



## **Chartered Society of Physiotherapy Research Priorities Setting Project**

### **Research Team**

Principal Investigator: Professor Ann Moore, CSP Research Lead, Director Clinical Research Centre for Health Professions

Project manager: Dr Gabrielle Rankin, CSP R&D Adviser  
Sue Parroy, CSP R&D Adviser  
Ralph Hammond, CSP R&D Adviser  
Ruth Ten Hove, CSP Professional Adviser  
Laura Bottomley, NPRN Research Support Officer  
Pat Olver, CSP R&D Administrator

### **Abstract**

The Chartered Society of Physiotherapy (CSP) will undertake a research priorities identification project to establish the areas of physiotherapy practice which most urgently require research.

A modified Delphi methodology will be utilised and four expert panels will generate and gain consensus on priority topics.

The expert panels, Musculoskeletal; Neurology; Cardio-respiratory and medical rehabilitation; Mental and physical health and wellbeing; will encompass all fields of physiotherapy and include clinicians, researchers, educators, users, managers, commissioners, guideline panel members and policy makers.

The participants will fulfil criteria for Expert Panel membership and will be recruited through an open call and a targeted approach to individuals with specific expertise. Panel size will not be restricted, it is estimated that there will be 50 participants in each panel.

Three rounds of questionnaires are anticipated, round 1 will generate research topics and participants will prioritise topics in rounds 2 and 3 using prioritisation criteria and a 5-point Likert scale. Each round will be undertaken using a web based survey tool.

Content analysis will be used to categorise the topics generated in round 1 into themes. Mean rating, percentage agreement and coefficient of variation analyses will determine topics reaching a defined level of consensus. Kendall's coefficient of concordance will evaluate agreement across participants.

Panels will be developed in the first 3 months of the project and there will be 2 months between each round of the Delphi. The final analysis and project report will be published a year after the project start, followed by dissemination and a project evaluation at 2 years.

The short term likely impact will be funding, research undertaken and evidence base development in the prioritised areas of physiotherapy practice. In the long term, increased commissioning and delivery of clinical and cost effective physiotherapy services in the areas of greatest patient and public need.

## Introduction

Research priorities are established to address identified gaps and maximise emerging opportunities in developing an evidence base (Rushton and Moore 2010).

The Chartered Society of Physiotherapy (CSP) recognises the importance of regularly reviewing the evidence base for physiotherapy and ensuring that research continues to be undertaken in the areas of highest priority. Two previous research priorities setting exercises have been undertaken by the CSP (CSP, 1998 and 2002).

The evidence base for physiotherapy and the research capacity of the profession has increased substantially since the last priorities setting exercise. The CSP has therefore identified the need to re-evaluate key evidence gaps and opportunities for developing further evidence in another research priorities setting project.

The overall aim of the project is to strategically direct and maximise opportunities to develop the evidence base for physiotherapy practice, ensuring the involvement of service users and all other stakeholders throughout the project.

Physiotherapy practice is carried out within uniprofessional or multiprofessional contexts and is underpinned by all research involving or relevant to physiotherapy and is often developed in multi-disciplinary, multi-professional and multi-sector collaborations.

The evidence base encompasses relevant research findings emanating from all types of methodologies including experimental, laboratory based research, clinical studies, epidemiological studies, anatomical studies, normative studies, standardised data collection, qualitative studies, health services research, service delivery and pedagogic research.

Additional aims are:

- To identify the areas of practice most requiring evidence and to establish the stage of evidence development in these areas
- To identify and prioritise research topics using criteria which ensure the inclusion of patients' and service users' experiences and government priorities
- To influence and be informed by research funders, organisations undertaking evidence reviews/guideline development, government priorities and national research priority exercises
- To support and influence the CSP Charitable Trust and enable transparency of the Trust's funding and potentially access to more funding
- To inform and be informed by the CSP's Supporting Knowledge in Physiotherapy Practice project which develops guidelines and other evidence documents for the profession
- To steer CSP members in selecting research topics where appropriate, for example postgraduate and novice researchers
- To map priorities to government priorities, appropriate funding bodies and organisations undertaking evidence reviews, and to disseminate priorities to relevant organisations
- To facilitate research collaborations in areas of high priority and to maximise the profession's research expertise
- To maximise the profession's research expertise through collaborative working and to facilitate multi-disciplinary and multi-sector collaborations

## **Research approach and methods**

A modified Delphi methodology will be used to generate and prioritise research topics. Delphi is a consensus method used to determine the extent to which experts or lay people agree about a given feature.

