

Editorial

Physiotherapists can reduce overuse by Choosing Wisely

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Choosing Wisely is a major public awareness campaign that aims to facilitate conversations between patients and health professionals about overuse.¹ Overuse is the provision of a health service (test or treatment) that has no net benefit or causes harm.² The term is often interchangeably used with overlapping concepts of overdiagnosis, overtreatment and low-value care.² There is increasing awareness of overuse in physiotherapy and the need for strategies to help physiotherapists provide evidence-based care.² This Editorial explains why physiotherapy associations need to join the Choosing Wisely campaign, outlines the missed opportunities from physiotherapy associations around the world and proposes solutions to maximise the impact of Choosing Wisely on future physiotherapy practice.

Why physiotherapy associations need to join the Choosing Wisely campaign

Choosing Wisely began as an initiative of the American Board of Internal Medicine (ABIM) Foundation in April 2012,¹ inspired by earlier initiatives such as the Blue Cross Blue Shield Medical Necessity Project of the mid-1970s and 'Medicine's Ethical Responsibility for Health Care Reform – The Top Five List'. Today, Choosing Wisely is endorsed by over 250 professional associations across 20 countries, including the Australian Physiotherapy Association, and has inspired similar initiatives to reduce overuse in physiotherapy such as the *Journal of Orthopaedic Sports Physical Therapy's* 'Overcoming Overuse' series.²

In recent years, increased awareness of overuse in medicine has shifted guideline recommendations for musculoskeletal conditions from medication and surgery to non-pharmacological interventions such as exercise. This shift has given physiotherapists an opportunity to become key providers of evidence-based care for musculoskeletal conditions and help combat overuse. However, ensuring that patients do not receive unnecessary surgery or harmful medications is only half the battle against overuse. To adequately combat overuse, physiotherapists must also pay close attention to the care they provide. A 2019 systematic review of 94 studies across 19 countries found that two in three physiotherapists provided recommended care for common musculoskeletal conditions such as back pain, knee osteoarthritis and ankle sprains, while one in four provided care that guidelines recommended against.³ If nothing is done to ensure that physiotherapists choose wisely, recent shifts in guideline recommendations towards non-pharmacological care might reduce overuse in one area (eg, surgery) but create overuse in another (eg, electro-physical agents for low back pain).

Choosing Wisely appears to be reducing overuse in several areas of medicine, with decreased use of autoimmune and thyroid tests,⁴ blood and plasma transfusions⁵ and computerised tomography (CT) imaging for suspected renal colic.⁶ Given the problem of overuse in

physiotherapy³ and the positive effects of Choosing Wisely in other fields, it is vital that physiotherapy associations join the campaign.

Missed opportunities from physiotherapy associations

Choosing Wisely has made a great start towards increasing awareness of overuse of musculoskeletal healthcare, with over 150 recommendations targeting inappropriate care for common musculoskeletal conditions (eg, low back pain, knee osteoarthritis, shoulder pain, rheumatoid arthritis).⁷ However, as we pass the 8-year mark since the campaign began, it appears that physiotherapy associations have missed several key opportunities to leverage Choosing Wisely to improve physiotherapy practice. There are over 120 physiotherapy associations worldwide: only four have joined the campaign and published their own 'do not do' list of tests and treatments relevant to physiotherapy practice. More involvement is needed if physiotherapy is to be viewed as a profession taking the fight against overuse seriously.

Physiotherapy associations currently involved with Choosing Wisely have also missed opportunities to increase the impact of the campaign because of the limitations in their lists. Choosing Wisely lists from physiotherapy associations are developed using a panel of expert clinicians and researchers from various fields, and input from society members. These lists are meant to target tests or treatments that represent overuse and are frequently provided by physiotherapists. Inspection of current Choosing Wisely recommendations from physiotherapy associations – presented in [Table 1](#) – suggests that many recommendations are not precisely targeted. Some recommendations target tests and treatments that are more within the scope of practice of other health professionals and would not affect the scope of practice or income of physiotherapists, for example: imaging for non-specific low back pain, cervical spine trauma and acute ankle sprains (ie, three out of six recommendations from the Australian Physiotherapy Association), whirlpools for wound management, and bed rest following the diagnosis of acute deep vein thrombosis after initiation of anticoagulation therapy. Other recommendations target treatments rarely provided by physiotherapists (eg, only 14% use electrotherapy for acute ankle sprains, yet this is targeted by the Italian Association of Physiotherapists) or where there are no data on use (eg, prescribing under-dosed strength training programs for older adults) ([Table 1](#)). Physiotherapy associations are not the only profession guilty of poorly targeted recommendations, whether this be intentionally or unintentionally. A content analysis of 1,293 Choosing Wisely recommendations from eight countries found that professional associations often point to practices of other professions rather than their own members, particularly when the inappropriate practice generates income for its members.¹⁵ For example, nine of the 48 recommendations from eight associations of

Table 1
Characteristics of Choosing Wisely recommendations from physiotherapy associations and physiotherapists' use of featured tests and treatments.

