International Federation of Orthopaedic Manipulative Physical Therapists

SUBGROUP OF WCPT World Confederation for Physical Therapy

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IFOMPT Newsletter – July 2012

Dear Member Organization & Registered Interest Group Delegates and Special Friends

Another year is flying by, and we are excited that we will soon all be meeting in Quebec for the 4 yearly IFOMPT conference. It is shaping up to be a wonderful event, with lots of great educational content and an awesome social programme, so we look forward to seeing you there. More information on the conference is available from the conference website - http://www.ifomptconference.org/

We have had quite a few MOs change delegates, so we would like to welcome the new delegates and thank the outgoing delegates for the superb job they have done - specifically Australia now has Darren Rivett replacing Darren Beales, Austria has a rotating position between their OMT Umbrella, so Andreas Gattermeier has taken over from Niels Ruso, Sari Kallela has taken over from long serving delegate Olli Aranko in Finland, and Marion Schreiner has taken over from Harry Herrewijn in Switzerland.

Welcome also to Venezuela as the latest Registered Interest Group (RIG) of IFOMPT, and to their delegate Philippe Tadger.

President's Report - Annalie Basson

We are all looking forward to an exciting conference in Québec City. The Organising Committee has been working incredibly hard to put together an amazing programme. As always there will be plenty of opportunity to socialise, meet new colleagues and network. This will be the first time that the International Private Practitioner Association (IPPA) will be joining the conference. We are also very grateful to AAOMPT for collaborating with CAMPT to make this a very successful conference.

We have all been busy getting ready for the conference and meetings and look forward to seeing you there. The countries bidding for the 2016 conference (Australia, Spain and the United Kingdom) have all been very busy and have put together impressive programmes. We will be voting by the 1st July and would like feedback on the new process. The conference will be the first time that the Geoff Maitland award for clinical excellence will be awarded.

I would like to thank my incredible committee for the past four years. Each one of them has worked unbelievably hard and given so much of their time. I have been truly blessed to have the opportunity to work with all of you – thank you. I am always humbled by all the work that Alison and the rest of the Standards Committee do, they are what keep the vision of IFOMPT alive. Lastly I would like to thank Vicki, as we really appreciate her able management of the office.

I hope to see you in Québec City!

Treasurer's Report – Erik Thoomes

As I prepare this report, we have less than 4 months before we meet at the 2012 conference in Québec, Canada. In due course, you will all receive the financial statements and accounts together with the budget for 2012 and 2013, which we will be able to discuss in Quebec.

The organising committee is constantly providing us with feedback on their budget as well as the progression of registration. We are very positive that with the joining of IPPA and the collaboration with the AAOMPT, this will prove to be a very successful conference, not only from a scientific and social point of view, but (for me as treasurer) from a financial point of view also. Together with the conference organisation and the invaluable Vicki Reid from the IFOMPT office, we have been able to ensure the booking of low cost meeting venues during the conference.

Of course we are still looking towards additional sponsorships from the Universities at which some of the SC and EC members are employed, and we quietly hope that some MOs will continue to be able to offer some form of support in this way.

The revised procedure for submitting, bidding and voting for the 2016 conference is doing its first run and we are looking forward to feedback from both submitting MOs as well as MOs reviewing and voting on the bids.
I am looking forward to meeting you all in Quebec!

Website Report – Michael Ritchie

As executive member responsible for the IFOMPT website, I had the pleasure to oversee the design and build of our website, www.ifompt.org in 2008. We can also be found at www.ifompt.com, my intension of purchasing this website name as well was to protect IFOMPT from individuals or groups who may wish malevolence towards IFOMPT or take advantage of the acronym IFOMPT through development of a website with a similar name. Indeed, we have kept our old website name, www.ifomt.org. One only has to go to the site www.ifomt.com to understand the need for protection, one sees a commercial site which links to various commercial websites offering services and products, and notifies the visitor to the website that the domain www.ifomt.com is "for sale" even at this time to the highest bidder.

Since its development, I have been responsible for managing the site with the assistance of three individuals. These include Vicki Reid, IFOMPT office manager, as well as members from IFOMPT MOs, Niels Ruso of Austria, and Anders Nygard of Finland. Over the course of the past year I have prepared instructions for website management, uploading of documents, images, modification of content, and have worked with Vicki, Niels and Anders on management activities.

I have now been involved with IFOM(P)T for 12 years, the first four as the Canadian IFOMPT representative/delegate (during which time I was involved with the design and build of our first website), the next four as IFOMPT president, and the final four years as executive member with priority to the website.
I will be retiring from IFOMPT after the 2012 Quebec conference, and have not offered my name for re-election. I will work with the next executive over the fall of 2012 to transition website management responsibility to either a 2012-2016 executive member, or a delegate as determined by IFOMPT, and will make myself available over the next term for consultation.

I have enjoyed my time with IFOMPT, and I commend the 2008-2012 executive for a job well done, you should all be proud of the work you have done and I have been honoured to work with you as a group and as individuals. I would especially like to thank Dr. Alison Rushton for efforts above and beyond the call of duty, her exceptional communication and diplomacy skills have strengthened IFOMPT greatly, and her resolve sets the gold standard for tenacity and caring. The rest of the Standards Committee also deserves credit for hard work and efforts which are often not seen. Of course IFOMPT would not be the machine that it is if it were not for our office manager, Vicki Reid. I will miss our constant communication.

Education / Research Report – Duncan Reid

The first of the research reviews has now been published. Thanks to the support from the Spanish MO this has been converted into Spanish to increase the readership. Feedback on the review has been positive and there have been offers to contribute to future editions. The next one should be out before the IFOMPT conference in October.

