Scottish School of Primary Care

GP Clusters

Briefing

Paper 17

Musculoskeletal Physiotherapy

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Collaborative Quality Improvement in General Practice Clusters

This paper is in a series that relates to areas of quality and safety on which general practice clusters could usefully focus improvement activity. Each paper summarises research, guidelines and other evidence about areas of care which can be improved, and improvement methods and interventions.

Musculoskeletal Physiotherapy

Over recent years, the Scottish Government has progressed a raft of major new policy developments that aim to transform health and social care, with primary care being at the heart of these changes. Primary care is at the heart of this transformation. In 2015, the SG invested £60 million in a Primary Care Development Fund, which included £20.5 million to test new models of care through the Primary Care Transformation Fund (PCTF). The Scottish School of Primary Care (SSPC) was commissioned by the SG to carry out an independent evaluation of the new models of primary care being tested, including Musculoskeletal (MSK) Physiotherapy. This report summarises the key findings of the MSK Physiotherapy case study, led by the University of Glasgow (one of nine Universities that make up the SSPC).

Background: Primary Care in Scotland

Primary care is at the heart of the Scottish Government's (SG) policy' journey' aimed at enhancing the quality and integration of care [1, 2]. Key changes include the integration of health and social care, the formation of 31 Integrated Joint Boards (IJBs) [3] and the introduction of a new General Medical Services (GMS) contract for general practitioners (GPs) in Scotland in 2018 [4]. This policy direction is underpinned by the vision of Scotland's Chief Medical Officer of 'Realistic Medicine' [5], which encourages improvement and innovation, and an approach to care that is centred around the patient. In 2015, the SG invested £60 million in a Primary Care Development Fund, which included £20.5 million to test new models of care through the Primary Care Transformation Fund (PCTF). The Scottish School of Primary Care (SSPC) was commissioned by the SG to carry out an independent evaluation of the new models of primary care being tested (tests of change throughout Scotland). The overall aim of the evaluation was to 'tell the story of primary care transformation in Scotland' over 2016 -2018. Here, we report on one of the case studies chosen for investigation – MSK Physiotherapy. In this briefing paper, we present the findings of an international literature review on models of care for MSK physiotherapy, and the results of an evaluation of new models of care in Scotland. This work was conducted by a team from the University of Glasgow.

Patients with MSK problems are estimated to account for between 18% and 33% of the workload of a General Practitioner (GP) in Scotland [6]. Allied health professional (AHP) MSK services in Scotland receive approximately 400,000 referrals per year [6] putting services under increasing strain. This results in high MSK secondary care activity, with duplication of effort across GP, orthopaedic and AHP services [7]. This impacts on patient experience of access, waiting times and investigations [7]. In 2010, the SG sought to make significant changes to Scotland's AHP MSK services with the introduction of the 'National Delivery Plan for Allied Health Professionals in Scotland, 2012-2015' [8]. One element of this was the development of a *National Allied Health Professional MSK 4 Week Target*, which sought to provide a significant redesign of MSK services [6].The redesign of both MSK and primary care services aimed to reduce both GP appointments and AHP physiotherapy referral waiting times for patients with MSK problems.

MSK Physiotherapy in Primary Care — international literature

A **systematic scoping review** of the international literature focused on the implementation of new models of MSK primary care, identifying facilitators and barriers to implementation. This identified **18 studies**: 11 conducted in the UK (nine in England and two in Scotland), 3 in Sweden, 1 in the Republic of Ireland and, 1 in Canada. There were a range of approaches used, however there was only 1 randomised controlled trial and 1 which reported on an economic analysis.

