

<b>Institution: University of Salford</b>
<b>Unit of Assessment: Allied Health Professions, Dentistry, Nursing and Pharmacy</b>
<b>Title of case study: Occupational Therapy and self-management for people with arthritis</b>
<p><b>1. Summary of the impact</b></p> <p>With one in five of the adult population in the UK living with arthritis, self-management education is a key approach used by occupational therapists (OTs) to support people with arthritis. University of Salford research has improved the tools available to OTs to deliver more effective self-management education, demonstrating the following impact:</p> <ul style="list-style-type: none"> <li>• Improving patients' quality of life through supporting them in:           <ul style="list-style-type: none"> <li>○ Managing their pain and fatigue;</li> <li>○ Improving their psychological resilience;</li> <li>○ Remaining in work and engaged in leisure activities.</li> </ul> </li> <li>• Supporting occupational therapists to deliver effective self-management services;</li> <li>• Developing evidence informed policy and strategy focused on improving the availability of self management services for people with arthritis.</li> </ul>
<p><b>2. Underpinning research</b></p> <p><b>The key researchers and positions they held at the institution at the time of the research are as follows:</b> Professor Alison Hammond in Rheumatology Rehabilitation (from 2011), Reader in Rheumatology Rehabilitation, School of Health Sciences (2007-2011). The impact of this case study is underpinned by the following research:</p> <ul style="list-style-type: none"> <li>• <b>2009-13: Psychometric testing of the Evaluation of Daily Activities Questionnaire (EDAQ) Valued Life Activities Scale (VLAS) and Measure of Activity Performance –Hand (MAP-HAND):</b> Patients are referred to Rheumatology Occupational Therapy (OT) to address difficulties with everyday activities, social roles and/or hand function. In three studies, Hammond revised 3 assessments for clinical and research use in OT in common musculoskeletal conditions (eg rheumatoid arthritis (RA), osteoarthritis (OA), chronic pain). Assessments were translated, revised to be culturally appropriate for the UK and based on what patients' (not health professionals) considered most important to include, then tested as reliable and valid. The EDAQ is now available to facilitate patients and therapists in identifying ergonomic solutions to daily problems.</li> <li>• <b>2012: Foot health education for people with rheumatoid arthritis: the practitioner's perspective:</b> Patient education is a key role for podiatrists in RA, leading to improved clinical outcomes. This study identified the nature and content of podiatrists' foot health education, the importance of the role of the podiatrist in management of foot health, provision of foot health information, and self-management strategies, delivered according to individuals' needs. Barriers to foot health education, including financial constraints and difficulties establishing effective therapeutic relationships, were shown to strongly influence foot health education provision.</li> <li>• <b>2011: Self-management of fatigue in rheumatoid arthritis: a randomised controlled trial of group cognitive-behavioural therapy:</b> This study investigated the effect of group cognitive behavioural therapy (CBT) for fatigue self-management, compared with receiving fatigue information alone, for people with RA. A range of health benefits resulted from group CBT for RA fatigue. Embedding such an intervention within the clinical rheumatology team was found to be essential and improving access to psychological therapies is recommended.</li> <li>• <b>2010-13: Work Rehabilitation in Inflammatory Arthritis: Effectiveness and cost effectiveness of an occupational therapy (OT) job retention intervention:</b> Hammond developed a feasibility study for a future randomised controlled trial evaluating vocational rehabilitation (VR) provided by occupational therapists for employed people with inflammatory arthropathies. Patients were recruited from 6 Rheumatology departments in England and randomly allocated to receive VR or a stay at work information pack only.</li> </ul>

Participants, employers, therapists and therapy managers were also interviewed to identify their views of the feasibility of the intervention. The study identified the most appropriate primary work outcome measure, feasibility of recruitment procedures and VR provision, which led to a moderate-to-large effect size indicating trialling VR in IA is warranted. During this a work assessment tool and work solutions manual were developed – now freely available.

