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Forum

Stepped care for musculoskeletal pain is ineffective: a model for utilisation of specialist physiotherapists in primary healthcare management

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Abstract. Specialist physiotherapy services can fill a gap in the management of pain disorders in primary care. Fatima has persistent musculoskeletal pain, not responding to first-line guideline-based management. Despite normal radiology, specialist medical review is requested. Although waiting considerable time for the appointment (partly caused by the backlog of patients like her), Mary develops secondary mental health issues. The usual stepped-care approach is failing her. Specialist physiotherapist review is requested, providing expert-level management suggestions to address complexity in her presentation. The specialist physiotherapist works collaboratively with her treating physiotherapist to achieve positive outcomes for Fatima. Specialist physiotherapy services are an under-recognised value-added step between the GP and medical specialist. Increased utilisation of the skills and competencies of specialist physiotherapists can positively contribute to the health of Australians who suffer the burden of complex/persistent musculoskeletal pain complaints.

Keywords: pathway, health service delivery, physiotherapy, specialisation, expert, pain, musculoskeletal, model of care.

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Premise

Specialist physiotherapy services can fill a gap in the management of musculoskeletal pain disorders in primary care.

Current stepped-care models for musculoskeletal pain are not effective

Fatima presents to her GP with persistent musculoskeletal pain (think low back, knee or even widespread pain). She is unable to work. Her family life is suffering. This is a common occurrence, with musculoskeletal conditions representing significant disease burden in Australia (Australian Institute of Health and Welfare (AIHW) 2019). Fatima's initial management with her GP included guideline-recommended (Lin *et al.* 2020) use of simple analgesics, advice to stay active and referral to physiotherapy. Although many will respond to this first line management, Fatima does not.

Passive physiotherapy treatment continues despite no benefit. Diagnostic scans are performed, not because they are indicated, but because Fatima asks and the GP agrees, due to clinical uncertainty (Mendelson and Montgomery 2016). No specific pathology is identified that would explain Fatima's pain (which is the case for most musculoskeletal pain presentations (Deyo 2002)).

Pain and disability continue. Fatima's frustration grows. Further management, in the current stepped-care system (Linton *et al.* 2018), is medical specialist review (orthopaedic/neurosurgical or pain medicine specialist). Considering investigations have ruled out pathology, it is unlikely Fatima's symptoms will require specific specialist medical intervention, but a medical specialist referral is made. However, the medical specialist review is delayed by long waiting times (AIHW 2018). Many people like Fatima are unlikely to require specific interventional management, but are overloading pathways to specialist medical providers (Comans *et al.* 2014). Recent evidence suggests 35–89% of patients referred to tertiary specialist medical clinics could be managed without seeing a medical specialist (Stute *et al.* 2020). While waiting, due to increasing burden on herself and her family, Fatima develops secondary, comorbid mental health issues (AIHW 2010), complicating her situation further.

Guideline-based care for musculoskeletal disorders is not being embraced in primary care

Musculoskeletal conditions have the highest health expenditure in Australia, estimated at A$12.5 billion for 2015–6 (AIHW 2019). Much of this cost is attributable to hospitalisations

(admissions, emergency department visits), medications and imaging. These interventions represent low-value-care for most musculoskeletal presentations. Although guidelines for musculoskeletal disorders are increasingly consistent (Lin *et al.* 2020), uptake barriers are multifactorial (Wallace *et al.* 2012; Ng *et al.* 2021). Guideline compliance in primary care can be poor. Current issues include failure to provide simple advice, failure to use exercise as frontline management, excessive reliance on low-value passive treatments/medication, and overuse of radiology (Williams *et al.* 2010; Bandong *et al.* 2018*a*; Beales *et al.* 2020). In short, the simple things are done poorly, and then when the person does not improve, there can be rapid advancement along stepped-care pathways to expensive and often unnecessary low-value-care options like hospitalisations and surgeries that are increasingly being scrutinised (Thorlund *et al.* 2015; Mannion *et al.* 2016; Beard *et al.* 2018). Yet, these people still have pain and disability. They still need help.

The specialist physiotherapist: a value-add step between the GP and the medical specialist

In Fatima's care pathway, the specialist physiotherapist can perform an expert-level musculoskeletal assessment. Fatima is not progressing with 'standard' physiotherapy, suggesting a review is needed. The specialist physiotherapist provides the GP with an option before medical specialist review (or after in the case of needing an opinion if injections and/or surgical intervention have been deemed unnecessary).