The method overcomes some of the disadvantages often found with committee or group decision-making which can be dominated by individuals or coalitions representing vested interests. The key features of the method are anonymity, iteration, controlled feedback and statistical group response.

There are two aspects of 'agreement', the extent to which respondents agree with the issue(s) under consideration and the extent that respondents agree with each other (Jones and Hunter, 1995).

This method has been used to identify research priorities for postgraduate research in the field of musculoskeletal physiotherapy and utilised international expertise (Rushton and Moore, 2010). It has been used to investigate research priorities in other areas of healthcare (Cohen et al, 2004: Nathens et al, 2006: Marshall et al, 2007).

The Delphi process will be undertaken by four Expert Panels:

1. Musculoskeletal
2. Neurology
3. Cardio-respiratory and medical rehabilitation
4. Mental and physical health and well being

These four Panels will encompass all fields of physiotherapy practice.

The four Expert Panels will be recruited by four similarly named Steering Groups. The Steering Groups will meet once at the CSP to undertake selection of Expert Panel members. It is anticipated that all Steering group members will also wish to be Expert Panel members.

The Steering group meeting will be facilitated by members of the research team who have expertise and knowledge of the steering group and expert panel areas. Members of the research team have experience of working with users throughout projects and one member of the team has been identified to support user members on the Steering Groups and Expert Panels.

### **Ethical Approval**

The project has ethical approval from University of Brighton Faculty of Health & Social Sciences Research Ethics and Governance Committee

### **Data collection**

All data will be generated, collected and analysed electronically. Each round of the Delphi will be undertaken using web survey software.

Data will be collated using the survey monkey software and will also be exported in SPSS software (SPSS Inc., Chicago, Illinois) for further analysis. Data will be collected, stored and analysed by members of the project team using computers at the CSP.

It is anticipated that there will be 3 rounds of the Delphi. If necessary, a 4<sup>th</sup> round will be added to reach the agreed level of consensus and concordance. There will be up to eight weeks between rounds with one e-mail reminder each round.

#### *Round 1*

Expert panel members will be asked to identify up to 5 research topics. Panel members may use their own expert knowledge to identify topics or may choose to consult with colleagues for suggestions.

Panel members will be asked to consider the prioritisation criteria when identifying topics. Each suggested topic should be supported by a brief 1 or 2 sentence statement as to why it is important.

See Appendix 1 for prioritisation criteria

See Appendix 2.i for draft Questionnaire 1 Round 1

For each expert panel, all suggested topics will be collated and categorised into themes using content analysis. Two researchers in the project team will identify themes independently and then collate their analyses.

#### *Round 2*

Each panel member will receive feedback in the form of a list of the themed research topics with their supporting statements. Participants will be requested to rate the importance of each topic on a 5 point Likert scale (Kerlinger and Lee, 2000) utilising their expert knowledge, the supporting statements and the prioritisation criteria.

For their individually suggested topics, each panel member will be asked to indicate what type(s) of research is required to address the evidence gap. For example, basic science, clinical, applied clinical, qualitative, theoretical, service delivery, evidence synthesis.

See Appendix 2.ii for draft Questionnaire 2 Round 2

Analysis will identify those topics reaching the agreed level of consensus.

#### *Round 3*

Each panel member will receive feedback in the form of a list of the themed research topics reaching consensus with their supporting statements, type of research required and a summary of the whole panel's rating of each topic. Participants will be requested to rate each topic again.

Panel members will also be invited to make comments about the prioritisation process and asked to indicate if they would be willing to be involved in the dissemination part of the project and future prioritisation exercises.

