Physiotherapeutic perspectives on balance control after stroke: exercises, experiences and measures

av

Mialinn Arvidsson Lindvall

Akademisk avhandling

Avhandling för medicine doktorsexamen i medicinsk vetenskap med inriktning mot hälso- och vårdvetenskap, som kommer att förvaras officiellt fredag den 1 juni 2018 kl. 09.00,
Hörsal C3, Campus USÖ

Opponent: Docent, leg.sjukgymnast Charlotte Ytterberg,
Karolinska Institutet, Sektionen för Fysioterapi, NVS,
Stockholm

Örebro universitet
Institutionen för hälsovetskaper
701 82 Örebro
Abstract


The overall aim of this thesis was to investigate physiotherapeutic perspectives on balance after stroke, in terms of exercises, experiences and measurements. Study I was a pilot randomized controlled trial with 46 persons who had had a stroke, 24 of whom were included in the intervention group and 22 who were included in the control group. The intervention consisted of 8 weeks of body awareness therapy (BAT). There were no significant differences over time between the groups in the outcome measures of balance, walking, self-reported balance confidence and quality of life. Study II had a qualitative design using content analysis. Participants in the intervention group from Study I and the four physiotherapists who had been in charge of the BAT were interviewed. One overall theme emerged: “Simple yet challenging”, which was based on six categories. Study III investigated the validity and test-retest reliability of the Six-Spot Step test (SSST), an instrument used to assess the ability to take load on each leg. A cross-sectional design with 81 persons who had had stroke was performed. The convergent validity was strong to moderate, and the test-retest reliability was good. In Study IV a mixed method design including both qualitative and quantitative data collection was used. The participants’ experiences of balance and its influence in everyday life were presented in two themes: “Feeling dizzy and unstable is a continuous challenge” and “Feeling trust and confidence despite dizziness and unsteadiness”. Taken together, the different data sets provided complementary and confirmatory information about balance. All participants experienced the balance limitations as a continuous challenge in everyday life, yet they also felt trust and confidence.

In summary, BAT can be a complement in physiotherapeutic stroke rehabilitation and the SSST can be used as a measuring instrument of walking balance in persons with stroke. Living with balance limitations was experienced as a challenge but the participants were still able to manage their everyday life and activities.

Keywords: Stroke, balance, physiotherapy, measures, experiences

Mialinn Arvidsson Lindvall, School of Health Sciences
Örebro University, SE-701 82 Örebro, Sweden