Advanced physiotherapist and advanced practice roles are terms used interchangeably in the international literature and are used to describe all levels of advanced practice working described within the identified papers. These include Advanced Physiotherapy Practitioners (APPs) working within primary care as a first point of patient contact, physiotherapists working within primary care receiving patient referrals from GPs, and physiotherapists involved in telephone triage of patient self-referrals. The literature identified a number of key requirements for the successful implementation of new models of MSK primary care organisation and delivery. This included buy-in and support of key stake–holders within primary and secondary care [9,10] and a pivotal role for GPs in informing patients of the safety and

efficacy of a consultation with a physiotherapist. A collegiate approach by APPs, physiotherapists, GPs and other clinicians to the implementation of advanced roles was seen as essential for continued sustainability, but potential difficulties in recruiting physiotherapists for advanced primary care roles were highlighted [11]. This, coupled with the potential for increased referrals, was considered a risk to overstretched MSK physiotherapy services [12, 13]. Concerns were also raised about the potential for staff isolation; maintaining close ties to practice within secondary care physiotherapy was thus considered a good model for the continued success of advanced roles in primary care [11]. Finally, appropriate resources were highlighted as key to ensuring the success of new models of care. These resources included staff, accommodation, funding, and supported training opportunities [9, 14-16].

The reported impacts in the reviewed papers included clinical effectiveness, impacts on patients or on staff and cost-effectiveness. Physiotherapists were found to be a safe and efficient replacement for GPs as first point of contact for patients with MSK conditions [17, 18]. In terms of diagnosis and treatment validity, physiotherapists were found to correctly identify and refer those patients with more serious pathologies onto secondary care services [19]. As such, physiotherapists were shown to reduce re-consultation rates with GPs and reduce needless referrals to secondary care physiotherapy or orthopaedics[20]. This had a clear impact on waiting times, reducing the time patients wait to see specialists within secondary care [20, 21]. The role of the physiotherapist within primary care was generally well received by patients and high patient satisfaction scores were reported within some studies. Physiotherapists undertaking new models of care were said mainly to be confident in their abilities to appropriately treat patients although concerns were raised about the need for appropriate continued training and support, without which, the role could be isolating and potentially lead to de-skilling [14, 22]. Overall, physiotherapists were found to be a cost-effective alternative to the GP via a reduction in contact time with clinicians, a reduction in prescription costs, lower imaging costs and reduced needless referral into secondary care [19, 23].

Four of the 18 reviewed papers discussed the plausibility of the introduction of MSK telephone triage systems – known as Musculoskeletal Advice and Triage Service (MATS). These were all based in the UK [10, 16, 24]. Three of these papers discussed the PhysioDirect telephone triage system; one focused on patient acceptability, one on clinical effectiveness, and one was a mixed method RCT with economic analysis [10, 16, 24]. These telephone triage systems were designed to allow patients with MSK complaints to self-refer via telephone where they would be triaged by a physiotherapist and given advice and self-care without the need for face-to-face contact with a clinician. Within the trial of PhysioDirect, physiotherapists attended a 2-day training course in providing telephone assessment and using assessment tools, and were evaluated for competency after two weeks by a PhysioDirect trainer [16]. The rolling out of telephone triage as a new model of care had notable implications for both staff and patients, as well as impacting more widely on cost to the health board [10].

Overall, the use of telephone triage systems was shown to reduce the number of face-to-face appointments and patients were much more likely to attend face-to-face appointments after telephone triage, resulting in less wasted appointments [16]. Additionally, telephone triage systems were shown to provide faster access to physiotherapy advice and self-help, though patient still considered the system to be cold and impersonal [10, 24]. Moreover, there is a lack of understanding among patients with regards to the intended use of the service, with many viewing the telephone triage as a precursor to a face-to-face appointment [24]. Although the telephone triage systems were deemed to be more expensive than the usual care pathway [16], it was argued that it allowed for savings in medication, sick leave costs and wasted appointments which showed an overall reduction in costs [16].

In summary, key facilitators to the implementation of new models of care identified in the literature were:

- Staff buy-in.
- Patient buy-in.
- Working with other clinicians and department.

Barriers to the implementation of new models of care identified in the literature were:

- Appropriate training for staff.
- Recruitment and retention of staff.
- Staff isolation.
- Appropriate funding.

MSK Physiotherapy Evaluation in Scotland

This evaluation was conducted in two phases; a **national scoping exercise** to assess the number of tests of change in Scotland that involved MSK physiotherapy, and **three 'deep dives'** in selected Health Boards to explore the development and implementation of new models of care in more detail. The main sources of data were (1) interviews with key informants involved in the planning, implementation of primary care tests of change across Scotland and (2) national and local documents relevant to MSK primary care transformation. The full report www.sspc.ac.uk/publications

National Scoping Exercise (Phase 1)

A total of **73 national and local documents** relevant to MSK primary care transformation in Scotland were reviewed and **18 interviews with key informants** were carried out.

