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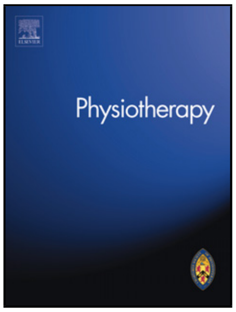

Title: Identifying Priorities for Physiotherapy Research in the UK: the James Lind Alliance Physiotherapy Priority Setting Partnership

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Identifying Priorities for Physiotherapy Research in the UK: the James Lind Alliance Physiotherapy Priority Setting Partnership

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ABSTRACT

Objectives:

To identify unanswered questions for physiotherapy research and help set and prioritise the top 10 generic research priorities for the UK physiotherapy profession; updating previous clinical condition-specific priorities to include patient and carer perspectives, and reflect changes in physiotherapy practice, service provision and new technologies.

Design:

The James Lind Alliance (JLA) Priority Setting Partnership (PSP) methodology was adopted, utilising evidence review, survey and consensus methods.

Participants:

Anyone with experience and/or an interest in UK physiotherapy: patients, carers, members of the public, physiotherapists, student physiotherapists, other healthcare professionals, researchers, educators, service providers, commissioners and policy makers.

Results:

Five hundred and ten respondents (50% patients, carers or members of the public) identified 2152 questions (termed “uncertainties”). Sixty-five indicative questions were developed from the uncertainties using peer reviewed thematic analysis. These were ranked in a second national survey (1,020 responses (62% were complete)). The top 25 questions were reviewed in a final prioritisation workshop using an adapted nominal group technique. The top 10 research priorities focused on optimisation (top priority); access; effectiveness; patient and carer knowledge, experiences, needs and expectations; supporting patient engagement and self-management; diagnosis and prediction.

Conclusions:

This study is currently the UK's most inclusive consultation exercise to identify patients'and healthcare professionals'priorities for physiotherapy research. The exercise deliberately sought to capture generic issues relevant to all specialisms within physiotherapy. The research priorities identified a range of gaps in existing evidence to inform physiotherapy policy and practice. The results will assist research commissioning bodies and inform funding decisions and strategy.

(Word count 248/ 250)

Identifying Priorities for Physiotherapy Research in the UK: the James Lind Alliance Physiotherapy Priority Setting Partnership

Key messages

- The paper identifies ranked research priorities for physiotherapy research in the UK.
- Describes the James Lind Alliance's (JLA) transparent methods and process for priority setting, designed to engage with key stakeholders in physiotherapy research, in particular clinicians, patients, their carers and members of the public.
- This is one of the first attempts at profession-wide priority setting using JLA methods. It has a broader scope than previous PSPs, many of which are disease-specific or treatment focused (with some containing specific priorities relevant to physiotherapy).
- The study assists in setting the UK physiotherapy research agenda for the medium term and informs funders of stakeholders' opinions, and researchers of the context and wider priorities.
- Impact of this approach to priority setting requires evaluation

Key Words

Physiotherapy, research priorities, co-production, consensus

Purpose

Physiotherapy, like all healthcare professions, needs to extend and update its evidence base to underpin clinical practice and demonstrate its role and value in contemporary healthcare. This project aimed to identify research priorities for the UK physiotherapy profession that engage research funders and researchers to develop the evidence in areas that matter most to patients, carers and clinicians and that are relevant to healthcare policy. Research priorities for the physiotherapy profession in the UK were last set in 2010(1) . We set out to update these priorities in order to include views of patients and carers, reflect changes in physiotherapy practice, service provision and new technologies. In contrast to previous priority setting which identified speciality- and condition-specifice priorities, our approach was to analyse all suggested priorities together and investigate the feasibility of identifying priorities relevant to all areas of physiotherapy. The James Lind Alliance (JLA) is a non-profit-making initiative, bringing multiple stakeholders together in Priority Setting Partnerships (PSPs) (2). These partnerships identify and prioritise "uncertainties", or "unanswered questions", about the effects of treatments and areas of healthcare that patients, carers and clinicians agree are the most important. PSPs aim to address what has been described as the mismatch between the treatments that patients and clinicians wish to see evaluated and the treatments being evaluated by researchers (3-5). In 2017 the Chartered Society of Physiotherapy (CSP) engaged with the James Lind Alliance (JLA) to establish a Physiotherapy Priority Setting Partnership (PSP) to identify generic research priorities for the physiotherapy profession in the UK.