See Appendix 2.iii for draft Questionnaire 3 Round 3

Provided that the agreed level of concordance is achieved, this will be the final round and all topics reaching the agreed level of consensus will be the prioritised topics.

## Project Timetable

Month	Component of research project
Month 1	Call for steering group
Month 3	Steering group selection
	Steering group meeting
Month 4	Invitations to joint Expert Panels
Month 5	Round 1 Delphi
Month 6	Round 1 Delphi
	Data analysis
Month 7	Round 2 Delphi
Month 8	Round 2 Delphi
	Data analysis
Month 9	Round 3 Delphi
Month 10	Round 3 Delphi
	Data analysis
Month 11 onwards	Final report
	Dissemination plan
	Implementation plan
	Evaluation
Month 24	Evaluation report

## Participants

The participants are the members of the four Expert Panels. They will be identified by four Steering Groups. It is anticipated that Steering Group members will also wish to be Expert Panel members.

### *Steering Groups*

There will be four Steering Groups

1. Musculoskeletal
2. Neurology
3. Cardio-respiratory and medical rehabilitation
4. Mental and physical health and well being

These four Groups between them will encompass all fields of physiotherapy practice.

Each Group will have a maximum of 12 members. At least one Steering Group member will be selected to represent the following areas of expertise:

clinical practice

research

education

management / service provision

service commissioning/planning/purchasing

policy making

guideline panel membership

user representation (users of physiotherapy services, charities and patient organisations)

The Steering group will meet on one occasion and the meeting will be facilitated by members of the research team who have expertise and knowledge of the steering group and expert panel areas.

Members of the research team have experience of working with users throughout projects and one member of the team has been identified to support user members on the Steering Groups and Expert Panels.

Appendix 3 Criteria for Steering Group membership

Appendix 4 Criteria for Steering Group user membership

### *Expert Panels*

There will be four Expert Panels

1. Musculoskeletal
2. Neurology
3. Cardio-respiratory and medical rehabilitation
4. Mental and physical health and well being

These four Expert Panels will encompass all fields of physiotherapy practice.

There will be no limit to the number of Expert Panel members. It is estimated that there will be 50 members in each panel.

Panel members will be selected for their specific expertise relevant to each Expert Panel's areas of practice. The Expert Panels will include, where relevant and possible, representatives from all 4 UK countries, from a range of patient groups, including paediatrics, women and men, working population and older people; and from a range of settings, including primary, secondary and tertiary care; independent hospitals and charities; private sectors, HEIs and social services.

The Expert Panels will also include a balance of expertise from clinical practice, research, education, user representation, management, commissioning, policy making and guideline panel membership.

Appendix 5 Criteria for Expert Panel members and Expert Panels as a whole

Appendix 6 Criteria for user Expert Panel members

User representatives will be offered payment and reimbursement based on recommendations made by Involve and the National Institute for Health Research.

<http://www.invo.org.uk/pdfs/NIHRGuidanceonpaymentstothepublicOct09.pdf>

Payment will be offered if user members are not in receipt of a full time salary from public funds and are both

- a member of the public who uses services
- being asked to provide a public perspective in the project

### Payment

£150 for attendance and preparation for the Steering Group meeting

£50 for taking part in all rounds of the e-mail Delphi questionnaire process

Other expenses: Out of pocket expenses for travel and carer support will be offered to ensure that Steering Group members do not end up financially worse off for taking part in the project.

## **Recruitment strategy**

### *Recruitment of Steering Groups members*

There will be an open call to CSP members for Steering Group members. Information about the project, the role of the Steering Groups and Expert Panels, membership criteria and the selection process will be placed on the CSP website.

CSP members will be directed to the website information by alerts posted on all regional and speciality networks of the CSP Interactive Website, CSP Interactive Website fortnightly bulletins, website e-bulletins and in the CSP's fortnightly magazine Frontline, distributed to all CSP members. Information will also be e-mailed out to all of the CSP's relevant networks and speciality groups.

