Musculoskeletal pain: a study of its effect on patients with idiopathic Parkinson’s Disease

Use of mechanical insufflation-exsufflation in neurological conditions in the UK

Sharing good practice: Use of Electrical Stimulation following Stroke

“One third of patients have MSK pain prior to the PD diagnosis and 60% report back pain.”

“One third of patients have MSK pain prior to the PD diagnosis and 60% report back pain.”
Forethought
2 From the Chair
3 Let’s make the design fit the question not the question fit the design – a few words from the ACPIN President

Articles
5 Musculoskeletal pain: a study of its effect on patients with idiopathic Parkinson’s Disease
11 Use of mechanical insufflation-exsufflation in neurological conditions: a UK national physiotherapy survey
16 Optimising motor recovery following stroke: the role of attention in motor learning

News
22 Focus on
24 The life of a PhD student

Sharing good practice
26 Use of Electrical Stimulation following stroke: a consensus statement

Resources
27 Articles in other journals
33 Regional reports
35 Writing for Syn’apse
36 Regional representatives

ACPIN’S AIMS
1. To promote and facilitate collaborative interaction between ACPIN members across all fields of practice including clinical, research and education.
2. To promote evidence-informed practice and continuing professional development of ACPIN members by assisting in the exchange and dissemination of knowledge and ideas within the area of neurology.
3. To provide encouragement and support for members to participate in good quality research (with a diversity of methodologies) and evaluation of practice at all levels.
4. To maintain and continue to develop a reciprocal communication process with the Chartered Society of Physiotherapy on all issues related to neurology.
5. To foster and encourage collaborative working between ACPIN, other professional groups, related organisations ie third sector, government departments and members of the public.
Forethought

From the Chair

Jakko Brouwers
Expert physiotherapist, Morrello Health Ltd

A hectic period!

It has been a hectic period for the ACPIN community since the last Syn’apse.

After a successful conference in March 2015, we have taken up the challenge to develop a programme for an international neurophysiotherapy conference in March 2016 (Save the date: 17th-18th March). This is a collaboration between ACPIN and the International Neuro Physiotherapy Association (INPA). It will be the first time in history that this conference will take place outside of the programme at WCPT and we are very excited to be pulling the line on this fantastic new development for our members and the neurophysiotherapy community.

In order to make some of our commitments easier to manage, we are progressing with the development of an office support function in ACPIN. This will help those members who are doing many volunteer hours a week to organise and promote their commitments easier to manage, we are progressing with the development of an office support function in ACPIN. This will help those members who are doing many volunteer hours a week to organise.

In our Spring national committee meeting, we discussed the current membership structure and the cost of membership. Membership costs have been unchanged for some years and with the ACPIN community taking up more responsibility and a greater role in the promotion of the neurophysiotherapy profession as part of delegated tasks by the CSP, it will become necessary to increase the cost of membership from 2016. The national committee have voted in favour of an increase but have asked the Treasurer to do some work on predicting costs and budget pressures for 2016 onwards. This will inform the decision of the new cost of membership at our national meeting in November.

We are also looking for members of the ACPIN community to come forward and help populate the new website with content.

Work on the ACPIN website has been given a new boost following a workshop held at the CSP. The current website has been running on a platform which has not been updated and struggles to cope with the demands of current internet use and smartphone technology in particular. The aim is for the new website to be more dynamic and have a members and non-members section. We are waiting for a costed plan for the website to support decision-making and a review of options. We are also looking for members of the ACPIN community to come forward and help populate the new website with content.

ACPIN has been working closely with a few other organisations to develop CPD opportunities for members. As usual, this includes the CSP conference but...
Let’s make the design fit the question not the question fit the design: a brief guide to writing a research question that needs answering

from the ACPIN President

Dr Fiona Jones
Reader in Rehabilitation, School of Rehabilitation Science, Faculty of Health and Social Care Sciences, St George’s University, London, and Kingston University

‘I am interested in...’ often starts a sentence which can turn into a ramble from a student embarking on their first foray into research.

I can clearly remember sitting with a group of MSc students in their first group research session and encouraging them to share their ideas, and almost all started by explaining the area they were interested in. However, virtually no one at that early stage had a research question. Over the years I have spent quite a lot of time listening to people share their research ideas and almost always the question fails to show its head. I have been no different, and can remember countless times being asked by my supervisors, both during my MSc and PhD, and by many other researchers, ‘But what is your question?’ It should be so simple to define a question but for many of us it requires a great many blind alleys and dead ends before the right question and route emerges. Here is how it could be done and why it is important to get it right.

One way to start outlining a research question is to think widely first; by this I mean get everything out that bothers you. I have long been a fan of mind maps, ever since my daughter, who was 11 at the time, managed to learn all of the words to Wordsworth’s ‘I wandered lonely as a cloud’ in about 30 minutes using this method. Start with an image or word that bothers and needs attention. For example, ‘45 minutes’ which has been a focus for the Stroke Rehabilitation Guidelines since my daughter, who was 11 at the time, managed to learn all of the words to Wordsworth’s ‘I wandered lonely as a cloud’ in about 30 minutes using this method. Start with an image or word that bothers and needs attention. For example, ‘45 minutes’ which has been a focus for the Stroke Rehabilitation Guidelines since its inclusion in the NICE Stroke Rehabilitation Guidelines. Draw your image, or write your word in the middle of a big sheet of paper, then spread what looks like the boughs of a tree from this word, and represent all the areas which

also includes the UK Stroke Forum and both the Therapy Expo and the Neuro Rehabilitation Expo held in November and June respectively.

We are looking to develop a long-term partnership with these events to ensure they offer an inviting programme for our members and to secure the best rate for attendance. Together with our own ACPIN conference, this will promote five events spread geographically as well as throughout the year for members to access for CPD and networking.

Collaborative work with Handicap International (HI) has continued, following the completion of a SCI training pack. The latest collaboration has involved the development of an ABI training pack for therapists on the trauma register who are to be sent out for humanitarian disaster relief. The contingent of therapists who were sent to Nepal, following the earthquakes in April and May of this year, had all been trained in SCI practical skills and theory, developed in partnership by ACPIN/SCiTL and HI. HI have provided feedback that this training was found to be especially useful given the number of SCI cases seen in the aftermath of the earthquake. Unfortunately, due to the significance of the humanitarian relief at the time of the earthquake, HI was unable to fully report at WCPT on their development of a comprehensive training package. We hope to give them this opportunity at our international conference in March 2016.

