A Randomized Controlled Trial on Rehabilitation through Caregiver-Delivered Nurse-Organized Service Programs for Disabled Stroke Patients in Rural China (The RECOVER Trial)

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Background

Stroke is the leading cause of death and disability in rural China, but rehabilitation for stroke patients is far from adequate. Our study aims to develop, implement and evaluate a novel rehabilitation program through providing nurse-organized caregiver-delivered rehabilitation services targeting physical functioning.

Methods

Eligible and consenting stroke patients from Qingtongxia and Zhangwu rural hospitals were randomized into the intervention or control (usual care) group. Hospital nurses were trained by specialists to provide in-hospital training to patients and caregivers in the intervention group on practical evidence-based rehabilitation skills in three domains: mobility, self-care and continence. Nurses also provided telephonic follow-up at 2, 4 and 8 weeks post-discharge. Primary outcome was changes in Barthel Index from baseline to follow-up at sixth months. Primary outcome, several secondary outcomes were evaluated by independent staff.

Results

From October 2014 to December 2015, a total of 212 patients were randomized with generally compatible characteristics between the two groups. **Table** shows blinded analyses on Barthel Index. Data collection will be completed by July 15, 2016 and full unblinded results can be presented in October.

Conclusions

We implemented a practical and potentially scalable rehabilitation program for stroke patients in rural China. If proved effective, the model has the potential to be adapted to other areas for large health gains.

Table. Barthal Index

	Baseline	Three months	Six months
Zhangwu	47.0±22.8	71.2±22.1	74.1±23.4
Qingtongxia	44.7±22.0	70.9±25.1	74.2±23.0
Total	45.6±22.3	71.0±23.8	74.1±23.1