

Does splinting the upper limb improve the quality of life and functional independence of stroke survivors?

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Introduction and Background: Up to 80% of stroke survivors have impairments of the upper limb, which considerably affects participation in everyday activities and quality of life (Langhorne et al., 2009). Improving upper limb function to maximise functional potential is an integral part of a stroke survivor's rehabilitation programme (Lum et al., 2009). The use of splinting to improve functional outcomes has been a source of debate in the literature as its application in practice is diverse and warrants further research to guide practice (Basaran et al., 2012).

Methods: An in-depth case study approach was used to evaluate eight stroke survivors' sensorimotor and functional outcomes following a splinting regime using either dorsal or volar splints. The ICF framework was used to develop and structure the study. Data collection occurred biweekly for 2 months and then at 6 months to evaluate the impact of splinting. Descriptive and nonparametric data analysis of sensorimotor, functional and quality of life measures was done using SPSS.

Results and conclusion: All participants showed some degree of improvement in majority of the study measures following an 8-week splinting programme. For younger participants, improvements of sensorimotor components were significantly associated with an improvement in functional ability and quality of life.

Impact: The findings highlight areas of splinting practice that are potentially effective for the rehabilitation of the upper limb of stroke survivors but require research on a larger population using randomised controlled trials to confirm the findings.

Implications for practice: A 6 month splinting programme has the potential to effect sensorimotor, functional and quality of life outcomes for individuals in the chronic phase of Stoke rehabilitation. There are many variables that need to be considered and the structure of the ICF model is well suited in guiding OTs when using splints for the rehabilitation of the upper limb for stroke survivors.

References

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Keywords

Neurological practice, Research, Practice – present and future, Voluntary/third sector services

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