

## Nursing care for stroke survivors' fatigue

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World Journal of Biology Pharmacy and Health Sciences, 2023, 14(01), 097–100

Publication history: Received on 22 February 2023; revised on 10 April 2023; accepted on 13 April 2023

Article DOI: <https://doi.org/10.30574/wjbphs.2023.14.1.0150>

### Abstract

Patients discover that exhaustion following a stroke is both frequent and upsetting. Which method to employ to alleviate this fatigue needs to be decided. Various techniques might be beneficial. Between 25 and 75 percent of stroke survivors report feeling worn out. Patient's quality of life and neurological rehabilitation are negatively impacted by post-stroke fatigue (PSF), which is frequently incapacitating. PSF is defined in various ways, but they all include subjective feelings of weakness and exhaustion that make it difficult to go about daily activities. Both biological and psycho-cognitive factors influence PSF. The assessment of PSF, contributing variables, therapy modalities, and nursing implications will all be covered in this paper.

**Keywords:** Care; Fatigue; Nursing; Stroke; Survivors

### 1. Introduction

A key contributor to long-term impairment is stroke. Over the past few years, there has been growing evidence that fatigue is a typical, ongoing issue after a stroke. Patients find it upsetting, and it might indicate death. According to the group investigated (such as inpatients or community patients, time since stroke, the severity of the stroke, whether people with depression were included or excluded, and how fatigue was diagnosed), estimates of the prevalence of fatigue after stroke varied from 16% to 70%. (e.g., single question or fatigue scales).[1] An overexertion-related state of general tiredness that can be relieved by rest is known as normal fatigue. Diagnostic criteria and an associated structured interview have recently been created to determine which stroke patients have clinically significant fatigue.[2]

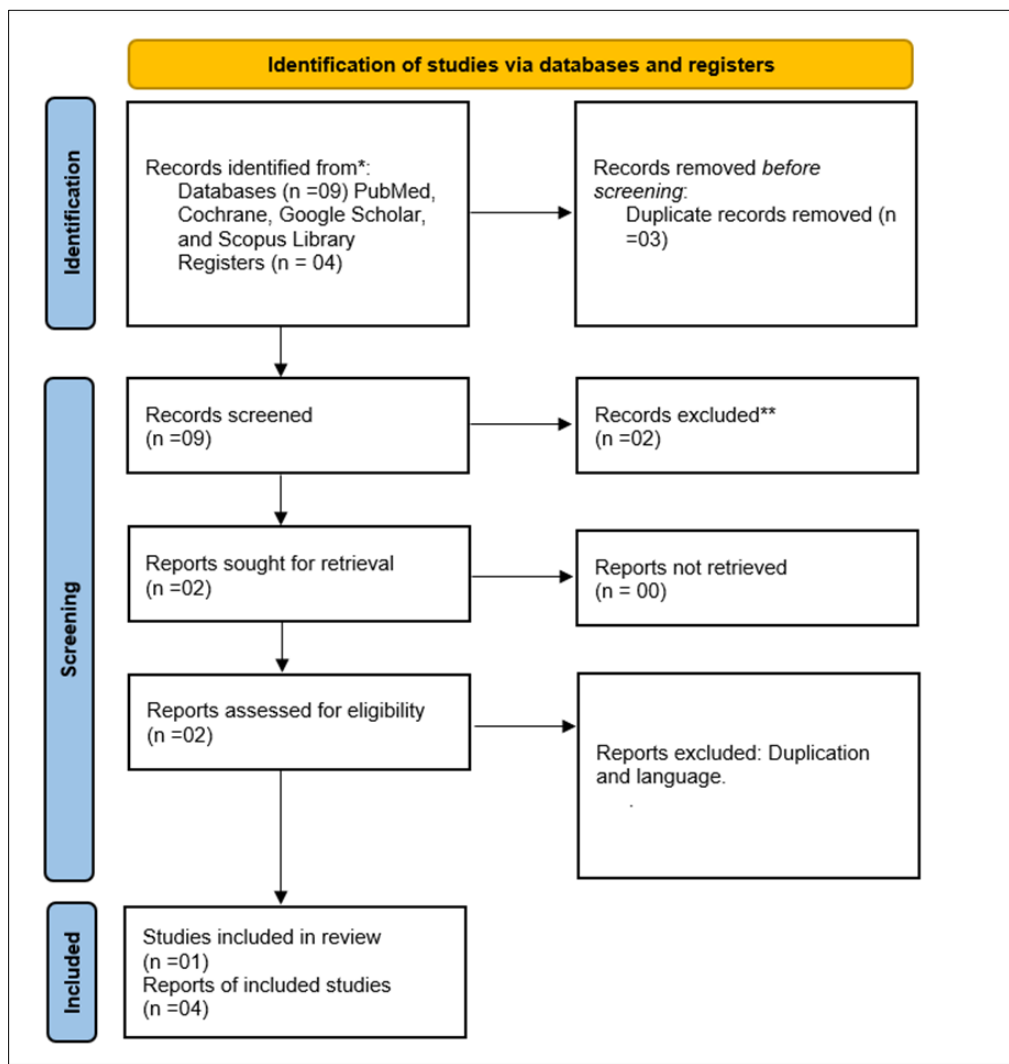
It is unclear what causes weariness after a stroke. Not all research, but some have discovered connections with depression. While other studies did not, one small study examined the relationship between brain stem lesions. One short survey with 38 people identified a connection between fatigue and the plasma glutamate/glutamine ratio, suggesting that fatigue may have a biological basis. Fatigue in cancer patients may be caused by abnormal cortisol regulation. There has not been any research on the connection between exhaustion following a stroke and cortisol imbalance.[3]

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## 2. Literature search

The preliminary screening process resulted in the reduction of 09 articles to potentially relevant articles. Non-relevant articles were eliminated due to their non-English language, title, abstract, and book chapter. Based on the inclusion criteria, 04 studies were discovered (Figure 1: Preferred Reporting Items for Reviews) (Health Evidence™ tool).