At WCPT, INPA held their AGM which included voting in of the INPA committee members. Next to this, the development of a recurring international conference was well supported. INPA is a relatively new group which will need to develop further in order to be able to influence the global position of neurophysiotherapists in various health care systems. Its aims are clearly to do this in those countries where there is a developing neurophysiotherapy specialisation or where there is no neurophysiotherapy specialisation.

The new ACPIN awards will see request for nominations come out soon and combined with the new research and professional development funding available to members, as well as abstracts for the international conference, we will have our work cut out with short listing and allocating. There are always opportunities for members to get a taste of these activities and support the various groups involved in these tasks. The collaborative work with COT on the development of splinting guidelines is continuing, after the publication of the guidelines, with a first review of new publications and emerging evidence. Hopefully this will mean that we can stay abreast of developments in this area and have a guideline which remains up to date over time.

All in all, there is a lot of ongoing development and some has been finalised with great success. It makes ACPIN feel like a dynamic and inviting organisation to be a part of. I hope you can share this impression with me.

I look forward to seeing many of you at the international conference in March or at any of the other national events before then. Please feel free to stop by the ACPIN stand for a chat and share your views on the way ACPIN is developing.
require some thought. Let your mind wander all over the place into every nook and cranny that is connected to your main word or image - this is the exciting bit, because if you have a strange attraction to stationery you have permission to invest in coloured pens! Using a different colour for each bough, start to add branches, to build each line of thought. However random the words and ideas appear along the branches keep going, and don’t be put off at this stage by how messy the whole thing looks. At various stages take a look at what you have done, and if necessary (to be encouraged) create more maps, ditch some of your ideas (you can’t change the world - yet), and work on the ones which seem to have more promise. The most important thing here is to look for themes, connections or ideas of interest.

Ok, what now? Well you have an idea of all the thoughts which are connected to the thing you are interested in; believe me you have now moved on from just saying ‘I am interested in…’. This is now the part where you can start to think about the questions which lie hidden in all your little branches. Have faith in these branches as they will contain a research question. Don’t worry if the research question doesn’t sound right; ask questions like ‘Why do we do this (here)?’, or ‘Is there something which could work, better, faster, cheaper?’, or ‘What do people actually think about x,y,z?’ One thing to remember: every research funder requires the ideas and the plan to be written in a language which can be understood by a lay panel or reviewer, so we all might as well start with creating questions which make sense to the majority rather than the few. Now, this is where you can start to make a list of questions from those in your branches, on a separate sheet of paper. Using different coloured pens again, keep writing them out and refining them. Best of all try saying the questions out loud to yourself and to others.

Well here you are with a list of questions. They may not quite be research questions worth answering yet, but stick with it. This is the next most important bit: you now need to ask yourself what sort of question it is. If your area of attention is about a particular intervention, let’s say an exercise regime for balance retraining, your question is likely to be ‘Does it work?’, which is an ‘effectiveness question’. But equally your question could be ‘Is this regime just as useful for people who have cognitive decline?’, in which case it’s an ‘equity or consistency question’. Or you may ask ‘What do people think and would they want to do the regime anyway?’, which is more of an ‘acceptability question’. This process really helps to get to the stage when you can work out the best way to answer the question - yes the title of this editorial - we are getting there!

Next, like me, you probably need to take a reality check. In other words, how much time and money do you have and how much do you really want to answer this question? I have even said to people ‘Are you doing an MSc, or two PhDs?’, as we can all be guilty of the occasional overly ambitious goal. If you are aiming for research funding it’s critical to get your question and the scale of your research plan right and most importantly to make sure it fits the funder’s aim. But equally it could be a successful small-scale research project which is implemented as part of your work, or through collaboration with other colleagues. Even if you never manage to get funding for your research, this whole process of generating questions and thinking in a radiantly way rather than down a linear, traditional route (ie we use ‘x’ because we have always done it this way), must be for the good. One other possibility is using the mind map method to understand what you and your colleagues know about current research in a particular area, for instance, fatigue management. Using your image, the boughs of a tree, and the branches, generate questions and ideas about what you already know about fatigue management, what you want to know, what happens in your place of work, whether it works and if it is equitable, consistent etc. Then refine the questions and look for the evidence.

An additional technique which can help at this stage is to ask yourself where you would go if you had ten minutes, thirty minutes or one hour to find the answer to your question. Go armed with your question and try Google Scholar; see what comes up in ten minutes and you will be amazed. But be warned - you will now need to watch out for your divergent thought processes. These are unwanted friends, otherwise you will be following up every title that looks interesting, using up your ten minutes and not getting close to the answer to your research question.

To finish, just one small nod to theory and conceptual frameworks that might be helpful. As physiotherapists we can be guilty of inhabiting theory-free zones, and we need to be better at stating what our ideas, assumptions, concepts, beliefs and expectations are that inform our research. Social scientists are much better at this than we are, so try and ask yourself ‘What has informed my research question?’ And ‘How have my own beliefs influenced what I have arrived at?’ This sort of thinking can be done after arriving at your research question, but also can help you understand and interpret the results of your research. Whatever you do, make the question the most important thing and try to think widely in terms of research designs which can fit the question. Can all questions be answered by a randomised controlled trial? I think we all know the answer to that one. Well that’s it for now. I have run out of words and space, by thinking too widely and starting with a mind map. Part two, relating more to different research designs and how they fit different questions, will be in your next Syn’apse!
Musculoskeletal pain
A study of its effect on patients with idiopathic Parkinson’s Disease

MSK pain is a common complaint in people with PD (PwPD) (Politis et al 2010) with prevalence reported between 28-70% (Beiske et al 2009, Rana et al 2013, Hanagasi et al 2011). One third of patients have MSK pain prior to their PD diagnosis (Farnikova et al 2012) and 60% report back pain (Etchepare et al 2006). However, pain is often undertreated (Young et al 2013).

Physiotherapy was shown to be beneficial for movement symptoms in PwPD but its impact on pain was not assessed (Tomlinson et al 2012; Deane et al 2009). No other studies have examined the ‘lived experience’ of PD with MSK pain.

**Aim**
To explore the ‘lived experience’ of musculoskeletal (MSK) pain in patients with idiopathic Parkinson’s disease (IPD). This was for an MSc in Clinical Research at University of East Anglia (UEA).

