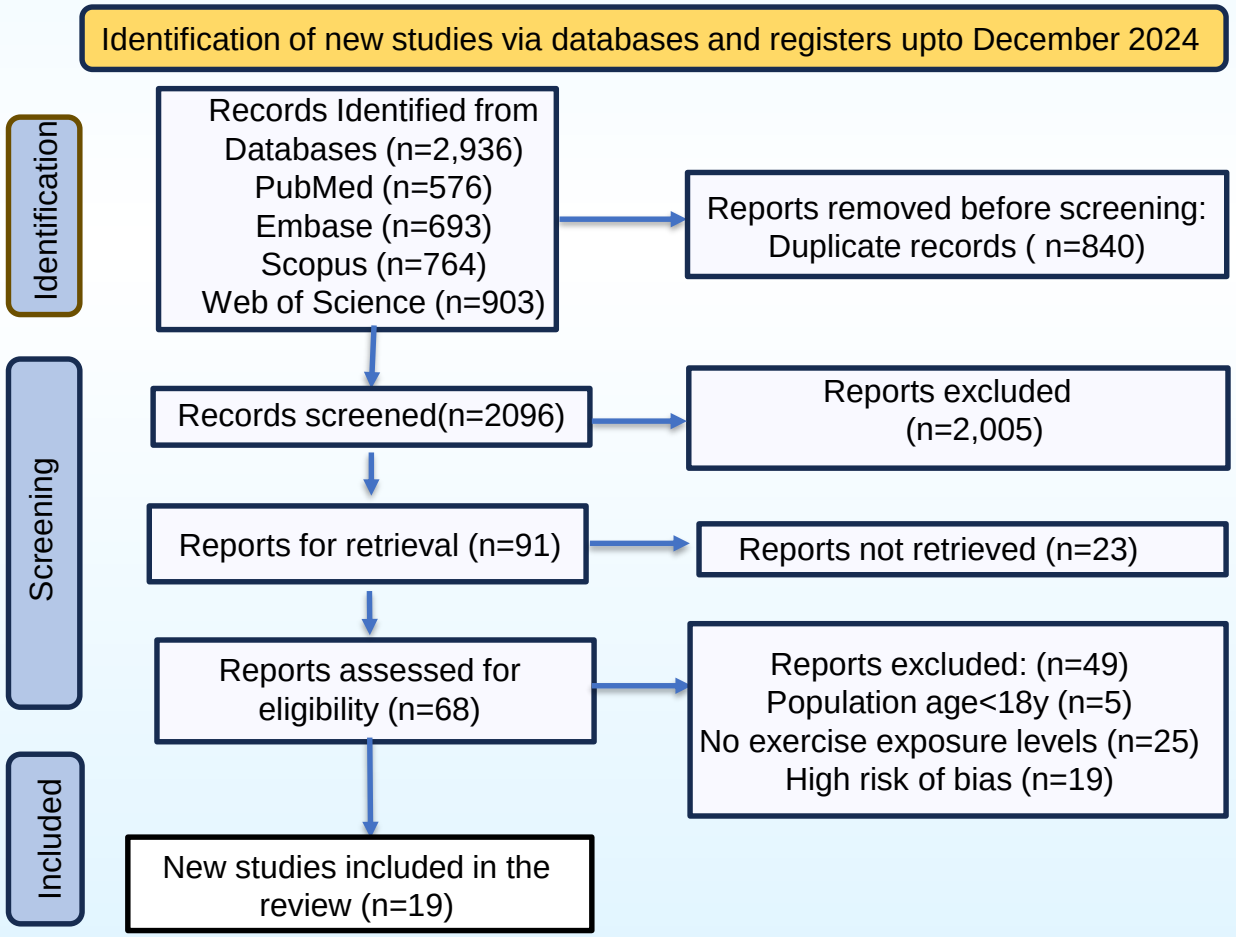
Introduction

- Recovery from stroke may take months or years, often without full recovery.
- Prior physical activity has been shown to lower the stroke risk and could improve post-stroke outcomes.
- This review is the first of its kind, synthesizing global literature on pre-stroke physical activity and multiple post-stroke outcomes along with the severity.

Methodology



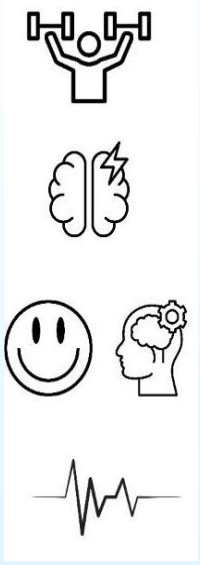
Methodology

- Quality of studies was assessed using the Newcastle-Ottawa scale.
- Random effect and common effect meta-analyses were performed to find the pooled estimates with 95% CI.