- **2007-10: Long-term and Clinical Impact of the Lifestyle Management for Arthritis Programme (LMAP):** This study developed a modular behavioural group arthritis education programme (the LMAP) and evaluated its longer term effects on pain, physical and psychological status. Hammond undertook a randomised controlled trial of the LMAP versus an information-based group arthritis education programme (AEP), similar to typical UK practice. The trial identified, at 12-month follow-up, that the LMAP was significantly more effective in reducing pain and improving self-efficacy. Further research then investigated:
  - The longer-term effects of the LMAP and typical AEP on health status by following up trial participants, identifying the LMAP led to persistent behavioural and psychological benefits; and,
  - LMAP effectiveness in an uncontrolled setting in a 12 month observational study, identifying similar benefits to the trial.

### 3. References to the research

#### Key outputs:

1. Hammond A, Bryan J, Hardy A (2008). Effects of a modular behavioural arthritis education programme: a pragmatic parallel group randomized controlled trial. *Rheumatology* 47(11):1712-1718. [DOI](#)
2. Iversen M, Hammond A, Betteridge N (2010). Self-management of rheumatic diseases: state of the art and future directions. *Annals of the Rheumatic Diseases* 69:955-963. [DOI](#)
3. Hewlett, S, Ambler, N, Almeida, C, Cliss, A, Hammond, A, Kitchen, K, Knops, B, Pope, D, Spears, M, Swinkels, A and Pollock, J (2011), 'Self-management of fatigue in rheumatoid arthritis: a randomised controlled trial of group cognitive-behavioural therapy', *Annals of the Rheumatic Diseases*, 70 (6), pp. 1060-1067. [DOI](#) (REF2)
4. Graham, A, Hammond, A and Williams, A (2012), 'Foot health education for people with rheumatoid arthritis: the practitioner's perspective', *Journal of Foot and Ankle Research*, 5 (2). [DOI](#)
5. Hammond A, Rayner J (2013). The Lifestyle Management for Arthritis Programme in practice: results of an observational study. *Rheumatology* 52 (Suppl): i109(141) [URL](#)

#### Key grants:

6. **2012:** Psychometric testing of the Valued Life Activities Questionnaire and MAP-HAND in people with rheumatoid arthritis in the UK, Arthritis Research UK, £80,342.00. Principal Investigator: A Hammond (100%).
7. **2010:** Work Rehabilitation in Inflammatory Arthritis: Effectiveness and cost effectiveness of an occupational therapy (OT) job retention intervention: A randomised controlled trial, Arthritis Research UK, £262,732.00. Principal Investigator: A Hammond (100%).
8. **2010:** The UK-Evaluation of Daily Activities Questionnaire (EDAQ) in musculoskeletal conditions, UK Occupational Therapy Research Foundation, £84,753.00. Principal Investigator: A Hammond (100%).
9. **2009:** Development of a Dutch and German version of the Evaluation of Daily Activities Questionnaire (EDAQ) for use in Rheumatoid Arthritis (RA), European League Against Rheumatism (EULAR), £27,896.00. Principal Investigator: A Hammond (100%).
10. **2008:** Development of a UK version of the Evaluation of Daily Activities Questionnaire (EDAQ) for use in RA, Arthritis Research Campaign, £51,915.00. Principal Investigator: A Hammond (100%).
11. **2007:** Long-term impact of the Lifestyle Management for Arthritis programme (LMAP), Arthritis Research Campaign, £47,552.00. Principal Investigator: A Hammond (100%).