The teachers meeting at the IFOMPT conference in Quebec is shaping up well, with a good number of abstracts submitted made up of a mixture of theoretical and practical topics. The applicants will be informed about the timetable by the time this newsletter is published. There has also been a good response from teachers wanting to attend, so I am sure we will have no trouble getting to the 100 person limit. Given the nature of the abstract submissions it looks likely there will be a good amount of time for practical demonstrations at the teachers meeting, and this is great as feedback from the previous meeting in Zaragoza strongly supported this.

The conference itself is shaping up well with those who have submitted abstracts for podium and poster presentations being informed of their acceptance. The IFOMPT Executive are involved in a number of interesting symposia, one from the standards committee and one I am leading on the use of manipulation to the lumbo pelvic and hip region. This follows the success of the IFOMPT led symposia at the WCPT conference last year.

I look forward to seeing you all in Quebec

Communication and Executive Committee Member Report – Ken Olson

As an IFOMPT executive committee member over the past 4 years, I have taken the lead in agenda items related to the IFOMPT newsletter and IFOMPT constitution revisions. Our intent is to have one newsletter per year to have a common theme and the second one to primarily focus on reports from each MO. Therefore, this newsletter includes results of a survey of MOs related to entry level education and training in the areas of manipulation and imaging.

The constitution has been sent to all MO delegates for their final review and consideration for a vote at the IFOMPT General Meeting on October 3, 2012. The plan is to vote on the new document in its entirety to replace the old constitution. The executive committee feels that since we have spent 4 years working on the revisions and have allowed for input and comment on the proposed changes with 2 extensive on-line forums and 2 previous MO meetings held during EC meetings, that

there has been ample opportunity to resolve any controversial issues. Therefore, voting on the new document as a replacement of the old constitution is the most appropriate and least confusing way to endorse the new, revised constitution.

I want to thank the rest of the executive committee members, the MO delegates, and especially Vicki Reid for making the past four years a very interesting and enjoyable professional experience serving on the executive committee of IFOMPT. I feel that we have made improvements in the processes and structure of the organization with projects such as the creation of a governance manual to locate and organize important policy documents of IFOMPT, creation of an elections committee to coordinate the election process, and enhancing communication between MO delegates and EC members with electronic and teleconference communication and forums in addition to yearly face to face meetings. These communication and infrastructure improvements combined with the proposed revised constitution will lay the framework for future growth and vitality of IFOMPT.

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Recent BMJ Article – Duncan Reid

Another activity that fell under the research portfolio recently was a rapid response to the British Medical Journal, following an article published by Wand et al that suggested abandoning the use of high velocity thrust techniques in the cervical spine.

A number of manual therapists from across the world responded, as well as a response from the IFOMPT executive. Others who responded also included a group from the United Kingdom, Roger Kerry, A Taylor Alison Rushton, Chris McCarthy, and Chris Mercer
Here is the link to the article
http://www.bmj.com/content/344/bmj.e3679.pdf%2Bhtml
Should we abandon cervical spine manipulation for mechanical neck pain? Yes
Benedict Wand and colleagues argue that the risks of cervical spine manipulation are not justified, but David Cassidy and colleagues (doi:10.1136/bmj.e3680) think it is a valuable addition to patient care.
Benedict M Wand associate professor1, Peter J Heine research fellow2, Neil E O'Connell lecturer3
1: School of Physiotherapy, University of Notre Dame Australia, 19 Mouat Street, Fremantle, WA 6959, Australia;
2:Warwick Clinical Trials Unit, Divisionof Health Sciences, University of Warwick, Coventry, UK;
3: Centre for Research in Rehabilitation, Brunel University, Uxbridge, UK.

Here is the IFOMPT response below for those who did not see it. There was also an ability to vote to support the article or not.
The outcome of the vote was
Yes: 284 (24%) (should HVT be abandoned)
No: 876 (76%) (it should not)

Response to Wand et al Abandonment of Cervical Manipulation BMJ doi:10.1136/bmj.e3680

The International Federation of Orthopaedic Manipulative Physical Therapists (IFOMPT) is the largest subgroup of the World Confederation of Physical Therapists (WCPT). IFOMPT has been promoting Excellence in Orthopaedic Manipulative Therapy (OMT) for over 38 years. It is one of the few professional bodies that have an internationally agreed standards document that guides the curricula in the teaching of manual and manipulative therapy (see www.ifompt.org).

The issue of both teaching and delivering high velocity thrust (HVT) techniques to the cervical spine is controversial, particularly when the true risk of adverse events is unknown. Whilst the adverse events (stroke and vertebral artery dissection VAD) are significant, they are extremely rare events. The day to day issue for physical therapists who wish to use HVT in the management of cervical or any other musculoskeletal problems, is based on a range of factors. IFOMPT has always promoted the philosophy that HVT is not a stand-alone treatment and is delivered within a continuum of care with ongoing monitoring and based on a sound clinical reasoning model. This point is clearly made in the reply by Kerry, et al (BMJ rapid response)[1]. A recent review of 134 case reports of adverse events from cervical manipulation has also indicated that approximately 45 % of these events could have been prevented had a more robust clinical reasoning process been applied during the patient assessment[2]. This would further support the idea that is patient selection that is important, rather than the actual technique. Clinical reasoning is also strongly emphasised throughout the IFOMPT standards document.

Another aspect of delivering this treatment is the ability to provide the recipient of this technique with an informed choice based on the risks, such that they can consent (or not) to the procedure. This is a legal requirement with any health procedure. This is a challenge where the true risk of the modality is not known, but this can be overcome, firstly, with an honest appraisal of what is currently known about the risk, and secondly, by giving the recipient an idea of the relative risk[3]. This may be in the form of a comparison with other commonly used modalities to treat the condition. For example, Dabbs et al[2] in review of the literature and comparison to the use of NSAIDs for cervical pain, found a very low risk of injury with manipulation, compared to risk of adverse effects of taking NSAIDs. The likelihood of a serious gastrointestinal bleed from NSAIDs is 1 per 1000 and the death rate for NSAID associated GI problems is estimated at 0.04% per year among patients with osteoarthritis who receive NSAIDs, with 3200 deaths per year.[4] The estimated death rate from cervical spine HVT manipulations per treatment is 0.00025% or 160 times less frequent than the NSAIDs death rate. The estimated injury rate of NSAIDs induced bleeding ulcers requiring hospitalization is 400 times

greater than the estimated injury rate from manipulation. It is reasonable to ask which has greater risk, traditional medical therapy or judiciously applied spinal manipulation in appropriate selected patients.

