EUROPE REGION
World Confederation for Physical Therapy

Promoting Research and Research careers within Physiotherapy in Europe – Briefing paper

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PROMOTING RESEARCH AND RESEARCH CAREERS WITHIN PHYSIOTHERAPY IN EUROPE – BRIEFING PAPER

European Region of the World Confederation for Physical Therapy (WCPT)

CONTENTS

PURPOSE

The purpose of this briefing paper by the European Region of the World Confederation for Physical Therapy (ER-WCPT) is to promote and support research and careers in research in physiotherapy in order to contribute to development of the profession in the European region, and to inform Member Organisations (MOs) and others about relevant key issues. As a "briefing paper" within the context of the World Confederation of Physical Therapy (WCPT; see Glossary) it provides a description and analysis of the situation, policy dimensions and implications, and includes suggested recommendations for action.

The specific purposes of the document are threefold:

- To promote and reach a common awareness in the European countries of the importance of conducting research in physiotherapy, the strong links between high quality physiotherapy research, education and clinical practice and about the current state of the physiotherapy evidence base in the international arena. This is in line with the WCPT's policy statement of research and on evidence based practice (see References).
- To set out a position of belief on this topic and stimulate a creative climate and culture across Europe favouring development in physiotherapy research.
- To present recommendations regarding the role of the ER-WCPT and the Member Organisations in promoting and supporting research and research careers within physiotherapy.

INTRODUCTION

Physiotherapy[1] is both an academic and a vocational discipline. The WCPT has adopted the "Description of Physical Therapy" (1999, last revised 2011) to have a common international platform for the profession. WCPTs description states that physiotherapy should be based on specific knowledge, academic education and autonomous professional responsibility aimed at the best possible service for the individual and society. Physiotherapists work with people to identify and maximise their ability to move and function Physiotherapy provides services to individuals and populations to develop, maintain, restore and enhance health and prevent disease throughout the lifespan. This includes providing services in circumstances where

[1] Physiotherapy and physical therapy will be used throughout the document interchangeably.

movement and function are threatened by ageing, injury, disease or environmental factors. Functional movement is central to what it means to be healthy. Physiotherapy plays a key role in enabling people to maximise their quality of life and movement potential within the spheres of promotion, prevention, treatment/intervention, habilitation and rehabilitation. This encompasses physical, psychological, emotional, and social well being. Physiotherapy involves the interaction between physiotherapist, patients/clients, other health professionals, families, care givers, and communities in a process where movement potential is assessed and goals are agreed upon, using knowledge and skills unique to physiotherapists (WCPT 2011). The foundation for this process should rest on evidence based physiotherapy/evidence based practice (EBPT), which constitutes the combined result of research, clinical experience and the opinion of the patient/client.

Concepts of research used in the present document

Research may be defined as a scientific systematic search of knowledge, which best generates new knowledge that possibly might be transferred into practice (cf. Graham et al 2006). Scientific research relies on the application of scientific methods and therefore requires education and training. A researcher in physiotherapy, as in any other field, is defined as a person with recognised academic qualifications such as a doctorate from a higher educational institute/university, and who is affiliated to a university or research institute that is conductive to research. This institute also supports and guarantees the ethical approval, which is required to conduct research on human beings. Research undertaken by physiotherapists complies with the ethical and governance requirements of the county in which the research is conducted. Physiotherapy researchers follow research ethical standards such as The Declaration of Helsinki (1964, updated in 2008 6th revision). The declaration was developed by the World Medical Association, as a set of ethical principles for the medical community regarding human experimentation, and is widely regarded as the cornerstone document of human research ethics (WMA 2000). There are also other relevant international organs and instruments to consider, such as the Council for International Organisations of Medical Sciences (CIOMS) or others listed on the WCPT website (http://www.wcpt.org/node/29666#Ethics).

Physiotherapists should be mindful of the need to depend on research and evidence to achieve and maintain their licence of practice and to evaluate their own work. In addition to reading research reports to inform clinical practice, the individual physiotherapist should be able to generate new ideas from clinical experience and observations that could be transformed into new knowledge that is scientifically based and becomes evidence based

practice. It is in the best interest of the MOs to support such a development, to stimulate fruitful collaboration and facilitate communication between physiotherapists who conduct research and those who don't, in order to interest and engage physiotherapists in general in research, although it is not an end goal that all physiotherapists should become researchers.