Association	Recommendation ^a	Test or treatment	Targets overuse in society	Use by physiotherapists	Evidence source
American Physical Therapy Association	Don't use continuous passive motion machines for the postoperative management of patients following uncomplicated total knee replacement	Treatment	Yes	69% use continuous passive motion for patients following total knee replacement	Systematic review of physiotherapists' treatment choices, including two studies on total knee replacement ³
	Don't use whirlpools for wound management	Treatment	No	39% use whirlpools (indication was not specified)	Survey of 520 physical therapists in the USA ⁸
	Don't use (superficial or deep) heat to obtain clinically important long-term outcomes in musculoskeletal conditions	Treatment	Yes	13 to 79% use heat therapy for musculoskeletal conditions	Systematic review of physiotherapists' treatment choices, including 94 studies on musculoskeletal conditions ³
	Don't prescribe under-dosed strength training programs for older adults. Instead, match the frequency, intensity and duration of exercise to the individual's abilities and goals	Treatment	Yes	No data	N/A
	Don't recommend bed rest following the diagnosis of acute deep vein thrombosis after the initiation of anticoagulation therapy, unless significant medical concerns are present	Treatment	No	No data	N/A
Australian Physiotherapy Association	Avoid using electrotherapy modalities in the management of patients with low back pain	Treatment	Yes	14 to 67% provide electrotherapy for LBP	Systematic review of physical therapists' treatment choices, including 48 studies on LBP ³
	Don't routinely use incentive spirometry after upper abdominal and cardiac surgery	Treatment	Yes	50% provide incentive spirometry to patients following cardiac, thoracic or upper abdominal surgery	Systematic review of physical therapists' treatment choices, including six studies on cardiac or thoracic surgery ⁹
	Don't provide ongoing manual therapy for patients with adhesive capsulitis of the shoulder	Treatment	Yes	79% use manual therapy and 14% use massage for frozen shoulder	Prospective cohort study of 125 physiotherapists in the Netherlands treating 29 patients with frozen shoulder ¹⁰
	Don't request imaging for patients with non-specific low back pain and no indicators of a serious cause for low back pain	Test	No	25% order x-rays for non-specific LBP	Survey of 203 physiotherapists in Australia ¹¹
	Don't request imaging of the cervical spine in trauma patients, unless indicated by a validated decision rule	Test	No	27 to 70% of emergency department physicians do not use the Canadian C-Spine Rules, although there are no data on use among physiotherapists	Survey of 1,150 emergency physicians from the USA, Canada, UK and Australia ¹²
	Don't request imaging for acute ankle trauma unless indicated by the Ottawa Ankle Rules (OAR) (localised bone tenderness or inability to weight-bear, as defined in the Rules)	Test	No	37% of emergency department physicians do not use the Ottawa Ankle Rules, although there are no data on use among physiotherapists	Retrospective audit of 260 clinical records from academic emergency departments ¹³

Table 1 (Continued)