**Research question**
How does MSK pain affect the function and life of a person with IPD?

**Hypotheses**
1. Higher levels of MSK pain in people with IPD are associated with lower quality of life (QOL) and function.
2. Higher levels of MSK pain in people with IPD are not associated with Parkinson’s disease (PD) severity.
3. Higher levels of MSK pain in people with IPD are associated with higher levels of anxiety and depression.

**METHODS**

**Design**
This was a mixed methods cross-sectional study. The qualitative component employed interpretive phenomenology (Dowling 2007) to collect detailed interview data on the experience of pain in IPD and then used thematic analysis to identify themes. The quantitative component used validated questionnaires to quantify symptoms. The role of the researcher was to use her insider knowledge and clinical experience as a senior physiotherapist to guide the semi-structured interview (Pyett 2003, Carpenter 1997).

**Setting**
The study was approved by the East of England – Norfolk, Ethics Committee, reference: 14/EE/0142. Participants were recruited from Acute and Community NHS Trusts in the East of England.

**Participants**
We recruited a purposive sample of 15 people with IPD and MSK pain. The IPD was diagnosed by a consultant neurologist and the MSK pain was diagnosed by a doctor or a physiotherapist. Patients assessed, by referrer or researcher, to have insufficient cognitive capacity to manage the two-hour research session, were excluded. Five of the participants had received physiotherapy from the author previously but none were currently under her care.

**Procedure**
The research was carried out in the participant’s home. All participants gave informed consent followed by a two-hour interview and questionnaire session (Saxena et al 2013) and were given the numerical identifiers. The semi-structured interview, using interpretive phenomenology, was based around the following questions:
1. Where do you feel the pain?
2. What activities does the pain affect?
3. How does your pain affect your life?
4. How does it affect your well-being?
5. Does the pain affect your sleep?
6. What effect does the pain have on your carer?
7. Does it make anything more expensive eg cost of taxis, prescriptions?
8. What helps you to manage your pain?
The voice recordings were transcribed and then sent to the participants for verification. The interviews were then coded using thematic analysis by the author and confirmed and refined with my co-author, Katherine Deane.

The validated questionnaires below were completed by the patient with the assistance of the researcher who talked them through the assessments.

1. Visual Analogue Scale (VAS), 10 point scale (Boonstra et al 2008)
2. Comprehensive Pain Evaluation Questionnaire (CPEQ) a more functional score on pain (Nelli et al 2012)
3. Unified Parkinson’s Disease Rating Scale (UPDRS) (Goetz et al 2007)
6. Hospital Anxiety and Depression Score (HADS) (Bjelland et al 2002)
7. Hoehn and Yahr score (H&Y) (Tsanas et al 2012)

RESULTS

Nine themes were identified from the interview data.

1. Musculoskeletal pain

Most of the participants had mechanical pain made worse with certain movements.

‘And I’m bent like that, then I straighten up, and then I start feeling the pain in my back, and then my legs.’ (Participant 004)

This participant had the highest VAS, 8/10 and CPEQ, 64/85 scores, but his UPDRS score was in the mid-range (49). This was an example of where high pain scores were not associated with worse symptoms of PD.

Many participants had cramp, osteoarthritis and hand/wrist problems.

‘the cramp pains can be in the toe area, on top of the foot, at the ankle, calves, upper leg muscles, all the way up to the shoulders and also at times for driving.’ (Participant 003)

2. Falls

Participant 004 was at great risk of falls when fatigued which clearly worried his daughter.

‘And if something’s in the way, dad can’t move quickly so he will fall…it’s an accident waiting to happen.’ (Carer for 004)

Both participant 008 and 007 had fractured their hips during falls which led to persistent pain.

3. Activities affected

Walking and standing often increased back or leg pain. Participant 003 felt disorientation and stamina difficulties when walking. She had only 27/147 for UPDRS but she scored the highest HADS anxiety score 13/21.

‘The only thing I can say about Parkinson’s… it has affected my walking…and it’s frightening to me because I would like to walk more.’ (Participant 003)

Many minor domestic duties were exhausting. Participant 015 had a high non-motor score at 17/30 and moderate VAS 6/10.

‘…when there’s a lot of washing up to be done … I get very bad pains in my neck and shoulders … I feel as though I want to collapse. I’ve got to go and sit down.’ (Participant 015)

Half of the cohort would not even attempt doing gardening now. For those with a lower H&Y score, such as participant 013, H&Y 2, they had to pace themselves to manage it.

‘I used to be able to garden without any stoppage at all. Now, I find that the ache just increases so much that … it stops me from carrying on.’ (Participant 013)

4. Well-being

All the participants had positive attitudes despite their increased level of impairment.

‘… if I can try and smile and have a laugh with people, at the end of the day I haven’t done so bad.’ (Participant 007; H&Y 4)

Participant 009 and wife carer were determined that they would not get down and about their situation. He had a HADS total 2/42 but one of the highest CPEQs at 60/85.

‘No we don’t believe in depression. You can’t alter things that are there. You have just got to go forward and do the best you can in the circumstances.’ (Carer for 009)

For a lesser affected participant 012 (Schwab-score was 70/100), her husband felt that his wife’s condition had not held them back.

‘I wouldn’t say the pattern of our life has changed that much … We still live a fairly full, busy life don’t we?’ (Carer for 012)

5. Carers

The wife of participant 009 described how hard it was to look after her heavily dependent husband who had a score of H&Y 4/5 and Schwab 20/100.

‘It’s hard work … Because you are doing everything for your husband.’ (Participant 009)

Participant 003 described her sons’ annoyance about her condition. She was moderately affected and had a different level of ability compared to before she was diagnosed.

‘Frustration on their part. I know they shout. But I think it is all because of frustration.’ (Participant 003)

For those who had professional carers visit, it was important that they knew their patients’ symptoms. Participant 004 needed someone who could identify when he should rest.
With dad having different carers, it's difficult for them to see dad as he is, so whilst he might be swaying, they think that that's the norm. So trying to get somebody in consistently ... and she is beginning to see ... the effect that dad's legs will have on his ability to do things.’ (Carer for 004)

6 Sleep and fatigue

Most of the participants had their sleep affected by either pain or Parkinson's symptoms. Participant 009 was extremely affected (VAS 7, H&Y 4) and was at great risk of falling and injuring himself at night.