WCPT Policy Statements on Research and on Evidence Based Practice

The MOs of the ER-WCPT have adopted the WCPT Policy Statement on Research and the Policy Statement on Evidence Based Practice (2011, see References). The former emphasises the generation of evidence through research as essential to the development of evidence based practice in physiotherapy. It states that the physiotherapist shall "advance the science of physiotherapy by conducting and/or supporting research activities or by assisting those engaged in research", and that "the physiotherapist recognises research as an integral part in the continuing growth and development of the profession". The policy also emphasises that "the physiotherapist conducting a research project has sufficient knowledge of research principles and methodology and adheres to international standards for performing research on human subjects". The policy on evidence based practice states that physiotherapists have a duty and responsibility to use evidence to inform practice and to ensure that the management of patients/clients, their carers and communities is based on the best available evidence. Evidence is scientific knowledge integrated with clinical experience and patient opinion, taking into consideration beliefs and values and the cultural context of the local environment. In addition, physiotherapists have a duty and a responsibility to avoid the use of methodologies, techniques and technologies that have been shown to be ineffective or unsafe.

Relevance of research for the development and legitimacy of the profession

Research is fundamental in supporting the development of physiotherapy and it should be conducted in close connection with education and clinical practice, to ensure the relevant development of knowledge in physiotherapy and thus this will result in the best possible health care for the patient. This paper is a first step in making recommendations to the MOs regarding the role of the ER-WCPT to highlight principles and encourage processes that promote research in the field of physiotherapy in Europe. Research in physiotherapy is essential for the profession to develop and to remain an independent, autonomous profession with its' own knowledge base, this will lay the foundation for professional practice.

EDUCATION, RESEARCH, DEVELOPMENT AND INNOVATION IN THE EUROPEAN HIGHER EDUCATION AREA (EHEA) AND EUROPEAN RESEARCH AREA (ERA)

The Bologna Declaration (See References) recognises that the relationship between higher education, research and innovation has an impact on creativity in society. Higher education in Europe should be based on basic and applied science (Leuven communiqué 2009). High quality of undergraduate physiotherapy education is a prerequisite for the development of research. This is highlighted in *"The Education Policy Statement of ER-WCPT"* (cf. WCPT guideline on entry level education and Policy statement on education). Research methodology and research knowledge should be included at all levels of education (Fig 1) and not only in the third cycle (doctoral level). They are equally as important in the first cycle according to Bologna undergraduate level (bachelor) and the second cycle advanced level (master).

Physiotherapy education needs to be based within Higher Education Institutes in order to provide opportunities for research training and career pathways progressing to professorial levels. In almost all countries in Europe physiotherapy is part of higher education and the programmes are provided at university level. Nevertheless, there is heterogeneity of the educational systems across Europe. Some countries are still striving for full transition of all of their educational programmes in physiotherapy into the Higher Education institutes. Therefore, there are different opportunities for physiotherapists to pursue an education in research and to carry out research. An important role for the ER-WCPT is to work with the MO's to support the process of incorporating physiotherapy education into the university level and to strengthen this position in academia. This is an important and necessary step in building research environments and a prerequisite for evidence in physiotherapy implemented on common grounds and in an equal way across Europe. An established academic position of physiotherapy in all European countries is in line with promoting inclusion and mobility across nations in order to develop research and stimulate research career pathways in a way that is called for within the European Union and emphasised by the ministers responsible for Higher Education (Leuven Communiqué 2009). The university as the base of physiotherapy education ensures the possibility of doctoral programmes in physiotherapy resulting in PhDs, which are fundamental for a research career. Further, it is important that there are full professors/established researchers in physiotherapy at the European universities in order to develop research environments in which one may address research questions central to the field and the profession. Through independent research in physiotherapy in a wide range of topics (see below), the profession may demonstrate and

improve what clinical practice in physiotherapy can offer to the patients but also serve on different societal levels to promote health and well being.

