INPLASY PROTOCOL

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None declared.

Efficacy of action observation therapy on the motor function of lower extremity in stroke patients: a systematic review and meta-analysis

Wu, JM[1]; Yuan, CY[2].

Review question / Objective: **The incidence of stroke is increasing every year and lower limb dysfunction is the most common problem after stroke. Motion observation therapy is gaining more and more attention as a new type of rehabilitation therapy developed this year. The purpose of this systematic evaluation is to accurately evaluate the efficacy of movement observation therapy on lower extremity motor function in stroke patients. P:Stroke patients; I: Action observation therapy; C:Conventional rehabilitation therapy; O:Walking test, gait assessment; S:RCT.**
Condition being studied: **In this study, we searched randomized controlled trials related to movement of lower limbs in stroke patients at home and abroad, included literature related to lower limb function, balance function and gait analysis in this study, and extracted relevant data for Meta-analysis to further evaluate the efficacy of movement observation therapy in treating lower limb dysfunction in stroke patients and to provide evidence-based medical evidence to support its clinical application.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 January 2022 and was last updated on 25 January 2022 (registration number INPLASY202210120).

INTRODUCTION

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METHODS

Search strategy: #1"stroke"[Mesh] OR cerebrovascular accident OR apoplexy OR brain vascular accident OR cerebral vascular accident OR hemiplegia OR CVA #2 action observation therapy OR motion observation therapy OR action observation training OR movement observation therapy #3 #1 and #2.

Participant or population: Stroke patients.

Intervention: Action observation therapy.

Comparator: Conventional rehabilitation therapy.

Study designs to be included: RCT.

Eligibility criteria: Inclusion criteria.1. meet the diagnostic criteria for stroke established by the 6th National Cerebrovascular Disease Conference, with further confirmation by CT and MRI.2. stroke patients included in the study were over 18 years of age.3. no significant heterogeneity in general information and baseline characteristics between the two groups.4. good listening comprehension, good compliance, and ability to cooperate with treatment and follow-up.Exclusion criteria.1. non-Chinese and English literature.2. unavailability of full text.3. non-randomized controlled trials such as cohort studies, case-control studies or cross-sectional studies.4. combination of other interventions that may interfere with their effectiveness.5. incomplete data in the original literature.6. duplicate publications of the literature.

Information sources: Search PubMed, Embase, Web of Science, Cochrane Library.

Main outcome(s): 10 MWT.

Additional outcome(s): TUGT, DGI, Step length, step frequency.

Data management: After endnote eliminates duplicate literature, read the title to exclude reviews, comments, animal experiments, etc. to get the primary screening literature, and further read the abstract to exclude literature whose contents do not match, and then read the full text to include the final literature.

Quality assessment / Risk of bias analysis: Cochrane TOOL.

Strategy of data synthesis: If $P \geq 0.1$ and $I^2 < 50\%$, the heterogeneity among studies was considered insignificant, and the data were conservatively combined for meta-analysis using a random-effects model; if $P < 0.1$ and $I^2 \geq 50\%$, the heterogeneity among studies was considered significant, and a random-effects model was selected, and the sources of heterogeneity were explored using subgroup analysis and sensitivity analysis, and if the sources of heterogeneity could not be determined, descriptive analysis. Significance level $\alpha = 0.05$.

Subgroup analysis: Subgroup analysis was performed according to patient age, economic circumstances, and other factors.

Sensitivity analysis: After deleting any one of them, the combined results of the remaining papers are not significantly different from those without deletion, which means that the sensitivity analysis is passed.

Country(ies) involved: China.

Keywords: Action observation therapy; Stroke; Lower extremity function; Gait; Meta-analysis.

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