This work identified **36 new models of MSK primary care** across the 14 regional Scottish Health boards. These represented a range of models including a physiotherapist-run telephone consultation system (NHS Highland and NHS Grampian), an MSK Hub to streamline appointment systems and referrals (NHS Forth Valley), an online advice tool (NHS Fife), and an MSK solutions tool (NHS Tayside). Whilst each health board had a number of smaller projects, the predominant new models of care in MSK physiotherapy services located in primary care were:

1. **MSK APPs in general practice**
2. **NHS 24 MATS**

1. MSK APPs in general practice

The reported aim of developing and implementing an APP role in general practices was to help practices with limited resources achieve equitable and timely patient access to a service for MSK problems. APPs worked as a first point of contact for patients with MSK problems, offering a safe and cost effective alternative to the GP. Implementation of APP services varied across health boards and between Health and Social Care Partnerships (HSCPs) and general practices. Twelve of 14 regional NHS health boards were found to have already implemented or be in the early stages of developing APP roles within practices. Key informants reported that APPs contributed towards reductions in GP workload, improvements in patient experience and reductions in overall referrals to secondary care MSK services. However, there was a lack of high quality structured evaluations to support these claims. Reported facilitators to implementation included staff buy-in, appropriate resourcing and patient buy-in. Barriers to the sustainability and spread of the APP role in GP practices included uncertainties concerning continued funding, training, and recruitment and retention of staff.

2. NHS 24 MATS

MATS is a single point of contact service run through NHS 24. Callers are taken through a nationally endorsed triage protocol and either given self-management advice or referred to local services. The service is run by call operators supported by a team of clinicians. This service began in some health boards as early as 2010, but was still being rolled out in others. It was considered by many as a transformational change to primary care MSK services. The establishment of MATS was widely believed to be a cost effective and safe alternative to visiting the GP for minor MSK physiotherapy problems. However, there appeared to be some caution in relation to MATS in some health boards or by individuals within health boards. In order for MATS to improve further, it was felt that there was a need for a cohesive and well-advertised national MATS service, effectively ending a "*postcode lottery*" of care and ensuring equitable access across Scotland. It was anticipated this would further impact on patient awareness of the service and solidify its role as a first point of contact for patients. A key facilitator to further embedding of this service will be sustained funding in order to maintain staffing levels and to continue to provide a fast and reliable service

The implementation, governance and spread of these new models of care varied across health boards, and were related to rurality, funding, population, demographics and staffing. This had resulted in an uneven landscape of service redesign whereby health boards were at different stages implementing new models of care.

MSK Physiotherapy Deep Dives (Phase 2)

Phase 2 of the case study concentrated on a more in-depth exploration of three MSK primary care tests of change: APPs in NHS Highland and NHS Lothian; and NHS 24 MATS.

Both NHS Highland and NHS Lothian had implemented services to allow patients with MSK symptoms to visit an APP based within a general practice for an initial consultation. Working as the first point of contact, some APPs were able to offer same day appointments while others were able to offer more timely appointments than a GP. In both instances, this was reported to reduce GP time on MSK-related problems. Furthermore, NHS Lothian also offered an MSK Pathways Integrated Low Back Pain APP who specifically dealt with spinal pain; other Pathways APPs targeting shoulder and elbow conditions, and foot and ankle pain were also in the process of being implemented.

The successful implementation of APPs in primary care was perceived to be driven by buy-in of patients and staff, support from management and clinicians, and appropriate training of staff. This service was reported to have impacted positively on patients, (allowing them timely access to physiotherapy. Additional documentary evidence provided by key informants showed good patient satisfaction and a reduction in the number of onward referrals reported in NHS Highland and NHS Lothian. Sustainability and expansion was again dependent on appropriate funding of resources, recruitment and retention of staff, availability of accommodation in which new models of care could be located

and more robust IT systems for information sharing. Key informants believed that this test of change had resulted greater equity for patients in accessing both physiotherapy and GP appointments, particularly in rural communities.