WCPT recommends that the minimum entry-level for physiotherapy education should be university level studies of a minimum of four years, independently validated and accredited as being at a standard that affords graduates full statutory and professional recognition. As outlined above, there may however be variations across Europe in programme delivery and in entry-level qualifications, including Bachelors/Baccalaureate/Licensed or equivalent, Masters and Doctorate entry qualifications (WCPT Policy Statement on Education, 2011, and WCPT guidelines on entry level education and cf. The Education Policy Statement of ER-WCPT). A four year first cycle as entry level is implemented in several European countries or as in the United States where the clinical Doctorate of Physical Therapy (DPT) has been adopted in almost all of the educational programmes. In Europe, this implies a basic education at the advanced/Master level (five years). Separate courses at the master level should nevertheless still be an option and for physiotherapists with exams from previous educational systems earlier in use, and who therefore would like to upgrade their qualifications. Efforts need to be made to lengthening/upgrading with regard to quality the education in physiotherapy in line with the intention of the Bologna process. This is necessary in order to be able to incorporate all the competences that are needed to achieve a state-of-the-art physiotherapy qualification underpinned by research to meet the needs of the population, and to be able to stand out amongst other professions. A range of education programmes need to be considered to allow for the development of a variety of clinical, academic and research career pathways as well as combined pathways such as clinical academic roles.

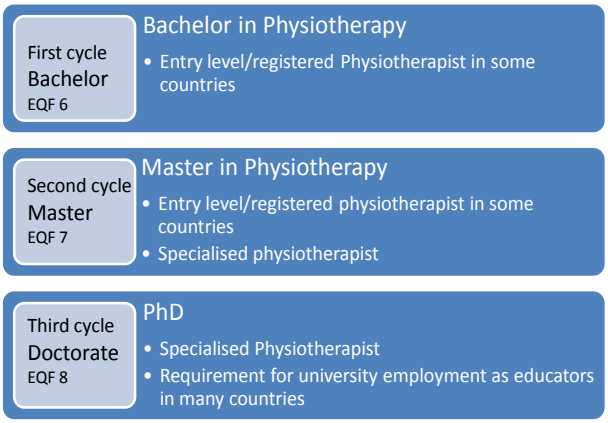

Fig 1. Schematic overview of levels of education and corresponding qualifications which may vary across nations. Levels indicated according to the European Qualification Framework (EQF).

A way to facilitate an early research career may be to promote master programmes that are more focused on developing research methodology and to pursue the route of a research career. Strengthening the relationship between research, teaching and innovation is also important in a perspective of lifelong learning. Universities' research and innovation missions can be strengthened through lifelong learning strategies, and universities' specific contribution to lifelong learning should be underpinned by research. Researchers should also be recognised as good examples of lifelong learners whose own educational needs are continually evolving, and taking account of the changing skills required by the labour market. Lifelong learning can also be a source of new research methodologies and topics (European Universities' Charter on Lifelong Learning, European University Association).

The concept of the PhD degree, research training under supervision is referenced to in the third cycle in the Bologna process. However, the core component of the third cycle is the advancement of learning *through* original research which makes the third cycle different from the previous two. The possibilities for physiotherapists to obtain a PhD degree is linked to the level of basic training, and therefore it is important that the quality of physiotherapy education is high and transparent in the first two cycles; also to facilitate mobility of students and teachers between universities (Orpheus Standards for PhD education in Biomedicine and Health Sciences in Europe).

Increased internationalisation and interaction within higher education and research mean that there should be support for global collaboration. This is seen as important for sustainable

development and for the consensus of the relevance of physiotherapy actions across different cultural and social contexts. Exchange of international researchers, educators and students between institutions is therefore encouraged. The European goal has been set that 20% of the students would pursue part of their education outside their own country (Leuven Communiqué, 2009/2011), and a number of EU programmes exist to support teacher and student exchange between higher education institutes across Europe. Such interaction also facilitates common European efforts. A good example is The European guidelines promoted by the Guidelines International Network (GIN) that provides important actions points with a strong impact on clinical treatment (see References).

