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Shared decision-making in advanced physiotherapy and first contact physiotherapy management of adults with musculoskeletal disorders in the United Kingdom: An online cross-sectional survey

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Abstract

Rationale: Advanced practice physiotherapy roles (Advanced Physiotherapy Practitioners [APPs] and First Contact Physiotherapists [FCPs]) are pivotal in supporting patients to manage their musculoskeletal (MSK) conditions. Having a greater understanding of how decisions are made by these practitioners will inform competency frameworks and improve the provision of patient-centred care.

Aim: To evaluate the current knowledge, views and use of shared decision-making in MSK advanced physiotherapy practice in the United Kingdom.

Methods: A cross-sectional survey using an online questionnaire was used to collect demographic information, knowledge, views and self-reported use of shared decision-making (SDM) of APPs and FCPs who work with adults with MSK disorders in the United Kingdom.

Results: Responses from 49 participants (25 APPs and 24 FCPs) were included in the study. In total, 80% of participants had received SDM training and overall high levels of knowledge were shown. Only 12% of participants used a communication model to facilitate SDM. In total, 80% of participants reported making decisions together with the patient either always or most of the time. FCPs favoured a more patient-led approach to decision-making compared to APPs who favoured collaborative decision-making. The most commonly reported barriers to SDM included lack of time, lack of patient education resources, lack of access to patient decision aids and treatment pathway restrictions.

Conclusions: The responses in this study showed that overall APPs and FCPs have good knowledge of SDM and report routine use of collaborative and patient-led decision-making approaches.

KEYWORDS

clinical decision-making, communication, musculoskeletal system, physiotherapy

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1 | INTRODUCTION

Musculoskeletal (MSK) disability impacts over 20 million people in the United Kingdom¹ and people are living longer with more complex MSK conditions resulting in ever-increasing demands on services.² In the United Kingdom, advanced physiotherapy practitioner (APP) roles are a well-established way of managing this burden,³ and it is now commonplace for APPs to independently manage patients with MSK conditions in Clinical Assessment and Triage services (CATs) as effectively as orthopaedic surgeons.⁴ First contact physiotherapists (FCPs) emerged more recently to meet the increasing pressures on primary care services as part of wider NHS transformations across the MSK pathway.⁵ They provide expert MSK skills to improve patient experience and promote independence through a personalised care and shared decision-making (SDM) approach.⁶

These advanced practice (AP) roles require high levels of expertise and clinical experience and, along with greater responsibility and accountability, may contribute to an improved delivery of high-quality MSK services across all healthcare settings.⁷ Clinicians must demonstrate competencies identified in the Advanced Practice Standards,⁸ including SDM and person-centred care (PCC), and should support patients to make decisions about their health and care by discussing treatment options or tests and investigations.

SDM is embedded in NHS policy and best practice guidelines⁹ and is widely considered as a core component of good healthcare¹⁰ and evidence-based practice (EBP).¹¹ It may reduce health inequalities, improve patient satisfaction and increase self-management and treatment compliance.¹² SDM requires effective communication skills to explore patient values and preferences, including open-ended questioning and active listening¹³ to gain an understanding of the patient's ideas, feelings and concerns, and both parties should be engaged in the sharing of information to inform healthcare choices.¹⁴ Although SDM embodies the principles of PCC, there remains an absence of an agreed view of what SDM is,¹⁵ and this lack of clarity may prohibit its use,¹⁶ meaning implementation in routine clinical practice is lacking.¹⁷ Barriers to SDM cited include lack of time, lack of clinicians' confidence, clinicians' belief that they are already doing it, lack of specific training and resources, patients' unwillingness to participate in decision-making, poor health literacy¹¹ and system or organisational barriers.¹⁷

Whilst SDM may be advantageous, global research in this key area of practice has predominantly been in medicine and nursing.¹⁸ SDM research involving physiotherapy is limited¹⁹ and mainly conducted outside the United Kingdom,^{20,21} where healthcare models may not be comparable with the United Kingdom system. Therefore, the generalisability of these study findings to the UK physiotherapy population is unknown, and consequently, it could be argued that these studies add little to the understanding of SDM in UK MSK physiotherapy and, more specifically, advanced physiotherapy practice. Jones et al.²² suggested that United Kingdom physiotherapists may have limited knowledge and uptake of SDM and tend to favour a biomedical, paternalistic decision-making approach despite evidence that patients want to be involved in decisions.¹²

There is currently limited understanding about MSK physiotherapy AP and SDM, although Thompson et al.²³ did identify that APPs use a range of styles, from paternalistic to SDM, and whilst they may have a preference, they are able to flex between styles in consultations. Thompson et al.²³ also acknowledge that SDM is a complex, multifaceted concept requiring further research. Additionally, Williams²⁴ identified that to date, there has been no research on specific barriers to SDM use in MSK physiotherapy. Therefore, the key aims of this study were as follows:

1. To evaluate the current understanding, views and level of use of SDM in MSK APP and FCP practice in the United Kingdom, related to the management of adults with MSK conditions.
2. To assess whether there are differences between APP and FCP knowledge, views and use of SDM.
3. To explore APP and FCP views on barriers to implementing SDM in practice.