There are many patients who seek the skills of a manual or manipulative physical therapist. These patients are looking for the most effective management of their musculoskeletal problem. Having a practitioner that has a range of skills on both thrust and non-thrust manipulative techniques provides the patient with greater choice. Delivery of manipulation in a clinically reasoned and informed way will always be the safe way forward, rather than abandoning a single modality at a time where the evidence is still variable.

The IFOMPT Executive Committee welcomes this type of debate but feels that a balanced view of the issues needs to be presented as we move forward.
Duncan Reid on behalf of the IFOMPT executive, Annalie Basson, Ken Olson, Erik Thoomes, Michael Ritchie, and advice and comment from Tim Flynn.

References:

1. Kerry, R, Taylor, A, Rushton, A, McCarthy, C and Mercer,C http://www.bmj.com/content/344/bmj.e3679/rr/588701
2. Puentedura, E., March, J.,Anders, J., Perez, A.,Landers, M., Wallman,H., and Cleland, J. Safety of cervical spine manipulation: are adverse events preventable and are manipulations being performed appropriately? Journal of Manual and Manipulative Therapy 2012, 20 (2) 66-74
3. Culy, R., Reid, D. A., & Diesfeld, K. Cervical spine manipulation, a procedure with a rare but potentially serious adverse reaction: Exploring the ethical dimensions in the New Zealand context. *New Zealand Journal of Physiotherapy*, (2011). *39*(3), 114-121.
4. Dabbs, V and Lauretti, W. A risk assessment of cervical manipulation vs. NSAIDs for the treatment of neck pain. Journal of Manipulative and Physiological Therapeutics (1995), 18(8):530-6

Published link to the reponse
http://www.bmj.com/content/344/bmj.e3679?tab=responses

Report from the Standards Committee – Dr Alison Rushton

The Standards Committee (SC) have continued to work their way through key educational activity, particularly International Monitoring, and are now in the process of preparation for their meetings in Quebec this September.

International Monitoring

In 2012, the first submissions from Austria and Belgium, and the second submission from New Zealand were received and are currently being processed.

IFOMPT International Standard for examination of the cervical region

We are currently following through with one MO to see if we can gain support from all MOs for this document to enable its approval and dissemination.

Issues planned for discussion in Quebec

As the meeting in Quebec for the SC this year is towards the end of the year, we will have processed much of the International Monitoring activity for 2012 prior to the meeting. This will provide us with valuable time during our face-to-face meetings to explore and discuss the wider issues raised by the IFOMPT Standards and the process of International Monitoring.

Teachers meeting in Quebec

The submission of abstracts for the teachers meeting has been very positive and the programme looks very exciting. The SC will be running a series of workshops in the afternoon focused to the mentored clinical practice component of the IFOMPT Standards which provides MOs with some key challenges.

International Monitoring workshop in Quebec

Following the success of our International Monitoring workshop in Amsterdam, we will be running another workshop in Quebec and we hope that you can join us.

Please remember that the SC is here for advice and guidance on all educational issues and in particular to provide support to assist your development as an MO.

Best wishes for a wonderful summer /winter and we hope that you enjoy the Olympics from London.

Nous attendons impatiemment de voir vous tous à Québec en Septembre!

Member Organisation Reports

Japan: Isamu Sunagawa

JFOMT received 59 freshmen in October 2011, and they started studying orthopaedic manipulative therapy that takes them three and a half year to finish. We will do our best to develop them to become highest level orthopaedic manipulative therapists.

We also received three new orthopaedic manipulative physical therapists in 2011, and the total number of orthopaedic manipulative therapists increased to 42 in Japan. We will make even more strenuous efforts to contribute to the development of orthopaedic manipulative physical therapy and the improvement of its educational standard with the new members.

Spain: Prof. Tricas Moreno

During the last months, OMT-Spain has been working tirelessly in the preparation of the bid for the XI Congress of IFOMPT 2016. We really hope that you have enjoyed it and that we have been able to transmit the idea of a new model of congress in which every attendee, regardless of position and importance, can actively participate in the congress.

In the following days, both the students from level 1 and level 2 of the Extended and Intensive Model of the OMT Master 2011-2012 will be taking their examination in order to achieve the postgraduate certificate in OMT and be able to start on second level, and to achieve the certificate of Master in OMT and complete the education on Orthopaedic Manual/Manipulative Therapy. A total of 70 students of level 1 and 59 students of level 2 will attend the exam.

Soon the Intensive model of the OMT Master at the University of Zaragoza will start, both for the first and the second level. Several students from different countries are planning to attend this summer for the first level (five students from Mexico, one student from Sweden, one from Ecuador and one from Venezuela) and second level (two students from Mexico and one student from Argentina) of the OMT Master, which will be taking place from the 25th of June to the 10th of August.

In April one of our teachers from OMT-Spain, Elena Estébanez de Miguel, presented her PhD "Study of clinical differences when applying different degrees of distal traction in the hip joint in patients with hip osteoarthrosis". It is one of the most specific dosage-response studies in manual therapy which we expect to share with you soon as it is in the phase of translation.
Since January, OMT-Spain has organized two specialization courses: "Taping in OMT" and "Pelvic Floor Dysfunction in pregnancy related lumbar pain and lumbo-pelvic stability", instructed by Dr Annelies Pool. We would like to thank her for her contribution and for sharing the latest updates in the assessment and treatment of pain and dysfunctions in the pelvic floor and lumbar region.