Health policies and European framework as a background for research priorities in physiotherapy

Research in physiotherapy in Europe should be conducted with reference to national strategies for research and development in each country but also to the EU's Research and Innovation Strategy for Europe and in line with the EU Health strategy and Health Programme. The latter focuses on the major societal challenges such as climate change, energy efficiency, health and ageing or resource efficiency. The ambition of the Common Strategic Framework (EU Green Paper, see References) to bring research and innovation closer together, aims to enhance the impact of EU funding, and places it close to societal challenges. The EU and WHO have identified for Europe as for most of the world, the global health problems related to life style and/or lack of physical activity i.e. the Non Communicable Diseases (eg, heart disease, stroke, cancer, asthma, diabetes, chronic kidney disease, osteoporosis, Alzheimer's disease etc.) as a growing area. These are important fields of research. Current development trends that influence the science of physiotherapy and the profession are its globalisation, the demand for EBPT including the financial costs of the care and the changing view of health, disease and impairment of function. These issues together with the changes in the panorama of the public health (cf. The Steps report 2011) and an ageing society imply an increased need for physiotherapy research and the interventions that it may bring to maintain health, to treat and rehabilitate patients/clients with impairment, activity limitations or participation restrictions (see ICF, References), and with respect to gender and innovation (EU report 2011). An important challenge that faces the profession and one where physiotherapists have a particular role and responsibility (based on professional competence) is to stimulate physical activity for all kinds of clients and thus prevent a sedentary lifestyle, i.e. primary prevention. Physiotherapists also have a role to play in the broader public health agenda, and within

occupational health. Keeping the workforce healthy or getting people back to work and as early as possibly following any form of incapacity is essential to improve the overall quality of health, reducing health care costs and decreasing the economic burden of days lost from work.

Physical activity is one of the major determinants of health (Pedersen & Saltin 2006; National Institute of Public Health 2010). As indicated above, lack of physical activity is associated with the development of many large non-communicable diseases such as cardiovascular disease (Sattelmair et al 2011; Warren et al 2010), some cancers (Katzmarzyk et al 2009), overweight (Hills et al 2011) and type 2 diabetes (Borghouts & Keizer 2000) . Physical inactivity is a global health issue and a major concern for all societies. Physical activity is understood as any bodily movement that results in energy expenditure above resting level. Health enhancing physical activity is an area where professionally trained physiotherapists are well equipped to engage in interventions, policy planning and research. Interventions should be planned both for specific groups of patients but also for the broad public. Physiotherapists do not appear so far to have been so involved in policy making, even though they possess the specific knowledge about human movement and physical activity. Research on pro-motive and preventive physical activity involves a wide range of methods and includes possibilities for collaboration with other professional groups, such as in the field of disability and rehabilitation, complex interventions and human resource planning (Dean 2009a,b). Identifying research priorities may be fundamental in trying to influence research funders as well. The Chartered Society of Physiotherapist in the UK has recently performed a research priority exercise that identified and listed top priorities in the fields of Musculoskeletal disorders, Neurology, Cardio-respiratory and medical rehabilitation and Mental and physical health and well being (See References). The range of prioritised topics illustrates how the evidence base for physiotherapy has developed and continues to develop. In addition to clinical effectiveness, other key priorities relate to how services are delivered, e.g. seven day services, cost effectiveness and value of physiotherapy, public health including physical activity and behaviour change, facilitation of return to work and outcome measurement.

Progress of research in physiotherapy

Physiotherapy research is not so much in its infancy, yet it is still in its youth. The first scientific publications emerged in the early part of the 20th century. The first scientific randomised controlled trial (RCT) was reported in the year 1929 (according to Maher et al

2008). There is a consensus that physiotherapy should be based on evidence (CSP Research development group 1996, WCPT: http://www.wcpt.org/policy/ps-EBP). The profession has recently had a very strong development in the scientific knowledge base, largely through increased access to research education within the profession and thereby also increased possibilities for funding. Systematic reviews and evidence-based clinical practice guidelines of relevance for physiotherapy took off in the 1990s and with an exponential increase in the first decade of this century (Maher et al 2008). Electronic retrieval of health information may certainly assist in improving the clinical practice (McGowan et al 2009) and the four most comprehensive databases of trial reports evaluating physiotherapy interventions are CENTRAL, PEDro, PubMed, and EMBASE (Michaleff et al 2011). There is also an ongoing discussion into how and by which means individuals may interpret the results presented in systematic reviews and put them into practice (Elkins et al 2010). The number of randomised controlled trials within physiotherapy has increased substantially over the last few years as indicated in the data base Pedro (Fig 2; and cf. Maher et al 2008; Cigna et al 2009). It is important to have high level RCTs in order to provide evidence and with the result that appropriate recommendations for physiotherapeutic treatment in national and international clinical guidelines are implemented. There are to date more than 1100 clinical guidelines posted on PEDro.

