

Institution: University of Northampton
Unit of Assessment: 3 – Allied Health Professions, Dentistry, Nursing and Pharmacy
Title of case study: Improvements in services enabling people of working age to reintegrate into the community after a stroke
<p>1. Summary of the impact (indicative maximum 100 words) Research evaluating a pilot service for people who had had a stroke showed that there was a lack of support to help them return to work, insufficient attention to individual needs and that their ability to reintegrate into the community was poor. Post-stroke conditions cost the UK economy £7 billion annually. The research findings have made a distinct and material contribution to refocusing services in Wales and England towards helping patients fit back into society after a stroke. Three out of ten services established in 2005/2006 in Wales and the original service continue, and have informed the development of further services in England. These services support patients to return to work and make other lasting improvements to their lives.</p>
<p>2. Underpinning research (indicative maximum 500 words) Stroke is the main cause of severe long-term disability in the UK and costs the economy £7 billion annually (National Audit Office 2005, http://www.nao.org.uk/report/department-of-health-reducing-brain-damage-faster-access-to-better-stroke-care/). Translating applied health research into practice by evaluating occupational therapy and stroke rehabilitation services has a considerable impact on patients recovering from strokes.</p> <p>Evaluation of pilot service to support patients after a stroke: In 1998, the Stroke Association commissioned Professor Corr (University of Wales 1998–2000, Professor of Occupational Science, University of Northampton 2000–2013, Head of Research and Development at Leicestershire Partnership National Health Service (NHS) Trust 2013–present) to evaluate the benefits of the Cardiff Day Service, a pilot project set up in 1995 to provide support specifically for working age individuals who had had a stroke. The aim of this ‘post-stroke’ service, the first of its kind, was to offer people aged between 18 and 55 years a chance to identify and pursue meaningful and realistic opportunities within the community.</p> <p>The research, involving a questionnaire and interviews in a randomised cross-over design, used novel Q-methodology to explore patients’ attitudes and evaluate their economic activity [1]. All 26 patients in the study were assessed when they were first referred after their stroke, then at six months and one year. Assessment established their social, psychological and occupational ability at each stage, considering social interaction, leisure activities, quality of life, mood, roles they valued, occupation and self-esteem.</p> <p>Key findings on leisure: Following their involvement with the day service, individuals showed a statistically significant ($p=0.04$) improvement in their leisure activity. They perceived that the service provided opportunities to try new activities [2]. However, they reported that involvement with the day service did not make it easier for them to make use of community services by themselves.</p> <p>Key findings on work: Prior to their stroke, 24 of the participants had worked [3]. Following attendance at the day service only one individual out of the 26 resumed work even though 24 (92%) considered work to be important. In 2003 Professor Corr and S Wilmer published a paper highlighting this important research finding – that return to work was a central but neglected area for working age individuals who had had a stroke [3]. This was one of the first papers on rehabilitation to raise this issue. It has since been cited 27 times in international papers (www.ingentaconnect.com at 31st July 2013).</p> <p>Key social and psychological findings: Individuals gained social and psychological benefits from the day service – feeling more independent, happier and valued, and finding a sense of purpose. In addition, their ability to interact socially improved. Despite these improvements, there</p>

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was a high incidence of both anxiety and depression, suggesting that more specific psychological input was required. Although the environment provided by the service was perceived to be 'safe' and individuals felt accepted, the environment was oriented more to socialising than to providing an enabling environment [4].

The day service did not directly target carers but the findings suggested that the service provided them with a break and that they began to feel less strained. However, carers still felt the need for formal support which was not being provided.

Key conclusions and recommendation: The research concluded that although the day service for working age individuals who had had a stroke provided support and social benefits, a broad range of needs were not being addressed. The recommendation was that in future services should focus on establishing individual needs and providing an enabling environment to address those needs. The final report of the research was submitted to the Stroke Association in July 2001 and was followed by several publications.

3. References to the research (indicative maximum of six references)

1. **Corr S**, Phillips C, Walker M. 2004. Evaluation of a pilot service designed to provide support following stroke: a randomised cross-over design study. *Clinical Rehabilitation*. 18(1):69–75.
2. **Corr S**, Phillips C, Capdevila R. 2003. Perceived benefits of a day service for younger adults following a stroke. *Operant Subjectivity: Journal of the International Society for the Scientific Study of Subjectivity*. 27(1):1–23.
3. **Corr S**, Wilmer S. 2003. Returning to work after stroke: an important but neglected area. *British Journal of Occupational Therapy*. 66(5): 186–192.
4. **Corr S**. 2003. Life after stroke: the characteristics of those aged 18 to 55 years and an evaluation of a support service. Ph.D. thesis. University of Wales Swansea.

4. Details of the impact (indicative maximum 750 words)

Every year about 50,000 people of working age in the UK have a stroke (Stroke Association *Fact Sheet 09: Stroke in younger adults* 2011). Estimates of the proportion of people who do not return to work after a stroke indicate that it is at least 27% (NICE *Clinical guideline on stroke rehabilitation: the rehabilitation and support of stroke patient*, 2011; Stroke Association *Fact Sheet 09: Stroke in younger adults* 2011). Engaging charities, the NHS and government services with the research has had very considerable impacts on understanding the needs of working age individuals who have suffered strokes and the kinds of services they require to help them begin again.

Research contribution to the work of the Stroke Association: The research findings (see Section 3 [1,2,3,4]) have made a very considerable impact on the work of the Stroke Association. The research conducted to evaluate a pilot service for working age individuals recovering from a stroke has had, and continues to have, an impact on the growth of services developed and supported by the Stroke Association across the UK. In 2009, the Stroke Association included enablement and social inclusion in 'Back to Life' services and return to work support in 'Life After Stroke' [5].

