

<b>Institution:</b> University of Central Lancashire
<b>Unit of Assessment:</b> 3 Allied Health Professions, Dentistry, Nursing and Pharmacy
<b>Title of case study:</b> Assessment and management of emotional response to stroke and psychological recovery
<p><b>1. Summary of the impact</b> (indicative maximum 100 words)</p> <p>We have conducted studies to improve the recognition and treatment of post-stroke psychological problems. Our Motivational Interviewing (MI) study was the first, and one of only a few studies to show a positive impact of a talk-based psychological intervention following a stroke. This study has been recognized nationally and internationally and there is evidence that stroke-specific staff are accessing training in MI (e.g. UK Stroke Forum Education and Training, and the National Stroke Foundation in Australia). We are also collaborating in further research to evaluate the use of MI in the adjustment to other illnesses such as HIV, indicating that our work is beginning to have an impact in other areas of healthcare. We have developed national competences to underpin the development of training on the recognition, screening and management of psychological problems and enhancing communication skills. This research has contributed to the National Clinical Guideline for Stroke, National Competences, and improvements in the recognition of psychological distress and timely initiation of psychological support.</p> <p><b>2. Underpinning research</b> (indicative maximum 500 words)</p> <p><b>Screening for Depression post-stroke</b> Early recognition and treatment of depression is important because it may improve a person's overall outcome; however, recognition of depression is particularly difficult in patients with stroke especially those with cognitive or communication problems. We have undertaken studies to explore the reliability, validity and overall utility of various screening tools to detect post-stroke depression. These initial studies exploring screening for depression led on to exploring what we could do next in the context of intervention studies.</p> <p><b>Psychological Interventions</b> Motivational Interviewing (MI) is a person-centred, directive talking therapy. Our single centre, Randomised Controlled Trial of MI delivered early after a stroke showed positive results. MI has the potential to prevent and treat depression as reflected in lower depression scores at 3- and 12-months post-stroke and may have a protective effect over death. This research is included in Cochrane systematic reviews exploring psychological support post-stroke.</p> <p><b>National Psychological Support Competences</b> National psychological support competences, which identify the stroke-specific knowledge and skills required by people working with those affected by stroke, have been developed. These competences have undergone national review and have been used to develop role profiles, which help staff identify the knowledge and skills need in their role.</p> <p><b>REFLECT training</b> The screening and intervention work, along with the National Psychological Support Competences, have underpinned the development of training. An online course supported by digital resources and assessments has been developed. The online training includes recognition, screening and management of psychological distress, and involves how to apply this knowledge when working with patients who have aphasia. Workshops have been designed to enhance communication skills and provide staff with the competence to provide low level psychological care: active listening, normalising patients' issues, and signposting for other help.</p> <p><b>Modelling the economic benefits of psychological care after stroke</b> There is evidence to support the use of psychological support after stroke, but little is known about the economic benefits. Drawing together information from the scientific literature, policy documents, case studies, and epidemiological data, an economic model of the costs and potential cost savings of delivering a psychological support service for people with problems</p>

**Impact case study (REF3b)**

affecting their mood after stroke was developed. The model indicates that an investment of around £69,000 in psychological care may deliver a benefit of around £108,300 to the NHS and social care in around two years.

**3. References to the research** (indicative maximum of six references)**Screening for Depression post-stroke**

Lightbody CE, Auton MF, Baldwin R, Gibbon B, Hamer S, Leathley M, Sutton C, Watkins CL. The use of nurses' and carers' observations in the identification of poststroke depression. *Journal of Advanced Nursing*. 2007;60(6):595-604.

Watkins CL, Lightbody CE, Sutton CJ, Holcroft L, Jack CIA, Dickinson HA, van den Broek MD, Leathley MJ. Evaluation of a single item screening tool for depression after stroke: a cohort study. *Clinical Rehabilitation*. 2007;21(9):846-852.

Lightbody CE, Baldwin R, Connolly M, Gibbon B, Jawaid N, Leathley M, Sutton C, Watkins CL. Can nurses help identify patients with depression following stroke? A pilot study using two methods of detection. *Journal of Advanced Nursing*. 2007;57(5):505-512.

**Psychological Interventions**

Watkins CL, Auton MF, Deans CF, Dickinson HA, Jack CIA, Lightbody CE, Sutton CJ, van den Broek MD, Leathley MJ. Motivational Interviewing early after acute stroke: a randomized controlled trial. *Stroke*. 2007;38:1004-1009.