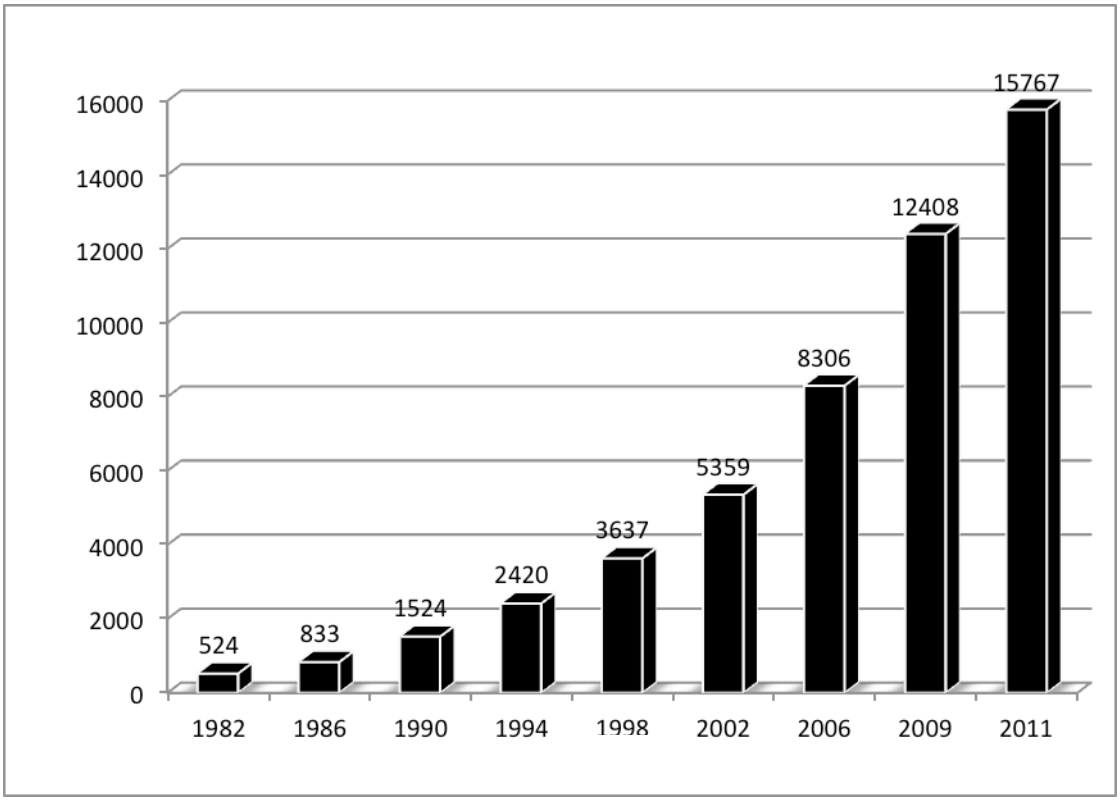

Fig 2. Number of RCT studies of relevance to physiotherapy over the recent years, taken from PEDro, Physiotherapy Evidence Database.

An increasing number of physiotherapists have engaged in research during the last decades and their research projects have addressed a wide area ranging from basic research to clinical questions. In order to obtain research competence, physiotherapists often study within other academic disciplines and often with supervisors who are not physiotherapists in order to become independent researchers. This is of course important and should continue but there is also a strong need of further developing physiotherapy research areas in close connection to the clinical questions and implementation practices where supervisors and projects emerging from a physiotherapy research environment would be more appropriate.

Disseminating and implementing the research knowledge

It is a challenge to implement research evidence into day to-day practice. There is no single factor to facilitate change in clinical practice but multiple practice change strategies will be needed (Bridges et al 2007). The need for all physiotherapists to be critical consumers of research is recognized together with the importance of the organisation and management to develop conditions favourable for an evidence-based profession. These are important stepping stones to reach high quality clinical research that require further development. For instance, there is a shortage of positions for physiotherapists with a research background in the clinical settings as well as in public health areas. This is also true for positions where clinical and research work is combined to create a research culture involving colleagues.

