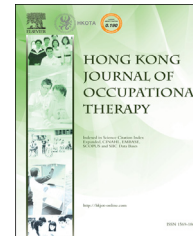




Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.hkjot-online.com



ORIGINAL ARTICLE

The Effect of a Written and Pictorial Home Exercise Prescription on Adherence for People with Stroke



Sheetal Kara, Mokgobadibe Veronica Ntsiea*

School of Therapeutic Sciences, Faculty of Health Sciences, University of the Witwatersrand, Parktown, Johannesburg, South Africa

Received 25 August 2015; received in revised form 10 December 2015; accepted 14 December 2015
Available online 12 January 2016

KEYWORDS

adherence;
home exercise
programme;
stroke

Summary *Background/Objective:* Functional recovery for stroke survivors begins with rehabilitation. It may not be feasible for therapists to supervise all rehabilitation, especially in the home environment. Therefore, adherence to prescribed exercise programmes is important. The objective of this study was to determine the effect of a written and pictorial home exercise prescription on adherence to a home exercise programme in patients with stroke.

Methods: This was a randomised controlled trial with a blinded assessor. The control group received a home exercise programme with verbal instructions, while the intervention group received the same home exercise programme with verbal instructions but with additional written and pictorial instructions for the exercises. An exercise logbook was used to monitor adherence. The Modified Rivermead Mobility Index (MRMI) and Barthel Index (BI) were used to establish mobility and activities of daily living.

Results: There were a total of 42 participants, with 21 in each group; mean age was 60.8 ± 15.5 years. Forty (95%) of the participants had suffered a stroke less than 4 months prior to the study. Both control and intervention groups had similar outcomes: there was no significant difference between groups with regard to functional ability (MRMI, $p = .40$; BI, $p = .65$) and adherence ($p = .53$). The relationship between functional ability (MRMI and BI) and the level of adherence for both the control and intervention groups was not statistically significant.

Conclusion: The addition of a written and pictorial home exercise prescription does not lead to better adherence to a home exercise programme compared to having no written and pictorial instructions. Possible reasons may be that patients had caregivers as a support system, and the exercise logbook served as a reminder and motivational track record for patients. There also

Funding/support: This study was partially funded by the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa, and the researchers.

Conflicts of interest: All contributing authors declare that they have no conflicts of interest.

* Corresponding author. School of Therapeutic Sciences, Faculty of Health Sciences, University of the Witwatersrand, Private Bag 3, WITS 2050, South Africa.

E-mail address: Veronica.Ntsiea@wits.ac.za (M.V. Ntsiea).

<http://dx.doi.org/10.1016/j.hkjot.2015.12.004>

1569-1861/Copyright © 2016, Hong Kong Occupational Therapy Association. Published by Elsevier (Singapore) Pte Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

does not appear to be a relationship between functional ability and level of adherence, which may be due to most of the study participants being within the optimal time frame for spontaneous functional recovery. Further study at different time frames in stroke rehabilitation in different contexts is recommended.

Copyright © 2016, Hong Kong Occupational Therapy Association. Published by Elsevier (Singapore) Pte Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Proper care of stroke survivors is essential as stroke can lead to neurological deficits that in turn lead to functional impairments. Functional recovery in a stroke survivor begins with rehabilitation. It has been found that supervised rehabilitation in an institution or at home improves a patient's quality of life and fitness (Touillet, Guesdon, Bosser, Beis, & Paysant, 2010). However, it may not be feasible for therapists to supervise all rehabilitation, especially in a home environment. Therefore, adherence to home exercise programmes is important (Taylor, Dodda, McBurney, & Graham, 2004), and would allow for potential savings in treatment cost and help to avoid morbidity and unwanted side effects (Schneiders, Zusman, & Singer, 1998). It also has a positive effect on functional outcome (Duncan et al., 2002).

In 2008, Howard and Gosling defined adherence as the ability to continue with an activity once it has been initiated. There are two ways to look at adherence: first, as an attitude, in which case the willingness to follow prescribed instructions is assessed, and second, as a behaviour, which then relates to the actual carrying out of the prescription (Schneiders et al., 1998). Adherence or non-adherence can be measured using an exercise diary or logbook. This can be accompanied by a standardised functional outcome measure or questionnaire (Bassett & Petrie, 1999; Schneiders et al.; Schoo, Morris, & Bui, 2005).

Research has been conducted previously on adherence and various modes of exercise prescription. It was found that patients with lower back pain who received verbal instructions plus a brochure had a higher adherence rate of 77% versus 38% for patients who received verbal instructions only (Schneiders et al., 1998). These methods of exercise prescription were not investigated in stroke patients. However, Touillet et al. in 2010 conducted a pilot study to compare stroke survivors' stated activity with their actual activity. They found that patients with stroke have a low adherence rate to home exercise programmes: only one out of the nine participants in their study adhered to the prescribed programme.

Poor adherence to home programmes is not unique to the Touillet et al. (2010) study setting. It also appears to be a problem at the hospital where the current study was conducted, as indicated by patients' verbal admission to non-adherence to prescribed home programmes. The standard practice at this hospital's stroke outpatient clinic is verbal prescription of home programmes. The patients have follow-up appointments after a 3–4-week interval. The large interval between hospital visits demands for patients to adhere to the prescribed home programmes. The

question is, what needs to be done to increase adherence? This study aimed to determine whether the addition of a written and pictorial home exercise prescription would affect the adherence rate to a home exercise programme in patients with stroke. The secondary aim of this study was to establish if there is a relationship between the level of adherence and functional outcome as measured by the Modified Rivermead Mobility Index (MRMI) and Barthel Index (BI) scores.

Methods

A randomised controlled trial was used to compare adherence to a 4-week home exercise programme in patients with stroke. Patients received a home exercise programme with verbal instructions or a home exercise programme with verbal instructions and a written and pictorial home exercise prescription added on. Adherence was defined as "the extent to which a client completes the active element of treatment effectively following advice and instructions and comprises a wide variety of behaviours including entering into and continuing a treatment programme, attending therapy appointments and performing home-based exercises" (Taylor et al., 2004, p. 57–58).

There have been no previous studies on adherence to home exercise programmes in stroke patients. Touillet et al.'s pilot study in 2010 found that only one out of nine participants (11%) adhered to the prescribed home exercise programme. Based on their results, the effect size of the current study was set at 11%, with an expectation that the intervention group's adherence to their home exercise programme would be at least 11% more than that of the control group. Thus, a sample size of 21 participants per group would be required to detect this minimum adherence rate difference between the control and intervention groups. The significance level of the study was set at an alpha value of .50 ($p = .05$).

Ethics clearance was obtained from the University of the Witwatersrand Ethics Committee for Research on Human Subjects (clearance number M110706) and permission was granted by the authorities at the data collection site (hospital).

Participants

Stroke survivors were recruited from a hospital-based neurology outpatient clinic. Those who met the following criteria were included in the study: (a) attending the neurology outpatient clinic for the first time; (b) have a caregiver present for therapy sessions; (c) above the age of

Download English Version:

<https://daneshyari.com/en/article/2690477>

Download Persian Version:

<https://daneshyari.com/article/2690477>

[Daneshyari.com](https://daneshyari.com)