Watkins CL, Wathan JV, Leathley MJ, Auton MF, Deans CF, Dickinson HA, Jack CIA, Sutton SJ, van den Broek MD, Lightbody CE. The 12 month effects of early Motivational Interviewing after acute stroke: a randomized controlled trial. *Stroke*. 2011;42:1956-1961.

Hackett ML, Anderson CS, House AO, Halteh C (2008a) Interventions for preventing depression after stroke. *Cochrane Database of Systematic Reviews* (3): CD003689.

Hackett ML, Anderson CS, House AO, Xia J (2008b) Interventions for treating depression after stroke. *Cochrane Database of Systematic Reviews* (4): CD003437.

**Grants and fellowships that supported this work:**

Motivational Interviewing: altering people's expectations of recovery from stroke – 12-month follow-up. *University of Central Lancashire R&D Fund*. Applicants: Leathley MJ, Watkins CL, Sutton CJ, Jack CIA, Dickinson H, van den Broek MD. Deans, C. £10,009. 2003.

Motivational Interviewing: altering outcome after stroke. *NHS Executive R&D North West*. Applicants: Watkins CL, Leathley MJ, Sutton CJ, Jack CIA, Dickinson H, van den Broek MD. Collaborator: Deans, C. £162,237. 2002.

Facilitating stroke specific education and training: exploring needs and implementation. *Department of Health*. Applicants: Leathley M, Watkins C, Vaughan J. £39,934. 2009.

Stroke Workforce Development Project. *Cheshire and Merseyside Cardiac and Stroke Network*. Applicants: Lightbody CE, Leathley M, Watkins C, Vaughan J. £65,517. 2011.

Health, Innovation and Education Cluster (HIEC) Stroke Theme. *NHS North Lancashire*. Applicants: Gibbon B, Watkins C, Lightbody CE. Awarded £31,550. 2010. £61,866. 2011.

The prevention and management of depression in vascular disease. *NHMRC Career Development Award* (Aus\$377,000 over 4 years) Hackett M.

Living Well Project: Early Palliative care and MI for persons with HIV/AIDS. *US National Institute of Health (NIH)*. Applicants: McDonnell Holstad M, et al; Consultant: Watkins C. US\$2,227,645, £3,480 to UCLan. 2012.

**4. Details of the impact** (indicative maximum 750 words)**Screening for Depression post-stroke**

The work that we have undertaken on screening for psychological problems following a stroke has been referenced in publications, guidelines and books. We are also aware of several services that

## Impact case study (REF3b)

are utilising the tools that we have clinically validated in clinical practice. These tools form part of the clinical pathway, for example the Royal Free hospital use both the Signs of Depression Scale (SODS) and the Yale in their screening pathway.

### Psychological Interventions

The Motivational Interviewing study was the first talk-based psychological intervention to show a positive outcome following a stroke. As such it has had a considerable impact nationally and internationally. It is cited in the National Clinical Guideline for Stroke, and a recent book on the Psychological Management of Stroke. There is evidence that stroke specific staff are accessing training in MI (UK Stroke Forum Education and Training, invited workshop UK Stroke Forum, Nursing and Rehabilitation Training Day: *Translating Research into Practice* workshop), and there are other professionals, such as Increasing Access to Psychological Therapies (IAPT) with mental health expertise who could be trained in MI quickly. Internationally the results of this study have been posted on several websites. Outside of the domain of stroke it has had considerable impact within the Motivational Interviewing community. We have presented our results as a plenary session at the International Conference on Motivational Interviewing and also nationally to the Motivational Interviewing Network of Trainers. We have also been asked to collaborate in several studies utilising MI in stroke and in other disease (HIV).

### National Psychological Support Competences

The National Psychological Support Competences have been developed to ensure the staff working with people following a stroke have the correct knowledge and skills. Training has been developed around the competences. The Stroke Improvement Programme is in the process of publishing the competences on their website and have already used them in reviewing and standardising services and training within Peninsula.

### REFLECT training

The training has been developed and implemented throughout the North West Region and evaluated locally. We are also delivering the training in the South Central Cardiac and Stroke Network. The training has been endorsed by the UK Stroke Forum Education and Training and will be applicable across the UK. The Stroke Improvement Programme has also agreed to host the training package on their website so that it will be freely available.

### Economic Model for Impact of Psychological Care

The Stroke Improvement Programme has published this work on their website so that it is freely available and assist those who are writing business cases to commissioners to develop psychological services following a stroke. There is evidence that this work has already been utilised by a clinical neuropsychologist to successfully retain a clinical neuropsychology post which was being axed. It was the economic argument rather than clinical need that influenced the decision.