‘He is nocturnal now. He is awake at night turning, dozing, twisting and falling and during the day he is twisting and turning in the chair when he is asleep.’ (Carer for 009)

Participant 015 (CPEQ 49/85, Non motor 17/30) would be woken up by pain if he lay on his bad side in bed.

‘Well, I only get about three or four hours a night ... if I wake up, I've been lying on my right-hand side and I've got to turn over to take the pressure off this leg.’ (Participant 015)

Most had tried to optimise their sleep hygiene; for example, a new bigger bed solved the problem of participant 012 and her husband waking each other up.

‘... we've got an enormous bedroom now, it's wonderful ... So neither of us knows when the other one is moving.’ (Participant 012)

There were a few participants who were not affected negatively by their sleep. Participant 005 was mildly affected by the PD (H&Y 1.5) and was a good sleeper.

‘Once I am asleep, I am gone. And I am hard to wake up as well.’ (Participant 005)

Participant 010 described exhaustion with his symptoms. He had a high VAS score (7/10) but a low HADS (6/42).

‘I can be at the point where I'm kind of dragging myself along. You know, the pain - body's tightening up, you know, with the discomfort and tiredness.’ (Participant 010)

7 Expense/cost

The extra help and care was expensive for some. Several participants on a low budget struggled.

‘I pay my daughter-in-law to do my housework ... Then there's the cost of having a delivery of food ... I buy frozen dinners which are more expensive ... I have to pay for a carer to ... help me shower in the mornings ... You're talking of paying quite a few hundred pounds a month.’ (007)

On the other hand, there were a number of participants who could afford any help they needed. Most of the participants liked warmer weather for their aches and pains, so being able to afford holidays in warmer climates was beneficial.

‘We quite often say, you know, we consider ourselves very lucky that we can do what we want to do.’ (Participant 013)

8 Healthcare professionals involved

The principle healthcare professionals involved in the care of our participants were the neurologist, general practitioner, neuro-nurse, physiotherapist and occupational therapist. Overall patients were happy with their care. Participant 005 (H&Y 1.5) was waiting for physiotherapy advice.

‘... let's get physio before he goes to the gym because you don't know if you are using the right muscles or doing the right things.’ (Carer for 005)

Participant 009 who was severely affected (H&Y 4) had experienced a number of serious episodes.

‘The Parkinson's nurse and physios have been brilliant and they help me as much as I want. So we get over the situation at the time.’ (Carer for 009)

9 Management

There was a low usage of pain relief by most of the participants. This was due to beliefs that paracetamol would react badly with their anti-Parkinsonian medication. They thought it would mask the pain then they would make it worse by doing too much. Participant 001 saw using paracetamol as a 'last resort'. She had quite a high pain score (VAS 6/10, CPEQ 43/85).

‘... only about three paracetamols a week ... It is very painful but I put up with it rather than keep taking too many tablets.’ (Participant 001)

Comfort when resting in a chair or bed was very important. Participant 005's new chair helped his leg pain.

‘... it's a lovely comfortable chair. And the achingness does go after a little while – even if I don't take anything, it does go’ (Participant 005)

Pacing was another very important aspect of management. Some of the participants managed this easily but for others it was quite difficult to do less than they were used to.

‘... coming up with a schedule of work ... and being very strict about resting ... I'm not a very disciplined person, so it's very difficult to follow.’ (Participant 010)

Some participants did not see the purpose of exercise and if they had not done it previously they were uninclined to start now. Whereas those who had always done exercises continued to do so.

‘I've always done my own exercises.’ (Participant 015)
ARTICLES

DISCUSSION

MSK pain’s effect on the function and life of patients with IPD varied from mild to severe impact. Those with milder symptoms were able to continue their retired life without much restriction. If both the IPD and MSK pain were severe then life was extremely difficult.

Hypothesis 1

Higher levels of MSK pain in people with IPD are not associated with Parkinson’s Disease severity. Although none of the participants scored depression in the HADS, many of them experienced frustration, loss, anxiety or worry. The individual interview data demonstrated examples both for and against the hypothesis.

Hypothesis 2

Higher levels of MSK pain in people with IPD are associated with higher levels of anxiety and depression. Although none of the participants had depression associated with lower QOL and function. The interview data showed lower QOL which was often activity related. However, some of the cohort were still able to get out and do stimulating activities. The interview data demonstrates support of the hypothesis but also shows the importance of positive coping strategies.

Hypothesis 3

Higher levels of MSK pain in people with IPD are associated with higher levels of anxiety and depression. Although none of the participants had depression, many expressed that pain was variably linked with PD severity.

Theme 1 MSK pain

Broetz et al (2007) called for routine evaluation of all types of pain in people with PD. Several of the cohort found their pain improved with the start of Parkinson’s medication and analgesia (da Silva et al 2008). The medication helps to enable more mobility which can reduce MSK pain.

Theme 2 Falls


Theme 3 Activities affected

Every participant in this study, were, to a greater or lesser extent, compromised in their activities. Hariz and Forsgren (2011) found patients had limitations in their ADL’s and QOL compared to controls. Thordardottir et al (2014) reported participation in ADL’s needed planning to cope with the energy and stress involved.

Theme 4 Well-being

Although none of our participants had depression by the HADS criteria, many expressed problems with mood and this could impact on their pain coping strategies. Other studies (Ehrt et al 2009) have found a significant relationship between pain and depression in PD and subclinical depression can impact on QOL (Menon et al 2015, Lawrence et al 2014). Consideration should be given to the use of CBT, which is known to be helpful in both mild depression and pain (NICE 2009).

Theme 5 Carers

Some of the carers in the study were under pressure. This reinforced Drutyte et al (2014) findings that reported very high emotional strain on carers for people with Parkinson’s, which might be reduced with better symptom management.

Theme 6 Sleep and fatigue

Sleep disturbances including nocturnal, REM sleep disorder and excessive daytime sleepiness are common in PD (Chaudhuri 2002). Most of the participants had disrupted sleep which aggraver their PD and pain levels. Fatigue and poor sleep are linked to higher levels of pain and poor coping strategies (Skogar et al 2012, Havlíková et al 2011) Therefore patients may benefit from education about good sleep hygiene practices (Gregory et al 2012).

