

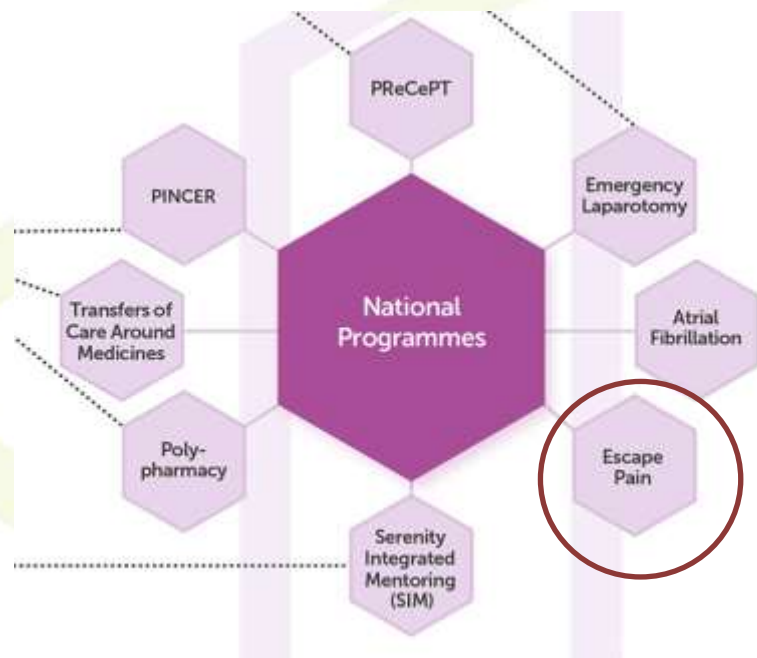
# An update and overview of ESCAPE Pain sites in the North East and North Cumbria

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# Recap



Nationally funded programme (NHSE) over two years (April 2018-March 2020)

AHSNs to help spread

'ESCAPE Pain' (Enabling Self-management and Coping with Arthritic Pain using Exercise)

For people age 45+

With hip and knee osteoarthritis

Delivered by physiotherapists or fitness instructors

1. Two sessions per week over 5-6 weeks (10-12 sessions)

2. Each session includes an exercise and education component

The core four:  
What makes it ESCAPE-pain?

3. Each group of participants begin and end the programme together

4. Collecting outcome data and share with us

ORIGINAL ARTICLE

## Long-Term Outcomes and Costs of an Integrated Rehabilitation Program for Chronic Knee Pain: A Pragmatic, Cluster Randomized, Controlled Trial

M. V. HURLEY,<sup>1</sup> N. E. WALSH,<sup>2</sup> H. MITCHELL,<sup>2</sup> J. NICHOLAS,<sup>4</sup> AND A. PATEL<sup>4</sup>

**Objective.** Chronic joint pain is a major cause of pain and disability. Exercise and self-management have short-term benefits, but few studies follow participants for more than 6 months. We investigated the long-term (up to 30 months) clinical and cost effectiveness of a rehabilitation program combining self-management and exercise: Enabling Self-Management and Coping of Arthritic Knee Pain Through Exercise (ESCAPE-knee pain).

**Methods.** In this pragmatic, cluster randomized, controlled trial, 418 people with chronic knee pain (recruited from 54

ORIGINAL ARTICLE

## Clinical Effectiveness of a Rehabilitation Program Integrating Exercise, Self-Management, and Active Coping Strategies for Chronic Knee Pain: A Cluster Randomized Trial

M. V. HURLEY,<sup>1</sup> N. E. WALSH,<sup>2</sup> H. L. MITCHELL,<sup>2</sup> T. J. PIMM,<sup>4</sup> A. PATEL,<sup>2</sup> E. WILLIAMSON,<sup>3</sup> R. H. JONES,<sup>3</sup> P. A. DIEPPE,<sup>6</sup> AND B. C. REEVES<sup>7</sup>

**Objective.** Chronic knee pain is a major cause of disability and health care costs. We compared the effectiveness of a rehabilitation program (integrating exercise, self-management, and active coping strategies [Enabling Self-management and Coping of Arthritic Knee Pain]) with usual primary care in improving functioning in people with chronic knee pain.