Association	Recommendation ^a	Test or treatment	Targets overuse in society	Use by physiotherapists	Evidence source
Brazilian Association of Traumatology-Orthopedic Physiotherapy	Do not use passive interventions as a stand-alone approach for a long time in patients with low back pain	Treatment	Yes	5 to 67% of physiotherapists use passive interventions such as acupuncture, traction, cold therapy, heat therapy, ultrasound, electrical stimulation, transcutaneous electrical nerve stimulation and inferential current for LBP	Systematic review of physiotherapists' treatment choices, including 48 studies on LBP ³
	Do not use braces or belts to prevent or treat patients with chronic low back pain	Treatment	Yes	2 to 24% of physiotherapists use external support such as corsets, belts, braces or taping for subacute or chronic LBP	Systematic review of physiotherapists' treatment choices, including 48 studies on LBP ³
	Do not suggest imaging exams for low back pain unless you suspect serious conditions such as trauma, cancer, infection, cauda equina syndrome and inflammatory conditions like ankylosing spondylitis and rheumatoid arthritis	Test	No	25% order x-rays for non-specific LBP	Survey of 203 physiotherapists in Australia ¹¹
	Do not use imaging exams to base your treatment of patients with chronic low back pain	Test	No	25% order x-rays for non-specific LBP	Survey of 203 physiotherapists in Australia ¹¹
	Do not recommend the use of insoles as prevention, as well as treatment, for patients with low back pain	Treatment	Yes	24% give advice on footwear for LBP	Survey of 186 physiotherapists in India ¹⁴
Italian Association of Physiotherapists	Do not use continuous passive mobilisation devices for postsurgical treatment of knee ligament reconstructions or uncomplicated hip or knee arthroplasties	Treatment	Yes	69% use continuous passive motion for patients following total knee replacement	Systematic review of physiotherapists' treatment choices, including two studies on total knee replacement ³
	Do not use mechanical or manual traction as a single treatment or in combination with other treatments in patients with low back pain in the presence or absence of radicular pain	Treatment	Yes	5 to 45% use traction for LBP	Systematic review of physiotherapists' treatment choices, including 48 studies on LBP ³
	Do not use specific exercises of selective strengthening of the vastus medialis obliquus in patellofemoral pain syndrome	Treatment	Yes	No data	N/A
	Do not use ultrasound therapy for rotator cuff tendinopathy, ankle sprains and low back pain	Treatment	Yes	26 to 44% use electrotherapy for shoulder pain, and 14% use electrotherapy for acute ankle sprains	Systematic review of physiotherapists' treatment choices, including seven studies on shoulder pain and five studies on foot or ankle pain ³
	Do not teach or have patients with acute or chronic respiratory diseases practise diaphragmatic breathing	Treatment	Yes	100% prescribe breathing exercises for patients with stable COPD and 72% prescribe breathing exercises for patients with an acute exacerbation of COPD	Systematic review of physiotherapists' treatment choices, including four studies on COPD ⁹

COPD = chronic obstructive pulmonary disease, LBP = low back pain, UK = United Kingdom, USA = United States of America.

^a All recommendations are 'Don't' recommendations that do not provide an alternative.

orthopaedic surgeons target low-value surgery; most recommendations target diagnostic tests.

Another key issue is recommendations that are not measurable. A recent study evaluated the feasibility of translating Choosing Wisely recommendations into performance measures¹⁶ and found that six (13%) of the 45 assessed recommendations could be translated. Barriers to translating recommendations included not being able to capture relevant data in electronic health records (71% of recommendations), use of non-specific terminology in recommendations (18%), weak evidence to support recommendations (4%) and limited potential benefit on resource use and spending (16%).¹⁶ Similar barriers apply to Choosing Wisely recommendations from physiotherapy associations. In many parts of the world, there is no routine system in place for collecting data on treatments that physiotherapists provide. Current evidence on physiotherapy practice relies on inefficient means of collecting data, such as surveys and audits of clinical notes.⁹ Furthermore, some Choosing Wisely recommendations from physiotherapy associations use qualified or vague language, which makes it almost impossible to measure adherence, for example: 'Avoid using electrotherapy modalities in the management of patients with low back pain'; 'Don't routinely use incentive spirometry after upper abdominal and cardiac surgery'; and 'Don't prescribe under-dosed strength training programs for older adults'.

The challenge of measuring adherence to many Choosing Wisely recommendations could partially explain the minimal use of proper implementation strategies to disseminate the recommendations. Although Choosing Wisely recommendations from physiotherapy associations have been passively disseminated through websites and peer-reviewed journal articles,⁷ there is yet to be any active implementation of the recommendations. Passive dissemination of evidence rarely influences clinicians' behaviour;¹⁷ hence, it is unlikely the existing Choosing Wisely recommendations have had an important impact on physiotherapy practice.

Solutions to maximise the impact of Choosing Wisely on physiotherapy practice

As the physiotherapy workforce expands globally (eg, in Australia¹⁸ and the United States¹⁹) and guidelines continue to prioritise non-pharmacological interventions for conditions commonly managed by physiotherapists, it is vital that the profession takes the problem of healthcare overuse seriously. World Physiotherapy represents over 120 physiotherapy associations globally and could play a vital role in promoting Choosing Wisely and encouraging physiotherapy associations to join the campaign. As new associations join the campaign, we encourage them to learn from the missed opportunities of existing member associations and consider the following suggestions for how to maximise the impact of Choosing Wisely on future physiotherapy practice.

Target recommendations appropriately

The first step to maximising the impact of Choosing Wisely is perhaps the simplest: ensure that physiotherapy associations publish recommendations that target inappropriate tests and treatments that are frequently provided by physiotherapists. A 2019 systematic review of 94 studies summarised the proportion of physiotherapists who provide various interventions for musculoskeletal conditions,³ and categorised interventions as appropriate or inappropriate. As the most comprehensive resource on physiotherapists' treatment practices, this review should be used to identify frequently provided low-value practices in physiotherapy such as acupuncture/dry needling for low back pain (6 to 45% of physiotherapists) and electrotherapy for knee osteoarthritis (21 to 43%). This will also ensure that Choosing Wisely lists from physiotherapy associations focus less on tests and treatments mostly provided by other health

professionals (eg, imaging, surgery and medication) and more on interventions routinely provided by physiotherapists.

