

Exercise Rehabilitation in Older Adults with Cognitive Dysfunction: An Evidence Mapping

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Abstract

Objective To systematically identify and evaluate the current status and deficiencies of exercise rehabilitation in the elderly with cognitive dysfunction through the visual evidence comprehensive research method of evidence atlas, to provide reference for clinical decision-making of cognitive impairment rehabilitation management. *Methods* PubMed, Web of Science, Embase, CINAHL, American Psychological Association (APA), Cochrane Library, CNKI, Wanfang, VIP, and SinoMed were searched from the establishment to July 2024. To obtain systematic reviews/meta-analyses of exercise rehabilitation in the elderly with cognitive dysfunction, AMSTAR-2 was used to evaluate the quality of the included studies. Tableau 2024 software and Microsoft Excel 2019 were used for data extraction, coding, and analysis. Bubble charts were used to comprehensively present information such as study population, intervention type, outcome indicators, and quality evaluation results. *Results* A total of 28 systematic reviews and 102 meta-analyses were included. Main outcome indicators for the overall and cognitive function in various fields, accounted for 73.1% (95), mental symptoms 36.2% (47), the main types of exercise were aerobic and mind-body, and high-quality evidence accounted for 33.8% (44). *Conclusions* Aerobic exercise or mind-body exercise at moderate or above intensity for 30-60 minutes is generally recommended to improve global cognitive function. Other cognitive sub-domains, except processing speed, have potentially positive effects of exercise but are usually only assessed as secondary outcome measures and few original studies are available. In the non-cognitive domain, it has been found in high-quality evidence that exercise rehabilitation has a better effect on psychological and behavioral symptoms. However, there are few studies on the improvement of symptoms in sub-domains such as anxiety, depression, irritability, and other non-cognitive domains, and there is still a lack of high-quality evidence, which still has broad research prospects.

Keywords

Mild Cognitive Impairment, Dementia, Evidence Map, Exercise

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