OMT-Spain has just published the book "Stretching and Self-stretching in OMT". This book gathers the stretching and self-stretching techniques of the upper and lower extremity, which have been refined and improved for more than 50 years. Moreover, the first chapters of the book are focused on muscle symptom/hypomobility localization and muscle function assessment (physiological and accessory movement) for the indication of muscle stretching. All of this, based on the most updated scientific evidence concerning assessment and treatment of soft tissue and muscle stretching. At the moment, this book is available in Spanish, but we are working on its translation to English in order to share it with our English-speaking colleagues.

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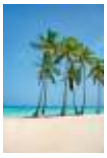
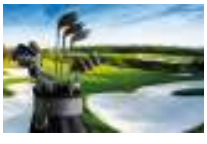
From the Office:

Executive has recently developed a document for WCPT to disseminate to WCPT MO's about IFOMPT membership and how it differs from other Interest Groups.



I will be on annual leave from 22nd to 29th July, so the office will be unattended in this time.



Best wishes

Vicki Reid
IFOMPT Office Manager

IFOMPT Entry Level Survey Results, July 2012

Wayne Hing and I developed the following survey questions in order to gain a better understanding of the educational curriculum currently being provided in IFOMPT member countries for training entry level physical therapists/physiotherapists in the areas of joint manipulation and imaging.

The results of this survey are now being published and will be used for future educational programs at the IFOMPT 2012 conference.

Ken Olson
IFOMPT Executive Committee member

For the purpose of this survey, JOINT MANIPULATION, is defined as:

"A high velocity, low amplitude therapeutic movement within or at the end of range of motion".

1. **Do you believe joint manipulation, as defined in this survey, is a professional physical therapy education level (entry-level) skill?**

   ___ Yes
   ___ No
   ___ Unsure
   Comments:

   Summary of Results: Yes 9/20 (45%); No 7/20 (35%); Unsure 3/20 (15%); Yes/No 1/20 (5%)

Australia	Yes
Austria	Yes. Comments: It depends on the specific technique which is taught and which joints should be included, e.g. traction manipulation in extremity joints could be useful to learn this specific movement, to train the short and fast thrust. This is our opinion but is not changed over to the Austrian Curriculum at entry level
Belgium	No
Canada	Yes
Denmark	No
Finland	Yes. There is a good possibility to learn, for example Traction manipulation technique to certain joints (Th, extremities) according to Sanna Garam's Master's Thesis 2012. There should be teaching and learning hours to learn the joint manipulation. There is only one University of Applied Sciences that accepted only once the joint manipulation teaching as an entry level skill to learn as voluntary. The University of Applied Sciences had the course of joint traction manipulation as physiotherapy students' voluntary course. The students had to pass all their musculoskeletal physiotherapy courses with very good or excellent degree before applying to the extra course
Germany	No
Greece	Yes
Hong Kong	No response
Ireland	Yes

Italy	No. I think before applying some treatment technique like a manipulation, physiotherapists first of all must be able to evaluate patient, identify bone landmarks, and be able to mobilize all articulation. All this stuff not always are included in program
Japan	Unsure. We think that we need to ask students to acquire substantial technology on the application of low-speed mobilization and accumulate sufficient clinical experiences before teaching manipulation technology to them. In addition, it is imperative for us to educate them on the knowledge and practice of clinical diagnosis vital to the application of manipulation technology. We think that we should not teach manipulation technology to students before they satisfy the above requirements. Therefore, we do not agree with the idea to teach manipulation technology in the entry level. Taking the above analysis into consideration, we teach manipulation technology as an advanced level technology in the advanced course in our curriculum in Japan
Netherlands	No. No also from Hoofddocent AGZ (fysiotherapie)
New Zealand	No. Comments: Whilst that would be nice, I don't think that it is realistic that all UG students will be able to apply HVT to spinal joints by the end of their UG program. Most UG programs are too broad and therefore have too much content already. Whilst graduate students should have the ability to mobilize at end ROM and to recognize when a HVT is appropriate, they will not have seen enough patients to be able to develop these skills to a safe level
Norway	Unsure
Portugal	No response
South Africa	Univ. Free State – No, Witwatersrand Univ. – Yes, Stellenbosch Univ. - No
Spain	Yes - The training of the abilities and skills regarding velocity and amplitude of manipulation thrusts should be included since the very beginning of the entry-level education in Physical Therapy, as these parameters are the differential factor to guarantee the clinical succeed of manipulation techniques. We consider that the safest manipulations and with less potential risk of injury, performed in traction and in the resting position of the joint should be part of the entry-level curriculum of physical therapy. On the other hand, advanced manipulations such as the ones performed in gliding, should be instructed in master studies, as part of a more specific curriculum in Orthopaedic Manual Therapy, and once the skills regarding velocity and coordination are achieved in traction-manipulation techniques
Sweden	Yes - Yes, in some basic way, traction manipulation in extremity joins and thoracic spine/ribs for example. The last five years the OMT-section have had short introduction courses in traction manipulation for entry level students but it´s not taught at the university
Switzerland	No. This is a confusing question, if meant that the entry level is the bachelor level – the answer is no
USA	NOTE: This was completed by only one faculty member based on a strong knowledge of 5 different DPT programs. There is variability within program. Yes
United Kingdom	Unsure

2. According to this definition, is joint manipulation included in your country's entry level physiotherapy educational program's curriculum?

___ Yes
___ No

If the answer is <u>NO</u>, please answer the next two questions (3 and 4) AND then proceed to Question # 10. If the answer is YES proceed directly to question #5.