Objectives

The study had the following objectives:

- To work together with a wide range of stakeholders including clinicians, researchers, patients and carers, funders, educators, support workers, students, service providers, commissioners and policy makers in the UK to identify and agree the most important uncertainties about physiotherapy.
- To agree by consensus with patients, carers and clinicians a ranked list of uncertainties for physiotherapy research, including the top ten uncertainties.
- To publicise the results and process of the PSP.
- To provide the results to research commissioning bodies in a way that helps inform physiotherapy research strategies and funding decisions.

Methods

Design

The project was managed by a research team at the Chartered Society of Physiotherapy (CSP), the professional body for physiotherapists in the UK and led by a multi-stakeholder steering group. A formal report and appendices are available online (6).

The study was initiated with an awareness meeting in January 2017 to promote the PSP to key stakeholders, identify steering group members and partner organisations, discuss the scope of the PSP and seek advice for engaging with the community. The steering group was responsible for agreeing the initial scope of the project, publicising the PSP, overseeing the collection and analysis of the priorities, dissemination of results and taking the final priorities to research funders. A senior JLA adviser (KC) chaired the steering group, advised on methodology and facilitated the final priority-setting workshop.

Partner organisations provided ongoing support to the PSP by promoting the project, encouraging their members to take part in each stage and disseminating the findings. The PSP was supported by 43 partner organisations - 15 universities, 10 CSP professional networks, 8 patient groups, 5 Trusts and commissioning groups, 4 research networks and one policy group (6: page 30).

The multi-stage JLA methodology 7) was used (Figure 1). In line with JLAprinciples, patients and carers were involved in the study not only as participants in the surveys and final workshop but also as members of the PSP steering group and as representatives of patient groups. Patients and carers were included in each stage of the study and engaged with decision-making, recruiting patients, reviewing and agreeing indicative questions, ranking of questions and disseminating results.

FIGURE 1 – to be inserted approximately at this location

Participants

As the PSP aimed to be inclusive, anyone living in the UK with an interest in physiotherapy was eligible to participate in the identification of uncertainties (Stage 1, Figure 1). Examples included: patients and/or carers who had experienced previous physiotherapy provision, members of the public, patients, carers, clinicians, researchers, research funders, educators, students, service providers, commissioners and policy makers. In line with JLA principles, only patients, carers and clinicians participated in the prioritisation stages (Stages 3 and 4, Figure 1).

Scope

Preliminary discussions and workshops were undertaken amongst lead CSP staff in Practice and Development, Policy and relevant CSP committees in relation to the scope of the project. Early feedback on the scope from the initial awareness meeting informed the Steering Group's discussions on the scope. A broad scope encompassing physiotherapy for any injury, illness or disability, in any setting for people of all ages was agreed with four key areas of focus - interventions, self-management, prevention and service delivery

The 4 stages are outlined below (see Figure 1):

Stage 1

Literature searches to identify uncertainties

As part of the scoping for the project, literature searches for two policy themes identified by the steering group as being relevant were undertaken (by RS) – search strategies are available in the PSP online report(6: appendices 1 and 2):

i. Developing and sharing models of good practice for reducing the burden on secondary care.

ii. Promoting good practice in primary care for people with multiple morbidities.

Initial Survey

The online questionnaire was developed in SurveyMonkey^{TM} and piloted by the steering group. The survey was open from May to July 2017. The questionnaire (available (8)) took approximately 15 minutes to complete, and was also available as a paper version. Four questions in relation to the areas of focus within the scope (interventions, self-management, prevention and service delivery) were included:

1) "What question(s) do you have about physiotherapy to help people recover and get back to their usual activities?
2) "What question(s) do you have about physiotherapy to help people manage their condition(s) themselves?"
3) "What question(s) do you have about physiotherapy to help people to improve their health and prevent disease and injury?"
4) "What question(s) do you have about how physiotherapy services are accessed and delivered?"

Questions could relate to any type of physiotherapy service; for any injury, illness, condition or disability; for people of any age. Demographic data was also requested.

A website was established to advertise the partnership and the online survey. Participants were recruited using convenience and purposive sampling in line with the JLA's inclusive approach (7). The partner organisations, steering group members and in the CSP promoted the survey through a range of advertisements to members in online and paper publications e.g. the professional magazine *Frontline*, social media, through professional and patient networks and in clinical settings. Interim demographic data about participants was provided to the Steering Committee in order to identify any groups that were felt to be under-represented. Targeted strategies were used to reach these groups and encourage participation.

