

Evidence Brief: Musculoskeletal (MSK)

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Produced by the Knowledge Management team Evidence Briefs offer an overview of the published reports, research, and evidence on a workforce-related topic.

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- [Complete Evidence Brief list – link for Workforce, Training and Education staff](#)
- [Complete Evidence Brief list – link for External staff](#)

Key publications – the big picture

[Major conditions strategy: case for change and our strategic framework](#)

Source: Department of Health & Social Care

Publication date: Updated 21st August 2023

The model of care which sustained us for the past 75 years must evolve considerably to meet the needs of the public in 75 years' time. We are living longer, but for too many people that life is experienced with many years in poor health. This major conditions strategy begins with one question: how should our approach to health and care delivery evolve to improve outcomes and better meet the needs of our population, which is becoming older and living with multimorbidity? We have chosen 6 groups of conditions to focus on: cancers, cardiovascular disease (CVD) (including stroke and diabetes), musculoskeletal disorders (MSK), mental ill health, dementia, and chronic respiratory disease (CRD).

[NHS Long Term Workforce Plan](#)

Source: NHS England

Publication date: June 2023

The first comprehensive workforce plan for the NHS, putting staffing on a sustainable footing and improving patient care. It focuses on retaining existing talent and making the best use of new technology alongside the biggest recruitment drive in health service history.

See section 25 Occupation and Health and Wellbeing Services and section 80 Enhanced Practitioners

[Guide to adopting remote consultations in adult musculoskeletal physiotherapy services](#)

Source: NHS England

Publication date: February 2023

This guide supports adult MSK physiotherapy services – delivered by providers across primary community and/or secondary care – to implement evidence informed remote consultations.

[An improvement framework to reduce community musculoskeletal waits while delivering best outcomes and experiences](#)

Source: NHS England

Publication date: January 2023

Integrated high quality community musculoskeletal (MSK) services are integral to a productive high-performing healthcare system supporting the management of MSK conditions. Most people with MSK conditions can be diagnosed and well managed in the community. A smaller number require timely referral to secondary care orthopaedic, rheumatology, spinal or pain management services to enable best outcomes.

[Musculoskeletal \(MSK\) digital playbook](#)

Source: NHS England Transformation Directorate

Publication date: 2023

This resource provides support to clinical teams and organisations that are looking for digital tools that support the delivery of patient pathways. We concentrate on musculoskeletal services and how to deliver monitoring and support to patients. We welcome feedback on the playbooks, including ideas for further case studies. To get in touch, please email digital.playbooks@nhs.net

[Understanding the provision of occupational health and work-related musculoskeletal services](#)

Source: Department for Work and Pensions and Department of Health and Social Care

Publication date: May 2020

This research maps the existing provision of occupational health across the UK and NHS musculoskeletal services available across England.

Case Studies

[A community-centred approach to musculoskeletal care](#)

Author(s): Safwan Chowdhury

Source: NHS Confederation

Publication date: 11th September 2023

Sussex MSK Partnership developed a community approach that delivered personalised care, increased access for service users, and boosted staff morale.

[Transforming Bedfordshire's podiatry workforce](#)

Source: NHS Employers

Publication date: 31st May 2023

Bedfordshire have transformed their podiatry services to increase the pipeline into the workforce, develop staff and embed a new leadership approach.

[Redesigning orthopaedic outpatient assessments](#)

Source: NHS Confederation

Publication date: 16th February 2022

New staff-designed assessment clinic has shortened waiting times for orthopaedic patients, increased capacity and improved patient experience.

[Restoring elective work and looking to the future at East Sussex NHS Healthcare Trust](#)

Source: NHS Confederation

Publication date: 7th October 2021

How East Sussex has managed its case mix and increased day-case procedures to manage the backlog.

eLearning

[Musculoskeletal Primary Care](#)

Source: NHS England eLearning for Healthcare

The Musculoskeletal (MSK) primary care elearning programme has been developed to support clinicians working in primary care as first contact practitioners (FCP) in a primary care environment. In a primary care setting it has been reported that a GP will see 25% of their case load as MSK in origin and it has also been highlighted that using the wider workforce, such as physiotherapists, can improve outcomes, give high patient satisfaction, save time and ultimately costs. To support these new models of care organisations have been aligned, through community services, with primary care to develop new pathways of patient management. In doing so there is a need for appropriate training and governance to support staff moving into these new forms of practice.

The Star for workforce redesign

More resources and tools are available by searching for **Musculoskeletal** in [the Star](#)

Statistics

You can find relevant statistics on the [Health and Care Statistics Landscape](#) under “**Health and Care**”

National Data Programme

Workforce, Training and Education staff can look at the [National Data Warehouse \(NDL\)](#) SharePoint site to find out more about datasets and Tableau products.

Published Peer Reviewed Research

Advanced Practice

[Developing and embedding an advanced practice musculoskeletal physiotherapy service in public specialist outpatient services in Queensland: A health service masterclass](#)

Item Type: Journal Article

Authors: Raymer, Maree; Swete Kelly, Patrick and O'Leary, Shaun

Publication Date: 2024

Journal: Musculoskeletal Science & Practice 70, pp. 102917

Abstract: INTRODUCTION: The Musculoskeletal Physiotherapy Screening Clinic and Multi-disciplinary Service (MPSC&MDS) is an advanced practice physiotherapist-led model of care developed initially to address overburdened specialist orthopaedic outpatient public hospital services across Queensland, Australia., PURPOSE: This Masterclass explores the experiences and success of embedding the MPSC&MDS state-wide across the Queensland public health system and its expansion in scale and reach to other specialist services. Key characteristics and development strategies are described that have collectively underpinned the expansion and sustainability of the service, using relevant stream sections and themes from a recommended musculoskeletal model of care framework., IMPLICATIONS: The aim of this masterclass is to be informative for readers involved in the future development or refinement of

similar models of care. Copyright © 2024 The Authors. Published by Elsevier Ltd.. All rights reserved.

[Advanced practice physiotherapists in Scottish primary care: Axial Spondyloarthritis epidemiology, time to diagnosis, and referrals to rheumatology](#) Abstract only*

Item Type: Journal Article

Authors: Hepburn, Jordan

Publication Date: 2023a

Journal: Musculoskeletal Care 21(3), pp. 958-967

Abstract: Objectives: (1) Generate empirical knowledge of a Musculoskeletal (MSK) Advanced Practice Physiotherapist (APP) Service in Scottish Primary Care; (2) Identify the incidence and baseline time to diagnosis of Axial Spondyloarthritis (AxSpA); (3) Identify APP Rheumatology referral fulfilment of the NICE 2017 Guidelines and Spondylarthritis Diagnosis Evaluation (SPADE) Tool; (4) Calculate APP Rheumatology referral conversion rates for AxSpA diagnosis and further investigation; (5) Contribute towards the current body of literature for informing analysis of MSK APP services within Scottish Primary Care. Methods: An audit and evaluation approach was undertaken over a 3-year period (May 2019–April 2022). Relevant clinical cases from the whole-service data-set were identified and analysed, using retrospective electronic healthcare record review and descriptive statistical techniques. Results: A total of 37,656 primary care MSK APP consultations took place, with N = 19 suspected AxSpA referrals made to Rheumatology. N = 6 cases of AxSpA were diagnosed by a Rheumatologist (31.6%). The mean age of individuals diagnosed with AxSpA was 39.6 ± 8.8, and 66.7% (4/6) were female. Mean time to diagnosis was 3.4 years, and incidence per-10,000 person-years was 1.6. Compliance of referrals with the NICE 2017 Guidelines and SPADE Tool Criteria was 78.9%. Of those diagnosed with AxSpA, 66.7% met both referral criterion sets. Conclusion: Those referred by an MSK APP from primary care had a 5.1 year

shorter time to diagnosis than the previous reported UK average of 8.5 years. APPs identified relevant AxSpA features in referring to Rheumatology, and supported effective implementation of the local secondary care pathway.