A dedicated e-mail enquiry address has been set up [researchpriorities@csp.org.uk](mailto:researchpriorities@csp.org.uk) and a member of the project team identified who can be approached by telephone and who will contact anyone wishing to be contacted by telephone. This project team member is also experienced in dealing with enquiries from users and supporting users throughout projects.

Nominees will be asked to provide a brief CV and statement as to how they fulfil specified criteria. The CSP Research & Development committee in collaboration with the project team will select members of the Steering Groups according to how well they fulfil the criteria for steering group membership and the configuration requirements of each Steering Group.

Appendix 7 Website information

Appendix 8 E-mail alert

There will be a targeted approach for Steering Group representatives who may not be CSP members, in particular those with expertise in user representation, commissioning and policy making. The project team will identify and approach these representatives by networking with individuals and organisations who work collaboratively with the CSP. Individual user representatives will have worked with the CSP or members of the research team previously. In the first instance they will be contacted by the person known to them and if they are interested in taking part in the project, they will be asked to give consent for their contact details to be given to the project team. User organisations will be approached using contact details available in the public domain. The project team will ensure that representatives fulfil the required criteria and targeted representatives will not be required to take part in the selection process.

Additional Steering Group members may be targeted by the research team if gaps in the Steering Groups expertise are identified following the initial selection process.

### *Recruitment of Expert Panel members*

The Steering Groups will meet on one occasion to suggest and agree potential Expert Panel members who are known to have relevant expertise and fulfil the criteria for expert panel membership. They may suggest individuals or relevant Clinical Interest and Occupational Groups, research groups, user groups or networks to approach. The Steering Groups will also ensure that their suggestions as a whole fulfil all the Expert Panel Criteria.

The project team will facilitate workshops for each of the Steering Groups on the meeting day. The facilitators will ensure that Expert Panel criteria are understood and adequately fulfilled. They will also ensure that all Steering Group members are given adequate opportunity to make suggestions and express views. One member of the project team will be identified and available at all times to provide support to user representatives.

Following the Steering Group meeting, potential Expert Panel members will be contacted by the project team or Steering Group members to explore their willingness to be involved and to gain their consent to participate. User representatives will initially be contacted by the Steering Group member known to them. They will be asked to give consent for their contact details to be given to the project team.

### **Participant information and consent procedures**

Written participant information will be e-mailed to potential participants and appointed Expert Panel members. The information informs participants of their right to withdraw from the project at any stage.

A dedicated e-mail enquiry address has been set up [researchpriorities@csp.org.uk](mailto:researchpriorities@csp.org.uk) and a member of the project team identified who can be approached by telephone and who will contact anyone wishing to be contacted by telephone. This project team member is also experienced in dealing with enquiries from users and supporting users throughout projects.

Informed consent will be assumed through the participant's decision to complete and return each questionnaire.

Appendix 9 Participant information

Appendix 10 User participant information

### **Analysis**

#### *Round one:*

Each Panel Member will suggest up to 5 research topics. These will be analysed qualitatively using content analysis to derive topic themes (Silverman, 2004). This analysis will be undertaken by two members of the project team independently initially and then collating their analysis.

#### *Round two*

Expert panel members will rate the importance of each suggested research topic on a 5 point Likert scale (Kerlinger and Lee, 2000).

For each suggested research topic the mean rating, percentage agreement and coefficient of variation (CV) will be calculated. The level of consensus will be established as a mean rating of 3.5, percentage agreement greater or equal to 75 % and CV less than or equal to 20 % (Foster et al, 2009; Rushton and Moore, 2010). Kendall's coefficient of concordance will evaluate consensus across all participants (Cross, 1999; Sim and Wright, 2000).

#### *Round three*

Participants will rate the topics reaching consensus a second time using the same Likert scale. Consensus will be established as for round two.

A composite scoring procedure will provide an order of priority of topics (Smart, 2010).

Composite score = (n SA x 5) + (n A x 4) + (n NO x 3) + (n D x 2) + (n SD x 1)

where n = the number of respondents, SA = strongly agree, A = agree, NO = no opinion, D = disagree and SD = strongly disagree.