Stage 2

Data analysis and verification of uncertainties

Survey responses were analysed using Thematic Analysis (9); individual responses were coded with similar codes being grouped together into themes. Indicative questions were created to represent similarly coded responses within the themes. RS acted as primary analyst, coding the questions, creating initial themes and identifying the indicative questions for review. During initial coding and theme development, JW, BON, BF and AL second coded approximately a third of the data to enhance consistency. GR peer reviewed all coded responses, themes and indicative questions. At regular intervals, data coding, theme development and indicative questions were discussed by the steering committee to refine the analysis. The steering group reviewed the indicative questions, to confirm that the final question set reflected the intent of the initial submitted questions.

Each indicative question was then checked against the existing evidence for physiotherapy. The literature, including Ovid (Pubmed), EBSCO (CINHAL), PEDro, NICE Evidence and Cochrane databases was searched by RS with assistance from the CSP's library and information service. A question was considered to have been addressed if it had been included in a recent (within 5 years) systematic review that concluded there was sufficient evidence to answer the question. Full search strategy details are in the PSP report (6: appendix 3)

Stage 3

Interim Prioritisation

A second national online survey populated with the indicative questions identified from stage 2 was open from November to December 2017. The survey was targeted to eligible participants (patients, carers and clinicians) following the same strategy used to promote the initial survey. In addition, participants from Stage 1 who had indicated they were willing to take part in in this stage were contacted. Participants were invited to select and then rank their top ten questions. The questions were presented in a random order to each participant to reduce the risk of bias.

Analysis

The results of the ranking by patients and clinicians were collated, thereby giving equal weighting to clinicians and patients, to form a ranked list of the indicative questions.

Stage 4

Final prioritisation workshop

The top 25 questions from the interim prioritisation were taken forward to a final prioritisation workshop, a consensus meeting held London in February 2018. Thirty participants (15 physiotherapists, 12 patients and 3 carers) were recruited through partner organisations and networks to take part. We aimed to include a diverse group in terms of their professional backgrounds, experience of health conditions, age and representation across the countries in the UK. A small number of steering group members and a representative from the National Institute for Health Research (NIHR) attended as non-participatory observers at the workshop.

Participants were divided into three equal-sized groups with a mix of physiotherapists, patients and carers. The groups were asked to rank the questions using an adapted nominal group technique (10) and guided discussion facilitated by three independent JLA advisors. The rankings were collated; the groups were then mixed and asked to rank the questions a second time. The aggregate ranking from the small group exercises was then discussed by the whole group to agree the final order of questions including the top ten priorities.

Results

Stage 1 – Identifying uncertainties

A total of 645 responses were submitted, of which 135 did not contain questions and were excluded, Out of the 510 included participants, 174 (34.1%) had received physiotherapy as a patient; 44 (8.6%)

identified themselves as carers; 36 (7.1%) members of the public with an interest in physiotherapy; 19 responses (3.7%) had been completed on behalf of someone else. Two hundred and thirty four (45.9%) identified themselves as physiotherapists working in clinical practice (categories were not mutually exclusive).

The majority (75%) of respondents were female and the mean age was 47 years (range 9 to 88). Most respondents lived across the UK (England (77%); Northern Ireland (10%); Scotland (5%); Wales (4.5%); Other (3.5%). Respondents described their ethnicity as: White (91%); Asian/Asian British (1%); Black/Black British (1%); Mixed/multiple ethnic groups (0.5%); Chinese or other ethnic group (0.5%) or preferred not to say (4.5%).

For full details about respondents see the final report (6: Tables 1-4, pages 16-17)

The 510 responses contained 2091 uncertainties. No additional uncertainties were identified from the literature searches.

Stage 2 – Analysis and Verifying uncertainties

The submitted uncertainties were collated and refined resulting in 2,152 uncertainties. This is because when some of the uncertainties were analysed they were composed of more than one uncertainty. Of these 2,152 uncertainties, 35 were considered out of scope. Following coding and theming, 15 broad themes emerged. Similarly coded uncertainties were developed into indicative questions producing 65 questions. The mean number of uncertainties underpinning an indicative question was 33 (standard deviation (SD) 48, range 1-255).