Theme 7 Expense/cost

The hidden costs associated with pain and IPD could be substantial. Those on a small budget found it hard to manage. Those who were financially fortunate could pay for help and enjoy relaxing luxuries that helped them manage their pain better.

Theme 8 Healthcare professionals involved

The MDT should be encouraged to ask specifically about pain as they can provide key interventions for improving its management. Physiotherapists educate the patients on exercises and management of symptoms (Magennis and Corry 2013). Occupational therapy provide equipment to promote participation (Sturkenboom 2012). Neuro nurses have a pivotal role in education on drug therapy including analgesics (Cranwell-Bruce 2010).

Theme 9 Management

Most of the participants had poor adherence with analgesic medications due to concerns about interactions with their anti-Parkinsonian medications and dependency issues. This is an obvious point for professionals to address with clear information and reassurance. A number of them took exercise which is known to improve QOL with PD including domains of pain, energy levels and sleep (Rodrigues de Paula et al 2006). Heat brought relief to many of the participants. Most had discovered positions of comfort. All had developed at least some good coping skills.

Limitations

In hindsight the researcher realised it would have been useful to have tested for mild cognitive impairment which may have impacted on the coping skills of the participants. All of the
participants were aware of the author’s professional post of physiotherapist, and she had treated five of them. This could have introduced bias as they may have been reluctant to criticize.

Strengths
By offering the interviews in the patient’s home we enhanced the projects acceptability; we had no problem with recruitment and managed to get a sample that covered a range of pain and IPD impairment.

CONCLUSIONS
Pacing, comfort and appropriate exercise were important pain management techniques. Patients should be reassured of the benefits and low risk of step 1 analgesics (WHO 2009). Ability to cope was dependent on the skill of the individual to self-manage, the support of the carer and their financial situation. Patient's unique experience of pain and their expertise in its management should be respected and treated on an individual basis by professionals.

Ethical Approval
The organisation providing ethical approval was the East of England, Norfolk Ethics Committee. The ethics protocol reference was: 14/EE/0142.

Conflicts of interest
The author had treated five of the participants in the past in her role as senior neurophysiotherapist. This could have introduced a bias as they may have been reluctant to criticize. None of the participants were in the author’s current care at the time of the research.

Acknowledgements
The researcher received a grant for her MSc study-time from the National Institute for Health Research (NIHR).

REFERENCES


Carpenter C (1997) Conducting Qualitative Research in Physiotherapy. A methodological example Physiotherapy 83(10) pp547-552.


Hariz GM and Forsgren L (2011) Activities of daily living and quality of life in persons with newly diagnosed
Parkinson’s Disease according to subtype of disease, and in comparison to healthy controls *Acta Neurologica Scandinavica* 123 pp20-27.


As neuromuscular disease progresses, altered chest wall mechanics, inflammation and infection, reduced airflow and decreased gaseous exchange results in a less effective cough, increased sputum retention, and difficulty in performing airway clearance to remove secretions (Botanio 2006, Panitich 2009). Effective airway clearance requires the mobilisation of secretions and an increase in lung volume prior to an effective cough (Finder 2006).

Weakness of the diaphragmatic, intercostal, inspiratory, expiratory and glottic muscles results in an inability to ventilate, decreased cough efficiency and, with bulbar muscle dysfunction, comes an increased risk of aspiration (Benditt et al 2006). Additional factors, which contribute to cough ineffectiveness and alveolar hypoventilation are: microatelectasis; stiffening of the rib cage with loss of compliance; scoliosis or thoracic deformity; cardiomyopathy; obesity; fatigue; bronchial obstruction; sleep alterations (Servera et al 2013). This respiratory insufficiency is compounded as disease severity progresses and when there is an exacerbation due to a chest infection (Simonds 2007).

It is necessary to ensure adequate secretion management in the care pathway of patients at risk of developing respiratory compromise (Gauld 2009). The timely use of airway clearance, including either manual or mechanical cough augmentation techniques, should be incorporated into physiotherapy management, for people with neuromuscular disease resulting in respiratory compromise, in order to decrease hospital admissions due to respiratory problems, improve health-related quality of life and alleviate disability (BTS/ACPRC 2009, Bushby 2010).

A component of airway clearance, mechanical insufflation-exsufflation (MI-E), is a cough augmentation technique used by physiotherapists to manage people who present with an impaired cough (BTS/ACPRC 2009). Neuromuscular clinical guidelines from around the world state that the use of MI-E is based on moderate to low level evidence (ATS Respiratory Care of the Patient with Duchenne Muscular Dystrophy 2004, Motor Neurone Disease Association 2006, Consensus Statement for Standard of Care in Spinal Muscular Atrophy 2007, Bushby et al 2010, ACI Respiratory Network 2010, Consensus Statement for Standard of Care for Congenital Muscular Dystrophies 2010, BTS 2012). Previously, a single question posted on an interactive discussion forum for members of the Chartered Society of Physiotherapy established that approximately 64 healthcare organisations use MI-E in the United Kingdom (Chatwin, 2010).

In order to understand and further explore the clinical utility of MI-E in the care package of patients with respiratory compromise, due to a neurological condition, it is necessary to establish existing practice. Determining the clinical decision-making process to choose MI-E as a treatment technique will help inform future guidelines and training in clinical practice. The aim of this study was to assess the usage of MI-E by physiotherapists managing neurological conditions in the UK. Specific objectives included establishing neuromuscular conditions in which physiotherapists use cough augmentation techniques including MI-E, why and how MI-E is used; the outcome measures used clinically to ascertain effectiveness and how knowledge is gained.

METHODS

A questionnaire was developed after a review of relevant literature and discussion with the multidisciplinary team. The questionnaire was piloted for content validity and test-retest reliability (n=6), and necessary changes were made: definitions were provided to aid understanding; order and wording were changed for clarity; space was provided for additional answers; and questions were added regarding the pneumotachograph as an outcome measure and where training occurred. Twenty-four questions were included.
in the final version to capture: cough augmentation techniques used; the clinical populations using MI-E; factors determining the decision to use MI-E machine parameters and outcome measures used clinically, and sources of training.

