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Views and experiences of non-medical prescribing: a national survey of prescribing physiotherapists

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Abstract

Background Physiotherapy non-medical prescribing (NMP) is a contemporary development whereby physiotherapists can prescribe medications within their scope of practice. Despite institutional and professional support for its implementation, data regarding physiotherapists' views and experiences of NMP is limited.

Objectives To explore the views and experiences of NMP for UK prescribing physiotherapists.

Design Cross-sectional study, using an anonymous, online survey.

Methods Recruitment involved non-probability sampling targeting UK physiotherapists with a NMP qualification. Data was gathered about the role, scope, and activity of prescribing physiotherapists via closed and open-ended questions. Descriptive statistics and inductive content analysis were undertaken.

Results Of the 552 respondents, most worked in FCP roles (122/552, 22%) and 82% (450/552) prescribed medication. NSAIDs were the most prescribed drug class (267/450, 59%). Perceived benefits were enhanced patient care, reduced burden on other prescribers, and improved medication access. Challenges included restrictions on prescribing or deprescribing controlled drugs (CDs), limited scope of practice, and inadequate CPD. Themes identified to improve physiotherapy NMP were increasing the CDs that physiotherapists can independently prescribe and deprescribe, improving CPD and supervision, and increasing awareness amongst the public and healthcare professionals.

Conclusions This study provides novel findings of the perceived benefits, challenges, and development areas for physiotherapy prescribing. There is a need to review and potentially expand the drug formulary for physiotherapists. Improving education and supervision is crucial for the sustainable growth of physiotherapy NMP. Increasing the awareness amongst the public and healthcare professionals may enhance the acceptance of physiotherapy prescribing.

Contribution of the paper

- This study provides novel insights into physiotherapy NMP in the UK and highlights future development needs.
- The survey identifies that NMP physiotherapists perceive a need to review and expand the current drug formulary to allow physiotherapists to independently prescribe and deprescribe more CDs within their scope of practice.
- Physiotherapy prescribing is rapidly increasing across the UK, improving the education, supervision, and awareness of physiotherapy NMP should be considered to enhance future practice.

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Keywords: Non-medical prescribing; Physiotherapy independent prescribing; Supplementary prescribing; Medicines management

Introduction

As the population and average life expectancy in the United Kingdom (UK) continues to rise, healthcare systems and professionals are evolving to tackle escalating service demands [1]. One in four people in the UK take five or more medicines [2].

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The significant shortage of healthcare workers in the UK has implications for meeting future populations' prescribing needs. It is estimated a third of current NHS employees will retire by 2030 [3] and by 2037 there will be a shortfall of 360,000 NHS staff without significant workforce changes [1]. To help address workforce deficits and maintain consistent access to prescription medications, allied health professionals (AHPs) including physiotherapists are taking on new roles and responsibilities, most notably independently prescribing medications [4].

Currently over 90,000 UK nurses, pharmacists, and AHPs are authorised to prescribe medications as a supplementary or independent prescriber [5]. Supplementary prescribing rights were given to physiotherapists in 2005, further policy changes in 2013 enabled physiotherapists to independently prescribe medications with restrictions on prescribing certain controlled drugs (CDs) [6]. As the rollout of physiotherapy jobs in areas such as primary care continues to increase across the UK, more physiotherapists are now qualifying as independent prescribers [5]. There are currently 2143 UK physiotherapist prescribers of which 2118 are independent prescribers [7]. Though, this number is likely to grow with the Government's commitment to increase the number of independent prescribers to address gaps in service delivery [1].

As non-medical prescribing (NMP) is a contemporary area of practice for physiotherapists, research into physiotherapy prescribing has started to emerge but remains limited, with most studies to date focused on other healthcare professionals [8]. Currently there is a lack of published research which explores prescribing physiotherapists' perceptions of the benefits and challenges for physiotherapy NMP. There is also limited published data for prescribing physiotherapists' activity, including the frequency and types of medications that physiotherapists routinely prescribe [9]. This study is important given the increasing number of physiotherapists prescribing in the UK to ensure patients have continued access to a wide range of prescription medicines [5]. Understanding the views and experiences of current physiotherapy prescribers on the benefits, challenges, and areas of progression for physiotherapy NMP is essential to inform future practice and enhance the development of UK physiotherapy prescribing.

Aim

The aim of the study was to explore the views and experiences of NMP for prescribing physiotherapists across the UK.

