

Optimal primary care management of clinical osteoarthritis and joint pain in older people: a mixed-methods programme of systematic reviews, observational and qualitative studies, and randomised controlled trials

Elaine Hay,^{1*} Krysia Dziedzic,¹ Nadine Foster,¹
George Peat,¹ Danielle van der Windt,¹
Bernadette Bartlam,¹ Milisa Blagojevic-Bucknall,¹
John Edwards,¹ Emma Healey,¹ Melanie Holden,¹
Rhian Hughes,¹ Clare Jinks,¹ Kelvin Jordan,¹
Sue Jowett,^{1,2} Martyn Lewis,¹ Christian Mallen,¹
Andrew Morden,¹ Elaine Nicholls,¹ Bie Nio Ong,¹
Mark Porcheret,¹ Jerome Wulff,¹ Jesse Kigozi,^{1,2}
Raymond Oppong,^{1,2} Zoe Paskins¹ and Peter Croft¹

¹Arthritis Research UK Primary Care Centre, Institute of Primary Care and Health Sciences, Keele University, Keele, UK

²Health Economics Unit, University of Birmingham, Birmingham, UK

*Corresponding author e.m.hay@keele.ac.uk

Declared competing interests of authors: Krysia Dziedzic was appointed a National Institute for Health and Care Excellence Fellow during the programme period (2013–16), received an NHS England Regional Innovation Fund award to implement aspects of the programme, and was an invited speaker by the British Health Professionals in Rheumatology to present the results. John Edwards was in receipt of a National Institute for Health Research In-Practice Fellowship (2010–12) to carry out parts of this programme and was an invited speaker by the European League Against Rheumatism to present the results. He is also a general practice contractor and benefits from payments under the Quality and Outcomes Framework of the General Medical Services Contract.

Published July 2018

DOI: 10.3310/pgfar06040

Plain English summary

Clinical osteoarthritis and joint pain in older people

Programme Grants for Applied Research 2018; Vol. 6: No. 4

DOI: 10.3310/pgfar06040

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Plain English summary

Osteoarthritis (OA) is a common painful condition in mid to later life that affects daily activities such as walking and climbing stairs. Research shows that simple things such as providing information about OA and exercise can reduce the symptoms, but many sufferers do not receive this information or get advice and encouragement to put it into practice.

Our programme addressed how to make OA interventions more available and more effective by conducting four large research studies:

1. We developed ways to use existing data sets to investigate how to offer the best possible treatments for OA in ways that are effective for patients as well as being affordable for the NHS.
2. In a large trial, we tested how the best care for OA can be delivered in general practitioner (GP) practices with an OA guidebook and structured support by the GP and practice nurse. We showed that it is possible to improve the quality of OA care and we are now using this information to implement best-quality OA care more widely in primary care in the NHS.
3. We conducted a trial comparing different ways to help people to find the right exercise routine and maintain it over time. We found that more intense exercise programmes did not improve symptoms more than exercise already offered by NHS physiotherapists to people with OA.
4. We investigated detecting and managing concurrent depression and anxiety in people with OA. This did not improve OA symptoms more than usual care in general practice.

Overall, this programme has added valuable information about which primary care treatments are effective and which are not effective for people with OA. It has also provided evidence to guide the direction of future research into improving care for people with OA.

Programme Grants for Applied Research

ISSN 2050-4322 (Print)

ISSN 2050-4330 (Online)

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: journals.library@nihr.ac.uk

The full PGfAR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/pgfar. Print-on-demand copies can be purchased from the report pages of the NIHR Journals Library website: www.journalslibrary.nihr.ac.uk

Criteria for inclusion in the *Programme Grants for Applied Research* journal

Reports are published in *Programme Grants for Applied Research* (PGfAR) if (1) they have resulted from work for the PGfAR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Programme Grants for Applied Research programme

The Programme Grants for Applied Research (PGfAR) programme, part of the National Institute for Health Research (NIHR), was set up in 2006 to produce independent research findings that will have practical application for the benefit of patients and the NHS in the relatively near future. The Programme is managed by the NIHR Central Commissioning Facility (CCF) with strategic input from the Programme Director.

The programme is a national response mode funding scheme that aims to provide evidence to improve health outcomes in England through promotion of health, prevention of ill health, and optimal disease management (including safety and quality), with particular emphasis on conditions causing significant disease burden.

For more information about the PGfAR programme please visit the website: <http://www.nihr.ac.uk/funding/programme-grants-for-applied-research.htm>

This report

The research reported in this issue of the journal was funded by PGfAR as project number RP-PG-0407-10386. The contractual start date was in July 2008. The final report began editorial review in March 2015 and was accepted for publication in May 2016. As the funder, the PGfAR programme agreed the research questions and study designs in advance with the investigators. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PGfAR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, CCF, NETSCC, PGfAR or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the PGfAR programme or the Department of Health and Social Care.

© Queen's Printer and Controller of HMSO 2018. This work was produced by Hay *et al.* under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This issue may be freely reproduced for the purposes of private research and study and extracts (or indeed, the full report) may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Prepress Projects Ltd, Perth, Scotland (www.prepress-projects.co.uk).

NIHR Journals Library Editor-in-Chief

Professor Tom Walley Director, NIHR Evaluation, Trials and Studies and Director of the EME Programme, UK

NIHR Journals Library Editors

Professor Ken Stein Chair of HTA and EME Editorial Board and Professor of Public Health, University of Exeter Medical School, UK

Professor Andrée Le May Chair of NIHR Journals Library Editorial Group (HS&DR, PGfAR, PHR journals)

Dr Martin Ashton-Key Consultant in Public Health Medicine/Consultant Advisor, NETSCC, UK

Professor Matthias Beck Professor of Management, Cork University Business School, Department of Management and Marketing, University College Cork, Ireland

Dr Tessa Crilly Director, Crystal Blue Consulting Ltd, UK

Dr Eugenia Cronin Senior Scientific Advisor, Wessex Institute, UK

Dr Peter Davidson Director of the NIHR Dissemination Centre, University of Southampton, UK

Ms Tara Lamont Scientific Advisor, NETSCC, UK

Dr Catriona McDaid Senior Research Fellow, York Trials Unit, Department of Health Sciences, University of York, UK

Professor William McGuire Professor of Child Health, Hull York Medical School, University of York, UK

Professor Geoffrey Meads Professor of Wellbeing Research, University of Winchester, UK

Professor John Norrie Chair in Medical Statistics, University of Edinburgh, UK

Professor John Powell Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK

Professor James Raftery Professor of Health Technology Assessment, Wessex Institute, Faculty of Medicine, University of Southampton, UK

Dr Rob Riemsma Reviews Manager, Kleijnen Systematic Reviews Ltd, UK

Professor Helen Roberts Professor of Child Health Research, UCL Great Ormond Street Institute of Child Health, UK

Professor Jonathan Ross Professor of Sexual Health and HIV, University Hospital Birmingham, UK

Professor Helen Snooks Professor of Health Services Research, Institute of Life Science, College of Medicine, Swansea University, UK

Professor Jim Thornton Professor of Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, University of Nottingham, UK

Professor Martin Underwood Director, Warwick Clinical Trials Unit, Warwick Medical School, University of Warwick, UK

Please visit the website for a list of editors: www.journalslibrary.nihr.ac.uk/about/editors

Editorial contact: journals.library@nihr.ac.uk