A greater understanding of how decisions are made in MSK AP settings may help to inform future training for APP and FCP roles, inform APP and FCP competency frameworks and lead to improvements in the delivery of PCC.

2 | METHODS

A quantitative approach was considered appropriate to meet the study aims using a cross-sectional survey design, with several recent studies having also used this approach to evaluate current physiotherapy practice.^{25–27} An online anonymous survey was developed according to the Checklist for Reporting Of Survey Studies,²⁸ the Checklist for Reporting Results of Internet E-Surveys guidelines²⁹ and the Strengthening the Reporting of Observational Studies in Epidemiology checklist.³⁰ The survey instrument was designed and disseminated using the online survey tool, Qualtrics™ (Qualtrics). Some of the survey questions were adapted to meet the aims of this study from a previous SDM survey involving physiotherapists in Australia.¹¹ The survey was publicised on social media via Twitter and the interactive Chartered Society of Physiotherapy website (iCSP) and accessed through a secure link. Participation was voluntary, and no incentives were offered. Participants answered informed consent questions before proceeding to the main section of the survey.

Ethical approval was granted by the York St John University Ethics Committee (Reference number PHC7022M/JT/CB/RM/100223). Participants were eligible to complete the survey if they were Health and Care Professions Council registered physiotherapists currently working in the United Kingdom in either an APP or FCP role managing adults with MSK disorders. The survey was available online from 8 March 2023 to 16 April 2023.

All questions were piloted with a convenience sample of nonparticipants who had previously worked in AP physiotherapy roles. Following feedback from the piloting stage, no changes to the wording or format of the survey questions were deemed



necessary. The final survey questions addressed the following areas:

- (1) Participant characteristics.
- (2) Knowledge of SDM.
- (3) Views towards SDM including potential barriers.
- (4) Use of SDM.

The final survey consisted of 24 questions; however, participants did not necessarily complete all questions as filters and contingency questions were used (for full survey see Appendix S1). Most answers were quantitative as a response to multiple choice or Likert scales and were answered by checking boxes. Some were short open-text answers to collect free text responses to ensure content validity. Data were analysed with descriptive statistics and the most common themes that emerged from the free text responses were reported descriptively.

3 | RESULTS

3.1 | Study response

The survey yielded a total of 74 responses. Four participants failed to meet the inclusion criteria and 21 responses were incomplete, leaving 49 eligible surveys in the final analysis. Incomplete surveys were

excluded to improve the robustness of data analysis and to allow more effective comparison between APP and FCP participants.

3.2 | Demographic data

Participants were 59% (29/49) female and 41% (20/49) male. Responses were evenly distributed between APPs ($n = 25$) and FCPs ($n = 24$). In total, 94% of participants worked in England and 6% in Scotland. There were no responses from AP physiotherapists working in Wales or Northern Ireland. In total, 86% of participants were employed by the NHS with 90% of APP's working in band 8a roles and 71% of FCPs in band 7 roles (Table 1).

New patient appointment duration for APPs ranged from 15 to 60 min and 15 to 45 min for FCPs, with the most frequent reported duration being 30 min for both groups (48% APPs and 50% FCPs). Follow-up appointment duration ranged from 10 to 30 min for APPs and 15 to 30 min for FCPs. In total, 60% of APPs and 50% of FCPs reported having follow-up appointments of 30 min.

3.3 | SDM knowledge

Self-rated knowledge of SDM is shown in Figure 1. In total 44% of APPs and 42% of FCPs rated their knowledge as 8 or 9, with 9 being comprehensive.

TABLE 1 Professional characteristics of participants.

| | Total participants ($n = 49$) | APP ($n = 25$) | FCP ($n = 24$) |
|---|---------------------------------|---------------------|--------------------|
| Mean number of years qualified | 19.87 | 32.12 (range 12–41) | 16.5 (range 5–33) |
| Mean number of years in role | 6.94 | 10.36 (range 1–30) | 3.33 (range 1–12) |
| Qualifications | | | |
| Post grad MSc | 51% | 64% (16/25) | 38% (9/24) |
| PhD | 2% | 4% (1/25) | - |
| Post grad cert/dip | 22% | 24% (6/25) | 21% (5/24) |
| Employment/setting | | | |
| NHS employed | 86% | 84% (21/25) | 88% (21/24) |
| | | Band 7 5% (1/21) | |
| | | Band 8a 90% (19/21) | Band 7 71% (15/21) |
| | | Band 8b 5% (1/21) | Band 8 29% (6/21) |
| NHS MSK CATTs/interface service | 24.5% | 48% (12/25) | - |
| Secondary care, e.g., orthopaedics/rheumatology | 18.5% | 28% (7/25) | 8% (2/24) |
| Private provider delivering NHS care | 4% | 8% (2/25) | - |
| NHS GP practice | 49% | 8% (2/25) | 92% (22/24) |
| NHS employed/NHS care provider | | | |
| Private healthcare | 4% | 8% (2/25) | - |

Abbreviations: APP, advanced physiotherapy practitioner; FCP, first contact physiotherapist; MSK, musculoskeletal.