Success of the NHS 24 MATS service was largely driven by the approach adopted by the health board to implement it. In NHS Highland, the service was viewed negatively by patients, GPs and physiotherapists because it replacing a well-liked paper-based system used by GPs to refer patients to secondary care physiotherapy. In NHS Lothian, NHS 24 MATS was received more favourably and it was implemented to supplement rather than replace existing systems or services. Sustainability and expansion of new models of care were thought to be possible if they were supported by staff and patients, and properly funded. The service was thought to impact negatively on equity of access in NHS Highland due to having an older population. This population were thought to be less comfortable with using telephone triage systems and preferred face-to-face consultation with familiar clinical staff. Moreover, key informants believed that their population of migrant workers, who did not speak English as their first language, had difficulty expressing themselves fully through telephone consultation.

Other MSK primary care tests of change in NHS Highland included telephone consultation. This involved physiotherapists calling patients over the phone as opposed to face-to-face consultation. This was aimed at improving the patient experience, reducing GP contact for MSK related conditions and increasing patient self-management. Alongside other new models of care this was thought to have reduced MSK related GP appointments and resulted in a reduction in needless prescription.

Other MSK primary care tests of change in NHS Lothian included a specific lower back pain pathway. This involved utilising a Spinal APP specialised in triaging patients with spinal complaints; the service served as an interface between primary and secondary care. This role sought to support general practice as well as secondary care physiotherapy and orthopaedics, reducing the instance of needless referral. At the time of reporting, this new model of care was in the early stages of implementation and therefore no outcomes were available.

Key Learning

- New models of care were delivered in two main ways: Advanced Physiotherapy Practitioners (APP) and Musculoskeletal Advice and Triage Service (MATS).
- Implementation of new models of care were facilitated by peer support, appropriate resourcing (funding, staff and accommodation) and patient buy-in.
- Support for data collection, extraction and analysis was needed, all of which required robust IT systems, on-going appropriate funding and good communication between health boards.
- To measure the actual impacts, sustainability and spread of new models of care will require further evaluation of primary care transformation journeys over the next five to ten years.

Implication for collaborative quality improvements in GP clusters

This briefing paper reports on the findings from the evaluation into the transformation of MSK physiotherapy services in primary care across Scotland, along with a review of the international literature. It focuses on two models of care: APPs located in general practice in two health boards; and the NHS 24 MATS service. Early reports of the impact on practitioner, patient and health service outcomes are positive, although further in-depth quantitative evaluation would be helpful to evaluate these outcomes further, particularly in the longer-term. The following are particular issues that GP clusters may wish to consider:

- Overall, the evidence suggests that APPs in primary care can function as the first point of contact for patients with MSK problems. They can reduce MSK consultations with GPs, are able to make appropriate diagnostic and referral decisions, and the role is acceptable to patients. Therefore, APPs have the potential to provide an additional, valuable role within GP clusters.
- GPs have an important role to play in promoting the role of APPs with patients, ensuring that patients understand and are confident with the role that APPs can play in the management of patients with MSK conditions.
- Sustaining APP services requires resources and funding. This includes consideration of accommodation, staffing, training and ensuring that APPs do not feel isolated from their practice base. GP clusters could, therefore, consider working together to identify the resources required to support two or more APPs working across practices.

Clearly barriers exist, but it is clear that the physiotherapy leads and teams working on implementation of new models of MSK care in primary care are eager, willing, and capable of achieving success with support and funding, there are solutions available

to fully develop and expand such new models of care to achieve more equal access to MSK physiotherapy services and reduce GP workload. Capturing data that explicitly examines whether there are inequalities in uptake or utilisation of APP and MATS services is important. Finally, determining key outcome variables for longer term evaluation of these services and integrating evaluation into service delivery would be useful going forward in order to ensure that service development in MSK physiotherapy in primary care is having the required positive impact on primary care as a whole.