Questionnaires were sent to members of the Health and Care Professions Council registered chartered physiotherapists currently practising in the United Kingdom who were also members of a clinical interest group managing people with respiratory compromise due to an underlying neurological condition: Association of Chartered Physiotherapists Interested in Neurology (ACFIN) (n=1,739), the Association of Paediatric Chartered Physiotherapists interested in Respiratory Physiotherapy (APCF) (n=107) and the Association of Chartered Physiotherapists in Respiratory Care (ACPRC) (n=750). Total n=2,596. The questionnaire was sent to each membership database using electronic (SurveyMonkey) or postal methods, as directed by their individual preference. Follow-up reminders were sent out to non-respondents. The survey took place between June and July 2011. A favourable ethical opinion was provided by the Office for Research Ethics Committee in Northern Ireland (Ref: 11/NIR03/1).

STATISTICAL ANALYSIS
Closed categorical data was analysed descriptively using frequencies and percentages (IBM SPSS Statistics for Windows, Version 22). Open responses were quantitatively analysed using standardised content analysis and collapsed into categories with descriptive frequencies and percentages calculated (Stemler 2001; Krippendorff 2013). A p value of <0.05 was considered statistically significant.

RESULTS
A total of 2,596 questionnaires were administered of which 1,058 responses were returned, a response rate of 41%. A number of respondents were not eligible to reply: not currently practising; respondents responded to a yes/no question re MI-E use but did not consent to complete the full questionnaire, therefore, 912 completed responses were analysed.

A retrospective power calculation was carried out using a confidence level of 95%, a margin of error of 5% and a population size of 2,596. It resulted in a margin of error of 2.3% which was deemed to be acceptable.

The majority of respondents worked in England (87%, 769/912) with a minority in Scotland (5%, 49/912), Wales (4%, 32/912) and Northern Ireland (4%, 34/912).

Cough augmentation techniques
The majority of respondents used the cough augmentation technique of suction (86%, 784/912) or manually assisted cough (81%, 736/912) and just over a third of respondents used air stacking either with: a self-inflating resuscitator (Ambu® bag) (39%, 351/912); intermittent positive pressure breathing (35%, 319/912); or non-invasive ventilation (32%, 287/912).

MI-E was used by half of respondents (48%, 479/1,002). Note the larger denominator is due to the 90 additional responses of those who completed a single question to determine if they used MI-E. MI-E was used primarily in those over 21 years (89%, 427/479) or in young adults from 16 – 20 years (43%, 207/479) and in children: 0–15 years (59%, 284/479). MI-E was used most frequently in the progressive neurological conditions of Motor Neurone Disease (57%, 272/479), Multiple Sclerosis (46%, 219/479) and Duchenne Muscular Dystrophy (45%, 216/479). MI-E was used in the respiratory management of spinal cord injury patients (61%, 291/479).

MI-E was most commonly used in the hospital environment (87%, 415/479); in the treatment of acute respiratory exacerbations (91%, 434/479); or as a prophylactic measure to prevent respiratory exacerbations (57%, 275/479). It was used less often at home (28%, 136/479). MI-E was used by patients who were spontaneously breathing (96%, 459/479). Patients’ already prescribed non-invasive ventilation used MI-E as an adjunct to remove secretions (67%, 321/479). MI-E was less often used as an airway clearance adjunct by those patients who were mechanically ventilated (26%, 123/479).

Working parameters cited for cough augmentation
Optimal pressures of ± 40cmH2O are necessary to clear secretions (Philips Respironics 2014; ACI 2010; McKim 2011; BTS/ACPRC 2009). The number of physiotherapists using these parameters was: +40cmH2O (25%, 119/479) and -40cmH2O (33%, 158/479). The most common factor influencing choice of pressure was patient comfort and tolerability (78%, 373/479); failure to remove secretions (76%, 363/479); and pressures taught in training (67%, 323/479). Other factors which directed pressure settings were: restrictive thoracic mobility (59%, 283/479); size of thorax (48%, 232/479); reduced oxygen saturations (39%, 187/479); pressures already set (4%, 18/479); evidence (3%, 14/479); and co-existing conditions (1%, 5/479). A quality assurance mechanism exists in the form of local standard operating procedures in half of the clinical environments (49%, 236/479).

Outcome measures
Pulse oximetry (76%, 362/479); sputum production (71%, 339/479) and arterial blood gases (71%, 339/479) were the most commonly used physiological outcome measures to determine the effectiveness of MI-E and a smaller proportion of respondents used peak cough flow (28%, 135/479) and vital capacity (24%, 133/479). Half the respondents used the clinical measure of respiratory infection frequency (50%, 238/479). Patient reported outcome measures used
This study has identified that physiotherapists managing a change in respiratory status due to muscle weakness and disease progression in those with progressive neurological disease. MI-E was extensively used within the spinal cord injury population to prevent respiratory complications which are the leading cause of morbidity and mortality in upper level spinal cord injury (Reid et al. 2010).

Neuromuscular diseases can affect all ages and MI-E was used in both adult and paediatric neuromuscular population management. However, this study found less usage in those under 15 years despite the existence of guidelines and consensus statements advocating early introduction in order to accustomise children to treatment, prior to disease progression and medical emergencies (ATS 2004, SMA 2007).

Whilst usage was predominately in the hospital environment, for the management of respiratory exacerbations, there is some evidence of its use in patient management within primary care. This could have implications for service development within the multidisciplinary team as MI-E should be incorporated into the home environment to reduce unnecessary and costly hospital admissions and improve quality of life (MD Campaign 2011, Bento et al 2013). The majority of physiotherapists are using MI-E as a non-invasive adjunct in patients who are spontaneously breathing. It is also used in conjunction with non-invasive ventilation to enable optimal ventilation and secretion clearance, identifying a role for both devices (ACI 2010, NICE 2010, Chen et al 2014). A clinical study supporting the introduction of MI-E as a weaning strategy to prevent re-intubation in those with acute respiratory failure (Goncalves et al 2012) is supported by this studies findings on the extended usage of MI-E in those who are intubated and ventilated in intensive care.

Evidence based practice reports that pressures of ±40 cmH2O need to be generated for effective airway clearance (Castro and Bach 2002, Goncalves and Winck 2008, Fauroux et al 2008, ACI 2010, Philips Respironics 2014). However, the results of this study demonstrate that this is not being achieved in clinical practice. The theoretical rationale, supporting physiological changes in airflow and volume using MI-E, needs to be utilised clinically and greater awareness of pressure requirements could be encouraged during training.