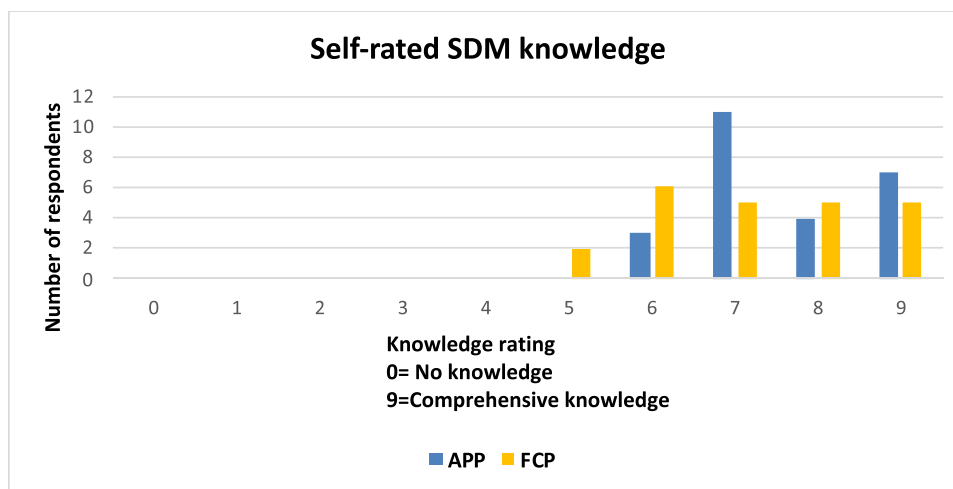


FIGURE 1 Self-rated knowledge of shared decision-making (SDM). APP, advanced physiotherapy practitioner; FCP, first contact physiotherapist.

In total, 80% of APPs and 79% of FCPs had either learnt about or received training on SDM. Of those participants who had received training, 30% had completed online training programmes such as NHS e-learning for health³¹ or Personalised Care Institute.³² In total, 10% had completed a university-accredited face to face course and 23% had received SDM training from their employer. In total, 46% had participated in either practical training such as role play or simulated patient consultations or received feedback from peer observed consultations. In total, 33% had carried out self-directed learning. Only 3% had received any SDM training at the undergraduate or preregistration degree level.

SDM knowledge was also evaluated by a series of 12 statements which required a true/false response (Table 2). Most questions received a high percentage of correct answers; however, not all participants answered every question correctly, and some differences between APPs' and FCPs' knowledge were observed.

3.4 | Current use of SDM

Reported use of communication models to facilitate SDM was low, with only 12% of both APPs and FCPs using models such as Chunk and Check,³³ three-talk model³⁴ or BRAN.³⁵ Only 16% of APPs and 13% of FCPs reported working in a service that conducted validated measurement of SDM through patient-reported experience measures such as CollaboRATE³⁶ or SDM Q-9.³⁷

Self-reported use of SDM (Table 3) showed that 80% of all participants (APP 76%, FCP 84%) make decisions together with the patient either always or most of the time. In total, 47% of participants (36% APP, 58% FCP) said that the patient always or mostly made the decision after considering the clinicians' opinion.

3.5 | SDM views

Participants were asked to give their opinion about how healthcare decisions should be made by selecting one statement from five options ranging from paternalistic to patient led (Table 4).

Participants' views were explored further on a 5-point rating scale from strongly disagree to strongly agree for a series of 15 statements about potential barriers to SDM (Tables 5 and 6).

In total, 60% of APPs and 50% of FCPs strongly or somewhat disagreed that lack of time prevented them from using SDM. In total, 84% of APPs and 100% of FCPs either somewhat or strongly agreed that having access to patient education resources that summarise the risks and benefits of clinical decisions would be helpful. In total, 34% of APPs and 42% of FCPs somewhat or strongly agreed that they did not have access to decision-making tools that would help them to use SDM. In total, 64% of APPs somewhat agreed and 63% of FCPs either somewhat or strongly agreed that treatment pathways determined what treatment the patient was offered.

3.6 | Free text responses

One survey question allowed participants to openly describe their opinions about the biggest barriers to SDM. The following themes were most frequently described and are illustrated by examples of respondent's comments.

(1) Lack of time

This was the most frequently reported barrier cited by 60% of APPs and 55% of FCPs.