Summary of Results: Yes 7/20 (35%); No 12/20 (60%); Yes/No 1/20 (5%)

Australia	Yes
Austria	No
Belgium	No
Canada	Yes
Denmark	No
Finland	No
Germany	No
Greece	No
Hong Kong	No response
Ireland	Yes
Italy	No
Japan	Yes
Netherlands	No. No also from Hoofddocent AGZ (fysiotherapie)
New Zealand	No other than a HVT to the thoracic spine
Norway	No
Portugal	No response
South Africa	Univ Free State – No, Witwatersrand Univ – No, Stellenbosch Univ - No
Spain	Yes: At the moment, joint manipulation is included inside the subject "Specific Intervention methods in Physical Therapy", which is taught in the second course of the entry-level. It is a compulsory subject inside the entry-level curriculum, where traction manipulation in the resting position techniques are included. Joint manipulation, and especially its integration within the evaluation and treatment process of a patient is included in the subject "Clinical Specialties I", which is held during the 3rd year of the entry-level education. The students in the 4th course of the entry-level education have the possibility to choose the topic of joint manipulation for developing the Thesis Project, where they have to perform and present a clinical case regarding this topic. Joint manipulation is also instructed in a voluntary subject inside the entry-level called "Learning of the velocity and other skills in joint manipulation". Students form the 1st to the 4th course can have access to this subject, where traction manipulation in the resting position is instructed
Sweden	No
Switzerland	No
USA	Yes
United Kingdom	Yes

3. Why is joint manipulation not included in your country's PT program current curriculum?

___ No qualified faculty to instruct
___ No money available to hire adjunct faculty
___ Considered by faculty as not being an entry level skill
___ Perceived lack of scientific evidence regarding efficacy
___ Not enough time in curriculum
___ Other_____

Australia	N/A
Austria	Considered by faculty as not being an entry level skill Legal problems concerning manipulation from Physiotherapists in Austria
Belgium	Considered by faculty as not being an entry level skill Not enough time in curriculum Other: No possibility to execute these skills in clinical mentorship
Canada	N/A
Denmark	Considered by faculty as not being an entry level skill Not enough time in curriculum Other : I think our course/programme needs to be longer to have the time and basic skills in order to introduce teaching HVT in the undergraduate programme
Finland	No qualified faculty to instruct No money available to hire adjunct faculty Considered by faculty as not being an entry level skill Not enough time in curriculum
Germany	No qualified faculty to instruct Not allowed to physiotherapists in Germany
Greece	No qualified faculty to instruct Considered by faculty as not being an entry level skill
Hong Kong	No response
Ireland	N/A
Italy	Not enough time in curriculum. Because during physiotherapy course, the program included evaluation of patient (ROM & strength but not specific orthopaedic tests in all the body districts), and so there is no time to see treatment technique in the specific and in practice
Japan	N/A
Netherlands	Considered by faculty as not being an entry level skill Perceived lack of scientific evidence regarding efficacy Not enough time in curriculum Other: OMT is instructed at post graduate masters' level only It is considered to be too specific for general PT's PT's are considered not to know the pros and cons The program is already full
New Zealand	Primarily because there is not enough time in curriculum
Norway	Considered by faculty as not being an entry level skill Not enough time in curriculum Other: Different approaches are used to modify joint movement and reduce pain
Portugal	No response
South Africa	Univ Free State – Considered by faculty as not being an entry level skill, Not enough time in curriculum Witwatersrand Univ - Considered by faculty as not being an entry level skill Stellenbosch Univ - Not enough time in curriculum
Spain	N/A

Sweden	No qualified faculty to instruct Considered by faculty as not being an entry level skill Perceived lack of scientific evidence regarding efficacy Not enough time in curriculum
Switzerland	Considered by faculty as not being an entry level skill Not enough time in curriculum
USA	N/A
United Kingdom	N/A

4. **Are there plans to initiate/integrate joint manipulation into your current curriculum?** (Please check all that apply)

___ Initiate course (spinal)
___ Initiate course (extremity)
___ Modify existing course content
___ Initiate elective course
___ No plans to add to current curriculum
___Other (please describe)_____

NOTE: If you answered "No" to Question 2, then answered Questions 3 and 4, please skip to **Question 10**.

Australia	N/A
Austria	No plans to add to current curriculum
Belgium	No plans to add to current curriculum
Canada	N/A
Denmark	No plans to add to current curriculum
Finland	No plans to add to current curriculum
Germany	No plans to add to current curriculum
Greece	No plans to add to current curriculum
Hong Kong	No response
Ireland	N/A
Italy	Initiate course (spinal) Initiate course (extremity)
Japan	N/A
Netherlands	No plans to add to current curriculum Other - OMT is instructed at post graduate masters' level only
New Zealand	No
Norway	No plans to add to current curriculum
Portugal	No response
South Africa	No plans to add to current curriculum
Spain	N/A
Sweden	No plans to add to current curriculum
Switzerland	No plans to add to current curriculum
USA	N/A
United Kingdom	N/A

5. Is joint manipulation taught as a: (check more than one if applicable)

_____ Required, separate course as part of basic curriculum
_____ Part of a required integrated clinical science course (e.g.Orthopedic PT, Therapeutic Exercise, Interventions, etc.)

_____ Separate elective course (Title _____)

_____ Component of multiple courses

_____ Other (please describe)_____

Australia	Part of a required integrated clinical science course (e.g. Orthopedic PT, Therapeutic Exercise, Interventions, etc.)
Austria	N/A
Belgium	N/A
Canada	Part of a required integrated clinical science course (e.g.Orthopedic PT, Therapeutic Exercise, Interventions, etc.)
Denmark	N/A
Finland	N/A
Germany	N/A
Greece	N/A
Hong Kong	No response
Ireland	Part of a required integrated clinical science course (e.g.Orthopedic PT, Therapeutic Exercise, Interventions, etc.)
Italy	N/A
Japan	Component of multiple courses
Netherlands	N/A
New Zealand	N/A
Norway	N/A
Portugal	No response
South Africa	N/A
Spain	Part of a required integrated clinical science course (e.g. OrthopedicPT, Therapeutic Exercise, Interventions, etc.): Subjects "Specific Intervention methods in Physical Therapy" and "Clinical Specialties I" Separate elective course (Title "Learning of the velocity and other skills in joint manipulation")
Sweden	N/A
Switzerland	N/A
USA	Part of a required integrated clinical science course (e.g.Orthopedic PT, Therapeutic Exercise, Interventions, etc.) Separate elective course Component of multiple courses
United Kingdom	Part of a required integrated clinical science course (e.g.Orthopedic PT, Therapeutic Exercise, Interventions, etc.)