Benefits to stroke victims, carers, families, employers, communities and society: The key beneficiaries from this research are individuals who have had a stroke, their carers, families and employers. Communities and society have also gained as individuals have returned to work, become less isolated and participated more in society. The 2010/2011 report from Bridgend Positive Action for Stroke contains impressive testimonials from people who have had a stroke describing how the services, based on the recommendations of a pilot service evaluation conducted by Professor Corr, have had a very considerable impact on changing their lives [6].

Continuation of service to stroke patients: The excellent research made a distinct and material

contribution to the continuation of the day service in Cardiff [7,8], currently the only service in the UK funded by the Stroke Association. The new manager, with experience of delivering therapeutic services, appointed following the evaluation in 2000/2001 continues to manage the service.

Recommendations adopted: Changes to the post-stroke day service in Cardiff take up the recommendations of the research. These include regular input by an occupational therapist, discussions with individuals and support relating to return to work – input from the Disability Employment Office and the Shaw Trust. Individuals are encouraged to set SMART (specific, measurable, attainable, relevant and time-bound) goals that help them focus on their specific needs. Between October 2008 and October 2012, 53 individuals joined the Cardiff day service and 50 were discharged. Of these, 26 improved their mood and reduced isolation, and 10 returned to full or part-time work. During the research period (1998–2000 see Section 2) only one of the 26 individuals discharged from the service returned to work. The recommendations have enabled five individuals per two-year period to return to work, an increase of 400%.

New services in Wales: Based on the research [1], in 2005 the New Opportunities Fund (the forerunner of the Big Lottery) awarded a three-year grant to establish ten Positive Action for Stroke services in Wales. These were rebadged as community integration services in 2007 and three (Bridgend, Ceredigion and North Carmarthenshire) continued with funding from local authorities or other grants. Between October 2008 and October 2012 these three services benefitted 84, 23 and 3 individuals respectively. The remaining seven services did not secure ongoing funding. Three evolved to become stroke clubs and four were disbanded.

Service replicated in England: The Community Integration Service approach based on the research (see Section 3 [1]) has been replicated in England [9]. In 2009, a service funded by the North of England Cardiovascular Network began and in 2012 reported lasting improvements to more than 279 individuals (26% supported to return to work and 77% supported to reintegrate into social and community activities). Those helped to return to work required fewer benefits and hospital readmissions, had improved their economic wellbeing and contributed as tax-payers saving the government and NHS money [9]. The NHS refers to the Confederation of British Industry estimate (2008) that the cost to the economy of a working day lost to sickness is about £77 suggesting that the costs of people not returning to work after stroke are substantial [10].

Findings used in guidelines and tools: Dissemination of the findings through peer-reviewed journal papers (see Section 3 [1,2,3]) and conference presentations had led to significant use in guidelines and tools. The research has informed the Stroke Association [5] and other rehabilitation practitioners, researchers, guideline developers and service deliverers on issues such as return to work and community integration services for individuals who have suffered a stroke.

The 2011 NICE clinical guidelines [11] for stroke rehabilitation now include 'return to work' as a quality measure (see Section 3 [3]).

The Canadian Occupational Performance Measure (COPM) is used in more than 35 countries and has been translated into over 20 languages. The COPM cites Corr and Wilmer 2003 (see Section 3 reference [3]) as an important reference on its web page [12]. The University of Illinois at Chicago (UIC) Model of Human Occupation (MoHO) Clearing House [13] also refers to the research (see Section 3 references [1,3]).

Innovation award: In 2012 Professor Susan Corr won an innovation award for identifying other patient groups that might benefit from services similar to those developed based on her research evidence [14].

5. Sources to corroborate the impact (indicative maximum of 10 references)

1. Stroke Association 'Life After Stroke' model in Stroke News, Winter 2009 Volume 27.4. p12 http://www.stroke.org.uk/sites/default/files/Stroke%20News%20Winter%2009_0.pdf

2. Bridgend Positive Action for Stroke – *Service Illustration 2010/2011 report*. Stroke Association

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Confidential document. This document outlines the activities at the service and includes testimonials from service users regarding the benefits they experienced through attending the service.

3. Assistant Regional Manager or Deputy Director Wales, Stroke Association in Wales
4. Cardiff Day Service, Manager Cardiff Day Service Manager
5. Haxon D, Moore P. Changing Lives – community integration services: North of England. PowerPoint presentation
6. National Health Service (NHS). 2011 Stroke rehabilitation in the community: commissioning for improvement. http://www.improvement.nhs.uk/documents/Stroke_Rehab.pdf
7. National Institute for Health and Clinical Excellence (NICE). 2011 NICE clinical guideline on stroke rehabilitation: the rehabilitation and support of stroke patients. <http://www.nice.org.uk/nicemedia/live/11950/56130/56130.pdf>
8. Web page of the Canadian Occupational Performance Measure (COPM). <http://www.caot.ca/copm/description.html> (Cites [3] as an important reference)
9. The University of Illinois at Chicago (UIC) Model of Human Occupation (MoHO) Clearing House. <http://www.uic.edu/depts/moho/referencelists.html>
10. Professor Susan Corr 2012 Innovation Award 'Scoping exercise: Identifying new populations for interventions informed by Lifestyle Redesign® and Lifestyle Matters'. The aim of the innovation award was to support scoping new populations who might benefit from services informed by the evidence-based occupation focused Lifestyle Redesign® and Lifestyle Matters programmes delivered by occupational therapists and build collaborative partnerships to undertake research. Professor Corr established a steering group with clinicians and service users from St Andrews Healthcare and researchers from University of Sheffield Hallam, University College Cork and the University of Northampton. http://www.cot.co.uk/sites/default/files/award_winners_reports/public/Susan-Corr.pdf