[Portfolios in practice: Developing advancing practice within a musculoskeletal competency-based model](#) Abstract only*

Item Type: Journal Article

Authors: Langridge, N.;Welch, H.;Jones, D.;Small, C.;Lynch, G. and Ganatra, B.

Publication Date: 2023

Journal: Musculoskeletal Science & Practice 63, pp. 102689

Abstract: INTRODUCTION: The development of professional portfolios and the relevance of this within professional practice, competency and capability is gaining significant credibility in line with professional requirements. Nursing and medicine in terms of historical perspectives have long held the need for clinicians to maintain a portfolio for professional validation, whilst in other professional groups it is a requirement of registration. The allied health professionals, physiotherapy and ultimately musculoskeletal practice within this context are rapidly developing advancing and consultant practice. This professional development further requires appropriate verification and validation of practice, and achieving this can be through formal and non-formal routes., PURPOSE: This paper looks to explore this and give direction to professionals developing portfolios whilst placing the requirements in context to contemporary practice in the U.K. Universities, professional bodies and special interest groups are now aligning in the need to support practice in a multi-format way, that moves away from traditional methods of evaluation into more diverse models of competency-based assessment., IMPLICATIONS: With improvement in technology, the development of national frameworks and standards, portfolios in practice although commonly considered as standard practice will be a requirement not only of registration but as a

criteria of maintaining status, career development and expansion of roles., BACKGROUND: Musculoskeletal (MSK) physiotherapy in the U.K. has moved forward significantly in the last 20 years. Sitting within a clinical reasoned framework, the introduction of additional skills such as image requesting, injection therapies, and non-medical prescribing has further underpinned the advanced practice agenda (Langridge et al., 2015). While these advancements in practice are driving the profession forward, challenges remain in providing the workforce with a clear process of career development. Alongside developing professional pathways methods of evidencing advanced knowledge and skills acquired outside formal routes are required to support practitioners' career pathway into advancing practice. Crown Copyright © 2022. Published by Elsevier Ltd. All rights reserved.

[The introduction of advanced practice physiotherapy within Dutch primary care is a quest for possibilities, added value, and mutual trust: a qualitative study amongst advanced practice physiotherapists and general practitioners](#)

Item Type: Journal Article

Authors: Pellekooren, Sylvia;Donker, Marianne;Reijnders, Eddy;Boutalab, Lamyae;Ostelo, Raymond;van Tulder, Maurits and Pool-Goudzwaard, Annelies

Publication Date: 2022

Journal: BMC Health Services Research 22(1), pp. 529

Abstract: BACKGROUND: Despite the increased deployment and added value of Advanced Practitioner Physiotherapy (APP) in musculoskeletal care internationally, APP is not yet widely accepted within Dutch primary care. This may be due to specific constraints in the implementation of APP within the Dutch healthcare system. This study aimed to explore the experiences and perceptions of Advanced Practitioner Physiotherapists (APPs) and General Practitioners (GPs) with respect to implementing APP within Dutch primary care., METHODS: This

explorative and interpretive qualitative study included 12 APPs and 3 GPs who were in various stages of implementing an APP care model. Semi-structured interviews were conducted between January and March 2021. The topic list was based on existing literature, the personal input of researchers, and the Constellation Approach framework. Data were analysed using a thematic inductive approach., RESULTS: Four main themes emerged from the data; 1) Both GPs' trust in APP and a clear added value of APP are critical for starting implementation, 2) APPs need continuous support from GPs, 3) APPs believe that their position needs strengthening, and 4) Implementation of the APP model creates tension over ownership. These four themes highlight the perceived difficulties in gaining trust, lack of clarity over the added value of APP, ambiguity over APPs' professional profile and positioning, a need on behalf of GPs to maintain authority, lack of reimbursement structure, and the struggle APPs face to strike a balance with current care., CONCLUSION: This study demonstrates that implementing an APP model of care is challenging, in part, because the deployment of APP does not sufficiently align with the core values of GPs, while GPs appear reluctant to hand over control of elements of patient care to APPs. APPs do not appear to have ownership over the implementation, given their strong dependence on the practice, values and needs of GPs., TRIAL REGISTRATION: Ethical approval was obtained from the Medical Ethics Committee of VU University Medical Centre in Amsterdam; reference number 2020.17 . All participants were asked to provide written informed consent prior to participating in the study. Copyright © 2022. The Author(s).

[The advanced practitioners' perspective. Exploring the decision-making process between musculoskeletal advanced practitioners and their patients: An interpretive phenomenological study](#)

Item Type: Journal Article

Authors: Thompson, Jonathan;Gabriel, Lynne;Yoward,

Samantha and Dawson, Pamela

Publication Date: 2022

Journal: Musculoskeletal Care 20(1), pp. 128-136

Abstract: INTRODUCTION: Advanced practice roles for allied health professionals continue to expand and provide key services within pathways of care for patients with musculoskeletal conditions. Despite the extensive utilisation of these roles and previously reported high patient satisfaction, little is understood about how these practitioners interact with their patients and the factors that influence decision-making conversations., STUDY: A qualitative study utilised Interpretive Phenomenological Analysis (IPA) to explore the decision-making process occurring between Advanced Practitioners (APs) and their patients in a musculoskeletal service. AP data were collected through focus groups and analysed using IPA methodology., CONCLUSIONS: Advanced practice decision-making is a complex process and APs exhibit a range of styles, from paternalistic to shared decision-making. APs may have a personal preference, but exhibit the ability to flex between styles in consultations. Multiple themes emerged from the data that influenced the decision-making process, including AP staff understanding the importance of patient expectations and the complex factors that influence patient interactions. It is important that clinicians have an awareness of the multiple factors that contribute to the decision-making process. Copyright © 2021 The Authors. Musculoskeletal Care published by John Wiley & Sons Ltd.

Allied Health Professionals

[Assessing the barriers and enablers to the implementation of the diagnostic radiographer musculoskeletal X-ray reporting service within the NHS in England: a systematic literature review](#)

Author(s): Lockwood et al.

Source: BMC Health Services Research 23(1270)

Publication date: 2023

INTRODUCTION: The United Kingdom (UK) government's healthcare policy in the early 1990s paved the way adoption of the skills mix development and implementation of diagnostic radiographers' X-ray reporting service. Current clinical practice within the public UK healthcare system reflects the same pressures of increased demand in patient imaging and limited capacity of the reporting workforce (radiographers and radiologists) as in the 1990s. This study aimed to identify, define and assess the longitudinal macro, meso, and micro barriers and enablers to the implementation of the diagnostic radiographer musculoskeletal X-ray reporting service in the National Healthcare System (NHS) in England. **METHODS:** Multiple independent databases were searched, including PubMed, Ovid MEDLINE; Embase; CINAHL, and Google Scholar, as well as journal databases (Scopus, Wiley), healthcare databases (NHS Evidence Database; Cochrane Library) and grey literature databases (OpenGrey, GreyNet International, and the British Library EthOS depository) and recorded in a PRISMA flow chart. A combination of keywords, Boolean logic, truncation, parentheses and wildcards with inclusion/exclusion criteria and a time frame of 1995–2022 was applied. The literature was assessed against Joanna Briggs Institute's critical appraisal checklists. With meta-aggregation to synthesize each paper, and coded using NVivo, with context grouped into macro, meso, and micro-level sources and categorised into subgroups of enablers and barriers. **RESULTS:** The wide and diverse range of data (n = 241 papers) identified barriers and enablers of implementation, which were categorised into measures of macro, meso, and micro levels, and thematic categories of context, culture, environment, and leadership. **CONCLUSION:** The literature since 1995 has reframed the debates on implementation of the radiographer reporting role and has been instrumental in shaping clinical practice. There has been clear influence upon both meso (professional body) and

macro-level (governmental/health service) policies and guidance, that have shaped change at micro-level NHS Trust organisations. There is evidence of a shift in culturally entrenched legacy perspectives within and between different meso-level professional bodies around skills mix acceptance and role boundaries. This has helped shape capacity building of the reporting workforce. All of which have contributed to conceptual understandings of the skills mix workforce within modern radiology services.