This study found that outcome measures used in clinical practice do not fully reflect the clinical guidelines strong recommendations of using peak cough flow and spirometry to monitor muscle weakness and direct the escalation of respiratory interventions (BTS/ACFRC 2009, ACI 2010, NICE 2010). Patient reported outcome measures which determine clinical efficacy such as frequency of respiratory infections and hospitalisations, duration of hospital stays and quality of life markers (Morrow et al 2013) were
less commonly used and are required in order to influence service development and assess the long-term effectiveness of MI-E usage.

As MI-E is delivering a pressure directly to the lungs it may adversely affect patients. A minority of respondents did identify events such as abdominal distention due to air being forced into the stomach. However, barotrauma resulting in a serious event such as pneumothorax was rare and correlates with existing evidence (Suri et al. 2008).

Limited access to MI-E has affected its implementation within the patient care pathway and this needs addressing at a national as well as local level to enable optimal management in line with clinical guidelines. This study highlights the necessity to formalise training so that competency-driven training, with regular updates, is provided for physiotherapy staff.

In this study lack of evidence was identified as a reason for not using MI-E in clinical practice. There is moderate to low level short-term evidence and expert opinion to support use of MI-E in neuromuscular populations as reported in clinical guideline recommendations. However, long-term evaluation of MI-E as a component of the neuromuscular respiratory management of a patient’s care package is necessary (Morrow et al. 2013).

Limitations of this study
This study’s findings are representative of physiotherapists who are members of neurological, respiratory and paediatric special interest groups who manage people with neuromuscular conditions. The response rate was low, even with robust methodological processes; however, the retrospective power calculation provides some assurance that the results are meaningful and have captured information which should be representative of the physiotherapy population studied.

CONCLUSION
Usage of MI-E by physiotherapists is established practice in the neuromuscular population. This study has identified gaps in service delivery and provided information that could be useful in informing education, training and service development.

At present clinical guidelines, based on moderate to low evidence, recommend the use of MI-E in those neurological populations with respiratory compromise. Until more robust evidence for the use of MI-E in people with neuromuscular disease is provided, enabling fully informed decision making, MI-E usage should continue in line with clinical audit and evaluation. Physiotherapists need to implement recommendations in clinical guidelines to ensure the translation of existing evidence into clinical practice.

Acknowledgements
This study was supported by the Department of Employment and Learning, Northern Ireland.

REFERENCES


The use of detailed and specific coaching statements (instructions and feedback), that encourage patients to think about how they are moving, is common within neurological physiotherapy practice (Johnson et al 2013, Durham et al 2009, Talvitie 2000). Yet a growing body of evidence within the motor learning literature questions the value of prompting learners to consciously attend toward their own body movements (see Wulf 2012). This paper will discuss the influence that therapist communication may have on attention, and the potential impact on learning and recovery.

Attention refers to what we are thinking about, or what we are aware of, when we perform activities (Magill 2010). When coaching statements are provided by an external ‘coach’, they may influence two elements of attention – capacity and focus. Coaching statements will generate an attentional load on the receiver, who will need adequate resources to attend to and interpret the incoming information. High quantities of information will place demands on working memory. This may interfere with the practiced movement; whilst at the same time, the practised movement may interfere with the comprehension of the information (Haggard et al 2000). These factors relate to attentional capacity. In addition, coaching statements play an important role in directing attention of the learner. This may be either internal (toward body movements), or external (toward the environment). For example, ‘think about bending your knee’ would promote an internal focus, whereas ‘focus on the step’ would promote an external focus. The location of attention in relation to specific aspects of the task being performed is known as attentional focus.

Whilst there is considerable research to indicate that coaching statements have an important effect on learning in healthy individuals, there is relatively little evidence within the stroke literature. Despite this, therapists are known to spend considerable time instructing patients. In a previous observational study of physiotherapy practice for post stroke gait rehabilitation, we found the use of coaching statements during physiotherapy to be high; with an average of one verbal instruction or feedback statement being given every 14 seconds (Johnson et al 2013). Therapists favoured the use of internally focused statements (67% of all statements); and unfocused statements such as ‘good’ or ‘keep going’, were also used regularly. Patients were frequently encouraged to ‘think about’ their performance, or be aware of their movements (Johnson et al 2013). Similar findings have also been reported during upper limb rehabilitation post stroke (Durham et al 2009).

### Quantity of Coaching Statements

Although evidence within stroke rehabilitation is lacking, evidence from other fields raises questions about the usefulness of such communication. Research with healthy individuals has specifically compared how different quantities of feedback influence motor learning. Reducing the proportion of trials for which feedback is presented can result in more effective learning than presenting feedback after every trial (Weeks and Kordus 1998, Winstein and Schmidt 1990, Lai and Shea 1998). Typically, these studies compare feedback after every practice trial (100% feedback) to feedback after every third trial (33% feedback). Similar benefits of reduced frequency feedback have also been shown in patients with traumatic brain injury learning a novel upper limb sequence (Croce et al 1996). Croce et al (1996) found that during acquisition trials subjects receiving feedback on every trial
were the most accurate and the most consistent in their responses (ie higher performance); however, subjects in groups receiving summary and average feedback were the most accurate during immediate retention, with the group receiving summary feedback being the most accurate during longer retention (ie greater learning) (Croce et al 1996). Readily correcting performance may not therefore be as helpful as allowing someone to find their own motor solution through practice alone.

**CONTENT OF COACHING STATEMENTS**

The basic finding that inducing an external focus of attention is more advantageous to learning when compared to an internal focus has been demonstrated in numerous studies involving motor tasks; examples include baseball (Castaneda and Gray 2007), field hockey (Jackson et al 2006), and soccer (Beilock et al 2002). Studies have also shown that not only do external focus instructions result in more effective leaning than internal focus instructions, but they are also preferential to no instruction at all, leading to the interpretation that an external focus actually seems to enhance learning (Wulf et al 1998, Ford et al 2005, Koedijker et al 2011). Furthermore, in addition to the functional benefits of an external focus of attention, studies utilising surface EMG have shown neuromuscular activity to be more efficient under external focus conditions (Vance et al 2004, Wulf et al 2010, Zachry et al 2005). This body of evidence is compelling, but transferability into a stroke rehabilitation setting is unknown.