**Methods.** We conducted a single-blind, pragmatic, cluster randomized trial. Participants with chronic knee pain (reporting knee pain for >6 months, were recruited from 54 inner-city general practices in London, UK, and randomized to continued usual primary care (i.e., whatever intervention they were receiving at the time of randomization), usual primary care plus the rehabilitation program, or usual primary care plus the rehabilitation program delivered to groups of 8 participants (Western Ontario and McMaster Universities Osteoarthritis Index score >10).

**Results.** A total of 418 participants were recruited; 76 (18%) with osteoarthritis had better functioning than participants continuing usual primary care (mean difference [95% CI] -5.33, -0.73;  $P = 0.03$ ). Participants receiving individual rehabilitation (-3.53; 95% CI -6.52, -0.55) or group rehabilitation (-3.53; 95% CI -6.52, -0.55) had better functioning than participants receiving usual primary care.

**Conclusion.** ESCAPE-knee pain provides a safe, relatively brief, and effective rehabilitation program for people with chronic knee pain.

**KEY WORDS.** Integrated rehabilitation; Knee pain.

### INTRODUCTION

Chronic knee pain is regarded as a mundane, inevitable, and unmanageable consequence of aging. This overlooks the suffering, physical disability (1–4), psychosocial distress (5), health care expenditure (6–8), and socioeconomic bur-

RESEARCH ARTICLE

Open Access

## Health beliefs before and after participation on an exercised-based rehabilitation programme for chronic knee pain: Doing is believing

Michael V Hurley<sup>1\*</sup>, Nicola Walsh<sup>2</sup>, Verita Bhawanji<sup>3</sup>, Nicky Britten<sup>4</sup>, Fiona Stevenson<sup>5</sup>

### Abstract

**Background:** To explore the health beliefs, experiences, treatment and expectations of people with chronic knee pain and investigate if how and why these change after taking part on an integrated exercise-based rehabilitation programme.

### ARTICLE

## In Osteoarthritis, the Psychosocial Benefits of Exercise Are as Important as Physiological Improvements

Michael V. Hurley, Helene L. Mitchell, and Nicki Walsh

Rehabilitation Research Unit, Physiotherapy Division, King's College London, Dulwich Hospital

HURLEY, M. V., H. L. MITCHELL, AND N. WALSH. In osteoarthritis, the psychosocial benefits of exercise are as

important as physiological improvements. *Arthritis Care & Research*, Vol. 31, No. 3, pp. 138–143, 2003. Exercise has a major role in the management of osteoarthritis. However, exercise also facilitates appropriate health beliefs, behaviors, pain management, and psychological effects. **Keywords:** osteoarthritis, exercise,

# Evidence-based

ORIGINAL ARTICLE

## Economic Evaluation of a Rehabilitation Program Integrating Exercise, Self-Management, and Active Coping Strategies for Chronic Knee Pain

M. V. HURLEY,<sup>1</sup> N. E. WALSH,<sup>2</sup> H. L. MITCHELL,<sup>2</sup> T. J. PIMM,<sup>4</sup> E. WILLIAMSON,<sup>3</sup> R. H. JONES,<sup>3</sup> B. C. REEVES,<sup>6</sup> P. A. DIEPPE,<sup>7</sup> AND A. PATEL<sup>1</sup>

**Objective.** To conduct an economic evaluation of the Enabling Self-Management and Coping with Arthritic Knee Pain through Exercise (ESCAPE-knee pain) program.

**Methods.** Alongside a clinical trial, we estimated the costs of usual primary care and participation in ESCAPE-knee pain program. Information on resource use and informal care received was collected during face-to-face interviews. Cost-effectiveness and cost-utility were assessed from between-group differences in costs, function (primary clinical outcome), and quality-adjusted life years (QALYs). Cost-effectiveness acceptability curves were constructed to represent uncertainty around cost-effectiveness.