Education and Training

[Digital human ergonomics training for remote office workers: Comparing a novel method to a traditional online format](#) Abstract only*

Item Type: Journal Article

Authors: Aguilar, Kaysey N.;Smith, Matthew Lee;Payne, Stephanie C.;Zhao, Hongwei and Benden, Mark

Publication Date: 2024

Journal: Applied Ergonomics 117, pp. 104239

Abstract: **OBJECTIVE:** This randomized controlled trial investigated the effectiveness of an online ergonomics training program with a digital human compared to an online ergonomics training program without a digital human., **METHOD:** Remote office workers (n = 138) were randomly assigned to either a digital human training, a traditional webpage training without a digital human, or a control group. Musculoskeletal discomfort, knowledge retention, and behavior change were measured., **RESULTS:** The overall group differences for increased behavior change and knowledge retention were statistically significant (p 0.05)., **CONCLUSION:** Digital humans have the potential to meet large-scale remote worker training needs. Copyright © 2024 Elsevier Ltd. All rights reserved.

[Development of a structured musculoskeletal and rheumatic disease continuing education program for nurse practitioners](#)

Abstract only*

Item Type: Journal Article

Authors: Kellahan, S.;Burnitt, L.;Eisen, S.;Curtis, M. P. and Parks, D.

Publication Date: 2023

Journal: Journal of the American Association of Nurse Practitioners 35(9), pp. 534-539

Abstract: The workforce shortage of musculoskeletal and rheumatic disease (MSK-RMD) trained providers has led to the need for additional education for nurse practitioners (NPs) in MSK-RMD. An educational certificate was developed and implemented collaboratively between an academic medical center and a college of nursing. The NP-focused MSK-RMD education program enhanced the assessment and treatment of a variety of common RSK-RMD conditions. Interviews and online surveys were conducted with participants to evaluate the program experience. Participant interviews and survey findings demonstrate overall NP satisfaction with the program. Expanding the program to create an accessible virtual continuing education course may improve accessibility of MSK-RMD education for NPs in primary care and multidisciplinary environments.

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[Many physiotherapists lack preparedness to prescribe physical activity and exercise to people with musculoskeletal pain: A multi-national survey](#)

Item Type: Journal Article

Authors: Barton, C. J.;King, M. G.;Dascombe, B.;Taylor, N. F.;de Oliveira Silva, D.;Holden, S.;Goff, A. J.;Takarangi, K. and Shields, N.

Publication Date: 2021

Journal: Physical Therapy in Sport 49, pp. 98-105

Abstract: Objectives: Determine physiotherapists' (i) awareness

of physical activity, and exercise prescription guidelines; (ii) perceived role, knowledge, confidence, skills and training in prescribing and progressing aerobic exercise and resistance training to people with musculoskeletal pain; (iii) professional development preferences; and (iv) perceived influences of external factors on exercise prescription for people with musculoskeletal pain. Design(s): Multi-national cross-sectional survey. Method(s): An open online survey was developed specifically for this study. Result(s): 1,352 physiotherapists from 56 countries participated. The majority of respondents correctly stated physical activity guidelines for adults (60%) and children (53%), but only 37% correctly stated guidelines for older adults. Eleven percent and 16% could name an accepted guideline for aerobic exercise and resistance training, respectively. Most agreed their role included prescribing aerobic exercise (75%) and resistance training (89%). Fewer reported they had the confidence, training or skills to prescribe aerobic exercise (38-50%) and resistance training (49-70%). Workshops were the most preferred (44%) professional development option. Most respondents believed appointment scheduling and access to equipment and professional development (62-79%) affected their ability to prescribe effective exercise. Conclusion(s): Many physiotherapists lack knowledge and training to provide physical activity advice, and to prescribe aerobic exercise and resistance training to people with musculoskeletal pain. Copyright © 2021 Elsevier Ltd

[The professional development and career journey into musculoskeletal first contact physiotherapy: a telephone interview study](#)

Item Type: Journal Article

Authors: Bassett, A. M. and Jackson, J.

Publication Date: 2021

Journal: Physiotherapy Theory and Practice

Evidence Brief: Musculoskeletal (MSK)

Abstract: (a)Background: Musculoskeletal (MSK) first contact physiotherapy (FCP) is being rolled out in the National Health Service, but limited research exists on career pathways into MSK FCP, or on pre-and-post-registration educational preparation for the knowledge and skills that are required for musculoskeletal first contact physiotherapy. (b) Objectives: From the perspectives of existing MSK FCPs, the study sought to understand the pre-and-post-registration professional developmental journey into musculoskeletal first contact physiotherapy. (c) Methods: Semi-structured interviews over the telephone were conducted with a self-selected and snowball sample of 15 MSK FCPs from across Britain. Framework analysis was used to analyze the interview transcripts. (d) Results: Four overarching themes were identified: (1) Decision to choose a career path as a MSK FCP; (2) Relevancy of pre-registration physiotherapy (PT) education for MSK FCP; (3) Relevancy of post-registration continuing professional development for MSK FCP, and; (4) Improving pre-registration PT education for the foundational knowledge and skills required to work in musculoskeletal first contact physiotherapy. Each overarching theme generated several subthemes. (e)Conclusion: The research contributes to understanding the career pathway into the MSK FCP role and showed what relevant knowledge and skills were acquired for this role at pre-and-post registration levels. Findings will inform guidance for pre-registration PT curriculum development. Copyright © 2021 Taylor & Francis Group, LLC.

[Advanced musculoskeletal physiotherapy practice: Informing education curricula](#) Full text available with NHS OpenAthens account*

Author(s): Fennelly et al.

Source: Musculoskeletal Science and Practice 48

Publication date: 2020

This study identifies the common themes relating to professional and clinical capabilities expected of MSK APPs internationally.

Findings indicate that it would be feasible to adopt standardised MSK APP competencies and education standards using these common themes as a foundation. This would likely enhance workforce mobility, role legitimacy and service quality, and facilitate lobbying for recognition and remuneration.

[Musculoskeletal radiology training in the UK: a national survey by the British Society of Skeletal Radiologists](#) Abstract only*

Author(s): Dalili et al.

Source: Clinical Radiology 76(9)

Publication date: May 2021

Core MSK radiology training remains widely variable across the UK. 50% of core and 86% subspecialty trainees are satisfied with current exposure. 95.5% core and all subspecialist trainees believe MSK training could be improved.

[Interprofessional Musculoskeletal Education: A Review of National Initiatives from the Department of Veterans Affairs](#)

Abstract only*

Author(s): Battistone et al.

Source: Rheumatic Disease Clinics 46(1) pp. 135-153

Publication date: February 2020

This article reviews several national programs in musculoskeletal education initiated by the Department of Veterans Affairs over the past decade. These programs have become sustained interprofessional opportunities for learners across disciplines and along the continuum of health professions education (HPE) and training pathways. This article also describes opportunities for leaders in rheumatology and other HPE programs to join these efforts and to collaborate in the scholarship that will be necessary in constructing educational programs fit for the purpose of ensuring a well-trained, competent workforce of health care providers.

[Women in Orthopaedics: How Understanding Implicit Bias Can Help Your Practice](#) Abstract only*

Author(s): Mulcahey et al.

Source: Instructional Course Lectures 69 pp. 245-254

Publication date: 2020

The purpose of this chapter is to provide an overview of the current status of women in orthopaedics, describe ways to improve diversity in the field, and make surgeons aware of how implicit bias can contribute to discrepancies seen in orthopaedic surgery, including pay scale inequities and women in leadership positions.

[Developing clinical expertise in musculoskeletal physiotherapy: Using observed practice to create a valued practice-based collaborative learning cycle](#) Abstract only*

Author(s): Carr et al.

Source: Musculoskeletal Science and Practice 50

Publication date: December 2020

Regular observed clinical practice was found to facilitate the development of clinical expertise by enabling a valued practice-based collaborative learning cycle.

