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Summary of Key findings

UK Occupational Therapy Research Foundation
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A division of the Royal College of Occupational Therapists

Return to Work after Stroke – Feasibility six year follow-up

Key findings

Feasibility:-

- Of the 48 potential participants, five had died and 19 responded. Excluding those who had died, the response rate was 19/43 (44.2%).
- The numbers of participants in each group (VR= 7/19 [37%], Usual care =12/19 [63%]) was too few to draw meaningful between group comparisons. Therefore the results are reported for the whole cohort.

Participants

- The mean age of respondents was 62 (range 24-78 years). More men (14 [74%]) than women responded (5 [26%]),
- 14 participants reported that they were still driving suggesting high functioning respondents

Primary outcome (numbers in work)

- All respondents were in work (defined as paid or voluntary work or full time education) at stroke onset. The 12-month work status of 16 participants was 56% (9/16). At six years post stroke, the work status of 19 participants was 74% (14/19). Most remained with their pre-stroke employer.
- Approximately half reported their income had decreased. The rest said their income had remained the same.

Secondary outcomes

At six years, the mean health related quality of life scores were lower than at one year and 8/19 (42%) of people reported clinical levels of anxiety or depression. However, health and social care resource use was minimal.

Qualitative findings: factors affecting long-term work outcomes

At 6 years post stroke the people we spoke to said;

1. Return to work (RTW) was important. They believed they had made the correct decision in returning to work.
2. RTW had helped with their recovery.
3. Residual hidden impairments such as fatigue and cognitive problems affected their ability to work.
4. Having supportive employers and family enabled work.
5. They were still adjusting to life after stroke.

Project aims

1. To determine the feasibility of a prospective follow up of participants in a trial of vocational rehabilitation six-years after stroke onset.
2. To ascertain;
    a. The proportion of people in work and their financial status
    b. Participants' levels of anxiety, depression and health related quality of life.
    c. Participants' use of health and social care resources.
3. To identify and explore factors affecting long-term work outcomes from the perspective of stroke survivors who were working at stroke onset.

Background

In the UK, more than 100,000 people have a stroke each year (Stroke Association, 2018). Approximately 25% of this population are aged under 65, yet reported return to work (RTW) rates vary between 7-81% (Wei et al., 2016).

Vocational rehabilitation (VR) is defined as "*whatever helps someone with a health problem to stay at, return to and remain in work"* (Waddell et al., 2008). Although the National Clinical Guidelines for Stroke (Royal College of Physicians, 2016) and the NICE Stroke Rehabilitation Guidelines (NICE, 2013) recommend that the work needs of stroke survivors should be addressed, only 15% of the UK's post-acute services routinely support RTW (Royal College of Physicians, 2015).

A UK single centre feasibility randomized controlled trial (fRCT) recruited 48 participants in 2011/12 (Radford et al., 2013). Twenty five participants had access to an occupational therapist specializing in VR in addition to their usual NHS rehabilitation (usual care) immediately post stroke and the others received usual care alone. The aim of the intervention was to help participants return to work where possible and support was provided up to one year post randomisation. At one year, 59.4% of the cohort had returned to work (19/32) with twice as many VR participants in work.

However, the longer-term impact on participants' work status, mood and quality of life is not known.

Methodology

In 2017, the Lead Stroke Clinician screened survivors admitted to a UK National Health Service (NHS) hospital between July 2010 and December 2011. Inclusion criteria for the earlier feasibly study and this six year follow up study were identical l. Participants had to be aged 16 and over and in work or education at the time of hospital admission in 2010/11. Work in both studies was defined as participating in competitive employment, voluntary work for at least one hour per week or full time education. Having checked hospital records for known deaths, participants for the follow up study were sent an information sheet, questionnaire and a consent form to complete if they wished to participate in a semi-structured telephone interview as part of the follow-up study. As participants in the earlier feasibility study were not asked to consent to follow up they could not be approached directly by the research team. Envelopes returned 'not known at this address' were re-checked by the lead clinician. Non-respondents were resent the information pack after four weeks.

Questionnaires included demographic information, employment and benefit status (primary outcomes) and standardised measures of mood (Hospital Anxiety and Depression scale), and health related quality of life (EQ5D-3L) and instrumental ADL (the Nottingham Extended Activities of Daily Living Scale) as secondary outcomes. Retirement was classified as retired due to 'age', 'health' reasons or any 'other' reasons to give a clearer picture of the effect of stroke on work status. Six semi-structured interviews explored participants' experience of working or not six years after stroke.

Quantitative data was recorded and analysed using Excel and SPSS 23. Interviews were analysed by two researchers (KG JP) using thematic analysis. Ethical approval was obtained from NHS Health Research Authority (REC 16/EM/0423).

Conclusion

This study suggests long term follow up with stroke survivors is feasible but people who have made a good recovery are more likely to respond. Therefore efforts to encourage a more complete follow up are required. The findings highlight that working after stroke is highly valued and for some people, sustainable six years post stroke. Many stroke survivors remained with the pre-stroke employer but on reduced hours, in altered roles and with a reduced income. Six years post stroke participants still report residual *invisible* impairments, which are not currently being treated in the NHS.

Recommendations

- Future VR studies should consider seeking consent for longer term follow up from participants.
- Further work is required to determine the nature and timing of support required by stroke survivors and employers for sustaining work. Interventions should address invisible impairments, including fatigue.

Publications

Abstract 'Return to work after Stroke – prospective six year follow up' accepted as a facilitated poster for the RCOT Annual Conference 2018

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