'I use shared decision making daily in my job and I run late all the time.' (APP)

**TABLE 2** SDM knowledge (number of participants with correct answer in parentheses).

| Statement | Total % correct responses (n = 49) | APP% correct responses (n = 25) | FCP% correct responses (n = 24) |
|--|------------------------------------|---------------------------------|---------------------------------|
| (1) Shared decision-making causes patients to feel uncertain about their decisions. (False) | 92 (45) | 92 (23) | 92 (22) |
| (2) Doing SDM will increase the length of the consultation. (False) | 67 (33) | 80 (20) | 54 (13) |
| (3) Using SDM ensures people are more likely to adhere to the chosen treatment plan. (True) | 94 (46) | 92 (23) | 95 (23) |
| (4) To promote SDM, the clinician will indicate that alternative treatment or management options exist. (True) | 98 (48) | 96 (24) | 100 (24) |
| (5) People with poor health literacy can not engage in SDM. (False) | 98 (48) | 96 (24) | 100 (24) |
| (6) To promote SDM, the clinician will give information about the pros and cons of options that are considered reasonable (including taking 'no action'). (True) | 98 (48) | 96 (24) | 100 (24) |
| (7) Even if the patient does not wish to be involved in the decision-making process, it is the clinician's role to encourage the patient to make a decision. (True) | 98 (48) | 96 (24) | 100 (24) |
| (8) SDM interventions do not improve outcomes for disadvantaged people. (False) | 96 (47) | 92 (23) | 100 (24) |
| (9) Decisions should be based on the evidence more than the patients' preferences. (False) | 86 (42) | 84 (21) | 88 (21) |
| (10) Using a patient decision aid means SDM has taken place. (False) | 80 (39) | 84 (21) | 75 (18) |
| (11) When giving patients information about risks or benefits of treatment it is better to use percentages, e.g., 10% of people) rather than natural frequency (10 in 100 people). (False) | 71 (35) | 80 (20) | 63 (15) |
| (12) SDM and person-centred care are part of the physiotherapy professional codes of conduct. (True) | 98 (48) | 96 (24) | 100 (24) |

Abbreviations: APP, advanced physiotherapy practitioner; FCP, first contact physiotherapist; SDM, shared decision-making.

TABLE 3 Self-reported usual decision-making approach (number of participants in parentheses).

| Decision-making approach in clinical practice | Never | | Rarely | | Sometimes | | Most of the time | | Always | | Total (n = 49) | |
|---|----------|---------|----------|----------|-----------|---------|------------------|----------|---------|---------|----------------|-----|
| | APP | FCP | APP | FCP | APP | FCP | APP | FCP | APP | FCP | APP | FCP |
| I make the treatment decision on my own | 48% (12) | 21% (5) | 40% (10) | 62% (15) | 8% (2) | 17% (4) | 4% (1) | 0% (0) | 0% (0) | 0% (0) | 25 | 24 |
| I make the treatment decision on my own after considering the patients' opinion | 28% (7) | 8% (2) | 48% (12) | 50% (12) | 16% (4) | 33% (8) | 8% (2) | 8% (2) | 0% (0) | 0% (0) | 25 | 24 |
| I make the treatment decision together with the patient | 8% (2) | 0% (0) | 0% (0) | 0% (0) | 16% (4) | 16% (4) | 56% (14) | 71% (17) | 20% (5) | 13% (3) | 25 | 24 |
| The patient makes the treatment decision after seriously considering my opinion | 0% (0) | 0% (0) | 4% (1) | 8% (2) | 60% (15) | 33% (8) | 32% (8) | 54% (13) | 4% (1) | 4% (1) | 25 | 24 |
| The patient makes the decision on their own | 20% (5) | 8% (2) | 44% (11) | 46% (11) | 28% (7) | 29% (7) | 8% (2) | 17% (4) | 0% (0) | 0% (0) | 25 | 24 |

Abbreviations: APP, advanced physiotherapy practitioner; FCP, first contact physiotherapist.

**TABLE 4** Opinions of how healthcare decisions should be made (number of participants in parentheses).

| In your opinion how <u>should</u> healthcare decisions be made? | APP (n = 25) | FCP (n = 24) |
|--|--------------|--------------|
| As the physiotherapist, I should make the final decision about which treatment the patient should receive. | 0% (0) | 0% (0) |
| As the physiotherapist, I should make the final decision about which treatment the patient should receive after seriously considering the patient's opinion. | 8% (2) | 0% (0) |
| The patient and I should share responsibility for making the final treatment decision together. | 60% (15) | 29% (7) |
| The patient should make the final decision about which treatment they should receive after seriously considering my opinion. | 8% (2) | 42% (10) |
| The patient should make the final decision about which treatment they should receive. | 24% (6) | 29% (7) |

Abbreviations: APP, advanced physiotherapy practitioner; FCP, first contact physiotherapist.