The secondary care search identified systematic reviews relevant for 8 of the indicative questions. Fifteen additional searches were undertaken which identified systematic reviews for a further 33 indicative questions (6: appendix 3). All of the systematic reviews showed that uncertainty existed.

Therefore, 41 of the 65 indicative questions were verified as uncertainties. The remaining 24 questions were discussed with the steering group and considered unlikely to have relevant systematic review evidence in their topics. Considering the available literature and the broad scope of each of the questions, the steering group agreed that all of the indicative questions were unanswered.

Stage 3 – Interim prioritisation

There were 1,020 responses to the survey, 636 (62%) were complete and could be used in the analyses; participant categories were not mutually exclusive: 490 (77%) identified themselves as physiotherapists working in clinical practice, others as patients (n = 68 (10.7%)), carers (n = 14 (2.2%)) and members of the public (n = 6 (1%)).

Respondents' mean age was 41.9 years (range 17 to 87); most described themselves as female (81%). Respondents lived in England (62%); Northern Ireland (25%); Scotland (7%); Wales (3%); Other (3%) and described their ethnicity as: White (94%); Asian/Asian British (1.7%); Black/Black British (0.2%); Mixed/multiple ethnic groups (1.4%); Chinese or other ethnic group (0.5%) or preferred not to say (2.5%). For full details (6: Table 5 page 19, appendix 4)

Ranking of questions

The separate rankings from the patient/carer and clinician groups were weighted equally and combined to form a ranked list of the top 25 uncertainties to take forward to the workshop in Stage 4. For the combined list of the 25 priorities taken forward, as well as the ranked list from the patient and clinician groups, see the Physiotherapy PSP final report (6: Table 6 page 20).

Stage 4 – Final prioritisation

The final top ten priorities (see Table 1 below) fall within six themes: optimisation of physiotherapy (top ranked question, underpinned by 18 uncertainties); access (three questions); effectiveness (three questions); patient and carer knowledge, experiences, needs and expectations; supporting patient engagement and self-management; diagnosis and prediction. The number of uncertainties underpinning each of the top ten questions ranged from 3 – 255.

Table 1 – to be inserted approximately at this location

Discussion

Our study identified a ranked list of uncertainties relating to physiotherapy in the UK that includes the top ten research questions. These uncertainties reflect the ambitious aim of the project to develop priorities for a profession which covers diverse specialisms delivered in multiple settings and potentially serves all groups in society across the life course. In addition, they address the key elements within the scope of interventions, self-management, prevention and service delivery and are relevant for contemporary healthcare and policy in the UK. The themes of the top 3 priorities are optimisation, effectiveness and access.

With patients, carers and members of the public forming half of the participants in the initial survey and equal weighting being given to them in the priority setting compared to clinicians, the methodology we used allowed patients and the public to contribute to setting the physiotherapy research agenda. The process was carefully monitored and overseen by the steering group consisting of multiple diverse stakeholders with a range of expertise and the independent JLA. The new priorities reflect moves to improve impact by wider stakeholder engagement, attempts to embed collaborative patient engagement in the coproduction of research ((11, 12) and a shift in thinking away from expert-led research agendas (13).

The well-established JLA methodology and philosophy add strength to the resulting top 10. A recent systematic rapid review considered this type of methodology to be “robust, strategic and aimed to promote equity in patient voices” (14).

Our approach to identifying broad generic priorities differs from the speciality- and condition-focused approach of the previous UK physiotherapy priority setting project (1). A significant strength of this approach was the removal of potential bias from overrepresentation of participants with a specific condition or area of expertise. It also allowed participants to fully engage with all of the priorities. The priorities not only focus on physiotherapy interventions but how services are delivered, self-management and prevention. Importantly, the priorities can be widely adapted and adopted by researchers and interpreted by research commissioners. Another advantage is that generic priorities are less fixed and prescriptive, allowing for the inclusion of new technologies or innovations.

Further work needs to be undertaken by researchers with relevant stakeholders to develop the priorities into specific research questions. They can be interpreted alongside other condition- and speciality-specific priorities and research recommendations. However, it is also important that researchers address the urgent need for evidence about physiotherapy for people with multiple physical and mental health conditions. Impact of this approach to setting the profession’s research priorities requires evaluation in terms of influencing research funding and uptake and development of the priorities by researchers.