[Preparing pre-qualifying students for work and wellbeing competencies in the context of newly emerging physiotherapy roles: a national qualitative study](#) Abstract only*

Author(s): Bassett and Jackson

Source: Physiotherapy 107(1)

Publication date: May 2020

Pre-qualifying education provides the foundations for physiotherapists having the necessary competencies to manage and assess the impact of acute and long-term conditions for patients' participation in, or return to work. Findings from the DA and focus groups could be examined further in greater depth in qualitative interviews with final year pre-registration physiotherapy students and university physiotherapy programme

educators. This should be augmented with the views of practice educators, such as those in first contact primary care roles, who provide students with invaluable clinical experience of physiotherapy's essential contribution to work and wellbeing. Implications: The findings have implications for teaching the foundations of work and wellbeing at pre-qualifying level. Study recommendations will inform curriculum developments on the competencies required for the assessment and management of patients' conditions in the context of participation in work.

Equality, Diversity, and Inclusion

[Academic musculoskeletal radiology: influences for gender disparity](#) Full text available with NHS OpenAthens account*

Author(s): Qamar et al.

Source: Skeletal Radiology 47 pp. 381-387

Publication date: 2018

The gender gap seen in the discipline of diagnostic radiology in general and MSK radiology in particular might be addressed with the following suggestions:

1. Expose medical students to radiology at earlier stages of their training.
2. Develop a structured mentoring process for all radiology residents, including women musculoskeletal radiologists.
3. Women radiology mentors might choose to provide personal insight and encouragement to women trainees.
4. All MSK radiologists with interests in achieving leadership positions should examine their strengths and weaknesses, and work towards their goals.

[Where Are the Women in Orthopaedic Surgery?](#)

Author(s): Rohde et al.

Source: Clinical Orthopaedics and Related Research 474(9) pp. 1950-1956

Publication date: September 2016

Data suggest that the relatively few women currently practicing orthopaedics were attracted to the field because of their individual personal affinity for its nature despite the lack of role models and exposure. The latter factors may impact the continued paucity of women pursuing this field. Programs designed to improve mentorship and increase early exposure to orthopaedics and orthopaedic surgeons may increase personal interest in the field and will be important to attract a diverse group of trainees to our specialty in the future.

Interprofessional Collaboration

[Improving musculoskeletal health for children and young people - A 'call to action'](#)

Author(s): Foster et al.

Source: Best Practice and Research: Clinical Rheumatology 34(5)

Publication date: October 2020

Inter-disciplinary and cross-sectional collaborative efforts, extending beyond the remit of individual healthcare providers and countries, is crucial. Using the tools and opportunities offered by the 'fourth industrial revolution', the effort to 'improve MSK health for all' can be energised through sharing of novel ideas and 'working better together'. By breaking out of silos, we can transfer skills, knowledge, models of care and education to engineer change in society and to optimise impact on a wider scale – 'stay local, think global'.

[Conference abstract: Medical students' attitudes to non-medical clinical supervision in an interprofessional orthopaedic community of practice model](#) Abstract only*

Author(s): Critchley and Prescott

Source: Physiotherapy 105(1) E49-E50

Publication date: January 2019

At the University of Liverpool, a medical undergraduate practice placement is situated within an authentic interprofessional orthopaedic Community of Practice in the Royal Liverpool Hospital, where Extended Scope Physiotherapists (ESPs) deliver and lead the organisation of clinical supervision alongside a named orthopaedic consultant. Formal placement evaluation and anecdotal evidence indicate that students significantly value this experience but a more detailed exploration is important to generate an understanding of the real impact of non-medical supervision within the context of an ICP model and add to the clinical education evidence base.

[Conference Abstract: Leader's behaviors for promoting innovation in a multidisciplinary musculoskeletal service](#) Abstract only*

Author(s): Nalajala and Davies

Source: Physiotherapy 105(1) E145

Publication date: January 2019

Knowledge gained through Informal interaction, respectfulness, understanding each other professional strengths and weaknesses are implicit strengths of an MDT. When an MDT member perceived their skills as less valuable compared to a senior clinician or a medical consultant, they hold less power and influence, and this provides an obstacle for knowledge creation and translation. Therefore, a flat hierarchy provides a more effective structure for maximising the MDT productivity.

[Acceptance of primary practitioner physiotherapists in an emergency department: A qualitative study of interprofessional collaboration within workforce reform](#) Full text available with NHS

OpenAthens account*

Author(s): Coyle and Gill

Source: Journal of Interprofessional Care 31(2)

Publication date: 2017

Evidence Brief: Musculoskeletal (MSK)

Acceptance of the PP service by ED staff was not automatic, unconditional, or implied and represented a continuum from PPs being tolerated as transient visitors to being subsumed as integrated members of the ED team. Acceptance of the service and its members was contingent upon the PPs demonstrating three interdependent qualities: being trustworthy, valuing learning, and complementing (not competing with) ED practices to achieve ED goals. Given that staff acceptance was crucial for the successful integration and performance of the service, understanding and manipulating the factors that influence acceptance might increase the likelihood of successfully implementing PP services in EDs. The results might also be applied to facilitate workforce reform in other settings.

Learning from Covid-19

[Working through the COVID-19 outbreak: Rapid review and recommendations for MSK and allied health personnel](#)

Item Type: Journal Article

Authors: Viswanath, A. and Monga, P.

Publication Date: 2020

Journal: Journal of Clinical Orthopaedics and Trauma 11(3), pp. 500-503

Abstract: The coronavirus (COVID-19) pandemic has caused the world to undergo unprecedented change in a short space of time. This disease has devastated the economy, infringed personal freedom, and has taken a toll on healthcare systems worldwide. This review aims to highlight aspects of this pandemic with a specific emphasis on musculoskeletal work within the secondary care setting. Copyright © 2020 Delhi Orthopedic Association

[Conference Abstract: COVID-19: Perspectives of musculoskeletal rehabilitation at low resource setting](#) See p. 215

Author(s):

Source: International Journal of Rheumatic Diseases

Publication date: October 2020

[p. 215] COVID-19 impacted the overall schedule of rehabilitation services including rheumatological rehabilitation clinics. Low resource settings have multiple challenges to accommodate and adjust rehabilitation team works for patients with MSK problems. Recruiting more manpower, expansion of spacious services and a planned accommodative working environment in the altered situation is warranted.

New ways of working

[Impact of single multidisciplinary triage system and straight to test process evaluation at surrey integrated musculoskeletal services](#) Abstract only*

Author(s): Nalajala et al.

Source: Journal of Integrated Care 31(2)

Publication date: April 2023

Purpose: Orthopaedics, rheumatology, pain management, specialist radiology and therapy services were brought under one umbrella to form Northwest Surrey integrated musculoskeletal (IMSK) services and introduced advance clinical practice, a multi-disciplinary team triage with a formalised straight to test (STT) process defined in 2018. Historically, prior to these services' integration, there were a primary and second care triage systems within individual specialities. The aim of this service evaluation is to assess the impact of a single IMSK multidisciplinary triage (MDT) system and the efficacy of STT from triage, which allows patients to be sent for diagnostics based on the cluster of symptoms and past medical history in order to achieve early identification of serious pathologies. This is a complex adaptive system with pathways spanning into the core areas of orthopaedics, rheumatology, therapies, pain management services, radiology and some less frequent specialities such as neurology, oncology, vascular and

gynaecology. One of the objectives of this study was to identify how many referrals were triaged to consultants, Advance practice and therapies. In addition, the authors wanted to highlight the proportion of referrals that were sent straight to test from triage and the percentage of these that had sinister pathology identified. This information would then be compared against existing red flag literature to identify common themes. This study aims to discuss the aforementioned objectives.

Design/methodology/approach: Data were extracted retrospectively from a hospital database from January to December 2019 for all the adult musculoskeletal service referrals. The data collected were analysed on a Microsoft Excel sheet with information including date of triage, hospital number, ordering clinician, body part, type of diagnostic, indications for scanning, outcome for STT, serious pathology findings (named code 5 within our trust) and outcome of appointment.