#### 4. Details of the impact

- Rheumatoid arthritis (RA) affects 0.5-1.0% of the population and causes significant pain, debilitating fatigue, joint deformity, and psychological distress. It affects people's abilities to perform everyday activities and causes work disability, which can reduce financial status. *"Approximately one third of people stop work because of the disease within 2 years of onset, and this prevalence increases thereafter. The total costs of RA in the UK, including indirect costs and work-related disability, have been estimated at between £3.8 and £4.75 billion per year."* [NICE Clinical Guidance 79](#)
- Supporting people with arthritis in managing their pain and fatigue, and supporting Occupational Therapists (OTs) to develop effective self-management and joint protection methods for people with arthritis when taught using educational-behavioural approaches, significantly reduces pain, improves functional ability, and in the long-term, limits hand deformity development.
- Self-management education is a key approach used in Rheumatology by OTs and other team members to help people with arthritis practically manage symptoms, improve psychological outlook and maintain ability to perform everyday home, work and leisure activities. The OT and self-management education research led by Hammond, has addressed three key areas helping:
  - People with arthritis manage their symptoms and everyday activities more effectively;
  - Developing patient reported outcome measures, from the patients' perspective, to enable patients and therapists identify problems and find solutions together, and;
  - OTs to deliver more effective OT and self-management education to people with RA.
- The LMAP trial contributed to the evidence for effectiveness of OT, included in the NICE RA Guidelines (2009.), Hammond was a member of the NICE Guideline Development Group: *The Management of rheumatoid arthritis in adults*, offering best practice evidence on the care of adults with RA, which included the recommendation that people with RA should have access to specialist Rheumatology OT for assessment, provision of comprehensive OT and periodic review if they have problems with either everyday activities and/or hand function; including joint protection and hand exercises taught using educational-behavioural approaches, not just simple advice. Rheumatology OT departments now set standards of service delivery based on these guidelines.
- Hammond has trained over 200 OTs in delivery of LMAP modules in practice. The programmes are provided in Rheumatology OT departments across England, Scotland, the Republic of Ireland, the Netherlands and Turkey. OTs are provided with a detailed leader manual and audio-visual resources to facilitate delivery; and patient workbooks support learning. Course evaluations have consistently shown that the training programme increased confidence in teaching using cognitive-behavioural approaches. OTs also incorporate the training approaches when teaching self-management to individual patients.
- Patients have found the LMAP highly beneficial. An independently conducted focus group study at Wishaw Hospital (Scotland) included the following comments:
  - *"I had been terrified of damaging my joints and was scared to do things – I got more confidence about what was safe/ unsafe to do, and finding alternatives."*
  - *"I went from trying to discover what I could do for myself, by seeing how sore it was, to being shown other methods."*
  - *"I get through more – I take micro-breaks and I am not so tired at the end."*
  - *"I accepted my limits but learnt how to work round them."*
  - *"I was coming home from work exhausted, but now I can do ½ hour ironing or go to the gym."*
  - *"It got me walking again." "I started walking every morning."*
  - *"Doing a little then a little more..... culminating in climbing Goat Fell."*
  - *"Through one of the discussions, I made an appointment with the podiatrist and got insoles – my ankles are now behaving themselves." "I am able to relax better."*

- “When you’ve got information, you are in control more about what is happening with the disease and that makes it easier to accept.”
- “Information shared within the group and experiences. We learnt a lot from each other.”
- “Having a laugh about our ability or inability to do things, had a therapeutic effect, it was fun.”
- At Hairmyres Hospital, East Kilbride: “We use the LMAP and find the outcomes that patients achieve excellent outcomes.” Service Manager (Jane-Marie Stobie)
- Prof Hammond was the lead author for the Arthritis Research UK advice booklet “Looking after your joints when you have arthritis” (2011) for people with inflammatory and osteoarthritis, provided free to arthritis patients in the majority of Rheumatology and Rheumatology OT departments in the UK. It is used as a key element of teaching joint protection by OTs and one of the core information booklets provided to people newly diagnosed with inflammatory arthritis in Rheumatology departments and freely available as a download from the Arthritis Research UK website.

#### 5. Sources to corroborate the impact

- a) National Institute of Clinical Excellence (2009). *Guidelines for the management of adults with RA*. <http://www.nice.org.uk/nicemedia/pdf/CG79NICEGuideline.pdf>
- b) Wishaw Hospital (2008) unpublished focus group study report. *The LMAP*
- c) Arthritis Research UK (2011). *Looking after your joints - Arthritis Research UK* [www.arthritisresearchuk.org](http://www.arthritisresearchuk.org)

Departments using the LMAP modules:

- d) Occupational Therapist, Wishaw General Hospital
- e) Occupational Therapy Team Leader, Occupational Therapy Department  
East Cheshire Trust
- f) Specialist Occupational Therapist, Fife Rheumatic Diseases Unit, Whytemans Brae Hospital
- g) Co-ordinator, Community Traumatic Brain Injury Team, Blantyre Health Centre
- h) Clinical Specialist Occupational Therapist, Rheumatology Services, Waterford Regional Hospital.