Previous JLA PSP’s have typically been single condition- or issue-focused, many including recommendations for research into physiotherapy related to specific conditions, for example, stroke, multiple sclerosis, scoliosis and urinary incontinence (15). More recently, the scope of some PSPs has broadened to include a wide range of conditions (for example, ‘multiple conditions in later life’), as well as care settings (for example, ‘intensive care’) (16). The physiotherapy PSP was the first profession specific PSP. Recently, an adult social work PSP has identified their top 10 priorities and an occupational therapy PSP is underway (15).

The traditional purpose of JLA PSPs is to identify uncertainties about treatment effects. It is apparent from the scope and emerging priorities of more recent PSPs, for example, the palliative and end of life care PSP (15), that, how treatment and care are delivered is also important to patients, carers and clinicians. Expanding the scope of PSPs to encompass service delivery also identifies uncertainties relevant to healthcare policy. The JLA regularly reviews its principles and methodology. The physiotherapy PSP has the broadest scope to date and the methods we used to address the associated challenges is informing discussions about developing JLA approaches (2).

A limitation of this study is the low response from across the physiotherapy profession (with CSP membership of approximately 57000) despite wide publicity. The exception to this is Northern Irish respondents who demonstrated relatively high levels of engagement. The sampling method used in the last CSP priority setting exercise (1) was fundamentally different to the approach used in the current project and therefore we have no comparative data in relation to our response rate. Further work is needed to understand factors affecting physiotherapists’ engagement with research priority setting. However, appropriate representation from all key stakeholder and demographic groups is probably of more relevance than response rate in this type of large population study.

The proportion of patients, carers and members of the public declined markedly (50% to 14%) in the second survey although this would have been attenuated by the equal weighting given to the clinician and patient groups in the aggregated ranking. Participants in the workshop were selected with a view to gaining broad representation, within the constraints of feasibility and resources.

As a whole the participants predominantly described themselves as White; with males, members of Black, Asian and minority ethnic (BAME) groups and those in young and old age groups being under-represented. The questionnaire was available in a variety of formats to try to improve accessibility e.g. paper-based, Welsh language, but the impact of these on response rates is unclear and may not have accommodated the communication needs of all potential participants e.g. those with visual impairment or without English as their first language. Responses could be made by proxy, and a small number of participants took this option. Targeted strategies used to engage with networks for older and younger participants and BAME groups had limited success.

Underrepresentation of BAME groups is a recognised limitation of many of the JLA PSPs (2). Effective strategies have been suggested by the Type 2 Diabetes PSP (16). Previous disease-specific PSPs have had some success with enhanced models of engagement with people with complex health needs ("assisted involvement")(17). Further work on identifying and evaluating methodologies to improve engagement and participation among professional groups and populations which are labelled "hard-to-reach" (18,19,20) should be considered. Limited feasibility and resource limitations have been identified as challenges to engagement with all relevant stakeholders (14) and are likely to have played a part in our study. Some models of engagement may be more feasible in PSPs with a narrower scope.

Observers in the final workshop noted the subtle realignment of priorities during discussions in each group session which progressively led to agreement on the final ranking of the priorities. This is a key component of the JLA methodology that might be further researched to better understand and potentially enhance the steps in the consensus building process.

Conclusion

This study provides an opportunity for patients and carers, as well as clinicians and other stakeholders, to influence and guide the physiotherapy profession's research agenda in the UK. A focussed approach was used to agree the top ten physiotherapy research priorities out of 65 identified uncertainties. Using the JLA's established methods provided a unique perspective on the wide scope of physiotherapy practice in the UK and co-produced a prioritised list of generic research themes that encompass clinical practice, self-management, prevention and service delivery. These are flexible and can be further refined to produce specific research questions that are highly relevant to clinicians and patients. It is important that the impact of this approach to priority setting is evaluated.

Implications

The results will directly inform, guide and influence physiotherapy research funding, commissioning and decisions to produce evidence that matters to clinicians and patients. Other professional groups may be interested in our methodological approach to priority setting across a wide scope of practice. Common challenges around maximising engagement and representation of professional groups, patients and public should be tackled in future research.

Word count approx. 3,500

Conflict of Interest: The authors disclose no conflicts of interest.