6. **Based on all joint manipulation hours in your curriculum, please indicate by percentage, by joint, specific joint manipulation techniques that are performed/instructed. (Total should equal 100%)**

___ Cervical spine ___ Pelvis/Sacroiliac Joints
___ Thoracic spine ___ UE peripheral joints
___ Lumbar spine ___ LE peripheral joints

Australia	__ Cervical spine ___ Pelvis/Sacroiliac Joints 66 Thoracic spine ___ UE peripheral joints 33 Lumbar spine ___ LE peripheral joints
Austria	N/A
Belgium	N/A
Canada	UBC - 100% LE peripheral joints
Denmark	N/A
Finland	N/A
Germany	N/A
Greece	N/A
Hong Kong	No response
Ireland	75% Thoracic spine 25% LE peripheral joints
Italy	N/A
Japan	_40 Cervical spine _10 Pelvis/Sacroiliac Joints _20 Thoracic spine _5 UE peripheral joints _20 Lumbar spine _5 LE peripheral joints
Netherlands	N/A
New Zealand	N/A
Norway	N/A
Portugal	No response
South Africa	N/A
Spain	In the compulsory subject "Specific Intervention Methods in Physical Therapy" (Total 37 hours) 10% Cervical spine 10% Pelvis joints/SIJ 10% Thoracic spine 30% Peripheral joints UE 10% Lumbar spine 30% Peripheral joints LE – In the voluntary subject "Learning of the velocity an other skills in joint manipulation" (Total 60 hours) 15% Cervical spine 10% Pelvis joints/SIJ 15% Thoracic spine 25% Peripheral joints UE 10% Lumbar spine 25% Peripheral joints LE In the subject "Clinical Specialties I": indications and contraindications of joint manipulation, red flags and potential risk situations are approached, together with the clinical aspects and clinical integration of joint manipulation in the treatment of muscle-skeletal dysfunctions
Sweden	N/A
Switzerland	N/A
USA	10 Cervical spine 5 Pelvis/Sacroiliac Joints 25 Thoracic spine 15 UE peripheral joints 25 Lumbar spine 20 LE peripheral joints
United Kingdom	0 Cervical spine 0 Pelvis/Sacroiliac Joints 0 Thoracic spine 0 UE peripheral joints 100 Lumbar spine 0 LE peripheral joints

7. **How do you assess student competency in joint manipulation? Please answer by showing grading methods by percentage. Total to equal 100%.**

___ Written examination
___ Oral examination
___ Practical techniques (skill checks)
___ Simulated patient examination/treatment
___ Actual patient examination/treatment
___ Not tested
___ Patient case examples
___ Other (please describe)_____

Australia	50 Written examination 50 Practical techniques (skill checks)
Austria	N/A
Belgium	N/A
Canada	100% written exam
Denmark	N/A
Finland	N/A
Germany	N/A
Greece	N/A
Hong Kong	No response
Ireland	Not tested
Italy	N/A
Japan	20 Written examination 30 Oral examination 30 Practical techniques (skill checks) 20 Actual patient examination/treatment
Netherlands	N/A
New Zealand	N/A
Norway	N/A
Portugal	No response
South Africa	N/A
Spain	In the compulsory subject "Specific Intervention Methods in Physical Therapy" 70% Practical techniques (skill checks) 30%Simulated patient examination/treatment In the voluntary subject "Learning of the velocity an other skills in joint manipulation" 40% Practical techniques (skill checks) 20% Simulated patient examination/treatment 40% Other (please describe): Manipulation filming: it is an activity in which students are recorded when performing a manipulation technique. Later, the video is sent to the student via e-mail attaching a table for the self-evaluation in some aspects such as: physical therapist position, patient/colleague position, searching and localization of the resting position, synchronization, velocity and amplitude of the impulse and re-evaluation. Parallel, instructors perform the same evaluation of the student and later students and instructors bring their ideas together with the aim of giving feedback regarding positive aspects of their performance and aspects they should improve. This type of evaluation is carried out continuously throughout the subject.

	In the compulsory subject "Clinical Specialties I" 40% Practical techniques (skill checks) 60% Patient case examples
Sweden	N/A
Switzerland	N/A
USA	50 Written examination 10 Oral examination 15 Practical techniques (skill checks) 25 Simulated patient examination/treatment
United Kingdom	100___ Not tested

