Understanding The Development Of Contractures In People With Stroke: An Initial Logic-Model Of The Problem

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Introduction: In the UK there are approximately 1.3 million people living with stroke. Half of adults admitted to hospital with stroke develop at least one contracture (ie. stiffness and reduction in how much a joint and muscle can move), which may increase impairment severity. There is limited research into the mechanism and wider causative factors associated with contracture development. This review outlines the first logic model of contracture development.

Method: Four experts in the management of contracture produced a draft Logic-Model of contracture development. A Public Patient Involvement consultation with people following stroke, carers and clinicians process, based on the literature was then conducted to identify possible missing elements within the Logic-Model. Factors were then categorised and summarised within the Logic-model to present the findings. The process resulted in a comprehensive model to describe factors associated with contracture development.

Results: Findings were summarised into a visual format, as the logic model of the problem for contracture development. Following consultation with the PPI group new items were added: Personal Determinants: Person with stroke: sensory impairment, perceived advantage and disadvantage (of knowledge of health condition); Personal Determinants: Family carers and supporters: motivation, depression; Personal Determinants: Professionals and paid carers: Low moral; Environmental Factors: Lack of context, specific tools and training. Items identified in most instances were an addendum to an item already included, adding depth and context to understanding.

Conclusion: The resulting Logic-Model of the problem will enable development of evidence-based care pathways to prevent and treat contracture.