TABLE 5 Advanced physiotherapy practitioners' views on SDM (number of participants in parentheses).

| Statement | Strongly disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Strongly agree | Total |
|---|-------------------|-------------------|----------------------------|----------------|----------------|-------|
| Lack of time prevents me from using SDM with my patients | 48% (12) | 12% (3) | 16% (4) | 24% (6) | 0% (0) | 25 |
| Most patients do not want to be involved in SDM | 56% (14) | 32% (8) | 8% (2) | 4% (1) | 0% (0) | 25 |
| Patients should trust me to make decisions on their behalf | 76% (19) | 20% (5) | 4% (1) | 0% (0) | 0% (0) | 25 |
| I'm unsure how to involve patients in SDM | 60% (15) | 32% (8) | 8% (2) | 0% (0) | 0% (0) | 25 |
| I don't have access to decision-making tools that would help me to do SDM | 24% (6) | 12% (3) | 28% (7) | 28% (7) | 8% (2) | 25 |
| Younger people are more likely to want to be involved in SDM | 32% (8) | 28% (7) | 28% (7) | 12% (3) | 0% (0) | 25 |
| Patients need to be well educated and have good health literacy to participate in SDM | 56% (14) | 24% (6) | 16% (4) | 4% (1) | 0% (0) | 25 |
| It is difficult to meet patient expectations and follow guidelines or best evidence | 20% (5) | 28% (7) | 20% (5) | 32% (8) | 0% (0) | 25 |
| Using SDM tools would lead to more administration or additional appointments | 28% (7) | 20% (5) | 32% (8) | 20% (5) | 0% (0) | 25 |
| I find it difficult to explain research evidence to patients as part of the SDM process | 36% (9) | 52% (13) | 8% (2) | 4% (1) | 0% (0) | 25 |
| Having patient education resources that summarise the risks and benefits of clinical decisions would be helpful | 0% (0) | 12% (3) | 4% (1) | 32% (8) | 52% (13) | 25 |
| I am not confident in knowing how to do SDM | 44% (11) | 36% (9) | 16% (4) | 4% (1) | 0% (0) | 25 |
| Patients prefer me to provide treatment rather than spending time discussing all the options | 36% (9) | 36% (9) | 20% (5) | 8% (2) | 0% (0) | 25 |
| Patients often don't understand their condition, so it is difficult to involve them in decisions | 56% (14) | 28% (7) | 12% (3) | 4% (1) | 0% (0) | 25 |
| Treatment pathways determine what treatment the patient is offered | 8% (2) | 16% (4) | 12% (3) | 64% (16) | 0% (0) | 25 |

Abbreviation: SDM, shared decision-making.

'Time pressure of patients deciding there and then what they want done.' (FCP)

'Lack of time to explain all options fully within a consultation.' (APP)

'Time for me to research treatments and outcomes to present to patients.' (APP)

(2) Attitudes and beliefs of the clinician

'Clinicians already feel they are implementing it so don't try to change their practice, also people think it will take more time.' (APP)

'Some [clinicians] are interested ... others are not.' (FCP)

'Differing views of ... the team.' (APP)

**TABLE 6** First contact physiotherapists' views on SDM (number of participants in parentheses).

| Statement | Strongly disagree | Somewhat disagree | Neither agree nor disagree | Somewhat agree | Strongly agree | Total |
|---|-------------------|-------------------|----------------------------|----------------|----------------|-------|
| Lack of time prevents me from using SDM with my patients | 12.5% (3) | 37.5% (9) | 20.83% (5) | 29.17% (7) | 0% (0) | 24 |
| Most patients do not want to be involved in SDM | 41.67% (10) | 37.5% (9) | 16.67% (4) | 4.17% (1) | 0% (0) | 24 |
| Patients should trust me to make decisions on their behalf | 62.5% (15) | 20.83% (5) | 12.5% (3) | 4.17% (1) | 0% (0) | 24 |
| I am unsure how to involve patients in SDM | 50% (12) | 33.3% (8) | 8.33% (2) | 8.33% (2) | 0% (0) | 24 |
| I do not have access to decision-making tools that would help me to do SDM | 16.67% (4) | 12.5% (3) | 29.17% (7) | 37.5% (9) | 4.17% (1) | 24 |
| Younger people are more likely to want to be involved in SDM | 29.17% (7) | 12.5% (3) | 29.17% (7) | 25% (6) | 4.17% (1) | 24 |
| Patients need to be well educated and have good health literacy to participate in SDM | 50% (12) | 33.3% (8) | 12.5% (3) | 4.17% (1) | 0% (0) | 24 |
| It is difficult to meet patient expectations and follow guidelines or best evidence | 12.5% (3) | 45.83% (11) | 12.5% (3) | 25% (6) | 4.17% (1) | 24 |
| Using SDM tools would lead to more administration or additional appointments | 16.67% (4) | 33.3% (8) | 20.83% (5) | 29.17% (7) | 0% (0) | 24 |
| I find it difficult to explain research evidence to patients as part of the SDM process | 20.83% (5) | 41.67% (10) | 8.33% (2) | 25% (6) | 4.17% (1) | 24 |
| Having patient education resources that summarise the risks and benefits of clinical decisions would be helpful | 0% (0) | 0% (0) | 0% (0) | 50% (12) | 50% (12) | 24 |
| I am not confident in knowing how to do SDM | 25% (6) | 54.17% (13) | 16.67% (4) | 4.17% (1) | 0% (0) | 24 |
| Patients prefer me to provide treatment rather than spending time discussing all the options | 29.17% (7) | 41.67% (10) | 20.83% (5) | 8.33% (2) | 0% (0) | 24 |
| Patients often do not understand their condition, so it is difficult to involve them in decisions | 16.67% (4) | 62.5% (15) | 16.67% (4) | 0% (0) | 4.17% (1) | 24 |
| Treatment pathways determine what treatment the patient is offered | 8.33% (2) | 12.5% (3) | 16.67% (4) | 58.33% (14) | 4.17% (1) | 24 |