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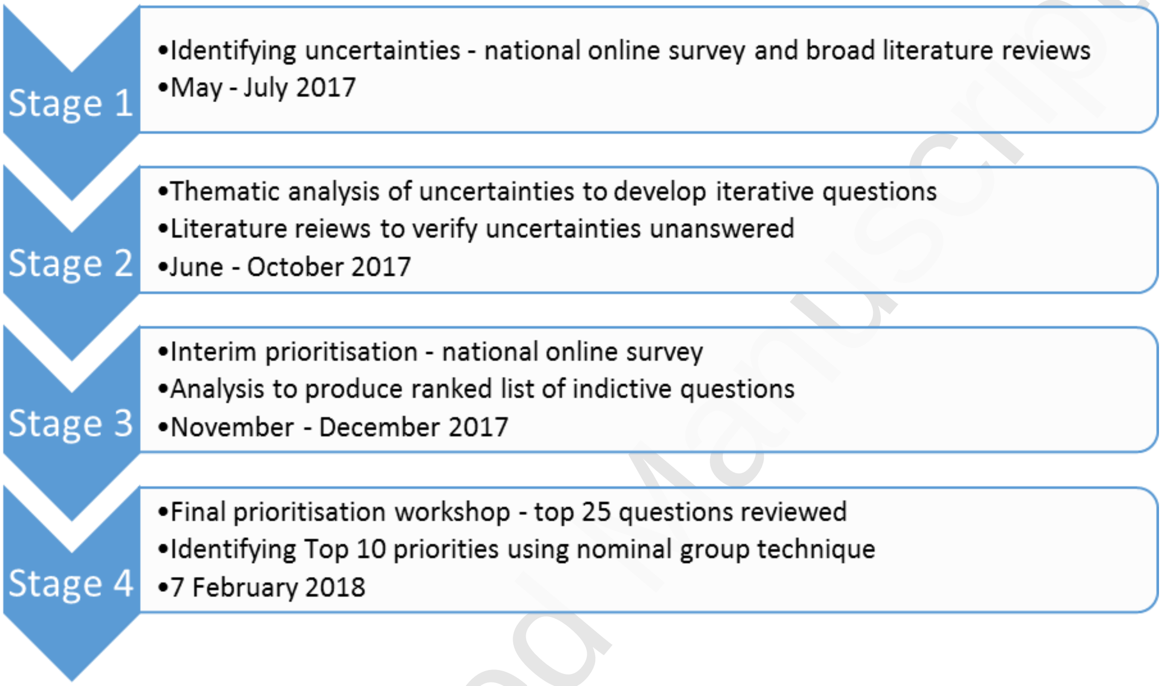
FIGURE 1

Overview of the 4 key stages of the James Lind Alliance methodology as applied to the Physiotherapy Priority Setting Partnership



Stage 1

- Identifying uncertainties - national online survey and broad literature reviews
- May - July 2017

Stage 2

- Thematic analysis of uncertainties to develop iterative questions
- Literature reiews to verify uncertainties unanswered
- June - October 2017

Stage 3

- Interim prioritisation - national online survey
- Analysis to produce ranked list of indictive questions
- November - December 2017

Stage 4

- Final prioritisation workshop - top 25 questions reviewed
- Identifying Top 10 priorities using nominal group technique
- 7 February 2018

Table 1 Physiotherapy priorities – Top ten priorities after final workshop

Rank	Priorities	Theme	Number of uncertainties
1	When health problems are developing, at what point is physiotherapy most/least effective for improving patient results compared to no physiotherapy? *What factors affect this?*	Optimisation	18
2	When used by physiotherapists, what methods are effective in helping patients to make health changes, engage with treatment, check their progress, or manage their health after discharge?	Effectiveness	190
3	What are the best ways to deliver physiotherapy services to meet patients' needs and improve outcomes for patients and services?	Access	255
4	To stop health problems occurring or worsening, what physiotherapy treatments, advice or approaches are safe and effective? *Where more than one treatment/approach works, which work best and in what dose?*	Effectiveness	34
5	What are patients' expectations regarding recovery, how do these compare to physiotherapists' views and, where recovery is not possible, how is this managed?	Patient & Carer knowledge, experiences, needs and expectations	15
6	How does waiting for physiotherapy affect patient and service outcomes?	Access	17
7	What parts of physiotherapy treatments cause behaviour change or physical improvement?	Effectiveness	3
8	What approaches are effective for enabling parents, relations or carers to support physiotherapy treatment or to help patients to manage their own health problem?	Supporting patient engagement and self-management	24
9	How is patient progress and/or the results of physiotherapy treatment measured? *How is service performance measured and checked?*	Diagnosis and prediction	11
10	How can access to physiotherapy be improved for groups who have reduced access?	Access	22