INPLASY PROTOCOL

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None declared.

Effects of occupational therapy on cognitive impairment in elderly patients with stroke: a meta-analysis base on Computer Artificial Intelligence System

Zhang, H[1]; Wu, X[2]; Xiao, M[3].

Review question / Objective: **Investigate the relationship between Occupational Therapy and cognitive impairment in rehabilitation stroke patients by means of literature meta-analysis to analyze its effect on the improvement of cognitive function in patients.**

Study designs to be included: **①Literature type is defined as RCT literatures (randomized controlled trials); ②All patients are stroke patients with stable condition who receive occupational therapy in hospital rehabilitation center or outside hospital after clinical treatment; ③The study needs to adopt a random strategy to divide the patients into groups for intervention. The patients in the intervention group receive occupational therapy, while the patients in the control group receive usual care.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 October 2022 and was last updated on 13 October 2022 (registration number INPLASY2022100051).

INTRODUCTION

Review question / Objective: **Investigate the relationship between Occupational Therapy and cognitive impairment in rehabilitation stroke patients by means of literature meta-analysis to analyze its effect on the improvement of cognitive function in patients.**

Condition being studied: **Stroke Patients.**

METHODS

Participant or population: **All patients are stroke patients with stable condition who receive occupational therapy in hospital rehabilitation center or outside hospital after clinical treatment.**

Intervention: The patients in the intervention group receive occupational therapy.

Comparator: The patients in the control group receive usual care.

Study designs to be included: ①Literature type is defined as RCT literatures (randomized controlled trials); ②All patients are stroke patients with stable condition who receive occupational therapy in hospital rehabilitation center or outside hospital after clinical treatment; ③The study needs to adopt a random strategy to divide the patients into groups for intervention. The patients in the intervention group receive occupational therapy, while the patients in the control group receive usual care.

Eligibility criteria: ①exclude non-stroke patients, exclude acute hospitalized stroke patients in non-rehabilitation period, exclude patients with severe cognitive impairment; ②exclude non-occupational therapy (such as only take physical therapy, or single cognitive impairment therapy) studies; ③Studies where data were not available were excluded.

Information sources: PubMed, Web of Science, Scopus, the Cochrane central register of controlled trials, Wiley online, China Biology Medicine disc, and China national knowledge infrastructure.

Main outcome(s): Meta-analysis showed that OT treatment improved cognitive function [SMD=1.44, 95%CI(0.96,1.92), Z=5.898, P<0.001], improved post-intervention daily life function, Bartel Index score [SMD=1.40, 95%CI(0.94,1.86), Z=5.949, P<0.001], and COPM (Canadian Occupational Performance Measure) score [SMD=0.39, 95%CI(0.07,0.72), Z=2.365, P=0.018] compared with conventional care.

Quality assessment / Risk of bias analysis: Egger's test was used to assess publication bias.

Strategy of data synthesis: Pooled SMD (Standard Mean Difference) value and 95%CI report were used as effect size, forest plot was used to present results.

Subgroup analysis: Subgroup analytical method and meta-regression analysis were used to investigate the source of heterogeneity, and if the source of heterogeneity could not be determined, we adopted a general description.

Sensitivity analysis: Heterogeneity between literature was analyzed by the Q statistic test, and P>0.05 indicated no heterogeneity of literature, with good consistency. Fixed effect model analysis could be used, and pooled HR value was calculated by the Mantel-Haenszel method; if heterogeneity existed, random effect model analysis was used and pooled HR value was calculated by Der Simonian and Laird method.

Language restriction: English.

Country(ies) involved: China.

Keywords: Occupational therapy; Stroke patients; Cognitive impairment.

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