Findings: A total of 47,039 referrals were received into the IMSK service. Of these referrals 19,967 were directly referred to therapies, with 27,072 referrals received into the IMSK service MDT process. Within triage, 718 patients were directed to STT to rule out serious pathology. A total of 28 patients (3.9%) had sinister pathology identified on their investigation. A total of 46% of patients were discharged from their first consultation following STT. Overall, 50% of the total number of referrals into the IMSK service was seen by advanced practitioners with 16% of patients directed to consultants with pre-consultation diagnostic work up.

Originality/value: This service evaluation highlights that STT allows early access to diagnostics, resulting in quicker access to identification of sinister pathology. A one stop MDT system has been shown to be effective in guiding the referral to the right place with increased referrals into allied health advance practice clinics and access to therapies directly. It has resulted in a reduction of unwarranted referrals to consultant care, duplication of investigations and identified patients on multiple pathways.

[Innovations to improve access to musculoskeletal care](#)

Author(s): Chehade et al.

Source: Best Practice & Research Clinical Rheumatology 34(5)

Publication date: October 2020

Includes real-world examples of innovative practices including capacity building in consumer and interprofessional musculoskeletal education and practice; recommendations to transform the access and delivery of integrated, person-centred care; and initiatives in musculoskeletal care and implementation of models of care, enabled by digital health solutions including telehealth, remote monitoring, artificial intelligence, blockchain technology and big data. Provides emerging evidence for how innovation can support systems' strengthening and build capacity to support improved access to 'right' musculoskeletal care, and explores some of the ways to best manage innovations.

[Measuring Advanced/Extended Practice Roles in Arthritis and Musculoskeletal Care in Canada](#)

Author(s): Lundon et al.

Source: ACR Open Rheumatology 2(4) pp. 242-250

Publication date: April 2020

Of 141 respondents, 91 identified as practicing in extended role capacities. The mean age of ERP respondents was 48.7; 87% were female, and 41% of ERPs planned to retire within 5 to 10 years. Respondents were largely physical or occupational therapists by profession and practiced in urban/academic (46%), community (39%), and rural settings (13%). Differences in practice patterns were noted between ERPs (64.5%) and non-ERPs (34.5%), with more ERPs working in extended role capacities while retaining activities reflective of their professional backgrounds. Most respondents (95%) agreed that formal training is necessary to work as an ERP, but only half perceived they had sufficient training opportunities. Barriers to pursuing training were varied, including personal barriers, geographic

barriers, patient-care needs, and financial/remuneration concerns.

[Pelvic and acetabular fracture care in England: current workload and future directions](#)

Author(s): Martin et al.

Source: Annals of the Royal College of Surgeons 103(6)

Publication date: April 2021

Introduction: Fractures of the pelvis and acetabulum (PAFs) are challenging injuries, requiring specialist surgical input. Since implementation of the major trauma network in England in 2012, little has been published regarding the available services, workforce organisation and burden of PAF workload. The aim of this study was to assess the recent trends in volume of PAF workload, evaluate the provision of specialist care, and identify variation in available resources, staffing and training opportunity. Methods: Data on PAF volume, operative caseload, route of admission and time to surgery were requested from the Trauma Audit and Research Network. In order to evaluate current workforce provision and services, an online survey was distributed to individuals known to provide PAF care at each of the 22 major trauma centres (MTCs). Results: From 2013 to 2019, 23,823 patients with PAF were admitted to MTCs in England, of whom 12,480 (52%) underwent operative intervention. On average, there are 3,971 MTC PAF admissions and 2,080 operative fixations each year. There has been an increase in admissions and cases treated operatively since 2013. Three-quarters (78%) of patients present directly to the MTC while 22% are referred from regional trauma units. Annually, there are on average 37 operatively managed PAF injuries per million population. Notwithstanding regional differences in case volume, the average number of annual PAF operative cases per surgeon in England is 30. There is significant variation in frequency of surgeon availability. There is also variation in rota organisation regarding consistent specialist

surgeon availability. Conclusions: This article describes the provision of PAF services since the reorganisation of trauma services in England. Future service development should take into account the current distribution of activity, future trends for increased volume and casemix, and the need for a PAF registry.

[A qualitative study to explore the experiences of first contact physiotherapy practitioners in the NHS and their experiences of their first contact role](#)

Author(s): Greenhalgh et al.

Source: Musculoskeletal Science and Practice 50

Publication date: December 2020

Purpose: First Contact Practitioner (FCP) roles have been developed for health professionals with advanced practice skills to take on many of the musculoskeletal responsibilities currently carried out by general practitioners. FCP roles are new and still developing. Currently there is little research that has investigated the experiences of FCPs. This knowledge could help stakeholders and other clinicians gain an understanding into what makes a successful FCP role. The aim of this research was to explore the experiences of FCP working in North West England to gain insight into the first point of contact service, and their experiences of this developing full time FCP role. Methods: A qualitative design using in-depth semi-structured, face-to-face interviews was undertaken to explore the experiences of FCP providing a first point of contact service. The study took place in an economically deprived and ethnically diverse location in North West England. Findings: Ten FCPs were recruited, four were appointed from Band 6 posts to FCP training posts, 9 were male. The mean years qualified was 12.8. Five themes were identified: 1. 'It's the level of clinical complexity that you're dealing with', 2. FCP role – rewards and challenges, 3. Own wellbeing, 4. Professional development and education, 5. Realities of working in practice governed by business. Conclusion: FCP roles are an exciting development for people with MSK conditions,

the physiotherapy profession, primary care providers and MSK physiotherapists. Mentorship support, workload and standards of training and practice are important when considering future expansion for the sustainability of these roles.

[Challenges and Learning Opportunities of Pre-Registration Physiotherapy Placements in First Contact Settings: The Perspectives of Musculoskeletal First Contact Physiotherapists](#)

Author(s): Bassett and Jackson

Source: Musculoskeletal Care 18(2) pp. 140-149

Publication date: June 2020

Objectives: As musculoskeletal first contact physiotherapy is rolled out into primary healthcare in Britain, this could offer up new practice-based educational opportunities for pre-registration physiotherapy students. Thus, the present study sought to explore the perceived challenges and learning opportunities of pre-registration physiotherapy placements in musculoskeletal first contact physiotherapy settings from first contact physiotherapists' perspectives. Methods: Using a qualitative strategy, 15 musculoskeletal first contact physiotherapists from different geographical locations in Britain, participated in telephone mediated semi-structured interviews. Participants were self-selected through a Chartered Society of Physiotherapy fortnightly bulletin and online forum for first contact physiotherapists, or recruited via snowball sampling. Interview transcripts were analysed according to framework analysis - and the findings were member-checked by proxy. Results: Three core themes emerged: operational challenges, challenges for preregistration physiotherapy students and learning opportunities for pre-registration physiotherapy students. Operational challenges included: ensuring sufficient support from first contact physiotherapy practice educators; financial cost implications of placements, and; lack of capacity within the existing first contact physiotherapy workforce to provide placements. Challenges for physiotherapy students involved: time pressures and stressors of

a first contact physiotherapy placement; identifying red flags, and; complexity of patient presentations. Identified learning opportunities for physiotherapy students were: experience of a specialised physiotherapy role in a primary healthcare setting; bringing awareness of first contact physiotherapy as a potential career pathway, and; experience multidisciplinary team working in primary care. Conclusions: By seeking the perspectives of first contact physiotherapists, this study provides the first step for the development of placements in an emerging practice area.

[Development, spread and impact of primary care and musculoskeletal communities of practice to assist rapid translation of evidence into practice](#) Abstract only*

Author(s): Stevenson et al.