Another reflection of the development in research in physiotherapy is the ever growing scientific international congress of WCPT that has been held every fourth year since 1953 and in 2011 held its 16th congress in Amsterdam. In 2011 there were almost 5, 000 physiotherapists, a 44,8 % increase compared to 2007 and in addition a 30 % increase in the number of abstracts submitted. In 1951 there were 11 founding member organisations of WCPT, which has now grown to 106. WCPT established an international scientific committee prior to the congress in 2003 to improve the scientific quality of the congress and standards have been raised. In Amsterdam there were delegates from 113 countries, not all countries have a member organisation belonging to WCPT. At the congress 2011 there were delegates from 39 European region MOs. Notably there are of course several reasons that might explain the participation, e.g. location, research activity in the profession, increased desire/status associated with presenting at a WCPT congress etc. The increased engagement with the congress demonstrates that research dissemination and exchange are vitally important and that peer-review, networking and collaboration vital to sustaining research efforts and EBP. While scientific presentations at international meetings are part of

the scientific process of publishing papers, there is a debate on the scientific value of congresses in terms of bringing about change in clinical practice.

The ER-WCPT organises a scientific congress in physiotherapy education every fourth year. It was launched in Estoril, Portugal in 2004, held in Stockholm in 2008 and will take place in Vienna in 2012 with an increasing number of participants from not only from within Europe but also outside. This is an important meeting point for educators, clinicians, stakeholders and researchers dedicated to professional development.

Research methodology and type of studies

Utilising research methods to evaluate the cost of physiotherapy service, how they are delivered, outcome measurements and collection of data in routine practice is becoming increasingly essential. Despite the fact that RCTs remain the gold standard for evidence of efficacy of treatments, it is important to promote a wide range of research methodologies, both qualitative and quantitative in order to strive for evidence based physiotherapy/evidence based practice. Very useful information for EBPT may be provided by observational studies and well carried out case reports (cf. Concato, 2004). There is also a need for research regarding specific and sensitive outcome measures customised for different conditions of decreased health, and of evaluation of measurements including how they are used and interpreted in various groups of patients. It is thus important that physiotherapy is positioned within the research contexts for different scientific approaches: applied, natural and social inquiries. Physiotherapy research is not only about which treatment is effective, but also about for instance education, social issues, management, patient experiences, professional interaction, service delivery, ethics and many more topics of relevance to the profession. Also, implementation strategies are a truly important research topic in order to transfer clinical guidelines into factual clinical practice (van der Vees et al 2008), the significance of which is underlined above.

The importance of clinical research

The particular relevance of clinical research should be emphasised. As the evidence base develops, more studies that directly answer clinical questions and facilitate clinical implementation can be undertaken. Less than 40% of the publications in the journals *Physical Therapy, the Australian Journal of Physical Therapy, Physiotherapy* and

Physiotherapy, Canada were related to clinical research and patient care before 2003 (Miller *et al.,* 2003).

In summary, there is a strong positive trend of conducting high quality research in physiotherapy in Europe and worldwide, and there is a substantial body of evidence about the effects of physiotherapy. However, there still remains scope for improvements in the quality of the conduct and reporting of clinical trials (Moseley et al 2002, Moseley et al 2009) and related research in order to promote the continuous development of evidence that can be applied in clinical practice.

The role of Member Organisations and Higher Education Institutions in supporting clinical, academic and research careers

Quality research with high standards of education in close combination with clinical competence is most important, especially considering the present health care systems and the present economic difficulties experienced in many countries (Winstein 2009). Against this background, the MOs should recognise the need to support a range of research training and career pathways which include clinical academic pathways. The MO's have a crucial role working with government and health care organisations/authorities and research funders to establish training schemes and research positions. The CSP, as part of a Research Forum of Allied Health Professionals, has worked collaboratively with nurses and the UK Clinical Research Collaboration to produce a report *Developing the best Research Professionals.* The report contains recommendations to facilitate the development of a clinical academic training pathway and career framework. This report has been very influential and four research training schemes have been launched with funding from the Department of Health and Higher Education Research Councils. The four levels of the clinical academic training pathway are: Masters in Research or Clinical Research; Clinical Doctoral Research Fellowship, Clinical Lectureship and Senior Clinical Lectureship (www.ukcrc.org/workforcetraining/nursesmidwivesahp/; www.nihrtcc.nhs.uk/cat).

