



Kennedy, C. and Kidd, L. (2018) Interventions for post-stroke fatigue: A Cochrane review summary. *International Journal of Nursing Studies*, 85, pp. 136-137. 29525448. (doi:[10.1016/j.ijnurstu.2017.11.006](https://doi.org/10.1016/j.ijnurstu.2017.11.006)).

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Deposited on: 23 September 2019

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Interventions for post-stroke fatigue.

Question

To determine whether, among people with stroke, any intervention reduces the proportion of people with fatigue, fatigue severity, or both; and to determine the effect of intervention on health-related quality of life, disability, dependency and death, and whether such intervention is cost effective.

Relevance to nursing care

Fatigue is a common, distressing and persistent consequence of stroke that has considerable impact on the quality of life of long-term stroke survivors. It is estimated that up to 75% of stroke survivors experience post stroke fatigue (Choi-Kwan, 2011). Although the specific aetiology of post stroke fatigue (PSF) is unclear, its impact amongst stroke survivors is significant. PSF has been associated with anxiety and depression, pain, sleep disorders, physical and cognitive impairment, difficulties in returning to work following stroke, poorer self-perceived health status and even, survival.

The management of PSF remains high on the agenda for stroke research and was identified as the top priority for stroke nursing research and practice in a recent James Lind Alliance priority setting exercise in the UK (Rowat et al, 2016). There is a need for nurses to understand the signs and symptoms of PSF, its impact on stroke survivors' quality of life and the most effective and feasible ways of managing PSF.

Study characteristics

Participants were men and women, aged 18 years and older, and diagnosed with stroke. All subtypes of stroke; ischaemic, haemorrhagic and subarachnoid stroke were included. The interventions of interest were pharmacological and non-pharmacological interventions in combination or alone.

The primary outcome of interest was PSF at the end of treatment as measured by i) proportion of people with fatigue; ii) or mean severity of fatigue; iii) or both. The secondary outcome measures included health related quality of life, disability, dependence, death and cost effectiveness.

Twelve randomised controlled trials were included (three from a search in 2008 and nine from a 2014 search) totalling 703 participants. Eight included studies with a total of 455 participants aimed to treat PSF. The other four trials, with a total of 248 participants, did not target PSF but reported fatigue as an outcome. There were no trials which intended to prevent PSF. Of the eight included trials which aimed to treat PSF, four investigated pharmacological interventions and four tested non-pharmacological interventions. Included studies were small in participant numbers, varied on risk of bias, interventions used and outcomes measures.

Five broad categories of interventions targeting PSF were identified; antidepressants and other psychostimulants, psychological interventions, physical training, traditional Chinese therapies and other drug interventions. This review demonstrated no beneficial effects of any antidepressants or psychostimulants on PSF. Psychological interventions, physical training, traditional Chinese therapies, and other drug therapies (e.g. vitamin D compound) were feasible in people with stroke but their efficacy is unproven.

Implications for nursing care

The findings of this review suggest that PSF has a significant impact on stroke survivors' quality of life but evidence on the feasibility and effectiveness of approaches in its management is currently limited. As part of a multidisciplinary team of rehabilitation specialists, nurses have a critical role to play in the assessment, screening and management of PSF. It is important that nurses have a good understanding of how PSF is experienced by stroke survivors and its persistent and wide ranging impact on their quality of life. Nurses should routinely ask stroke survivors, their families and carers about signs and symptoms of PSF at their routine visits as well as other post stroke morbidities including, anxiety and depression, quality of sleep patterns, pain, medications, or general medical comorbidities which may be indicative of, or influence, the experience of PSF. Nurses can provide ongoing monitoring, support and education, and help with goal setting in the self-management of activities of daily living and the psychosocial consequences of stroke, energy conserving strategies, engagement in an appropriate level of physical activity, and facilitate in promoting good sleep routines and behaviours.

Implications for research

Further research is needed which can identify effective interventions for PSF. There is a need to investigate the efficacy of pharmacological interventions in RCTs. Psychological interventions and physical training have been shown to be feasible in people with stroke so their efficacy also needs to be tested in RCTs with more robust study designs and adequate sample sizes.

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