Ensure adherence to recommendations is measurable

Improving the surveillance of treatment choices is a key issue in physiotherapy. Without data on what treatments physiotherapists provide, it is impossible to measure adherence to Choosing Wisely recommendations. Efficient ways to extract data on treatment choices from electronic medical records would be a major innovation within the physiotherapy profession. This could be achieved by using quality indicators to track concordance between treatment choices and guideline recommendations²⁰ and linking electronic health records to a data dashboard where clinicians' treatment choices can be tracked in real time.²¹ However, in the absence of such data, routine collection of physiotherapists' treatment choices, through administrative databases and audits of clinical notes, could be performed to evaluate the impact of the campaign. There is also a need for recommendations that can be translated into performance measures and that are detailed enough to measure. This could be achieved by increasing the level of detail in current and future recommendations and avoiding vague language that gives physiotherapists latitude for not changing their practice (eg, 'Don't routinely provide ...').

Optimise the language of the recommendations

Marked variation in the language of Choosing Wisely recommendations highlights the need to better understand how language could maximise clinicians' willingness to adopt them. For example, a content analysis of 1,293 Choosing Wisely recommendations found that only 4% of recommendations provide alternatives to facilitate the de-adoption of low-value care.¹⁵ This appears to be at odds with physiotherapists' preference for recommendations that offer encouragement to provide high-value care.⁷ Recommendations that provide evidence-based alternatives to low-value care might increase physiotherapists' willingness to adopt Choosing Wisely recommendations. The strength of language used in Choosing Wisely recommendations also deserves attention. The above content analysis found that 42% of Choosing Wisely recommendations use qualified language (eg, 'Don't routinely...', 'Avoid...'). Some physiotherapists believe that qualified recommendations are more useful, as they are not too prescriptive and allow physiotherapists to use their clinical reasoning, while some believe that unqualified recommendations (eg, 'Don't provide...') are more likely to change practice as they do not give physiotherapists the option to provide low-value care in 'special' cases.⁷ Before future recommendations are published and implemented, it is important to explore how different aspects of language influence clinicians' willingness to adopt Choosing Wisely recommendations.

Active implementation strategies with proper evaluation

The importance of active implementation strategies for changing clinician behaviour is well-established. A systematic review of nine trials (n = 1,815 physiotherapists)⁹ and an umbrella review (n = 19 systematic reviews including various health professionals)¹⁷ found several active implementation strategies that were effective at changing clinicians' behaviour, such as educational outreach visits, interactive educational meetings and multicomponent interventions (eg, combination of peer assessment, performance monitoring, audit and feedback). Developing and evaluating similar active strategies to increase adoption of Choosing Wisely recommendations (eg, increasing physiotherapists' access to education on the most currently recommended physiotherapy interventions) could be an important starting point to reduce overuse in physiotherapy. It would be a mistake for conversations about value in healthcare to only consider research evidence.

There are also societal and patient perspectives. Misaligned care is an example of low-value care from patients' perspective. It occurs when clinicians provide care that does not align with patients' values and preferences.²² Explaining the evidence supporting various options (including evidence against low-value interventions) could help align patients' values and preferences with evidence-based care and improve patient satisfaction. It could also help foster a positive patient-clinician relationship, which is an independent driver of the quality of care.²³ However, in cases where patients' preferences remain discordant with the evidence, clinicians face the challenge of balancing patient satisfaction and therapeutic alliance with the need to provide evidence-based care.²⁴

Conclusion

Choosing Wisely is rapidly expanding across various fields of medicine and health worldwide. The problem of overuse is as relevant in physiotherapy as it is in medicine, yet little is being done to combat overuse in physiotherapy. Poor engagement with Choosing Wisely from physiotherapy associations and poorly targeted recommendations from those with Choosing Wisely lists is limiting the potential impact of the campaign. To ensure the rapidly expanding global physiotherapy workforce is an opponent of overuse, more physiotherapy associations need to partner with Choosing Wisely and target recommendations at key examples of overuse in physiotherapy. Recommendations need to be measurable, use language that maximises physiotherapists' willingness to follow them and be implemented using active strategies (beyond passive dissemination). Ongoing evaluation of implementation strategies will ensure that the most effective and efficient strategies are used to translate Choosing Wisely recommendations into practice and reduce overuse in physiotherapy.

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