Abbreviation: SDM, shared decision-making.

(3) Patient expectations

'Unrealistic patient expectations, often set by other clinicians.' (APP)

'Patients coming in with their own research.' (FCP)

'Patients' expectations of what treatment they want or need.' (APP)

(4) Clinicians' confidence and knowledge

'Lack of therapist knowledge and confidence.' (APP)

'Being able to keep up to date with evidence across the whole spectrum of MSK.' (APP)

'My own confidence.' (FCP)

(5) Treatment pathways and clinical practice guidelines

'Restricted pathways due to such things as BMI.' (APP)

'Service inclusion/exclusion criteria.' (FCP)

'Patient care pathways.' (FCP)

At the end of the survey, participants were asked to provide any additional comments they wished to make about SDM. Comments were mostly supportive of SDM:

'SDM is key to person centred care, a must do for all capable APs.' (APP)

'Vital to effective practice.' (APP)

'This is how all appointments should be. [the clinician] feels less pressure as the patient has decided with all the knowledge, so it's their decision.' (FCP)

Some also suggested strategies to facilitate SDM in practice such as bespoke training for local services, greater involvement of organisational leads, developing local SDM champions and having SDM threads in training sessions and meetings.

3.7 | Some responses were less positive

'Tools and button clicking is time consuming. SDM requires a patient to trust [you] ... Adding more tools/forms is not a positive. Coaching in SDM is ... effective but requires time ... short supply of this in FCP [clinics].' (FCP)

4 | DISCUSSION

4.1 | SDM knowledge

The results of this survey show that the participants had high levels of self-reported knowledge, and APPs scores were slightly higher than FCPs. This may relate to the number of years qualified and experience working at the AP level being higher in this group, leading to greater self-confidence. Overall, high levels of decision-making knowledge were observed. Increased awareness of SDM through publication of the NICE guidelines,⁹ online training resources such as the Personalised Care Institute³² and the need for clinicians to demonstrate competencies in SDM in line with the Advanced Practice Standards³⁸ and FCP Roadmap³⁹ may explain these results. There were some questions that generated higher levels of incorrect answers, potentially highlighting particular training needs. In total, 46% of FCPs felt SDM increased the length of consultations, compared to only 20% of APPs. This possibly reflects FCPs' concerns regarding time management given that their consultation times were shorter than APPs.

In total, 37% of FCPs and 20% of APPs believed that using percentages (e.g., 10%) rather than natural frequency (10 in every 100) was better when explaining the risks and benefits of treatments to patients; however, it is recommended that percentages are avoided.⁴⁰ This concurs with a systematic review by Whiting et al.⁴¹ which suggested that healthcare professionals have poor understanding and interpretation of probabilistic risk. Hoffmann et al.⁴² also identified a need for greater numerical skills in a variety of healthcare professionals, including physiotherapists, and that training improved their risk communication. This has potential implications for health literacy as both patients and clinicians may misinterpret information, which could negatively impact decision-making. Hoffmann et al.⁴² suggest that decision support tools should include graphical aids that present numerical data simply to support clinicians' and patients' understanding, regardless of their numeracy level.

Critically, the use of a decision support aid does not necessarily mean that SDM has occurred,⁴³ nor is SDM dependent upon them.¹⁰ The current study found that 16% of APPs and 25% of FCPs believed that SDM had taken place if a patient decision aid (PDA) had been used. This misinterpretation is a further conceivable training need to ensure that clinicians do not simply regard SDM as a 'tick box' exercise. Furthermore, 16% of APPs and 13% of FCPs felt decisions should be based on evidence rather than patient preferences. This highlights the possible discord between EBP and PCC. A recognised limitation of EBP guidelines is that they do not always meet with

patients' views and expectations,⁴⁴ and clinicians may experience conflict when attempting to deliver both, and patient preference has been shown to influence treatment outcomes.⁴⁵

4.2 | SDM use

Collaborative decision-making was reported as the most widely used method of decision-making in clinical practice by both APPs and FCPs. This is in contrast to several previous studies involving physiotherapists which have demonstrated limited use of SDM and suggest differences in decision-making between traditional physiotherapy and AP roles. An online survey of German physiotherapists conducted by Topp et al.²¹ found that less than 30% of the 357 participants reported using SDM. However, a significant factor could be that, unlike in the United Kingdom, German doctors prescribe physiotherapy treatments; therefore, this lack of autonomy may prevent or, to some extent, negate the need for physiotherapists to utilise SDM. Dierckx et al.⁴⁶ conducted an observational study of 13 Belgian physiotherapists and demonstrated poor levels of SDM which was analysed using the OPTION scale.⁴⁷ The preference was for a paternalistic approach with clinicians making decisions in the patients' best interests.