Methods

Study design

The study design was an online, cross-sectional survey. Ethical approval was granted by the Manchester

Metropolitan University Faculty Ethics and Governance Committee (Reference: 53769). Informed consent was assumed if surveys were completed and submitted online, all responses were anonymous. An information sheet and General Data Protection Regulation statement were made available via an internet weblink on the first page of the online survey. The survey was available from March to September 2023.

Survey development

A bespoke 21-item survey with both open and closed questions was developed to meet the aims of the study based on gaps identified in the current literature. This included respondents' demographics and clinical practice characteristics, as well as questions relating to scope of practice and prescribing activity. Respondents were asked if they perceived any benefits or challenges of physiotherapy NMP, and if they could identify areas for improvement.

A draft survey developed by the research team was piloted with twenty NMP physiotherapists. Following the pilot, some questions were re-phrased to aid interpretation. Once finalised the survey was formatted and transposed onto Jisc [10], an online survey platform, and a test link was sent to five NMP physiotherapists known to the research team to check for problems in accessing the survey prior to wider distribution. EQUATOR reporting guidelines for observational studies was utilised to report the study [11].

Survey sample

The eligibility criteria for respondents were physiotherapists working in the UK who are registered with the HCPC and hold a NMP qualification.

Survey distribution

A pragmatic recruitment strategy was employed, involving a variety of purposive non-probability sampling approaches, including snowballing. Emails were sent to UK based university NMP lecturers, to assist recruitment by distributing email invitations to physiotherapists with a NMP qualification. The study was also advertised in the iCSP [12] and via social media on X (@NMPphysio).

Data management and statistical analyses

Data from the completed survey was downloaded from Jisc [10] into Excel [13] and NVivo 13 [14]. Descriptive statistics were used to analyse and report data from closed questions. Free text responses were examined using inductive content analysis to provide context to the dataset, nodes were generated based on frequency of occurrence to extract emerging themes and common concepts. Both researchers undertook the coding to increase the credibility of the findings [15].

Results

Survey response

The eligibility criteria was met by 552 responders. Due to the snowball sampling method utilised, it is not possible to estimate the denominator sample size of physiotherapists who received the survey invitation.

Respondent demographics and clinical practice characteristics

Of the 552 respondents, the majority had been qualified as a physiotherapist for over 15 years (400/552, 73%), held a Master of Science (MSc) degree (337/552, 61%) and worked within Band 8 roles (355/552, 64%). Ninety-five per cent (524/552) of respondents worked within the public sector and 73% (405/552) had obtained their NMP qualification within the past five years (Table 1).

Most respondents worked in England (445/552, 81%), with the North-West having the most prescribers (108/552, 20%) (Fig. 1). Although, respondents worked in a wide range of physiotherapy roles (Fig. 2), most were employed as First Contact Practitioners (FCP) (122/552, 22%).

Table 1
Demographic and clinical practice characteristics of survey respondents.

	Number (%)
Years qualified as a physiotherapist	
Between 0 – 5 years	13 (2)
Between 5 – 10 years	33 (6)
Between 10 – 15 years	106 (19)
Between 15 – 20 years	127 (23)
Between 20 – 25 years	131 (24)
Over 25 years	142 (26)
Highest educational qualification	
Graduate Diploma (GDip) in physiotherapy	16 (3)
Bachelor of Science (BSc)	177 (32)
Master of Science (MSc)	337 (61)
Doctor of Philosophy (PhD)	22 (4)
Agenda for Change banding (or equivalent)	
Band 6	11 (2)
Band 7	186 (34)
Band 8a	293 (53)
Band 8b	44 (8)
Band 8c	18 (3)
Work sector	
Public sector	524 (95)
Private sector	28 (5)
Length of time since completing NMP qualification	
Less than 1 year ago	104 (19)
Between 1 - 2 years	96 (17)
Between 2 – 3 years	76 (14)
Between 3 – 4 years	72 (13)
Between 4 – 5 years	57 (10)
Over 5 years ago	147 (27)