MO's should also strive for initiatives that lead to increased clinical research (see above) further to facilitate career pathways, that is to work towards differentiated clinical positions being made available and that they are related to competence in research (master, PhDs). This would be a necessary step towards creating strong clinical environments that can work side by side and in collaboration with academic centres involved in education as well.

Patients and users of physiotherapy services should be involved in all aspects of physiotherapy research, including the prioritisation of research questions.

The ER-WCPT has recently established a European foundation for physiotherapy and physical activity (E.F.P.P.A.) with the goal of tendering and securing of funding for related EU projects and the overall management/overseeing/co-ordinating of the same to ensure that the highest standards of research and best physiotherapy practice be integrated to any EU project in which physiotherapists are involved. A further aim is the promotion and enhancement of physiotherapy research at European level in the countries represented by the ER-WCPT by means of acquiring support for research activities/projects relevant to the profession, as approved by ER-WCPT (See References). This foundation will have an important proactive role in supporting the research development in physiotherapy.

Several European MOs have set very good examples of how means could be set aside to finance and stimulate research efforts, and where the MOs have also documented the significance of these contributions. For instance in the UK, CSP has dedicated much efforts to develop an overall strategy for research, including such as the above mentioned research priority setting exercises, staffing structure to provide support and guidance to members, networks and support hubs. In many countries the MOs have made strategic campaigns to increase research and support education in research. This has resulted in for instance financial support to expand the numbers of professors (Denmark, the Netherlands) with a chair in physiotherapy or guest professors (Sweden). Several MOs (e.g. Denmark, Netherlands, Sweden, UK) have established funds to support research in physiotherapy. In addition, in some countries there is an award every year for the best academic thesis in physiotherapy (the Netherlands and Ireland for instance). The MO has its own research programme “Quality and Implementation of Evidence Based Products in the field”. In Sweden, funding has been available from the MO to support an initial research career including contribution to present at scientific conferences, mainly supporting physiotherapists involved in master studies or PhD programmes. In addition, there is also an initiative to support private practioners’ research efforts.

Quite a few MOs have established scientific professional councils for research policies, and to stimulate the creation and support of research networks. These councils serve as advisory boards for research questions.

Academic journals in physiotherapy

There are a growing number of scientific journals that publish research relevant to physiotherapy (see WCPT list), and with different quality indicators (impact factors, Web of Science, FRIDA ranking of journal level Norwegian system see References). Some countries have chosen to support a journal which publishes in the proper language to make the research more accessible for the individual members (Poland, Spain) and "Physiotherapy" is the official journal of the CSP in UK and recently recognised in MEDLINE. The MOs in the Nordic countries have joined efforts in launching the journal "Advances in Physiotherapy". The Swedish MOs also subscribes to the journal providing electronic access to all its members in Sweden.

Actions by the ER-WCPT

The ER-WCPT shall promote research and evidence based practice in physiotherapy by:

- Providing information on the website related to this topics including links to relevant stakeholders and sites, and in particular to the WCPTs website dedicated to EBP: http://www.wcpt.org/ebp This includes section on databases, journals, EBP learning resources, guidelines, research methodology & ethics. It is recommended that the MOs encourage their members to make use of such data bases (for example PEDro, Cochrane, Allied Health Evidence and others) and to follow established clinical international guidelines as well as in participating in building new ones.
- Organising an Educational Congress every 4 years where a peer-review process in line with WCPT standards is applied and where the topic of promoting, delivering and implementing evidence based physiotherapy/evidence based practice will always be recurrent in some way.
- Taking initiatives in other professional or multi-professional contexts to discuss the opportunities and the trends of research in physiotherapy including European perspectives for the future.
- Supporting research activities through the ER-WCPT foundation for physiotherapy and physical activity (E.F.P.P.A.).

RECOMMENDATIONS FOR ACTIONS TO SUPPORT RESEARCH DEVELOPMENT IN ER-WCPT

1. On an overall level it is recommended that: **ER-WCPT and MOs promote networks for physiotherapy research.** Research projects should be undertaken by networks of experienced researchers and in established research environments across Europe.