Similar findings were also observed by Jones et al.²² who also used the OPTION scale to analyse patient interactions with 12 UK physiotherapists treating patients with low back pain. The OPTION scale is a validated 12-item measurement tool scored by two independent assessors and was initially developed to assess levels of SDM in GP consultations. However, it is not specific to physiotherapy or MSK conditions. It could be argued that physiotherapy consultations differ from those with GPs and should be evaluated using a physiotherapy-specific tool. Additionally, the consultations were all conducted in a single clinical setting rather than multiple sites and are therefore less generalisable to the UK physiotherapy population as a whole.

A qualitative study of treatment decision-making for shoulder pain conducted in Ireland⁴⁸ identified that healthcare professionals, including 13 physiotherapists, demonstrated limited patient involvement, with some regarding clinician-led decision-making to be advantageous. This was also observed by Grenfell and Soundy¹² as common physiotherapy behaviour in a systematic review of nine studies on patients' perspectives of SDM. Hoffmann et al.¹¹ conducted a survey of 372 Australian physiotherapists in which 60% of participants reported making decisions with their patients and 57% believed that this was how decisions should be made. Whilst these findings are more positive, the survey was not specific to MSK physiotherapists, and participants cited that a key barrier to SDM use was loss of revenue if patients chose not to have treatment. This highlights how factors such as healthcare models and culture may negatively impact SDM use. It is also important to consider that all of the above studies involved physiotherapists, who may not have acquired the necessary advanced interpersonal and communication skills that APPs or FCPs require to help them utilise SDM.



4.3 | SDM views

In contrast to the findings of Hoffmann et al.,¹¹ the current study identified some disagreement between how clinicians felt decisions should be made and how they actually occur. Whilst a collaborative approach was most widely used, opinions about how decisions should be made showed FCPs favoured even greater levels of patient autonomy than APPs, with 8% of APPs versus 42% of FCPs stating that patients should make the final decision after considering the clinician's opinion and 24% of APPs and 29% of FCPs stating that the patient should make the final decision without the clinician's opinion. It is possible that FCPs favour greater patient autonomy as they are able to offer patients a greater number of treatment options at the start of the MSK pathway, particularly with less chronic conditions. Conversely, patients seen in APP clinics may have exhausted conservative management in primary care and are therefore more likely to be contemplating surgical options. It is plausible that APPs give their opinions more frequently in response to patient expectations of being given advice from an expert or to help patients with decision hesitancy.⁴⁹

Whilst paternalistic behaviour was not commonly reported, it was only seen in the APP responses. This may relate to the historical origins of the APP role where specialist physiotherapy practitioners were trained and worked alongside medical colleagues in secondary care clinics.³ Consequently, some APPs may have adopted more paternalistic or authoritative behaviours, which are frequently demonstrated by medics.⁵⁰

4.4 | Barriers to SDM

Participants were asked to rate their opinions on a list of potential SDM barriers on a 5-point scale. An overwhelming majority (84% of APPs and 100% of FCPs) felt that a lack of patient education resources was a significant barrier to SDM. This suggests that currently clinicians do not access patient education information or decision aids either because resources are lacking or they are not well publicised. In 2022, NHS England published SDM tools to support clinicians and patients making decisions about the management of knee and hip osteoarthritis, carpal tunnel syndrome and Dupuytren's contracture.⁵¹ Additionally, a patient-focused charity published decision support tools to help people with back, shoulder, hip and knee pain⁵²; however, the findings from the current survey suggest these are not currently routinely used in APP and FCP clinics.

A Cochrane review⁵³ suggested that PDAs across a wide range of health conditions improved patients' understanding of risks and can lead to greater alignment of patients' expressed values and their choices. However, a systematic review by Bowen et al.⁵⁴ in 2020, which evaluated the use of PDAs with patients with chronic MSK pain, found limited evidence of their effectiveness. The review found that whilst PDAs increased patients' knowledge, patient satisfaction was not affected and there was no statistically significant difference in postsurgical outcomes in patients undergoing joint arthroplasty regardless of whether a PDA was used or not, thus calling into question their effectiveness in this patient group.