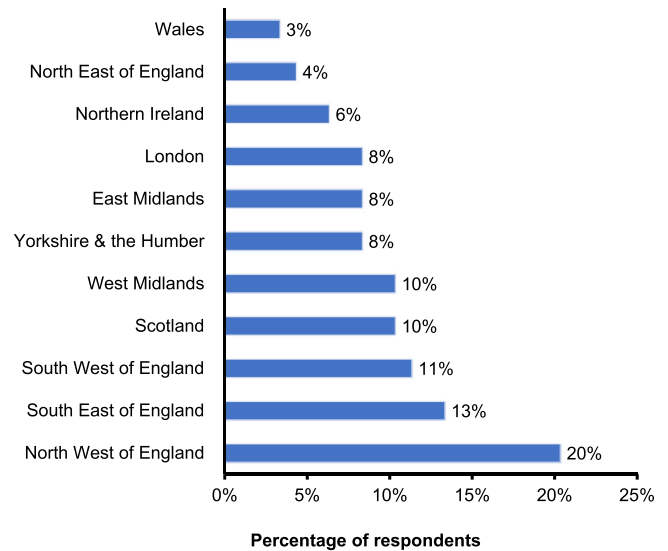


Fig. 1. Region of the UK respondents worked within (n = 552 responses).

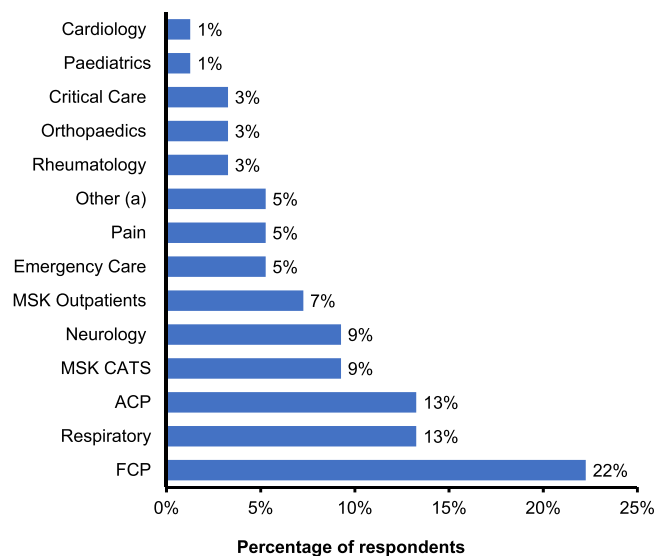


Fig. 2. Speciality of Respondents (n = 552 responses).

(a) Free text responses included: Pelvic Health (n = 5), Non-Clinical Role (n = 4), Oncology and Palliative Care (n = 4), Mental Health (n = 3), Education (n = 2), Learning Disability (n = 2), Long COVID (n = 2), Lymphoedema (n = 2), Sports and Exercise Medicine (n = 2) and Limb Absence Rehabilitation (n = 1).

Physiotherapy prescribing activity

Eighty-two per cent (450/552) of respondents actively used their NMP qualification to prescribe medication, however 18% (102/552) did not. Themes were derived from respondents as to why they did not utilise their prescribing rights (Table 2).

Table 2
Reasons why respondents did not use their prescribing rights (n = 102 responses).

Reasons	Number (%)
Changes to job role	31 (30)
Issues registering NMP qualification	24 (24)
Provide medicines advice and recommendations only	16 (16)
Insufficient service budget	10 (10)
Inadequate supervision post qualification	9 (9)
Maternity leave	7 (7)
Information technology issues	5 (5)

Table 3
Class of drugs respondents routinely prescribe (n = 450 responses).

Drug class	Number (%)
NSAIDs (including topical NSAIDs)	267 (59)
Corticosteroids (including intra-articular injections)	242 (54)
Proton pump inhibitors	215 (48)
Antibiotics	185 (41)
Local anaesthetics (including intra-articular injections)	169 (38)
Tricyclic antidepressants	165 (37)
Opioids	155 (34)
Respiratory medication	141 (31)
Acetaminophen (paracetamol)	140 (31)
Cardiac medication	68 (15)
Benzodiazepines	66 (15)
Other ^a	65 (14)
Eye drops	47 (10)
Gabapentinoids	45 (10)
Disease-modifying antirheumatic drugs	23 (5)
Antispasmodics	12 (3)
Crystalloids	12 (3)
Macrogol laxatives	12 (3)

^a Free text responses: Anticholinergics (n = 2), Antidepressants (n = 7), Antiemetics (n = 2), Antifungals (n = 1), Antigout agents (n = 3), Antihistamines (n = 3), Antiparkinson agents (n = 4), Antipsychotics (n = 2), Barbiturates (n = 1), Bisphosphonates (n = 3), Diuretics (n = 3), Emollients (n = 3), Folate (n = 2), Inotropic agents (n = 3), Iron (n = 4), Medical Gas (n = 4), Mucolytics (n = 3), Oestrogen (n = 2), Progestogen (n = 2), Statins (n = 3), Vasopressors (n = 2), Vitamin B12 (n = 6).