In Fatima's review with the specialist physiotherapist, a comprehensive picture of the multiple factors contributing to her persistent musculoskeletal pain is developed in collaboration with Fatima (unhelpful beliefs causing activity avoidance, general deconditioning, poor sleep habits and mood factors). Using shared decision-making (Hoffmann *et al.* 2020), a management plan including education, graded functional exercise, gentle cardiovascular exercise, activity pacing and sleep hygiene is developed. Fatima reports a better understanding of why her pain persists and feels she has more control of her management. She will continue with fortnightly guidance from her local physiotherapist and review with her specialist physiotherapist in 6 weeks. After 3 months, Fatima reports improvements in pain, mood, function, work capacity and social functioning.

What is Specialist Physiotherapy?

Specialisation in physiotherapy is achieved through clinical fellowship of the Australian College of Physiotherapists (ACP). This is the highest formal level of recognition of clinical competency for Australian physiotherapists (https://australian.physio/pd/australian-college-physiotherapy-information). Training of specialist physiotherapists can be considered the equivalent of specialisation in medicine, with registrars (physiotherapists with additional post-graduate qualifications) undertaking a further 2-year training program before submitting to final examinations. In a competency-based framework (Australian Physiotherapy Association (APA) 2017), specialist physiotherapists attain the level of 'expert-clinician'. This involves demonstration of expert-level knowledge, skills, clinical reasoning and behaviours in physiotherapy management, coupled with expert-level service delivery skills (Australian College of Physiotherapists (ACP) 2018). Consequentially, specialist physiotherapists are ideally suited to be engaged in the management of chronic or complex health complaints (Table 1). There are currently approximately 200 specialist physiotherapists in Australia (https://specialist.physio/; https://choose.physio/find-a-physio).

Table 1. Triggers for potential referral for specialist physiotherapist engagement in the care of musculoskeletal disorders

Patient factors
• Diagnosis is unclear
• Complex presentation:
○ Based on clinical judgement
○ Based on the use of validated risk screening tools (e.g. Orebro Musculoskeletal Pain Screening Questionnaire)
• Acute or chronic condition that has not progressed as expected
• Re-enforcement of evidence-based messages
• Looking to optimise recovery
• Patient interested in a second opinion
Treating practitioner factors
• Treating practitioner is struggling to implement evidence-based care due to patient factors
• Treating practitioner feels out of their depth with the presentation
• Treating practitioner has a lack of confidence in implementing biopsychosocial management
• Treating practitioner wants advice or mentoring
Systems-level factors
• Diagnosis unclear
• More detailed prognosis required
• Check for exhaustion of conservative management options
• Risk profiling for further specialist medical services

Specialist physiotherapists typically deliver care in primary care settings in three ways:

1. Shared-care (e.g. collaboration with the GP and local/treating physiotherapist).
2. Specialist care (e.g. for more complex presentations, delivered by the specialist physiotherapist, potentially as part of a multidisciplinary approach).
3. As a specialist opinion to recommend further management (e.g. referral to medical specialists or psychologists).

In these pathways, specialist physiotherapists' roles can be considered equivalent to that of a medical consultant (Bandong *et al.* 2018*b*). This includes assisting the primary care practitioner with identification of barriers to recovery from a person-centred biopsychosocial perspective, suggesting management strategies/considerations with prioritisation, assisting with treatment implementation and contributing to client education. Through these processes, specialist physiotherapists can contribute to the professional development of the primary care practitioner through mentoring and case-based education. This assists in addressing clinician-level barriers (Ng *et al.* 2021) to biopsychosocial care for musculoskeletal disorders. This model of care is currently being tested in a National Health and Medical Research Council (NHMRC) funding grant (APP1141377) in primary care across four Australian states (https://mypainhub.com/about).