Source: Musculoskeletal Care 19(4) pp. 564-569

Publication date: March 2021

Background: Embedding research into practice is challenging. Barriers include: a shortage of time, lack of understanding of the evidence and a poor support in the clinical setting. A community of practice (CoP) model has been used to address these issues. Three 'Evidence into Practice' groups use a CoP model to assist the rapid translation of evidence into practice in primary and secondary care settings. We describe how a CoP model supports the functions, operations and outputs of three 'Evidence into Practice Groups'. Method: A CoP model is used to engage a broad range of clinicians, researchers, managers, patients and librarians in the complex process of acquiring research knowledge and then translating knowledge into practice. The CoP principles of Domain, Community and Practice are used to describe three 'Evidence into Practice Groups' who cater for different elements of the care and academic sector and engage a range of professional groups. This includes primary and secondary care engaging professionals such as general practitioners (GP), practice nurses, allied health professionals, researchers and librarians. All groups are clinically led,

academically supported and follow similar processes to identify the best evidence and translate it into practice. As the groups reflect the context in which they work they have different operational arrangements for example frequency and time of meetings. Results: The CoP model enabled three 'Evidence into Practice Groups' over time to: engage over 180 clinical and academic staff; answer 130 clinical questions; improve clinical care, gain funding for two randomised controlled trials (enrolled over n = 7000 participants) and identify areas for further research, quality improvement audit and training. Conclusion: The CoP model encourages the rapid translation of evidence into practice by engaging staff to identify areas of clinical concern in their own context, thereby stimulating their interest and involvement. This creates a meaningful link between research and practice. Clinical leadership and the CoP model ensure that practice change is quick and efficient. This model can be replicated at scale. Consideration needs to be given to the key ingredients to achieve impact.

[New Models for the Delivery of Musculoskeletal Care in Rural Communities](#) Full text available with NHS OpenAthens account*

Author(s): Charles Bush

Source: The Journal for Nurse Practitioners 16 pp. 41-43

Publication date: January 2020

Rural communities have greater health comorbidities, poorer health outcomes, and difficulty recruiting and retaining physicians than their urban counterparts. Strengthening the health care workforce through postgraduate APP education can help provide highly trained clinicians as continuity providers in rural communities. Formal postgraduate education can strengthen relationships between urban and rural centers and improve care for underserved populations across multiple primary care and specialty services. Further evidence is needed to demonstrate how innovative programs enhance patient and

provider satisfaction while reducing cost and improving patient outcomes.

[Current applications and future directions of deep learning in musculoskeletal radiology](#) Full text available with NHS

OpenAthens account*

Author(s): Chea et al.

Source: Skeletal Radiology 49(2)

Publication date: February 2020

Deep learning advancements in musculoskeletal radiology can be conceptually divided into the categories of lesion detection, classification, segmentation, and non-interpretive tasks. Numerous examples of deep learning achieving expert-level performance in specific tasks in all four categories have been demonstrated in the past few years, although comprehensive interpretation of imaging examinations has not yet been achieved. Interest in deep learning from researchers, radiology leadership, and industry continues to increase, and it is likely that these developments will impact the daily practice of musculoskeletal radiology in the near future.

[Advanced musculoskeletal physiotherapy: Barriers and enablers to multi-site implementation](#) Abstract only*

Author(s): Shaw et al.

Source: Musculoskeletal Care 16(4) pp. 440-449

Publication date: August 2018

Objectives: Advanced musculoskeletal physiotherapy (AMP) services are a safe, effective model of care, but without broad-scale healthcare implementation to date. The aim of the present study was to identify the barriers and enablers to implementation of 12 AMP services from the perspective of clinical staff.

Methods: In a qualitative study, 12 participants (physiotherapists), from 12 different healthcare networks (seven metropolitan, three regional, two rural), were included. Their departments implemented AMP services (orthopaedic

postoperative joint replacement review, n = 10; general orthopaedic, n = 1; emergency, n = 1; and neurosurgery n = 1) over a 12-month period. Participants completed a structured survey specifically designed for the study. Thematic analysis was used, with themes mapped to the validated Theoretical Domains Framework. Results: Nine major themes emerged from the data regarding barriers and enablers to the implementation of the AMP services from the perspective of clinical staff. These were: demand/capacity; model of care; the organization; stakeholders; communication; planning and processes; evaluation; workforce; and learning and assessment framework. Important enablers included engagement and buy-in from key stakeholders and medical staff, and well-established AMP learning frameworks for training and operational frameworks. Barriers included competitive funding environment, and issues that hindered effective communication. The knowledge, skills, availability, motivation and experience of the advanced musculoskeletal physiotherapists had a large impact on the implementation. Conclusions: The study identified a number of factors that should be considered for successful implementation of AMP services across healthcare services or wider healthcare networks.

[Advanced musculoskeletal physiotherapists in post arthroplasty review clinics: a state wide implementation program evaluation](#)

Author(s): Harding et al.

Source: Physiotherapy 104 pp. 98-106

Publication date: March 2018

Objective: To evaluate outcomes following a state-wide implementation of post arthroplasty review (PAR) clinics for patients following total hip and knee arthroplasty, led by advanced musculoskeletal physiotherapists in collaboration with orthopaedic specialists. Design and setting: A prospective observational study analysed data collected by 10 implementation sites (five metropolitan and five regional/rural centres) between September 2014 and June 2015. Main

outcome measures The Victorian Innovation and Reform Impact Assessment Framework was used to assess efficiency, effectiveness (access to care, safety and quality, workforce capacity, utilisation of skillsets, patient and workforce satisfaction) and sustainability (stakeholder engagement, succession planning and availability of ongoing funding). Results 2362 planned occasions of service (OOS) were provided for 2057 patients. Reduced patient wait times from referral to appointment were recorded and no adverse events occurred. Average cost savings across 10 sites was AUD\$38 per OOS (Baseline \$63, PAR clinic \$35), representing a reduced pathway cost of 44%. Average annual predicted total value of increased orthopaedic specialist capacity was \$11,950 per PAR clinic (range \$6149 to \$23,400). The Australian Orthopaedic Association review guidelines were met (8/10 sites, 80%) and patient-reported outcome measures were introduced as routine clinical care. High workforce and patient satisfaction were expressed. Eighteen physiotherapists were trained creating a sustainable workforce. Eight sites secured ongoing funding. Conclusions The PAR clinics delivered a safe, cost-efficient model of care that improved patient access and quality of care compared to traditional specialist-led workforce models.

Primary care

[Associations between lean maturity in primary care and musculoskeletal complaints among staff: a longitudinal study](#)

Item Type: Journal Article

Authors: Kaltenbrunner, Monica;Mathiassen, Svend Erik;Bengtsson, Lars;Hogberg, Hans and Engstrom, Maria

Publication Date: 2023

Journal: BMJ Open 13(2), pp. e067753

Abstract: OBJECTIVE: This study had two aims: (1) to determine the prevalence of musculoskeletal complaints among staff in primary care and (2) to determine to what extent lean maturity of

the primary care unit can predict musculoskeletal complaints 1 year later., DESIGN: Descriptive, correlational and longitudinal design., SETTING: Primary care units in mid-Sweden., PARTICIPANTS: In 2015, staff members responded to a web survey addressing lean maturity and musculoskeletal complaints. The survey was completed by 481 staff members (response rate 46%) at 48 units; 260 staff members at 46 units also completed the survey in 2016., OUTCOME MEASURES: Associations with musculoskeletal complaints were determined both for lean maturity in total and for four Lean domains entered separately in a multivariate model, that is, philosophy, processes, people and partners, and problem solving., RESULTS: The shoulders (12-month prevalence: 58%), neck (54%) and low back (50%) were the most common sites of 12-month retrospective musculoskeletal complaints at baseline. Shoulders, neck and low back also showed the most complaints for the preceding 7 days (37%, 33% and 25%, respectively). The prevalence of complaints was similar at the 1-year follow-up. Total lean maturity in 2015 was not associated with musculoskeletal complaints, neither cross-sectionally nor 1 year later, for shoulders (1 year beta: -0.002, 95% CI -0.03 to 0.02), neck (beta: 0.006, 95% CI -0.01 to 0.03), low back (beta: 0.004, 95% CI -0.02 to 0.03) and upper back (beta: 0.002, 95% CI -0.02 to 0.02)., CONCLUSION: The prevalence of musculoskeletal complaints among primary care staff was high and did not change within a year. The extent of lean maturity at the care unit was not associated with complaints among staff, neither in cross-sectional analyses nor in a 1-year predictive analysis. Copyright © Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY. Published by BMJ.