Of the respondents who actively prescribed medication (450/552, 82%), 42% (183/450) prescribed daily, 41% (188/450) prescribed weekly, 13% (60/450) prescribed monthly, with just 4% (19/450) prescribing less frequently. Respondents prescribed a wide variety of drug classes (Table 3).

Scope of practice

Ninety-five per cent of respondents either agreed (123/552, 22%) or strongly agreed (402/552, 73%) prescribing is within the scope of a physiotherapist. Forty per cent of respondents either agreed (125/552, 23%) or strongly agreed (103/552, 19%) that all physiotherapists working within their speciality should be prescribers, most of whom, worked in FCP roles (67/552, 55%). Most responders (234/552, 42%) neither agreed nor disagreed that physiotherapists are better placed to prescribe medication within their speciality in comparison to other healthcare professionals. Whereas 37% of respondents either agreed (135/552, 25%)

Table 4
Perceived benefits for physiotherapists prescribing in clinical practice.

Benefits	Number (%)
Enhanced patient care	410 (74)
Reduced burden on other prescribers	282 (51)
Improved access to medications	220 (40)
Increased job satisfaction	211 (38)
Better understanding of medications	192 (35)
Improved service efficiency	166 (30)
Greater autonomy	112 (20)
Improved patient healthcare experience	105 (19)

Table 5
Perceived challenges for physiotherapists prescribing in clinical practice.

Challenges	Number (%)
Limitations on the CDs that physiotherapists can independently prescribe or deprescribe	487 (88)
Lack of clinical supervision	279 (51)
Limited scope of practice	175 (32)
Inadequate continuous professional development (CPD)	174 (32)
Time constraints	97 (18)
IT system issues	77 (14)
Lack of awareness from patients and colleagues	70 (13)
Lack of undergraduate education on prescribing	57 (10)
Increased responsibility	47 (9)

or strongly agreed (64/552, 12%) with this statement, most of whom, worked in FCP roles (64/552, 52%).

Perceived benefits of physiotherapy prescribing

Ninety-eight per cent of respondents either agreed (104/552, 19%) or strongly agreed (434/552, 79%) working as a prescriber improves patient care. Eighty-eight per cent of respondents either strongly agreed (328/552, 59%) or agreed (159/552, 29%) being a prescriber improves job satisfaction. Most respondents strongly agreed (312/552, 57%) or agreed (166/552, 30%) work colleagues are supportive of their prescriber role. Eighty-two per cent of respondents either agreed (163/552, 30%) or strongly agreed (288/552, 52%) having a NMP qualification improves career opportunities. The most frequently reported benefits for physiotherapy prescribing were enhanced patient care, reduced burden on other prescribers, and improved access to medications (Table 4).

Perceived challenges of physiotherapy prescribing

Fifty-six per cent of respondents either agreed (221/552, 40%) or strongly agreed (90/552, 16%) prescribing medication increases the time of a typical physiotherapy contact. Most respondents disagreed (255/552, 46%) or strongly disagreed (144/552, 21%) prescribing was a distraction from other aspects of their job. The most frequently perceived challenges for physiotherapy NMP were restrictions on prescribing or deprescribing CDs, lack of clinical supervision, and limited scope of practice (Table 5).

Perceived areas of improvements for physiotherapy prescribing

When respondents were asked what could improve physiotherapy NMP, three themes were identified. Overwhelmingly respondents wanted to increase the number of CDs that physiotherapists can independently prescribe or deprescribe (467/552, 85 %), as depicted in the following quote:

“Access to prescribe and deprescribe more controlled drugs, prescribing practice should be role specific rather than profession specific. The prescriber should have the relevant experience and competence to prescribe medications appropriate to the role rather than the base profession. We should be seen as independent prescribers rather than physio prescribers.” (P228)

The second theme identified was improving physiotherapy NMP CPD and supervision (353/552, 64 %) as described below:

“The NMP course only has a very generalist content and in order to prescribe or deprescribe in your area effectively, better CPD and supervision once qualified would help elevate physio prescribing.” (P476)

The final theme established was increasing the awareness of physiotherapy prescribing amongst the public and other healthcare professionals (119/552, 22%), as illustrated in the following quote:

“Improve the acceptance of physiotherapists as prescribers and promote recognition of our skills and capabilities in this area to the wider MDT and public.” (P362)

Discussion

This research provides insight into the views and experiences of prescribing physiotherapists on NMP across the UK. It describes the benefits and challenges of physiotherapy prescribing and highlights areas of development.

