



Effect of home-based post-acute care on improving anxiety in patients with stroke

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Introduction

Common emotional disorders in patients with stroke are anxiety (61.4%), loneliness (61.0%), depressive mood (59.6%), bad temper (55.8%), and hopelessness (50.2%), among which depressive mood and anxiety are the most discussed ones. Emotional disorders are typically followed by unfavorable functional performance and undermine the prognoses. Research shows that the proportion of patients receiving rehabilitation treatment who experience emotional disorders is lower than that of patients not receiving rehabilitation and that rehabilitation activities at an early stage reduce anxiety levels. However, studies have predominantly focused their discussion on inpatients. The present study discussed the effect of home-based postacute rehabilitation on alleviating emotional disorders in patients with acute stroke.

Materials and Methods

This study employed a retrospective record review design and collected the 2017–2020 data of patients in a hospital who met the following criteria: (1) demonstrating a stable medical status, (2) having a functional status with a moderate to moderately severe functional disorder (modified Rankin scale, mRS 3–4), (3) showing a basic cognitive level as well as the ability and intention to learn, and (4) being able to remain seated for an hour with support and having received home-based postacute care. The postacute care mainly involved frequent rehabilitation sessions, which were integrative home-based rehabilitation offered by a physical or occupational therapist. Each session lasted 30–50 minutes, with up to 6 sessions weekly. Simple devices readily available at home were used for the rehabilitation; by providing health education to the family members, the rehabilitation sessions enhanced the patients' daily life functions and ability to engage in community. The psychological dimensions of the European Quality of Life-5 Dimensions were employed to determine whether patients experienced emotional problems and the extent of these problems. Statistical analyses were conducted to examine whether a difference existed between the patients' scores before and after home rehabilitation.

Results

The study sample comprised 58 patients who averaged 69.83 ± 13.25 years, with 32 (55.17%) men; 44 (75.58%) of the patients had ischemic stroke, 20 (33.9%) had been admitted to an intensive care unit during the acute period of stroke, and 35 (61.02%) demonstrated severe functional disorders at the time of discharge (mRS = 4). These patients received home-based rehabilitation 14.07 ± 6.64 days after the incidence of stroke. A total of 39 patients (67.2%) experienced anxiety/depression before the rehabilitation intervention, with 4 of them showing extreme anxiety or depression. After 35.54 ± 10.21 days of home-based rehabilitation, 27 patients (46.5%) showed anxiety/depression, with only 1 of them having extreme anxiety or depression (Table 1). The mean anxiety score decreased from 1.74 ± 0.58 to 1.48 ± 0.53 ($P < 0.05$), as shown in figure 1.

Table 1. Extent of emotional problems before and after intervention

Description	Score	Before intervention	After intervention	<i>p</i>
Not feeling anxious or depressed	1	19(32.8%)	31(53.4%)	< .001
Feeling moderately anxious or depressed	2	35(60.3%)	26(44.8%)	
Feeling extremely anxious or depressed	3	4(6.9%)	1(1.7%)	

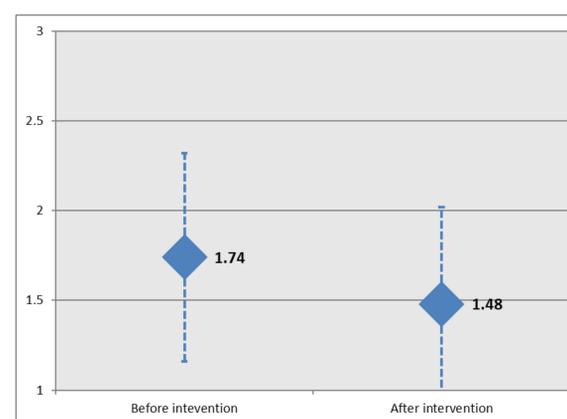


Figure 1. The mean score decreased after intervention

Conclusions

Intense and frequent home-based postacute rehabilitation could alleviate emotional disorders in patients with stroke, particularly anxiety or depression. Further analysis and discussion are merited regarding whether such alleviation of emotional disorders was attributable to the direct effect of the rehabilitation content or to the indirect effect of the reduced disability level.