INTRODUCTION

Review question / Objective: Did the balance scales have good accuracy to identify or predict falls in the elder people?

Condition being studied: Falls in elder people.

Quality assessment /Risk of bias analysis: We will use the Cochrane collaboration's tool to assess the include studies. Once studies were determined to fit the inclusion criteria, additional data were extracted for each study to specifically assess adequate random sequence generation, allocation concealment, subject blinding, outcome blinding, and procedures for handling incomplete data and selective reporting.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 10 April 2020 and was last updated on 10 April 2020 (registration number INPLASY202040050).
METHODS

Search strategy: We will search the following electronic databases: PubMed, EMBASE, Web of Science, Cochrane Library, CNKI, Wanfang database. The search strategy will include terms relating to or describing the accuracy of the balance scales: Berg Balance Scale, Brunel Balance Assessment, Balance Evaluation Systems Test, Functional Gait Assessment etc. The search terms will be adapted for use with different databases. Only papers published in English, Chinese will be included in the review. Publication period is 1970 ~ 2019.

Participant or population: Elder people.

Intervention: Any RCT that evaluates the efficacy of balance scales.

Comparator: Studies that using the balance scales of intervention, or use no balance scales.

Study designs to be included: Randomized controlled trials (RCTs).

Eligibility criteria: Study design: published, peer-reviewed randomized control trials; Population: elder people.


Main outcome(s): The occurrence of falls: history falls and prediction falls.

Additional outcome(s): None.

Quality assessment / Risk of bias analysis: We will use the cochrane collaboration's tool to assess the include studies. Once studies were determined to fit the inclusion criteria, additional data were extracted for each study to specifically assess adequate random sequence generation, allocation concealment, subject blinding, outcome blinding, and procedures for handling incomplete data and selective reporting.

Strategy of data synthesis: We will conduct a Bayesian network meta-analysis using the ADDIS. Statistical analysis will include: 1. Pooling the effect size for binary outcomes; 2. Network meta-analysis; 3. Assessment of consistency; 4. Assessment of heterogeneity; 5. Plot the probability of intervention ranks.

Subgroup analysis: None.

Sensibility analysis: None.

Language: English or Chinese.

Country(ies) involved: China.

Keywords: balance scale; elder people; network meta-analysis.