Our findings demonstrate the rapid increase in physiotherapy prescribers with most responders obtaining their NMP qualification within the past five years. Additionally, this study established 82% of respondents who have completed a NMP qualification actively prescribed medication. Of these, 83% prescribed at least weekly. Thus, physiotherapy prescribing appears to be developing in line with current UK policy, aiming to increase the number of independent prescribers to improve access to medicines and support workforce innovation [1].

In our study, most respondents held a postgraduate MSc degree, worked in Band 8 roles, and were more likely to have a NMP qualification the longer time they had been qualified. Mullan et al. [16] highlighted physiotherapists reported vulnerability, isolation, and risk as challenges to

independent physiotherapy prescribing but noted clinical experience and patient mileage were vital to mitigate these. It would therefore seem that having highly qualified and experienced professionals, such as represented in our study, should be prerequisites for NMP to help moderate the challenges that could be faced by less experienced physiotherapists.

Previous research found a positive association between the length of time the healthcare professional had been qualified as a prescriber and improved self-efficacy with aspects of prescribing [17]. Therefore, with the recent increase in physiotherapy NMP across the UK, developing support mechanisms for physiotherapists at individual and system levels to build prescribing self-efficacy would seem important [16]. Indeed, enhancing CPD and clinical supervision emerged as a key concept in our study to develop physiotherapy NMP in the UK. To address this, respondents highlighted the need for specific physiotherapy prescribing CPD rather than generic NMP training, more physiotherapy NMP supervisors in clinical practice and robust clinical supervision supported by professional bodies and employers. Incorporating more preparatory prescribing education for pre-registration physiotherapists, as undertaken by nursing and midwifery undergraduates [18], would help to mitigate the lack of undergraduate prescribing education articulated by the respondents. Implementing these recommendations therefore could address perceived gaps in knowledge, improve clinician’s self-efficacy, and allow NMP to be embed sooner into the physiotherapy profession.

Respondents worked in a wide range of physiotherapy specialities with most working in FCP roles. These findings correlate with a recent survey of UK FCPs which highlighted 41% of respondents were prescribers [19]. Our study found not all FCPs believed every FCP should be a prescriber. This is reflective of previous research which established physiotherapists viewed prescribing as an additional intervention to enhance their practice, rather than a necessity for the role [16]. Nevertheless, the number of FCP prescribers is likely to grow with the NHS Long Term Workforce Plan committing to having an FCP in every GP practice by 2033 [1,19]. Therefore, it is crucial to evaluate course availability and funding for physiotherapists undertaking advanced practice training including FCP, ACP, and NMP programmes to address future workforce requirements and the growing prescribing demand.

Respondents felt prescribing was within a physiotherapist’s scope of practice. These findings contrast to Noblet et al. [20], where one in eight Australian physiotherapists stated prescribing should not be within the remit of physiotherapists. However, these were prospective views from non-prescribing physiotherapists and not based on experience of prescribing. Notably, our results established 52% of FCPs believed they were better placed to prescribe for their area of practice compared to other healthcare professionals. These findings may be explained from recent research demonstrating patients presenting to primary care with MSK

disorders often received less medications (including opioids) with quicker symptom resolution after their initial consultation with a FCP compared to GP-led care [21]. This supports the NHS commitment to increase the number of FCPs working in primary care over the next decade [1].

Our results found most respondents perceived physiotherapy NMP improved patient care. This aligns with previous studies that demonstrated NMP has positive clinical outcomes and high patient satisfaction [8,22]. As articulated by respondents, physiotherapy NMP can reduce appointments, prevent duplication of work, and improve patients' healthcare journey as physiotherapists can comprehensively manage complete episodes of care. Our study found most physiotherapists felt prescribing enhanced their job satisfaction and professional autonomy. This concurs with prior research that established NMP enables healthcare professionals to practice autonomously, leading to a heightened sense of professionalism and enhanced satisfaction [23,24].

