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EFFECTIVENESS OF TELEREHABILITATION ON QUALITY OF LIFE IN STROKE SURVIVORS: A SYSTEMATIC REVIEW AND META ANALYSIS

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Primary topic: Neurology: stroke

2nd Topic: Service delivery/emerging roles

Background: Recent advances in technology have made possible the delivery of health services to patients remotely, and telerehabilitation for stroke survivors has emerged as a promising intervention.

Purpose: This systematic review was aimed to assess the clinical effectiveness of telerehabilitation programmes on quality of life of stroke survivor.

Methods: We searched MEDLINE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), AMED, Web of Science and Scopus databases from inception to 10th of June 2022. Search terms related to the clinical effectiveness of telerehabilitation interventions were used. Studies meeting the inclusion criteria were identified and key data were extracted. A comprehensive meta-analysis software was used to obtain the meta-analysis according to the standardised mean difference (SMD) and 95% CIs.

Results: A total of 11 eligible studies that met the inclusion criteria were reviewed. These studies were conducted in Brazil (n = 1), Italy (n = 2), Netherland (n = 1), South Korea (n = 1), Switzerland (n = 1), Taiwan (n = 1), United Kingdom (n = 1) and United States (n = 3) between 2004 and 2020. Except for blinding of participants to study group allocation, all the studies were (> 50%) at low risk of bias to considering adequate sequence generation, allocation concealment, blinding of trial personnel or outcome assessors, evaluation of incomplete outcome data, and lack of selective reporting. The meta-analysis included 1,206 individuals with duration of follow up ranged between 4 weeks and 6 months. We found that there was no statistically significant difference (SMD = 0.590, Confidence Interval (CI) 95% = -0.226 to 1.405, p = 0.157) for Stroke Impact Scale (based on health utility weighting of the Modified Rankin Scale) between telerehabilitation interventions and standard care.

Conclusion(s): Effectiveness of telerehabilitation interventions on quality of life in stroke survivors in a short term is comparable to standard care.

Implications: Further research studies are required to examine the effectiveness of telerehabilitation interventions for improving quality of life of stroke survivors in a long term follow up.

Keyword 1: Effectiveness

Keyword 2: Telerehabilitation

Keyword 3: Stroke Survivors

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Consent: Yes

Consent: Yes