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

### Screening for Depression post-stroke

Lincoln NB, Kneebone II, Macniven JAB, and Morris R. Psychological management of stroke. Chichester UK: Wiley; 2012.

Royal Free Hospital use both the SODS and the Yale in their screening pathway:  
<http://www.improvement.nhs.uk/stroke/Psychologicalcareafterstroke/Pathways.aspx>

### Psychological Interventions

Rollnick S, Miller WR, Butler CC. Motivational Interviewing in Health Care: Helping Patients Change Behavior. 3<sup>rd</sup> edition. The Guilford Press; 2012.

“Royal College of Physicians Intercollegiate Stroke Working Party. National Clinical Guideline for Stroke 4<sup>th</sup> Edition 2012.”

[Section 6.18 Self-efficacy training](#)

[Section 6.35 Depression and anxiety](#)

[Section 6.36 Emotionalism](#)

*References supporting these sections:*

## Impact case study (REF3b)

Campbell Burton A, Holmes J, Gillespie D, Lightbody E, Watkins C, Knapp P (2011) Interventions for treating anxiety after stroke. *Cochrane Database of Systematic Reviews* (12): CD008860.

Watkins CL, Auton MF, Deans CF, Dickinson HA, Jack CIA, Lightbody CE, Sutton CJ, van den Broek MD, Leathley MJ. Motivational Interviewing early after acute stroke: a randomized controlled trial. *Stroke*. 2007;38:1004-1009.

Watkins CL, Wathan JV, Leathley MJ, Auton MF, Deans CF, Dickinson HA, Jack CIA, Sutton SJ, van den Broek MD, Lightbody CE. The 12 month effects of early Motivational Interviewing after acute stroke: a randomized controlled trial. *Stroke*. 2011;42:1956-1961.

Hackett ML, Yapa C, Parag V, Anderson CS (2005) Frequency of depression after stroke. *Stroke* 36 (6): 1330–40.

Hackett ML, Anderson CS, House AO, Halteh C (2008a) Interventions for preventing depression after stroke. *Cochrane Database of Systematic Reviews* (3): CD003689.

Hackett ML, Anderson CS, House AO, Xia J (2008b) Interventions for treating depression after stroke. *Cochrane Database of Systematic Reviews* (4): CD003437.

Hackett, M., Yang, M., Anderson, C., Horrocks, J., House, A. (2010), Pharmaceutical interventions for emotionalism after stroke. *Cochrane database of systematic reviews (Online)*. 2, CD003690.

“Scottish Intercollegiate Guidelines Network. Management of patients with stroke: Rehabilitation, prevention and management of complications, and discharge planning”

4.15 Disturbances of mood and emotional behaviour

4.15.2 Emotional lability

4.15.3 Preventing post-stroke depression 4.15.4 Treating post-stroke depression

*References supporting these sections:*

225. Hackett ML, Anderson CS, House A, Halteh C. Interventions for preventing depression after stroke. *Cochrane Database of Systematic Reviews* 2008, Issue 3.

226. Hackett ML, Anderson CS, House AO. Management of depression after stroke: a systematic review of pharmacological therapies. *Stroke* 2005;36(5):1098-103.

227. House AO, Hackett ML, Anderson CS, Horrocks JA. Pharmaceutical interventions for emotionalism after stroke. *Cochrane Database of Systematic Reviews* 2010, Issue 2.

“National Stroke Foundation (Australia). Clinical guidelines for stroke management 2010.”

Section 7.11 Mood disturbance

*Reference supporting this section:*

Hackett et al. 2008. Interventions for preventing depression after stroke. *Cochrane Database Syst Rev*.

**SELECTED WEBSITES**

Science Daily <http://www.sciencedaily.com/releases/2011/06/110623161939.htm>

Commentary on Evidence Based Nursing <http://ebn.bmj.com/content/15/2/35.extract>

Internet Stroke Center <http://www.strokecenter.org/trials/clinicalstudies/motivational-interviewing-altering-outcome-after-stroke/description>

[Medscape Education Clinical Briefs > Neurology](http://www.medscape.org/viewarticle/745780) <http://www.medscape.org/viewarticle/745780>

Mail online <http://www.dailymail.co.uk/health/article-2007625/Patients-motivational-interviews-likely-survive-strokes.html>

**Economic Model for Impact of Psychological Care**

Stroke Improvement Programme – Psychological Care after Stroke

[http://www.improvement.nhs.uk/documents/Economic\\_Model.pdf](http://www.improvement.nhs.uk/documents/Economic_Model.pdf)