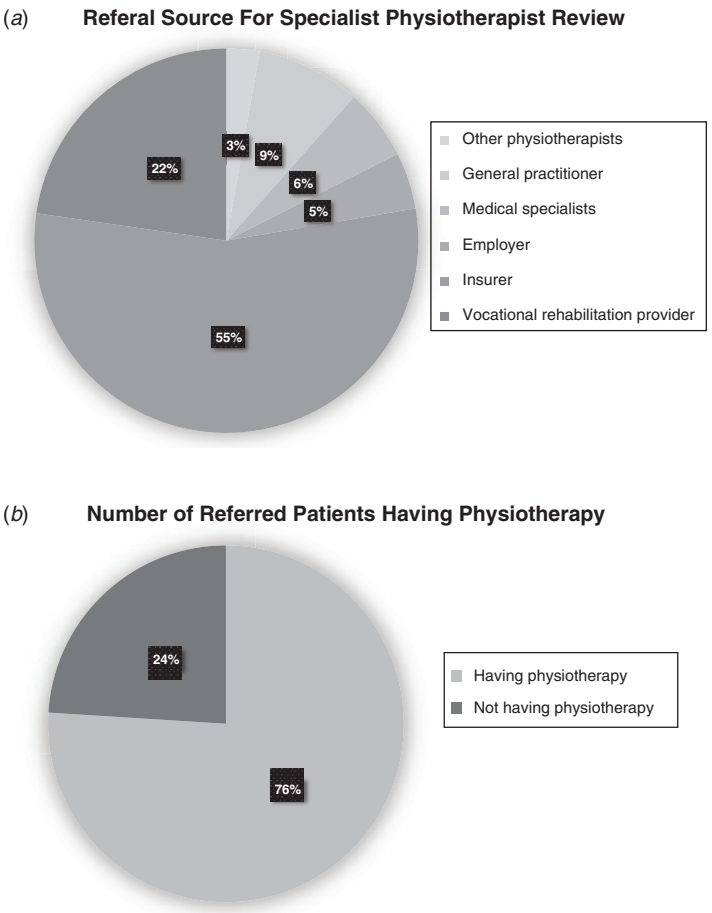

Fig. 1. (*a*) Referral sources for specialist physiotherapy services to manage third party insurance claims in primary care ($n = 251$). (*b*) Number referred for specialist physiotherapy services who were already having physiotherapy ($n = 100$). (Data sourced from a clinical audit of referrals to Pain Options (painoptions.com.au) in Perth, Western Australia, for specialist physiotherapist consultation: October 2019 to February 2020).

There is ample evidence for the use of physiotherapists with additional training in progressive care pathways for the management of musculoskeletal pain in public health settings. Physiotherapists with additional training perform at least as well as their medical colleagues in terms of diagnostic accuracy, treatment effectiveness, use of healthcare resources, economic costs and patient satisfaction (Desmeules *et al.* 2012). One key outcome has been that those requiring specialist-level medical input are able to access this in a timelier manner. Specialist physiotherapists are increasingly performing similar roles in primary care. Fellowship of the ACP provides a community-level credential; physiotherapists with this credential are able to provide expert-level services.

Specialist physiotherapists are underutilised

Utilisation of specialist physiotherapy services by medical and allied health providers is currently limited. There is no central repository for recording specialist physiotherapist utilisation patterns. In the absence of this, we can provide clinical audit data as some insight into referral patterns for specialist physiotherapy consultation in primary care. Figure 1*a* indicates more than 75% of referrals to specialist physiotherapists were provided by non-medical providers (insurance workers, vocational rehabilitation providers). The majority of those referred (76%) were already engaged in physiotherapy (Fig. 1*b*), but the referrers recognised the value in additional input from a specialist physiotherapist.

Although medical practitioner awareness and knowledge of specialist physiotherapy services might be low, arguably, this should not be the case for physiotherapists. However, survey data gathered by the ACP indicate physiotherapists' use of intra-professional referral is low (Fig. 2*a*). Physiotherapists are more likely to partake in inter-professional referral to a medical practitioner (Fig. 2*b*). This is consistent with another report of low engagement in the practice of intra-professional referral by physiotherapists to specialist physiotherapists (Bandong *et al.* 2018*b*). Work is underway looking at healthcare practitioner engagement with specialist physiotherapists to assist future

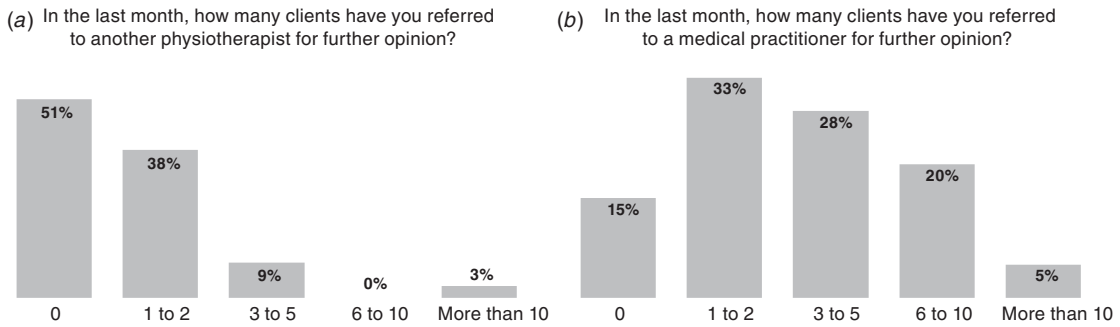

Fig. 2. Physiotherapist (*a*) intra-professional and (*b*) inter-professional referral patterns ($n = 76$ physiotherapists). (Data sourced from an online questionnaire completed via the Australian College of Physiotherapists in January 2019).

implementation endeavours including increased consumer engagement in implementation of this care pathway.