The analysis from Round three will identify and rank the most prioritised physiotherapy topics requiring research.

Analysis will be undertaken using SurveyMonkey software and SPSS (SPSS Inc. Chicago, IL, USA)



## **Potential outcomes / impact of the research**

The areas of physiotherapy practice which most urgently require more research and evidence will be identified.

Prioritised topics will be published on the CSP website and also disseminated through a variety of other publications adapted to the different stakeholders of the project.

Members of the Steering Groups and Expert Panels will be asked to assist the project team in identifying topics which are appropriate for specific funding programmes, for example, National Institute for Health Research Health Technology Assessment, Service Delivery and Organisation and Research for Patient Benefit programmes. Supported by the project team, they will be encouraged to develop research questions and supporting statements for the most highly prioritised topics.

The status of the prioritised topics will be regularly updated on the CSP website, for example, how each topic has been disseminated. Researchers will be encouraged to inform the project team if they are undertaking a study in any of the prioritised areas of practice and provide details of any resulting publications.

### ***Expected short term impacts***

Research funders provided with increased awareness of physiotherapy research priorities possibly resulting in increased potential for funding of prioritised topics.

CSP Charitable Trust funding for prioritised topics

Evidence reviews and guidelines being developed in prioritised areas including reviews supported by the CSP through its Supporting Knowledge in Physiotherapy Practice (SKIPP) programme

Focus provided for researchers, in particular undergraduates, postgraduates and novice and experienced researchers. Regular updating on the status of the prioritised topics will facilitate a more coordinated development of the evidence base for prioritised topics

An increase in research collaborations between those involved in the project and an increase in the number of successful funding applications in prioritised areas

### ***Expected long term impacts***

An increase in the evidence base in the prioritised areas of physiotherapy practice

Physiotherapists providing the most clinically and cost effective services in the areas of greatest patient and public need.

An increase in the commissioning of clinically and cost effective physiotherapy services in the areas of greatest patient and public need

An increase in the provision of clinically and cost effective physiotherapy services in the areas of greatest patient and public need

## **References**

- Cohen M, Harle M et al. Delphi survey of nursing research priorities. *Oncology Nursing Forum* 2004 31 1011-1118
- CSP. Priorities for physiotherapy research in the UK: project report. Chartered Society of Physiotherapy 2002
- CSP. Priorities for Physiotherapy Research 1997 Chartered Society of Physiotherapy 1998
- Cross V. The same but different: a Delphi study of clinicians' and academics' perceptions of physiotherapy undergraduates. *Physiotherapy* 1999 85(1) 28-39
- Foster NE, Dziedzic KS et al. Research Priorities for non-pharmacological therapies for common musculoskeletal problems: nationally and internationally agreed recommendations. *BMC Musculoskeletal Disorders* 2009 10 (3) doi:10.1186/1471-2474-10-3
- Jones J and Hunter D. Consensus methods for medical and health services research. *BMJ* 1995 331 376-380
- Kerlinger FN and Lee HB. *Foundations of behavioural research*. 4<sup>th</sup> ed. Fort Worth, Harcourt College Publishers 2000
- Marshall A. Research priorities for Australian critical care nurses: do we need them? *Australian Critical Care* 2004 17(4) 148-150
- Nathens A, Cook C et al. Defining the research agenda for surgical infection: a consensus of experts using the Delphi approach. *Surgical Infections* 2006 7 101- 110
- Rushton A, Moore A. International identification of research priorities for postgraduate theses in musculoskeletal physiotherapy using a modified Delphi technique. *Manual Therapy* 2010 15(2) 142-148
- Sim J and Wright C. *Research in health care*. Cheltenham: Stanley Thornes Publishers Ltd 2000
- Silverman D. *Qualitative research*. 2<sup>nd</sup> ed. London Sage Publications 2004
- Smart K, Blake C et al. Clinical indicators of 'nociceptive', 'peripheral neuropathic' and 'central' mechanisms of musculoskeletal pain. A Delphi survey of expert clinicians. *Manual Therapy* 2010 15 (1) 80-87