Over 60% of participants in the current study cited treatment pathways as a barrier to SDM. Increasingly, over recent years, NHS surgical pathways, particularly for hip and knee elective surgery, have seen greater 'rationing' through strategies such as 'health optimisation' or lifestyle management interventions to encourage eligible patients to lose excess weight or stop smoking.⁵⁵ The intended outcomes include a reduction in surgical procedures undertaken, reduced surgical complications and more favourable postoperative outcomes, yet McLaughlin et al.⁵⁶ found that changes in patient demographics seen after policy introduction suggest these policies may increase health inequalities.

Participants also identified clinical guidelines, or the evidence base as a barrier to effective SDM, particularly when these are at odds with the patients' preferences. This reflects concerns expressed in other areas of healthcare as identified by Mathijssen et al.⁵⁷ in their study exploring the knowledge, attitudes and experiences of healthcare professionals in the field of rheumatology and by Barber et al.⁵⁸ in a similar study with orthodontic practitioners, suggesting these barriers are not unique to advanced physiotherapy practice.

In total, 65% of participants either strongly or somewhat disagreed that time was a barrier; however, the responses to the subsequent open question, which allowed participants to enter free text, contradicted this to some extent, as did the knowledge assessment question about time, with 33% of participants believing that SDM increases consultation time. Lack of time is consistently one of the most commonly perceived barriers to SDM by healthcare professionals,^{59,60} yet a recent systematic review and meta-analysis of 63 studies found that use of SDM did not increase the length of medical consultations.⁶¹

In contrast to many other medical conditions, the treatment of chronic MSK disorders often involves several modalities simultaneously⁵⁴ thus SDM may require more time to discuss and consider multiple options. Another reason for this dichotomy in the current study's findings may be how the participants interpreted lack of time as a barrier to SDM, which is highlighted in the open responses. Some participants describe a lack of time for them to explain options to patients, whilst others describe a lack of time for patients to make a choice, and some cited a lack of time for them to access the evidence. The specific impact of time as a barrier to SDM implementation in AP may be better understood in the future with more in-depth analysis such as a focus group or semistructured interviews with clinicians and patients.

Another barrier cited by participants in the open responses was a lack of patient engagement, with patients preferring the clinician to give them their advice. In the United Kingdom and many other countries, patients participate in decisions about all aspects of their care; however, SDM may not be a universal imperative and varying levels of patient autonomy are observed in different social and cultural contexts with some cultures preferring healthcare professionals to make decisions in the patients' best interest.⁶² Additionally, some individuals may place greater value in building relationships and trust with their clinician over information and statistics to reach a decision.⁶³ Additional barriers to patient engagement may include poor health literacy, social or economic factors¹² or patients lacking confidence to challenge healthcare professionals' opinions.¹⁷

4.5 | Study limitations

It is important to acknowledge the limitations of this study when considering the findings. Nonprobability sampling and the limited number of self-selected participants mean that the findings may not be generalisable to the wider United Kingdom population of MSK APP and FCP clinicians. The total number of MSK APPs and FCPs working across the United Kingdom is unknown, so it is not possible to estimate the sample size or ascertain an overall response rate; consequently, nonrespondent bias may be present.⁶⁴ Additionally, participants were almost exclusively from England, with no participants from Wales or Northern Ireland, making the results less representative of UK-wide practice.

Only fully completed survey responses were included in the data analysis to allow for comparison between APP and FCP demographic data. Excluding incomplete responses in survey research amongst physiotherapists is common practice,²⁷ although it could be considered as selection bias as some participants' views have not been considered, meaning the reported findings are less representative of the target population.

Recruitment to the survey was through the social media platform Twitter and digital professional networks on The Chartered Society of Physiotherapy website, iCSP. It is possible that this method targeted those who actively engage in social media and professional networks whilst excluding those who do not. Inevitably, survey studies can be liable to response, social and agreement bias as individuals with an interest in the survey topic are more likely to respond.

Finally, self-reporting of SDM behaviours may not reflect actual behaviours which could only be accurately identified through observation of clinical practice. This would provide far greater insight and should be considered as part of future research but would require significant resources to conduct a large-scale study.

5 | CONCLUSION

SDM is of increasing significance to MSK healthcare delivery in the United Kingdom and AP physiotherapists are expected to engage in and demonstrate competency to deliver PCC. This sample of AP physiotherapists demonstrated high levels of knowledge and self-reported use of SDM, and they had generally favourable views of SDM and patient autonomy. Participants identified barriers to SDM in line with previous studies. The findings of this study identify areas where training may enhance delivery of SDM. Furthermore, it highlights the challenges faced in embedding changes in behaviours and attitudes of clinicians and patients and the need for on-going strategies at national, regional and organisational levels to optimise SDM in MSK AP.

AUTHOR CONTRIBUTIONS

Study conception and design: Joanne Thompson and Stephen Bailey.
Data collection: Joanne Thompson. *Analysis and interpretation of results:* Joanne Thompson and Jonathan Thompson. *Draft manuscript*

preparation: Joanne Thompson and Jonathan Thompson. All authors reviewed the results and approved the final version of the manuscript.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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