Enablers are required for wider adoption of specialist physiotherapists in musculoskeletal care pathways

Present stepped-care pathways for managing musculoskeletal pain are ineffective for many (Williams *et al.* 2010; Bandong *et al.* 2018*a*; Beales *et al.* 2020). Specialist physiotherapists are currently engaged in the development of new care pathways and guidelines for musculoskeletal pain (Speerin *et al.* 2014; Lin *et al.* 2020). Specialist physiotherapists are well placed to help implement these models in primary care. Although evidence for the effectiveness and scalability of this model in primary care are still in the early stages of scientific investigation, stratified care approaches (providing early access to advanced services for people at risk of delayed recovery or with more complex presentation) have growing efficacy in primary care (Boyle *et al.* 2021).

Efforts must be made to educate those engaged in the management of musculoskeletal pain in primary care about the role of specialist physiotherapists, including how to locate specialist physiotherapists. Work is ongoing through representative physiotherapy bodies, large-scale translational research (NHMRC APP1141377) and day-to-day efforts of specialist physiotherapists across Australia. Future strategies might include greater alliance on this topic between the ACP and medical colleges. Integration of this specific care pathway into online practice software (Akehurst *et al.* 2018) could significantly assist (Bandong *et al.* 2018*b*). Engagement with Primary Health Networks and private health insurers in this regard would help. Case-based learning (Thistlethwaite *et al.* 2012) components of undergraduate programs for allied health and medicine should include specialist physiotherapy referral in the management of musculoskeletal disorders as a viable option.

There must be a willingness of primary care providers to engage in the process. Efforts in the public sector indicate this is viable (Desmeules *et al.* 2012). As this model of care moves into the primary care arena, there are early indications of acceptability from primary healthcare providers (Bandong *et al.* 2018*b*). Improving awareness and access via strategies such as a database of specialist physiotherapists, creation of specialist networks and mandated/routine peer review have been suggested as potential solutions (Bandong *et al.* 2018*b*).

A shift in funding models is also needed. This might include a redistribution of funding from expensive, low-value-care interventions (Thorlund *et al.* 2015; Mannion *et al.* 2016; Beard *et al.* 2018) to specialist physiotherapy services. An example might include the redistribution of funds to access specialist physiotherapist services via Telehealth in rural areas (an acceptable mode of delivery for these services in the public health settings with positive effect (Cottrell *et al.* 2018*a*; Cottrell *et al.* 2018*b*)). The Australian federal government and private health insurers have produced funding for telehealth in the COVID-19 era, indicating 'if there's a will there's a way'. To add perspective, the estimated cost of shoulder arthroscopy (a procedure of questionable benefit for many (Beard *et al.* 2018)) by one private health insurer in Australia (https://www.hcf.com.au/cost-calculator?pid = 48) was A$12 500. Redistribution of this funding to specialist physiotherapy services in the proposed care pathway would facilitate a service costing under A$1200 (6 × 40-min consults over 12 weeks).

In Western Australia, there has been a cultural shift over the last decade to utilise specialist physiotherapists in routine peer review in the workers' compensation environment (e.g. Fig. 1*a*). This shift has been facilitated by specialist physiotherapists engaging with workers' compensation stakeholders via strategies such as education to insurance workers, engagement in GP training, industry conference presentations and education to allied health practitioners, just to name a few. Over time, this has contributed to broad recognition of specialist physiotherapists in care pathways for the management of injured workers. The title of specialist physiotherapist is recognised by insurers as a trusted benchmark of practice capability and a higher fee-for-service is now widely accepted. Another similar example is the inclusion of specialist physiotherapist consultations in care pathways for the management of whiplash in New South Wales (State Insurance Regulatory Authority 2014). There remains much work to do in the recognition of specialist physiotherapist services in other areas of primary care, including the private health sector and Medicare.

Related to funding models, there is opinion that this care pathway may be compromised by fee-for-service business models in primary care. More research into this potential barrier

is required. As above, utilisation of specialist physiotherapists is specifically designed to value-add rather than take away from existing evidence-based services. Engagement of specialist physiotherapists often increases engagement in conservative management options of payors and patients alike. Also, patients are familiar with interaction with specialists in the medical field. We anecdotally find they are happy to engage in specialist physiotherapist review, remain engaged with their primary healthcare providers, and potentially respect those providers more for seeking additional input.

Conclusion

Investing in contemporary models of care (Speerin *et al.* 2014) to manage musculoskeletal pain in primary care in Australia should be a priority, given the burden of these disorders. Increased utilisation of the skills and competencies of specialist physiotherapists can positively contribute to the health of Fatima and the many Australians who suffer the burden of complex/persistent musculoskeletal pain complaints. Complexities to implementing this model of care in primary care will need to be explored further.

Conflicts of interest

At the time of writing, DB was the President of the Australian College of Physiotherapists. The views expressed in this manuscript are the views of DB and are not meant to represent the views of the Australian College of Physiotherapists or the Australian Physiotherapy Association. At the time of writing, DB and TM were directors of a privately operated physiotherapy clinic (Pain Options) providing specialist physiotherapy services in Western Australia.

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