Staff MSK wellbeing

[Do sleep and psychological factors influence musculoskeletal pain among nurses?](#) Abstract only*

Item Type: Journal Article

Authors: Niu, Jianwei;An, Yueqi;Xu, Mengwen;Zhang, Le;Liu, Jing;Feng, Xiaolin;Li, Lei;Song, Xin and Niu, Weifang

Publication Date: 2023

Journal: Work (Reading, Mass.) 75(4), pp. 1455-1465

Abstract: BACKGROUND: The physical factors associated with musculoskeletal pain in nursing personnel have been largely investigated, although the role of sleep and psychological factors resulting in musculoskeletal pain has not been addressed thoroughly., OBJECTIVE: This study aimed to explore the prevalence of musculoskeletal pain and investigate how sleep and psychological factors influence musculoskeletal pain in a nursing group., METHODS: Nordic standard questionnaires were distributed to 230 female nurses. Chi-square tests were performed to assess the associations between sleep problems, psychological problems, and musculoskeletal pain symptoms. Binary logistic regression analysis was also conducted to identify the primary factors influencing the prevalence of musculoskeletal pain., RESULTS: The highest prevalence of pain was observed in the lower back, neck, and shoulders, whereas the lowest prevalence of pain was observed in the ankles, feet, elbows, and hips/buttocks. Chi-square analysis and binary logistic regression showed that sleep duration, sleep onset time, and sleep quality all significantly contributed to the development of neck and upper back pain. With regard to the psychological factors, only occupational pride and stress had a significant effect on pain; in contrast, family support did not show any significant influence., CONCLUSION: Compared with other body regions, musculoskeletal pain in the lower back, neck, and shoulders requires more attention and preventive interventions. Special efforts should be made to shift the workday system of the nursing group because of the strong correlation between sleep problems and pain. Incentives other than penalty mechanisms should be considered seriously in nursing to boost occupational pride and relieve job stress.

[Burnout, psychological wellbeing, and musculoskeletal complaints in UK GPs: an observational study](#)

Author(s); Buddle et al.

Source: BJGP Open 7(4)

Publication date: 2023

Background Healthcare systems are under unprecedented pressure. GPs are crucial to the health of the population, yet their own health and wellbeing is often overlooked. Aim To investigate feelings of burnout, psychological wellbeing, and musculoskeletal complaints in GPs across the UK and to examine whether these health outcomes vary according to the time GPs spent sitting, their participation in physical activity each day, and the time spent working per day or week. Design & setting Observational study involving GPs located across the UK. Method An online survey was emailed to working members of the Royal College of General Practitioners and shared on social media between October and December 2020. The survey included questions on burnout, psychological wellbeing, musculoskeletal complaints, sitting time, physical activity, and time spent working. Mean differences were examined for burnout, psychological wellbeing, and musculoskeletal complaints. Results Data from 406 GPs showed a high level of burnout (35.5%) and musculoskeletal complaints (neck, shoulder and back: 81.8%; arms: 28.3%; and legs: 49.8%). Psychological wellbeing was low in 22.9% of GPs. Burnout was lower in GPs who met current physical activity guidelines, while psychological wellbeing was higher in those with >2 breaks in sitting per hour. Musculoskeletal complaints were higher in those spending >50% of sitting time in prolonged bouts (≥ 30 minutes). Conclusion A high proportion of GPs reported experiencing burnout and musculoskeletal complaints, but these health concerns were less evident in GPs who spent less time in prolonged sitting, took more breaks in sitting, and who were more physically active.

[Prevalence of musculoskeletal disorders among dental healthcare providers: A systematic review and meta-analysis](#)

Item Type: Journal Article

Authors: Chenna, Deepika;Pentapati, Kalyana C.;Kumar, Mathangi;Madi, Medhini and Siddiq, Hanan

Publication Date: 2022

Journal: F1000Research 11, pp. 1062

Abstract: Background: Work-related musculoskeletal disorders (MSD) are common in dentistry due to the prolonged static work involved during patient care, making dental health care personnel vulnerable to musculoskeletal complaints. We aimed to pool the prevalence estimates of MSD among various dental healthcare providers, including dentists, dental students, dental hygienists, and auxiliaries. Methods: A systematic search of five databases was performed (Scopus, Embase, CINAHL, Web of Science, Dentistry & Oral Sciences Source). The studies that reported the prevalence of MSD among dental healthcare workers and those written in English were selected. Screening and data extraction were performed by two review authors independently. Discrepancies were resolved by another review author. Risk of bias assessment was done using a nine-item questionnaire developed by Hoy et al. Pooled estimates were calculated using meta-analysis of proportions (random effects model). Results: Among the 3090 publications screened, 234 publications were included for full-text screening. Meta-analysis was performed for 89 estimates from 88 publications. Females showed significantly higher prevalence OR = 1.42 (95% CI = 1.09-1.84); $I^2 = 66.02$; $N = 32$]. The analysis yielded a pooled estimate of 78.4% (95% CI = 74.8-82). The meta-regression showed similar prevalence over the years (Coefficient: 0.001; P-value: 0.762). Conclusions: A high prevalence of MSD was noted among dental healthcare providers, with about seven out of ten having experienced MSD in the past. This emphasizes the need for awareness and adoption of appropriate ergonomic postures

by dental healthcare providers from early in their careers to minimize work-related MSD. Copyright: © 2022 Chenna D et al.

Supply

[Economic evaluation of patient direct access to NHS physiotherapy services](#) Abstract only*

Author(s): Yang et al.

Source: Physiotherapy 111 pp. 40-47

Publication date: January 2021

Objectives: Our aim was to undertake an economic evaluation of patient direct access to physiotherapy in the UK NHS by comparing the number of patients treated, waiting time, cost and health gain from a direct access pathway versus traditional GP-referral to NHS physiotherapy. Design: The authors used a discrete event simulation (DES) model to represent a hypothetical GP practice of 10,000 patients. Costs were measured from the perspective of the NHS and society.

Outcomes were predicted waiting times, the total number of patients with musculoskeletal conditions who received physiotherapy and quality adjusted life years (QALYs) gained, each estimated over a one year period. Model inputs were based on a pilot cluster randomised controlled trial (RCT) conducted in four general practices in Cheshire, UK, and other sources from the literature. Results: Direct access could increase the number of patients receiving at least one physiotherapy appointment by 63%, but without investment in extra physiotherapist capacity would increase waiting time dramatically. The increase in activity is associated with a cost of £4999 per QALY gained.

Conclusions: Direct access to physiotherapy services would be cost-effective and benefit patients given current cost per QALY thresholds used in England. This is because physiotherapy itself is cost-effective, rather than through savings in GP time. Direct access without an increase in supply of physiotherapists would increase waiting times and would be unlikely to be cost saving

for the NHS owing to the likely increase in the use of physiotherapy services.

[Conference abstract: Characteristics of physiotherapists working in advanced practice roles: descriptive UK survey](#) Abstract only*

Author(s): Faletra et al.

Source: Physiotherapy 107(Supplement 1) E44-45

Publication date: May 2020

APP roles across various clinical settings illustrates that physiotherapists and organisations are following recommendation to create a more patient-focused health system. Physiotherapists are acquiring new skills and capabilities incorporating procedures formerly fulfilled by other professionals. All physiotherapists in APP roles are involved in clinical duties alongside the other key elements of the role (leadership, research, education). Not all physiotherapists had completed a MSc qualification, and this may represent uncertainty about the minimal requirement for “entry level” into APP, or illustrate the transition of the physiotherapy profession into APP roles. These findings present current valuable information regarding the current APP workforce and roles; and provides a benchmark to support the future shaping of APP roles in the UK.