**Results.** Rehabilitation (regardless of whether Indiv-rehab or Grp-rehab) cost £224 (95% confidence interval [95% CI] £184, £262) more per person than usual primary care. The probability of rehabilitation being more cost-effective than usual primary care was 90% if decision makers were willing to pay £1,900 for improvements in functioning. Indiv-rehab

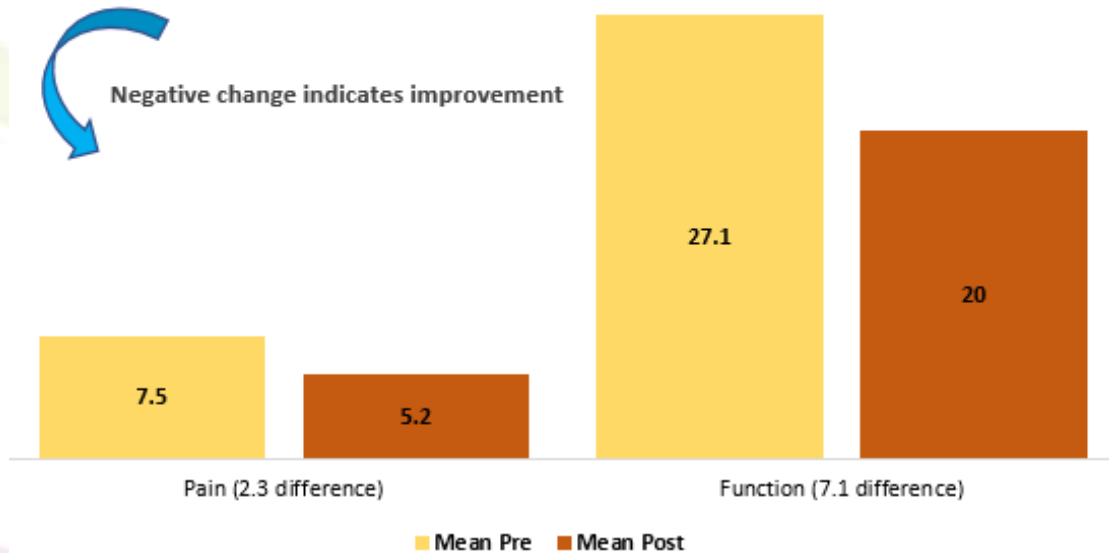
### MODELS OF ILL HEALTH

The “traditional” biomedical model of ill health posits that pathologic characteristics or injury impair normal anatomic and physiological function giving rise to pain and disability (Fig. 1A). According to the biomedical model, OA is the consequence of a lifetime of mechanical (ab)use that causes joint damage, physiological dysfunction, and impairment. These changes lead to greater pain and disability, and interventions that correct this dysfunction reduce symptoms. Based on the premises of the biomedical model of OA, muscle sensorimotor dysfunction (weakness, fatigue, and proprioceptive deficits) may be a contributory factor in the pathogenesis of OA (6). Exercise-induced improvements in pain and disability usually have been considered to be mediated by physiological improvements in muscle strength, endurance, proprioceptive acuity, and joint stability (6). However, the biomedical model of OA is too simplistic and cannot explain why people with advanced joint damage frequently report less pain than people with minimal joint



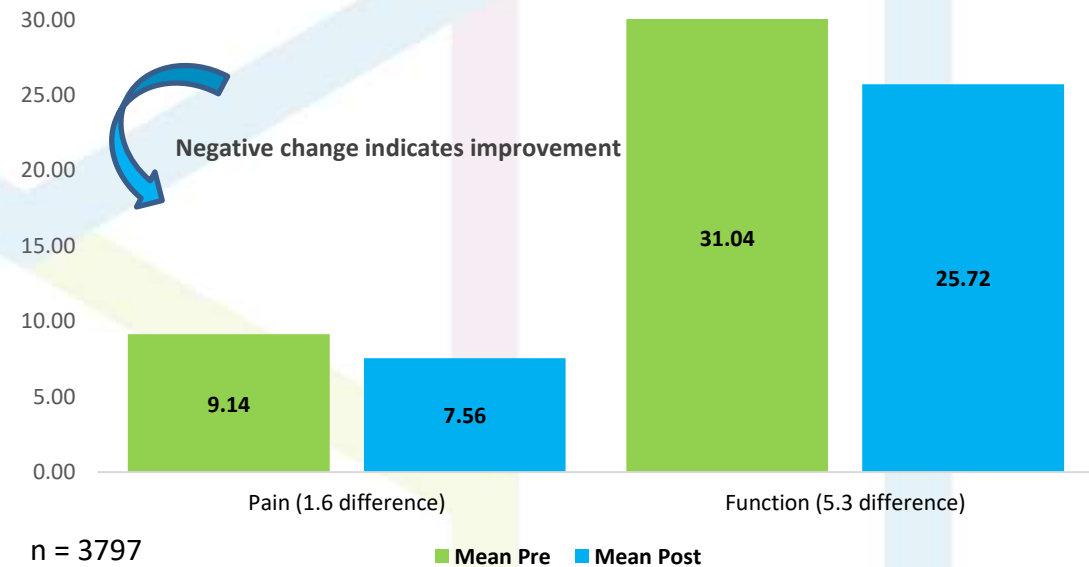
# Clinical outcomes: Trial vs. 'real world'