References

1. Government, S., *Integration of health and social care* 2016.
2. Government, S., *A national clinical strategy for Scotland*. 2016: Scotland, UK.
3. Government, S., *Health and social care delivery plan*. 2016, Scottish Government Scotland.
4. Government, S., *The 2018 General Medical Services Contract in Scotland*. 2017.
5. Officer, T.C.M. *The Chief Medical Officer's Annual Report 2014-15* 2014; Available from: https://www.gov.scot/Publications/2016/01/3745.
6. Cree, S., *4 Weeks: Rapid access to allied health professional MSK*. 2014, NHS Scotland Scotland.
7. Scotland, N., *Musculoskeletal national re-design: Improvement and value report update summary*. 2014: Scotland, UK.
8. Government, S., *AHPs as agents of change in health and social care: The national delivery plan for the allied health professionals in Scotland 2012-2015.* . 2012, Scottish Government Scotland, UK.
9. French, H. and R.J.P. Galvin, *Musculoskeletal services in primary care in the Republic of Ireland: an insight into the perspective of physiotherapists.* 2017. **103**(2): p. 214-221.
10. Mallett, R., E. Bakker, and M. Burton, *Is Physiotherapy Self-Referral with Telephone Triage Viable, Cost-effective and Beneficial to Musculoskeletal Outpatients in a Primary Care Setting?* Musculoskeletal care, 2014. **12**(4): p. 251-260.
11. Lowe, C.J.M. and C.P. Bithell, *Musculoskeletal physiotherapy in primary care sites: survey of English NHS trusts.* Physiotherapy, 2000. **86**(9): p. 479-485.
12. Bishop, A., et al., *STEMS pilot trial: a pilot cluster randomised controlled trial to investigate the addition of patient direct access to physiotherapy to usual GP-led primary care for adults with musculoskeletal pain.* 2017. **7**(3): p. e012987.
13. Bornhöft, L., et al., *Physiotherapy in Primary Care Triage–the effects on utilization of medical services at primary health care clinics by patients and sub-groups of patients with musculoskeletal disorders: a case-control study.* 2015. **31**(1): p. 45-52.
14. Ludvigsson, M.L. and P. Enthoven, *Evaluation of physiotherapists as primary assessors of patients with musculoskeletal disorders seeking primary health care.* Physiotherapy, 2012. **98**(2): p. 131-137.
15. Holdsworth, L.K., et al., *Physiotherapists' and general practitioners' views of self-referral and physiotherapy scope of practice: results from a national trial.* 2008. **94**(3): p. 236-243.
16. Salisbury, C., et al., *Effectiveness of PhysioDirect telephone assessment and advice services for patients with musculoskeletal problems: pragmatic randomised controlled trial.* Bmj, 2013. **346**: p. f43.
17. Marks, D., et al., *Substitution of doctors with physiotherapists in the management of common musculoskeletal disorders: a systematic review.* Physiotherapy, 2017. **103**(4): p. 341-351.
18. Desmeules, F., et al., *Advanced practice physiotherapy in patients with musculoskeletal disorders: a systematic review.* 2012. **13**(1): p. 107.
19. Holdsworth, L.K., et al., *What are the costs to NHS Scotland of self-referral to physiotherapy? Results of a national trial.* 2007. **93**(1): p. 3-11.
20. Hattam, P. and A.J.B.J.o.C.G. Smeatham, *Evaluation of an orthopaedic screening service in primary care.* 1999. **4**(2): p. 45-49.
21. Desjardins-Charbonneau, A., et al., *Acceptability of physiotherapists as primary care practitioners and advanced practice physiotherapists for care of patients with musculoskeletal disorders: a survey of a university community within the province of Quebec.* 2016. **17**(1): p. 400.
22. Webster, V.S., et al., *Self-referral, access and physiotherapy: patients' knowledge and attitudes—results of a national trial.* Physiotherapy, 2008. **94** (2): p. 141-149.
23. Goodwin, R.W., P.A.J.P.h.c.r. Hendrick, and development, *Physiotherapy as a first point of contact in general practice: a solution to a growing problem?* 2016. **17**(5): p. 489-502.
24. Pearson, J., et al., *The acceptability to patients of PhysioDirect telephone assessment and advice services; a qualitative interview study.* BMC health services research, 2016. **16**(1): p. 104.

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