8. What are the primary required readings used to teach joint manipulation?

Australia	Maitland et al Vertebral Manipulation
Austria	N/A
Belgium	N/A
Canada	Course manual which is adapted from the orthopaedic division curriculum
Denmark	N/A
Finland	N/A
Germany	N/A
Greece	N/A
Hong Kong	No response
Ireland	We used these references and the primary required reading was Maitland's Peripheral and Vertebral Manipulation texts. ◆ NHS NICE Guidelines (2009): Persistent Low Back Pain ◆ Gross A et al (2010). Manipulation or mobilisation for neck pain Cochrane Database Syst Rev. 2010 Jan 20;(1):CD004249. ◆ Gross A et al (2004). A Cochrane review of manipulation and mobilization for mechanical neck disorders. ***Spine***: Jul 15;29(14):1541-8 ◆ Hurwitz EL (2012). Epidemiology: Spinal manipulation utilization. ***J Electromyogr Kinesiol ,*** doi:10.1016/j.jelekin.2012.01.006 IN PRESS ◆ Kerry & Taylor (2006): Cervical arterial dysfunction assessment and manual therapy, ***Manual Therapy*** 11, pp 243-253 – on Moodle ◆ Greenhalgh & Selfe (2006): **Red Flags – A guide to identifying serious pathology of the spine.** Churchill Livingstone. ◆ Magarey ME, Rebbeck T, Coughlan B, Grimmer K, Rivett DA, Refshauge K, (2004). Pre-manipulative testing of the cervical spine review, revision and new clinical guidelines. ***Manual Therapy*** May;9(2):95-108 Maitland GD (2005). **Peripheral Manipulation 4**th Ed., Butterworth-Heinemann, London. ◆ Maitland GD (2005). **Vertebral Manipulation 7**th Ed., Butterworth-Heinemann, London. ◆ Royal College of General Practitioners (1996, revised 1999), Guidelines for the management of acute low back pain. London; Royal College of General Practitioners. Lang & Afilalo (2005). Vertebral Artery Dissection – Emedicine article http://www.emedicine.com/emerg/topic832.htm

Italy	N/A
Japan	-
Netherlands	N/A
New Zealand	N/A
Norway	N/A
Portugal	No response
South Africa	N/A
Spain	Volume I. Manual Mobilization of the Joints. Extremities. Freddy Kaltenborn; Ed OMT-Spain, 2010. Volume I. Manual Mobilization of the Joints.Spine. Freddy Kaltenborn; Ed OMT-Spain, 2010. Volume III Traction Manipulation of the Extremities and Spine, Freddy Kaltenborn; Ed OMT-Spain, 2009. Maitland G.D (2001) Vertebral Manipulation, 6th Edition, Butterworths, London. Maitland G.D. (1991) PeripheralManipulation, 4rd Edition, Butterworths, London.
Sweden	N/A
Switzerland	N/A
USA	Current literature (RCT, Case Studies, etc.). A variety of textbooks, DVDs, etc.
United Kingdom	Not aware of any primary readings

9. Do the graduates of your country's programs have adequate examination, evaluation, and intervention skills to implement joint manipulation as an intervention immediately upon graduation? (please circle)

1
2
3
4
5

Not Prepared — Well Prepared

Australia	3
Austria	N/A
Belgium	N/A
Canada	UBC/UOT/MAC answers only refer to manipulation of the talocrural joint (rated 4). Overall there is the examination, evaluation and intervention skill for mobilization for all joints. Implementation of manipulation is consistently limited to a peripheral joint. All theory and safety pre, during and post testing is covered. 3 (Overall for all joints with implementation included)
Denmark	N/A
Finland	N/A
Germany	N/A
Greece	N/A
Hong Kong	No response
Ireland	2
Italy	N/A
Japan	3
Netherlands	N/A
New Zealand	Well prepared

Norway	N/A
Portugal	No response
South Africa	N/A
Spain	1 Not Prepared — Well Prepared Students of both subjects acquire the competencies in relation to knowledge of indications and contraindications of joint manipulation, physical/biomechanical diagnosis of intraarticular restrictions and their differential diagnosis of other neuro-muscle-skeletal dysfunctions inside the process of clinical reasoning as well as practical skills in traction manipulation in the resting position. Regarding these last ones, both instructors and students are aware of the need of a continuous training of velocity and amplitude for performing safe and effective impulses. Skills in biomechanical reasoning and execution of advanced manipulations are considered skills of the specialized education in Orthopaedic Manual Therapy (OMT).
Sweden	N/A
Switzerland	N/A
USA	**4**
United Kingdom	1 – Not prepared

The following questions are centred around imaging/scanning (DUS, XRay, MRI, … any others)

10. What imaging procedures/scans are physiotherapists in your country currently able to refer for?

Australia	Peripheral xrays are reimbursed if referred by a physio. Spinal xrays may be ordered by a physio but are not reimbursed
Austria	No one
Belgium	None
Canada	None
Denmark	None, we can communicate with the patients GP's and suggest relevant imaging procedures. Also we can use ultrasound in the clinic, but only as a tool to facilitate rehabilitation etc, not as part of a diagnostics process
Finland	They are not able to refer any of those, except they can read the medical doctor's statements of imaging and notice that information part of their examination of the patient
Germany	None
Greece	In Greece physiotherapists are not allowed to refer for any kind of imaging procedures or scans
Hong Kong	No response
Ireland	Advanced practice musculoskeletal posts in public sector – x-ray and MRI. Private sector – MRI only but private insurance won't pay without doctor's referral letter
Italy	Italian PTs cannot refer to any Imaging Exam
Japan	In Japan, physiotherapists can teach X-ray, MRI, and CT
Netherlands	None
New Zealand	DUS, XRay
Norway	PTs cannot refer their patients to imaging/scans, but MTs can. In order to be acknowledged as an MT with the right to refer, the MT must have completed an intensive 40 hour course (+10 hours with internet lectures) in Radiology and a 35 hour course in Differential Diagnostics, arranged every second year the University of Bergen
Portugal	No response

South Africa	Univ. Free State, Witwatersrand Univ., Stellenbosch Univ. – X-rays
Spain	Physical therapists can refer patients to any type of complementary evaluation (imaging, scans), but it is not covered by the health system, which means the patient must assume the cost
Sweden	No one in general, it´s an economical issue. (If I pay for the procedure, I can refer ☺) Some physiotherapists working at special clinics, i.e. an orthopedic clinic looking at acute back pain as first contact might refer to imaging i.e. Xray
Switzerland	None
USA	This is based on local reimbursement standards, hospital credentialing, and other factors. Most states practice acts allow for ordering of imaging but PTs are limited by reimbursement authorization constraints. MRI, X-Rays
United Kingdom	Xray, MRI , US, CT, bone density scans

11. What amount/content of learning centred around imaging is taught in your countries physiotherapy training (or courses that you are familiar with)?