[Disparities in Access to Musculoskeletal Care: Narrowing the Gap: AOA Critical Issues Symposium](#)

Author(s): Salazar et al.

Source: Journal of Bone & Joint Surgery, American 101(22)

Publication date: November 2019

The current health-care system in the United States has numerous barriers to quality, accessible, and affordable musculoskeletal care for multiple subgroups of our population. These hurdles include complex cultural, educational, and socioeconomic factors. Tertiary referral centers provide a disproportionately large amount of the care for the uninsured and

underinsured members of our society. These gaps in access to care for certain subgroups lead to inappropriate emergency room usage, lengthy hospitalizations, increased administrative load, lost productivity, and avoidable complications and/or deaths, which all represent a needless burden on our health-care system. Through advocacy, policy changes, workforce diversification, and practice changes, orthopaedic surgeons have a responsibility to seek solutions to improve access to quality and affordable musculoskeletal care for the communities that they serve.

[The skills, knowledge and attributes needed as a first-contact physiotherapist in musculoskeletal healthcare](#) Abstract only*

Author(s): Neil Langridge

Source: Musculoskeletal Care 17(2) pp. 253-260

Publication date: April 2019

Objectives: The provision of musculoskeletal assessment and pathway management by physiotherapists in primary care is an expanding innovation within the UK National Health Service. This new model of care is challenging physiotherapists to work in new ways, and so an understanding of these roles is timely and will contribute to the growing knowledge regarding these practitioners and their impact. Methods: This qualitative study aimed to improve the understanding of the clinical practice of first-contact clinicians in musculoskeletal healthcare. The study used a think-aloud method to explore eight clinicians' views via a stage 1 semi-structured interview process. This was followed by a stage 2 focus group involving physiotherapists and a general practitioner trainer. A thematic analysis then followed, which involved the researcher and a research colleague coding the data and subsequently developing themes. Results: The themes identified were: medical assessment and systems knowledge; speed of thought in an uncertain environment; breadth of knowledge; people and communication skills; common sense/simplify; and responsibility and experience. Conclusions:

The identified themes should help to underpin the competence, capability and training requirements for these new roles, and should be considered when developing new services utilizing first-contact primary care physiotherapy practice.

[An audit of the utilization of physiotherapy assistants in the musculoskeletal outpatients setting within a primary care physiotherapy service](#)

Author(s): Sargiovannis and Cropper

Source: Musculoskeletal Care 16(3) pp. 405-408

Publication date: March 2018

Background: Physiotherapy assistants account for approximately 20% of the physiotherapy workforce across a community health service in North Staffordshire. Although their job descriptions state that the post is primarily clinical, their role depends heavily on the qualified physiotherapists and how they utilize their clinical skills. Methods: An audit of the physiotherapy assistants' tasks was carried out to reveal whether the physiotherapy assistants' time spent on clinical tasks complied with their job descriptions. Using the audit improvement cycle, pathway mapping of specific anatomical areas was performed to identify which parts of treatment can be carried out by physiotherapy assistants, clarify the physiotherapy assistants' clinical role and standardize treatments. A competences and training needs analysis was completed and physiotherapy assistants were trained before the pathways were implemented. Finally, the physiotherapy assistants' practice was re-audited and job satisfaction questionnaires were redistributed after the pathways were implemented. Results: The results showed that, following the implementation of the pathways, the amount of working time that physiotherapy assistants spent treating patients increased from 9% to 16%. Their job satisfaction changed from 11% prior to the implementation of the pathways to 100% post-implementation. Conclusions: Using defined pathways in the treatment of musculoskeletal conditions of the peripheral joints

provides the framework to standardize delegation of clinical tasks from qualified physiotherapists to physiotherapy assistants. However, the utilization of such pathways needs to be examined further, to clarify the clinical and cost effectiveness of delegating clinical work to physiotherapy assistants, and also the perceptions of qualified physiotherapists.

[Musculoskeletal Workforce Needs: Are Physician Assistants and Nurse Practitioners the Solution? AOA Critical Issues](#) Abstract only*

Author(s): Day et al.

Source: Journal of Bone & Joint Surgery American 98(11)

Publication date: June 2016

Growth estimates and demographic shifts of the population of the United States foreshadow a future heightened demand for musculoskeletal care. Although many articles have discussed this growing demand on the musculoskeletal workforce, few address the inevitable need for more musculoskeletal care providers. As we are unable to increase the number of orthopaedic surgeons because of restrictions on graduate medical education slots, physician assistants (PAs) and nurse practitioners (NPs) represent one potential solution to the impending musculoskeletal care supply shortage. This American Orthopaedic Association (AOA) symposium report investigates models for advanced practice provider integration, considers key issues affecting PAs and NPs, and proposes guidelines to help to assess the logistical and educational possibilities of further incorporating NPs and PAs into the orthopaedic workforce in order to address future musculoskeletal care needs.

[Advanced musculoskeletal physiotherapy clinical education framework supporting an emerging new workforce](#) Full text available with NHS OpenAthens account*

Author(s): Harding et al.

Source: Australian Health Review 39(3) pp. 271-282

Publication date: 2015

A project, funded by the Department of Health and Human Services, was conducted with the aim of developing a clinical education framework that included an agreed competency standard and credentialing process to support advanced musculoskeletal physiotherapy roles. This paper describes the process undertaken to achieve this and presents the outcomes of implementation. A multistep approach was taken. Initial steps included conducting a scoping review of the literature and focus groups of advanced musculoskeletal physiotherapists. The project team mapped out the structure of the framework. This was followed by a working party of subject matter experts developing an agreed competency standard. The framework was implemented at six hospitals across Australia and formally evaluated by an external evaluator. The clinical education framework developed includes a competency-based training and assessment program supported by learning resources and a mentoring program. It was successfully implemented across a diverse range of hospitals and received a positive evaluation. As the prevalence of musculoskeletal conditions increases, a new workforce of advanced musculoskeletal physiotherapists is emerging. A clinical education framework has been developed to address the specific needs of the population, organisations and experienced musculoskeletal physiotherapists recruited to these roles. A competent workforce has direct benefits for the community, healthcare organisations and the physiotherapy profession.

Competency Frameworks

[A Paediatric Musculoskeletal competence framework for physiotherapists working in the UK](#)

Source: Association of Paediatric Chartered Physiotherapists
Publication date: 2020

Children and young people are different from adults. They are continually developing physically, emotionally and psychologically. Due to the physiology and biomechanics of growth, young people show a unique set of age-related symptoms. Whilst many conditions seen in childhood are self-limiting; some more serious pathology can occur. Delays in diagnosis may lead to long term disability or mortality (1). The differential diagnosis relevant to musculoskeletal symptoms is so broad that adequate paediatric training is essential. Clinicians working in this specialist field must have a clear understanding of the biological differences between children and adults. (2)

[Ultrasound governance for clinicians and allied health professionals in rheumatology](#)

Source: British Society for Rheumatology
Publication date: 2019?

Point-of-care ultrasound by non-radiologists has been expanding over the last few years. Musculoskeletal ultrasound and by extension rheumatology-focused ultrasound by rheumatologists and allied health professionals has become part of the diagnostic process in arthritis and vasculitides such as temporal arteritis. Rheumatology ultrasound lends itself, like many other medical specialties, to a modular training approach.

[Musculoskeletal Core Capabilities Framework](#)

Source: Health Education England and NHS England
Publication date: 2018

The framework provides a focus on the workforce capability to support shared decision-making, person-centred care and fitness

for work. As such, there are synergies with other frameworks, such as the Person-Centred Approaches framework (Health Education England and Skills for Health 2017) and the need to make work a health outcome.

For practitioners working in, or preparing for, a first contact practitioner role for adults presenting with MSK conditions, the framework can be used to demonstrate many of the clinical capabilities set out in the multi-professional framework for advanced clinical practice in England (Health Education England 2017).

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