ER-WCPT should act as a promoter to stimulate the establishment of networks or collaborative groups of efforts in physiotherapy research across Europe with appropriate channels. ER-WCPT could also encourage and support such networks to apply for established EU sources like the Framework Programmes in accordance with the goal of the ER-WCPT foundation for physiotherapy and physical activity (E.F.P.P.A.).

2. A particular goal is to **increase the number of people with research competencies**, (ie, PhD), both specific to the discipline and interdisciplinary in each member country. The ER-WCPT and the MOs should **facilitate research careers**, by encouraging, stimulating and rewarding people to go for Master or PhD exams. This may include offering support and resources or funding/stipends to initiate early stage research careers, or other initiatives for such progress. It is important to advocate the value to the clinical work place of time out or alongside clinical roles to pursue these opportunities. Further, it is equally important to invest in post-doctoral opportunities as well as experienced scientist initiatives to stimulate research development.

3. **Intra- and interdisciplinary cooperation should be encouraged** around promotion, prevention and treatment for various diagnoses and endorsement of interdisciplinary collaboration is strongly recommended throughout all stages of research development and implementation where appropriate.

4. **ER-WCPT and MOs would be aware of the priorities of relevant bodies** such as national government departments, funding bodies, WHO and EU that might guide the choice of research or topics for research.

5. **ER-WCPT, through its Foundation, should work to stimulate areas of research relevant for physiotherapy.**

On a Member Organisation level it is recommended that:

6. **Each individual MO has a committee** (or similar depending on internal structures) **that has responsibility for strategy and priorities for research** and to provide advice on issues related to research and development. Such a committee may for example act as primary instance for the health authorities for referrals, submissions for comments and/or general advice on various matters of importance to physiotherapy in a society context.

7. **The MOs stimulate participation in WCPTs** (eg. http://wcpt.org/congress) **and ER-WCPT organised congresses** which promote knowledge based on research and evidence based practice.

8. **When national congresses are held, the MOs ensure that the programme is based on the principles of EBP**, that this is highlighted and that networking opportunities are provided in relation to clinical based research. MOs should require that their clinical interest groups/sections raise the profile of implementing research activities as a key tenant of their agenda.

9. **MOs should support publication in peer-reviewed journals.** The MOS could consider supporting national journals in physiotherapy to stimulate research development, especially in early phases of expansion. Such efforts have played an important role in the initial development of research initiatives in physiotherapy and offers support to individuals in their development by publishing bachelor and master reports for instance.

10. **MOs should consider establishing awards and funding to stimulate quality research initiatives in physiotherapy.**

11. **MOs encourage the development and use of clinical guidelines** and initiatives to conduct systematic reviews of the literature, with standard criteria scrutinising the reliability and validity of method and moreover, support rigorous process of quality assurance. It is important that professional representatives for physiotherapy take part in the national processes of development of national multi-professional clinical guidelines for best available medical care for various diagnosis or disorders.

12. **MOs make use of the Guidelines International Network** (GIN; http://www.g-i-n.net/) which has a multi-professional approach for health care, and likewise that the MOs stimulate and support participation in conferences arranged by GIN.

13. **MOs encourage conducting research that will always be in accordance with ethical and research standards.** There are several data bases, checklist and accepted standards for quality research, several of these presented on the website of the ER-WCPT. Physiotherapy research should likewise be conducted according to good research governance which is incorporated in national law procedures in most European countries**.** ER-WCPT and MOs should encourage and advocate for

national legal procedures that facilitate international collaboration and research involving students at undergraduate level.

14. **MOs work with existing national or international multiprofessional registers, or for the establishment of national and international data bases** of researchers within physiotherapy as well as national registers of relevance for physiotherapy research. Such data bases for professions within the health care sector are valuable resources to investigate what kind of research is being conducted and to readily find research experts in different fields when required.

15. **MOs support and take part in initiatives and discussions regarding priorities for research in physiotherapy on a national level.**

16. **MOs stimulate collaboration with other stakeholders and organisations on both national and international level for research development and implementation of evidence based physiotherapy/evidence based practice** by emphasizing the need for education programmes to meet the WCPT guidelines of entry-level education. This includes efforts for high quality research based curricula in physiotherapy in the higher education and should equip physiotherapists for research and EBP. Initiatives to support Continuous Professional Development opportunities should also be taken.

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