WOMAC mean Pre and Post ESCAPE Pain - original trial (2007)



n=278

WOMAC mean Pre and Post ESCAPE Pain 2014 - 2019



n = 3797

# Objectives

- To explore and identify **models for delivery and implementation**
- To support providers to implement ESCAPE Pain
- To have at least **one ESCAPE Pain site in each region of the North East and North Cumbria**
- To ensure ESCAPE Pain is accessible to as broad a range of clients as possible
- To ensure delivery partners are trained and suitably qualified (according to the requirements set out by Health Innovation Network; HIN) – see Appendix I
- To increase awareness of ESCAPE Pain and promote and celebrate successes (social media, case studies, forum etc)
- Develop an increased understanding of the **factors needed for successful implementation** of ESCAPE Pain
- To contribute to the **evidence base and ongoing evaluation of ESCAPE Pain** to demonstrate improved outcomes
- Development of collaborative relationships with HIN, ARUK (now Versus Arthritis) and NHS RightCare

# Progress To Date – Models of delivery

Leisure led



Physio led



Occupational Health / Council led



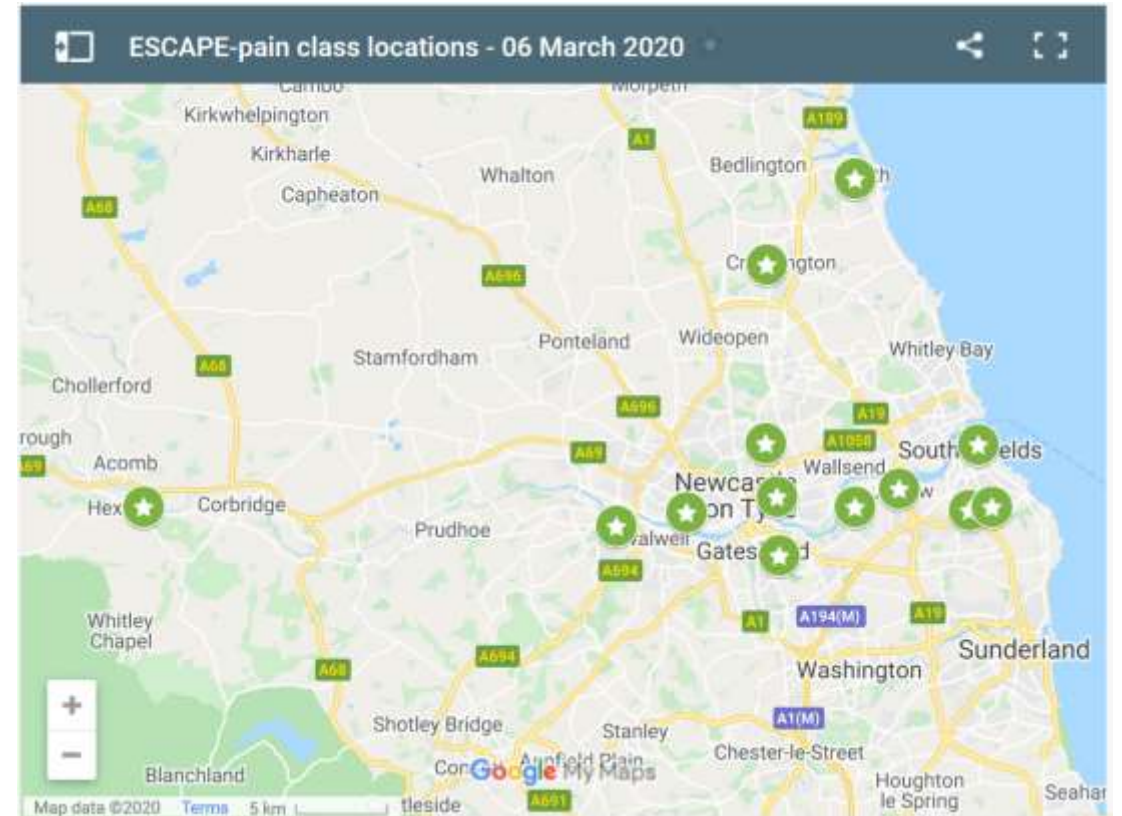
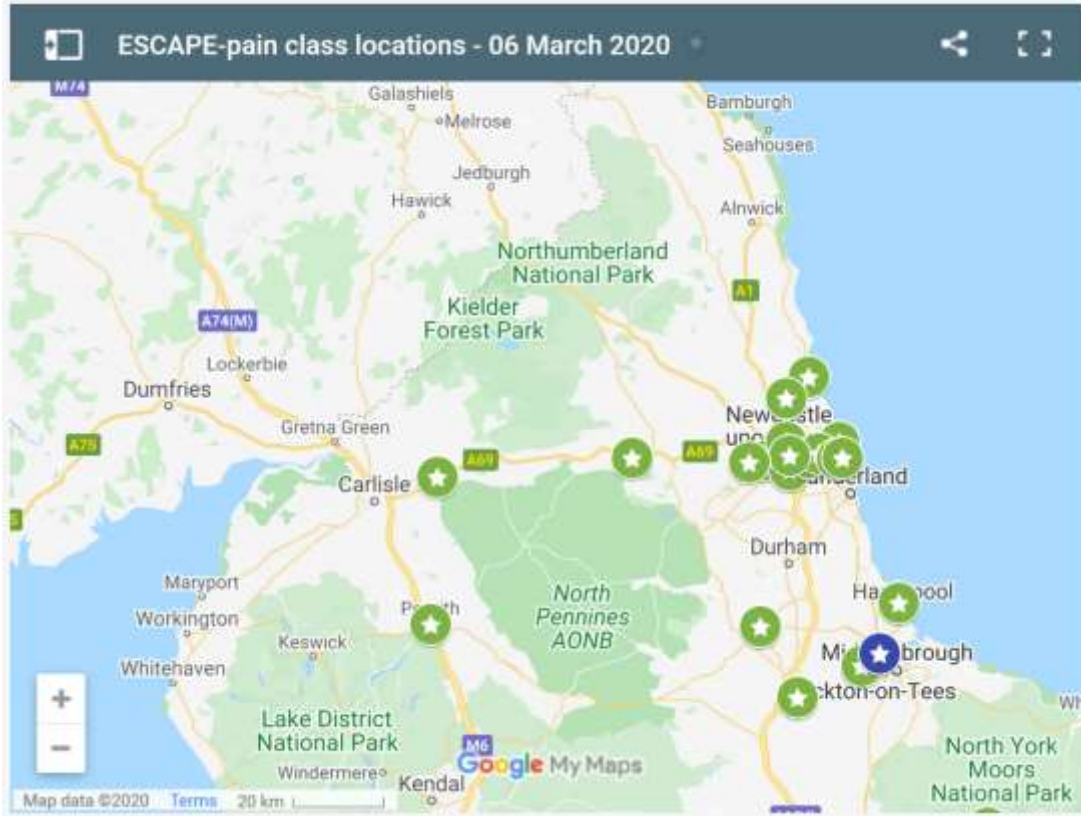
South Tyneside Council

Community focused



HealthWORKS





<https://escape-pain.org/find-a-local-class>

<https://www.ahsn-nenc.org.uk/what-we-do/improving-population-health/escape-pain/escape-pain-classes/>