Results & Discussion

Our study showed Pre-stroke physical activity significantly reduces NIHSS score on admission compared to physical inactivity, indicating less stroke severity and better outcomes.

- For Meta-Analysis the outcomes determined were mean NIHSS scores on admission and the odds of a good functional outcome (mRS 0–2) at 3 months.
- The mRS (0-2) outcomes did not differ significantly between the two groups

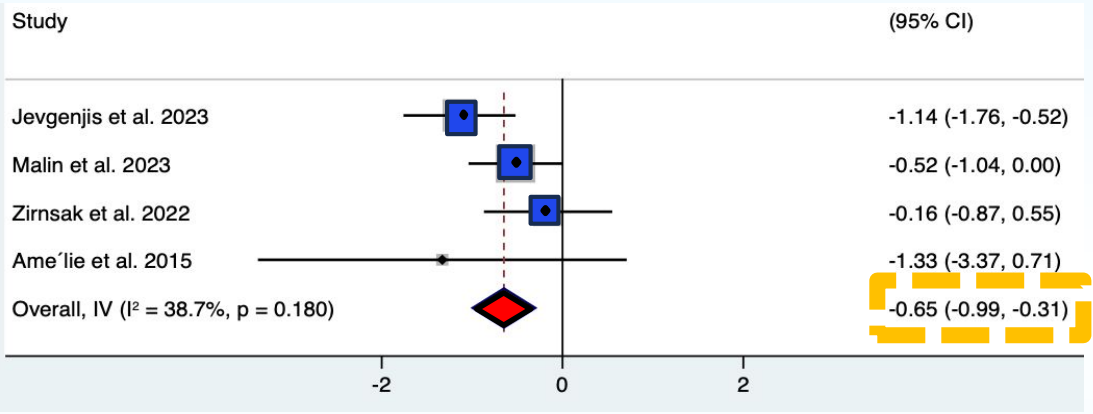


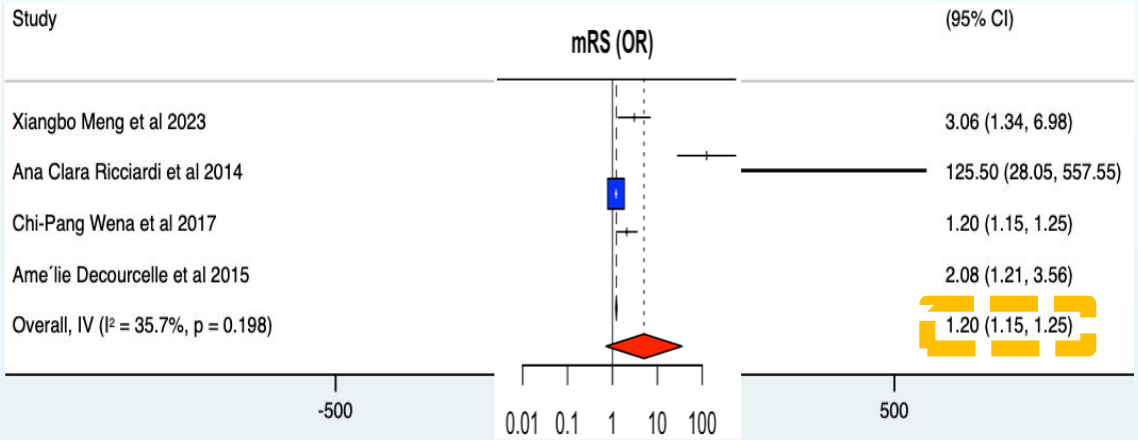
Being Physically active

Event of stroke

At 3 months post-stroke

At 6 months post stroke





Conclusion

- The study establishes the strong impact of pre-stroke physical activity on lowering stroke severity, and improving post-stroke outcomes like cognition, quality of life and mortality..
- However, the substantial heterogeneity in mRS (0-2) at 3 months underscores the need for further research to confirm these findings.
- **This study highlights the need for a standardized method to measure physical activity, as the existing research relied on diverse methods and scales.**

References

Hung SH, Ebaid D, Kramer S, Werden E, Baxter H, Campbell BC, Brodtmann A. Pre-stroke physical activity and admission stroke severity: A systematic review. *Int J Stroke.* 2021

Acknowledgments

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