Although physiotherapy prescribing provides beneficial clinical outcomes and has been established as safe, the cost-effectiveness of physiotherapy NMP remains unclear [25]. Most respondents in our study felt prescribing increases the time of a typical physiotherapy contact. These findings are consistent with Carey et al. [8] which revealed care delivery by physiotherapy prescribers is more resource intensive than non-prescribers, due to longer consultations and discussions with colleagues. Despite this, our respondents perceived physiotherapy NMP had wider clinical and economic benefits such as increased access to medications, improved service efficiency, and reduced burden on other prescribers. More research to determine the economic value and cost effectiveness of physiotherapy prescribing is therefore needed to inform the commissioning of physiotherapy NMP.

Our research highlighted the need to increase the awareness of physiotherapy prescribing amongst other healthcare professionals. Graham-Clarke et al. [26] found doctors involved in the training of NMP clinicians were more supportive than those unaware of the training involved. Additionally, physiotherapists were more likely than pharmacists to report lack of awareness of NMP by the wider clinical team [26]. These results may reflect the short time physiotherapists have had independent prescribing rights and the low numbers of physiotherapy prescribers [7,27]. Promotion of physiotherapy NMP to the public was also frequently articulated by our respondents. This is supported by previous research that found the public lacked awareness of the education and training of non-medical prescribers [28]. Therefore, key stakeholders including professional bodies should consider promoting physiotherapy NMP to increase the acceptance of physiotherapy prescribing across the UK.

To the authors knowledge, this is the first study to explore the type and frequency of medications prescribed by UK physiotherapists from a range of clinical specialities. Our results found NSAIDs were the most frequently prescribed class of drug by physiotherapists irrespective of their area of practice.

Our study concurs with previous research findings which identified not being able to independently prescribe or de-prescribe additional CDs was a challenge to UK physiotherapy prescribing, having implications for patient care, service delivery, and the self-efficacy of prescribing physiotherapists [16]. The Commission on Human Medicines recommended legislation changes to the Department for Health and Social Care to allow physiotherapists to independently prescribe additional CDs, specifically: codeine phosphate, tramadol hydrochloride, pregabalin, and gabapentin [29]. Although as our findings portray, to the frustration of many NMP physiotherapists these proposed legislative changes have not yet occurred. Even if these additional CDs are added to the prescribing formulary for UK physiotherapists, many respondents expressed further legislative changes are required to allow physiotherapists to prescribe or de-prescribe any drug within their scope of practice. This change would bring independent prescribing physiotherapists on parity with nurse prescribers who undertake the same NMP postgraduate qualification [27].

Strength and limitations

The timing of the research was pertinent given the publication of the NHS Long Term Workforce Plan aiming to increase the number of independent prescribers to address gaps in service delivery [1] and the potential CD legislation changes for UK independent physiotherapist prescribers [29]. This strengthened the rationale for conducting the research as the findings have meaningful implications for contemporary clinical practice. As the UK is a global pioneer in extending independent prescribing rights to AHP's including physiotherapists [8], our results may benefit international clinicians seeking to enhance their own future practice.

The utilisation of a purposive non-probability sampling approach was essential to study a large group of clinicians working across different geographical locations in the UK. However, a limitation of this strategy is the denominator sample size remains unknown. The response rate cannot be determined, thus selection and response bias cannot be assessed. Despite clear advertisement of the study, the link to the survey was freely accessible online and participation could not be restricted. Nevertheless, this approach facilitated the wide distribution of the survey enabling busy healthcare professionals to quickly complete the survey. Our research had representation from all UK geographical regions, therefore we believe our results are generalisable to current UK clinical practice. However, as only 5% of respondents worked within the private sector, future research may prove beneficial to explore the unique challenges encountered by prescribing physiotherapists in private practice.

Conclusion

This study provides novel insights into the perceived benefits and challenges of physiotherapy prescribing practice and highlights areas for future development. There is a

need to review and potentially increase the drug formulary for physiotherapists, and to develop education and clinical supervision to ensure the sustainable growth of physiotherapy NMP. Raising awareness of physiotherapy NMP amongst the public and other healthcare professionals should be considered to enhance the acceptance of physiotherapy prescribing. The results have implications for the transitioning physiotherapy workforce, educational institutions, training providers, professional bodies, healthcare commissioning groups, and those involved in the provision and delivery of physiotherapy NMP.

CRedit authorship contribution statement

Daniel Ian Parkinson: Conceptualization, Methodology/Study design, Software, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Visualization, Project administration, Funding acquisition. **Dr Sandra Elaine Hartley:** Methodology/Study design, Validation, Formal analysis, Data curation, Writing – review & editing, Supervision.

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Conflict of interest: None declared.

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