Australia	Integrated in relevant courses regarding interpretation, especially of x-rays. Students learn how to use ultrasound for muscular rehab.
Austria	Not a lot. More really basic skills about X- Rays (what is a fracture…) and MRI
Belgium	Medical imaging is taught for all musculoskeletal problems of both extremities and spine, but it is integrated within these specific modules together with pathology, biomechanics, functional anatomy, physical therapy: examination and treatment. The level is the same as for GP's
Canada	It is taught in a basic fashion for each joint and is included in all the musculoskeletal courses at most Canadian Universities
Denmark	Not much in the undergraduate programme \ but students following DMPA's postgraduate programme are trained in the various imaging procedures
Finland	It is not taught. Physiotherapy students see demos of ultrasound diagnostic at the Universities of Applied Sciences. X-rays and MRI images the students see when they are in their practical training periods
Germany	None in physio undergraduate training
Greece	Very basic things
Hong Kong	No response
Ireland	Small amount at undergrad – enough to interpret basic findings. Significantly more in Advanced Practice training
Italy	There are only some course post graduate
Japan	Physiotherapy training is given to students in the undergraduate education as part of pathognomy in each subject. Some universities give physiotherapy training for a total of 30 hours as a requisite subject in their curricula. Each university sets subjects at its own discretion
Netherlands	None at initial level but there are musculoskeletal ultrasound imaging courses available for graduate Physiotherapists. Hoofddocent AGZ (fysiotherapie) - Only post graduate, PT's can do MSU (Musc. Ultrasound)
New Zealand	A couple of hours?
Norway	In the bachelor program in physiotherapy have some hours with introduction to the diagnostic process of ultrasound used for musculoskeletal system, but otherwise no specific teaching in radiology is given
Portugal	No response
South Africa	Univ. Free State - None, Witwatersrand Univ. - One three hour lecture and integrated into clinical teaching, Stellenbosch Univ. – It is incorporated in lectures on orthopaedic conditions and implemented in theassessment of

	patients in the clinical settings
Spain	In the entry-level education different types of imaging/scans are presented to the students, as well as general aspects of each of them and basic interpretation of the findings together with the classification of the injuries considering these aspects
Sweden	Not too many hours, more "informative" about different imaging methods and when to use the different methods
Switzerland	During masterclass - around 7 hours
USA	3 credit hour course is common
United Kingdom	Chest xray

12. Do you think that physios in your country have the training, understanding and ability to refer for these scans?

Australia	Yes
Austria	Not at an entry level, but within the OMT-program
Belgium	Yes
Canada	Yes
Denmark	Well, those whom have completed DMPA's programme have
Finland	Basically no. They'll learn those things in OMT Program in Finland
Germany	No
Greece	Physios that haven't had any further training (e.g. OMT -training) after the PT school do not have either the ability or ability to refer for scans
Hong Kong	No response
Ireland	Advanced practice level – absolutely
Italy	No
Japan	We think that they need to study these scans as specialized subjects in a graduate school to be qualified to teach them
Netherlands	Yes
New Zealand	Yes
Norway	It may vary from one PT-school to another; some may have had clinical practice where radiologic examinations have been central, and may feel they have the competency to refer and to understand the meaning of the scans, but others may have little experience. If the PT takes a Radiology course equivalent to that offered to MTs, they should be able to refer and understand the results of scans as well
Portugal	No response
South Africa	Univ. Free State, Witwatersrand Univ., Stellenbosch Univ. – All Yes
Spain	Yes, special attention is placed in training students in determining at which point of a patient´s evaluation they should stop to assess a complementary test (imaging/scans) and how to detect those situations in which the patient should be referred to a complementary assessment as well as the most indicated imaging/scan
Sweden	No, not entry level physiotherapists but later YES when you have worked a couple of years it´s usually the physiotherapist that, in cooperation with the referring MD, forms the referral
Switzerland	The OMT physios could refer them, but at this time there are not permitted to do it
USA	Yes
United Kingdom	Yes - after post graduate training not undergraduate

13. Do you think that physios in your country have the training, understanding and ability to interpret these scans?

Australia	Yes for x-rays and muscles on ultrasound. Not really for MRI or CT
Austria	Some, how many I cannot say. OMT-Physiotherapists do have it in a defined frame
Belgium	Yes
Canada	Not without further training
Denmark	I am not sure about this / not many of them I will say
Finland	No, they'll learn those things during OMT Program in Finland
Germany	No, not at base level
Greece	No, unless they have had further training after the PT school
Hong Kong	No response
Ireland	Advanced practice level – absolutely
Italy	No
Japan	We think that they have the ability
Netherlands	No. But, yes if they have done the post graduate courses
New Zealand	No
Norway	To interpret: Generally No, but to understand a complete description, Yes, if they have relevant experience and if they taken an extra course
Portugal	No response
South Africa	Univ. Free State –Yes, Witwatersrand Univ. – No, Stellenbosch Univ. - Yes
Spain	Physical therapists just graduated have the basic abilities and skills to interpret these scans, however, there is a more specialized education in Postgraduate courses and Master where students obtain most specific skills regarding imaging/scans interpretation. For example, in the Orthopedic Manual Therapy Master a specific module on complementary tests if included inside the curriculum. Students are trained in interpretation of radiological, ultrasound and scan findings
Sweden	No, not entry level physiotherapists and not later either if you don´t have more special training in radiology. Normally it´s an MD specialized in radiology, about 11-12 years of medical schooling that do the interpretation. The physiotherapists are trained to communicate the referral and results but not interpret primary by him/her self
Switzerland	Currently not, but usually scans/x-rays come with a professional report from a radiologist
USA	Within the context of the situation after the radiologist interpretation
United Kingdom	As above