

The effect of continuing rehabilitation nursing intervention on limb dysfunction in stroke patients: a systematic review and meta-analysis

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ADMINISTRATIVE INFORMATION

Support - Projects for the High-Quality Development of Public Health and Community Health in Changning District in 2024.

Review Stage at time of this submission - The review has not yet started.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 3 November 2024 and was last updated on 3 November 2024.

INTRODUCTION

Review question / Objective Does continuing rehabilitation nursing intervention influence the limb dysfunction in stroke patients? A systematic review and meta-analysis.

Condition being studied Stroke is the main disease that induces disability and death among Chinese residents. Most stroke survivors suffer from sequelae such as limb motor and cognitive dysfunction, which not only influence their daily life, but also trigger negative psychology like anxiety. Therefore, it is extremely important to provide appropriate rehabilitation intervention measures for elderly patients with stroke sequelae to improve their various limb functions, and raise their quality of life. Continuing systematic rehabilitation nursing is a novel model, which is developed by combing rehabilitation medicine and systematic nursing. To be specific, it is patient-

centered during the rehabilitation process. In addition, a system composed of factors such as patients' physical, psychological, and social state is established. Recently, the significance of continuing systematic rehabilitation nursing in the rehabilitation process of stroke patients has become increasingly prominent. Since there is no relevant meta-analysis at present, we conducted a meta-analysis to explore the influence of continuing rehabilitation nursing on limb function of stroke patients.

METHODS

Participant or population Patients with stroke hemiplegi.

Intervention The experimental group was given continuing rehabilitation nursing intervention for stroke patients. Continuing rehabilitation nursing is mainly based on limb function rehabilitation exercises and activities of daily living exercises as

the core, combined with comprehensive intervention methods such as psychological nursing and diet guidance, which can promote the stability of physical and mental function of patients and promote the prognosis.

Comparator Patients in the control group were given basic/general nursing measures such as respiratory tract cleaning, blood pressure control, and observation of physical signs.

Study designs to be included This review will include randomized controlled trials (RCTs) of continuing rehabilitation nursing of strokes, published in English or Chinese.

Eligibility criteria Included participants are ischemic or hemorrhagic stroke survivors with any age, gender, and disease stage.

Information sources We will search English and Chinese databases for randomized controlled trials about continuing rehabilitation nursing for stroke from the establishment time to 1st March, 2020. The English databases will contain MEDLINE (PubMed), EMBASE (embase.com), and the Cochrane Central Register of Controlled Trials (Cochrane Library). the Chinese databases will include the Chinese National Knowledge Infrastructure (CNKI), the Chinese BioMedical Literature Database (CBM), the Chinese Science and Technology Periodical Database (VIP), and Wanfang and the Chinese Dissertation Database (CDD).

Main outcome(s) Main outcomes are limb function of strokes. The measurement of upper limb function and balance function is Fugl-Meyer Assessment (FMA), and Berg Balance. Scale (BBS). Measurement time is unlimited.

Additional outcome(s) The Barthel index and ability of daily living (ADL) scale was applied to evaluate the functional status of activities of daily living and ability of daily living.

Quality assessment / Risk of bias analysis The risk of bias will be assessed by the Cochrane Collaboration's tool with seven items: random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, selective reporting, and other bias. Based on the Cochrane risk bias tool, each term will be assessed in three broad categories: high, ambiguous, and low risk of bias. The reasons of ambiguous should be recorded. The risk of bias will be done independently by two reviewers (X-C L

and Y-Y L). Differences will be resolved through discussion with the third experienced reviewer.

Strategy of data synthesis The Review Manager (v5.3) will be used to data synthesis. Risk ratios (RRs) with 95% CIs for dichotomous outcomes, and mean differences (MDs) or standard mean differences (SMDs) with 95% CIs for continuous outcomes will be calculated. We will use either a fixed effect model or a random effect model based on the heterogeneity. Inter-study heterogeneity will be assessed by Q test and I^2 values. I^2 values of 50% or higher indicate significant heterogeneity. If low heterogeneity is found in the analyses between the included studies, we will use the meta-analysis to synthesize these results.

Subgroup analysis Significant heterogeneity will further explore subgroup analysis, which first considers the following factors: duration and frequency of continuing rehabilitation nursing. If there are enough such studies, subgroup analysis will be planned.

Sensitivity analysis In the case of greater heterogeneity, we will proceed with the systematic synthesis method.

Country(ies) involved China.

Keywords Humans; Prognosis; Rehabilitation Nursing; Continuing rehabilitation; Stroke; Limb Dysfunction; Stroke Rehabilitation.

Contributions of each author

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