## Progress To Date – Sites in NENC

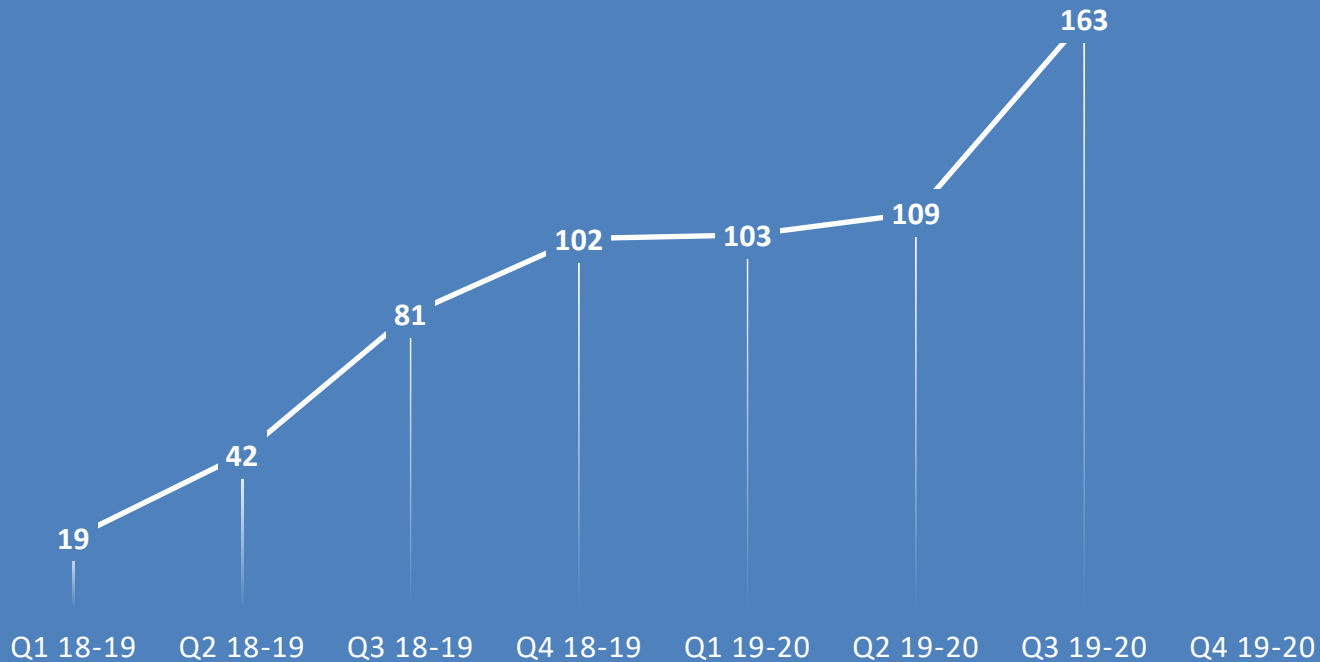
20 active sites (Q4 2019/20)

+1 in planning (South Tees/ Northallerton)



# Progress To Date – People Benefitting in NENC

NUMBER OF 'COMPLETERS' (APRIL 2018-  
DECEMBER 2019)



Year	Totals
2018/19	244
2019/20 (up to Q3)	375 (528 predicted)
	<b>619</b> <b>(772 predicted)</b>



# Your ESCAPE-pain in numbers...



**c.631**

Participants who completed ESCAPE-pain between Apr-18 and Dec-19



**131**

Staff members trained



**£954,072**

saved in the health and social care sector over 2.5 years based on the number of completers in the North East and North Cumbria.

"A research study (Hurley et al 2012) followed people for two and a half years after the programme, and showed that people who had been on the programme had lower healthcare utilisation costs – £1,118 lower per person – two and a half years after completing the programme. Updating these prices to 2016/7 prices (using PSSRU.ac.uk database), that's £1,512 per person over a two-and-a-half year period. This includes things such as reduced use of A&E services, medical consultations, referrals, investigations (x-rays MRI scans); reduced use of analgesia and gastro-protective agents, and side effects of medication. The papers can be accessed here: <https://escape-pain.org/aboutus/research>

# Reflections On Implementation

- Collaboration and partnerships
- Champions
- Local context (culture, MSK pathways, commissioning, access to facilities, fit with current provision, staffing)
- Working with the willing!
- Understanding demand (MSK calculator and costing models)
- Openness to a variety of delivery models
- Understanding and harnessing existing referral pathways
- Trying out different funding models

- Cost of training
- Cost of delivery
- Fidelity to the programme
- Sustainability
- Continual Improvement
- 'Follow on' services

# Contacts

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