We conducted this review according to Preferred Reporting Items for Reviews (PRISMA) Figure (1)



**Figure 1** Preferred Reporting Items for Reviews (Health Evidence™ tool)

(PRISMA) flow diagram of the literature screening process.[4]

## 3. Results and discussion

Fatigue affects as many as 25% to 75% of stroke survivors. This poststroke fatigue (PSF) is often disabling and negatively influences neurological recovery and patients' quality of life. There are numerous definitions of PSF, which include subjective feelings of exhaustion and lack of physical or mental energy that interfere with everyday activities associated with both biological and psycho-cognitive factors. This article provides an overview of PSF assessment, causative factors, treatment interventions, and nursing implications. There are numerous methods for measuring fatigue, none unique to stroke. Widely used evaluation tools that have been tested for stroke patients. Lynch et al.'s PSF case definition is the most helpful for stroke care nurses. Whether stroke survivors are in the hospital or the community, nurses can ask them two questions. Hospital patients who have experienced weariness, a loss of energy, or an increased need for rest every day or virtually every day since their stroke are considered to have PSF. Also, suppose a patient has

experienced exhaustion, a loss of energy, or an increased need for rest every day or almost every day for at least two weeks in the last month. In that case, they satisfy the description of a stroke survivor living in the community.[5] It has become tough to engage in daily tasks due to this tiredness. According to research, PSF is a complicated phenomenon with numerous underlying causes. The conclusion that older adults and female stroke survivors reported PSF more commonly than several studies refuted young or male stroke survivors. One study found no connection between PSF and marital status, whether a person lives at home or in an institution or whether they are married. People with PSF are more likely to change jobs and be unemployed than those without, but it is still unknown what causes these differences.[6] PSF is associated with generalized neurological impairments, muscular dysfunction, and speech disorders (aphasia or severe dysarthria). The impact, particularly in the chronic stage, may be partially linked to accompanying depression. By monitoring symptoms, including hypotension, arrhythmia, edema, and relevant laboratory test results (such as complete blood count, albumin, glucose, renal function, liver function, and tests for infection), nurses can monitor PSF and find therapeutic causes.[7] In addition, concurrent medical problems like hypotension, diabetes mellitus, heart failure, anemia, and the medications used to treat them can all contribute to weariness. After a stroke, feeding challenges brought on by dysphagia, inattentiveness, and appetite loss can lead to malnutrition and PSF. Nurses should be aware that high-dose thiamine administered orally or parenterally may reduce fatigue in cases of nutritional insufficiency. PSF has reportedly been linked to sleep disorders in general or daytime sleepiness, both frequent in stroke patients. However though other investigations did not support this correlation, some studies have linked post-stroke pain to PSF. Although a thorough characterization of pre-stroke fatigue has not been done, it is strongly related to PSF. One study found that patients with pre-stroke weariness had more medical comorbidities than those without, which has been recognized as a risk factor for stroke in and of itself. As a result, diseases like diabetes mellitus, congestive heart failure, or subclinical strokes may be linked to pre-stroke weariness. PSF and depression are intimately connected.[8] Even after excluding studies that utilized depression scales with a fatigue item, the association is still positive, suggesting that it may be related to including a fatigue item in depression scales.[9] Yet, PSF patients hardly ever describe hopelessness, worthlessness, or suicidal thoughts, indicating that exhaustion and depression are distinct psychological conditions.[10] PSF may have anxiety and cognitive decline as its causes. The prescriptions for patients who may experience weariness and other symptoms like sadness, anxiety, sleep difficulties, and pain should be carefully evaluated by nurses. Based on this assessment, nursing management should be implemented. [11,12,13].

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#### 4. Conclusion

This is the first systematic analysis of fatigue following a stroke that we are aware of. Only three published trials and two continuing trials were found. In the three published trials, fatigue was a secondary objective, and research participants were not required to experience exhaustion. In one study, the effects of fluoxetine and placebo on weariness were equivalent. According to the second trial, patients with subarachnoid hemorrhage were less likely to feel fatigued after three months if they had taken tirilazad mesylate. However, it was a relatively small study, and more than half of the randomly assigned patients were not available for follow-up. A chronic disease self-management program was no more effective at reducing fatigue than a "wait list control" group in the third trial, which included 1140 patients with various chronic diseases. This was true for 125 patients who had recently experienced a stroke. Patients with fatigue following a stroke are being sought for an ongoing experiment. Fatigue is the main outcome indicator. This study examines whether cognitive treatment combined with graded activity is superior to cognitive therapy alone. This trial lacks a "usual care" arm, making it impossible to test the claim that cognitive therapy is excellent for routine care. Given the link between exhaustion and a decreased "locus of control," it would be worthwhile to explore this idea. The second current experiment will assess exhaustion as a secondary outcome and look at CPAP in sleep-disordered breathing. Unless fatigue following a stroke was linked to sleep apnea and the patient could adhere to therapy, it is unlikely that CPAP would be a frequently used treatment. There are still questions regarding the potential efficacy of the medicines we found for stroke-related fatigue.

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#### Compliance with ethical standards

##### *Disclosure of conflict of interest*

There are no conflicts of interest, according to the authors.

##### *Statement of ethical approval*

This evaluation does not require ethical authorization because no patient data will be gathered. This study's ethical issues include plagiarism, confidentiality, misconduct, data falsification, double publication and submission, and duplication.

### *Financial support*

This study received no outside funding.

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