Although evidence in stroke is limited, there are a small number of studies that broadly replicate the beneficial effects of an external focus of attention during lateral weight transfer (Muckel and Mehrholz 2014) and reach to grasp (Durham et al 2014, Fasoli et al 2002). For example, Muckel and Mehrholz (2013) compared the immediate effects of an external focus to enhance lateral body weight shift after stroke. Whilst sitting, patients with hemiplegia were prompted to shift their weight sideways onto their hip (internal focus) or sideways toward a marker on the plinth (external focus). Despite a small sample size (n=20), the effects were statistically significant. Patients in the external focus group achieved significantly greater lateral body weight support than those in the internal focus group. As these studies only assessed performance, the impact on learning (carryover) is not known.

**THEORIES RELATING TO ATTENTION AND LEARNING**

Theories propose that focusing on specific movements (internal focus) may constrain or interfere with automatic control processes that would normally regulate movement, whereas if attention is focused towards the movement effect (external focus) the motor system is able to more naturally self-organize (Wulf et al 2001). By adopting an external focus unconscious or automatic processes control the movement, resulting in more effective performance and learning (Vance et al 2004). This conceptualisation is known as the Constrained Action Hypothesis. Similarly, Reinvestment Theory supports the idea that relatively automated motor processes can be disrupted if they are run using consciously accessed, declarative knowledge to control the mechanics of the movements (Masters and Maxwell 2008). Complex skills with many units become broken down into sequences of smaller, separate units. Once broken down, each unit must be activated and run separately which slows performance and, at each transition between units, creates an error that was not present in the ‘chunked’ control structure.

There are a number of reasons why the breakdown of skill under conscious learning conditions (ie with high quantities of task relevant information/an internal focus) may be seen more readily in patients with stroke:

- Stroke patients often report the need to consciously control the execution of their movements and are encouraged to do so by their therapists.
- During rehabilitation, stroke patients may receive many verbal and explicit instructions on how to perform a movement.
- Movements are constantly evaluated by rehabilitation staff which may increase stress/pressure to perform well.
- Patients may have reduced attentional capacity and slowed information processing as a result of the neurological damage.
- Movement deficits may lead to a negative body image and low self-esteem and therefore increased self-consciousness.

(Kleynen et al 2011)

**GAPS IN THE LITERATURE**

Current literature identifies information provision, both in terms of quantity and focus of attention, to be important factors in motor learning. Whilst there is considerable evidence linking these factors to learning within healthy individuals, particularly in the fields of sports science and psychology, there is little evidence in stroke rehabilitation. Studies in stroke primarily assess performance (not learning) or investigate computer based activities (eg Boyd and Weinstein 2003). Whilst such studies provide valuable insights into learning behaviour, they do not represent the complexities of motor learning in natural settings. The current evidence base does not therefore provide sufficient knowledge to guide the optimal delivery of rehabilitation interventions; and transferability of findings into a stroke rehabilitation setting is unknown. Future research is required firstly to understand how practice can be adapted in order to change attentional demands/focus, and secondly to
evaluate the impact that different attention conditions have on motor learning and recovery.

**RESEARCH PROGRAMME**

As part of a programme of research, we have developed guidelines for early gait rehabilitation using a reduced attentional demand (RAD) strategy. This strategy incorporates both a reduction in the overall quantity of communication, as well as promotion of an external focus of attention. These guidelines were developed empirically through observation of clinical practice, with input from clinicians and with due consideration to the existing evidence base. They have been successfully tested within an acute stroke unit setting through a feasibility trial (Johnson 2014). The next stage is to conduct a pilot study, fully exploring the application of the reduced attentional demand strategy in acute stroke rehabilitation and testing elements of the overall research design, before ultimately moving on to a larger randomised controlled trial.

This field of work demonstrates the value of looking beyond the neuro-rehabilitation literature, as there is considerable evidence relating to motor learning within other fields. If the findings from healthy populations were to be replicated in stroke rehabilitation, it could have important implications for the delivery of rehabilitation interventions. Reducing attentional demand by reducing the use of coaching statements and promoting an external focus of attention, could play an important role in optimising motor recovery. The challenge now is to apply and test the applicability of this within neurological rehabilitation.

**REFERENCES**


Talvitie U (2000) Socio-affective characteristics and properties of extrinsic feedback in physiotherapy *Physiotherapy Research International* 5 pp173-188.

EMG activity as a function of the performer’s focus of attention Journal of Motor Behavior 36 pp450-459.


Evidence into practice

ACPIN – INPA
International Neurophysiotherapy Conference
QE2 Centre • London UK
17th-18th March 2016

Concurrent programme streams covering the diversity of neurorehabilitation

SPEAKERS

KEYNOTE Prof Derick Wade
Prof Mindy Levin (Canada)
Prof Steve Wolf (USA)
Prof Louise Ada (Australia)
Prof Gert Kwakkel (the Netherlands)
Prof Jonathan Marsden (UK)
Prof Lisa Harvey (Australia)
Prof the Baroness Finlay of Llandaff (President of the CSP)

Prof Monica Busse (UK)
Prof Robert van Deursen (UK)
Prof Fiona Jones (UK)
Prof Birgitta Langhammer (Norway)
Dr Elisa Pelosin (Italy)
Dr Jan Mehrholz (Germany)
Dr Stephen Ashford (UK)
TICKETS

ACPIN members
Two day ticket:
Early bird £150*
Regular £200
One-day ticket:
Early bird £100*
Regular £150

Non-members
Two day ticket:
Early bird £250*
Regular £300
One-day ticket:
Early bird £150*
Regular £200

* Early bird rate ends 31 December 2015

To register go to www.acpin.net
ACPIN research grants

ACPIN is able to award research grants to support members to undertake research in their clinical practice.

Applications need to be submitted by the 31st January. There are also grants to support travel to participate in research overseas.

We are also making grants available to support your continual professional development, to cover costs to attend national and international conferences, and towards study for a PGdip and MSc.

Please see table below for more details. Applications can be made through our website.

ACPIN research grants schedule

Research grants are awarded at the National ACPIN Conference and AGM in March. Applications need to be submitted by 31st January. Grants will only be awarded to researchers who are able to attend the AGM to explain the benefit of their research at the AGM and Conference.

<table>
<thead>
<tr>
<th>Grant</th>
<th>Purpose</th>
<th>Amount</th>
<th>Application</th>
<th>Criteria/contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Project Grant: ACPIN members, masters students or PhD students</td>
<td>To support ACPIN members who wish to undertake a research in their clinical practice; for those undertaking research for the fulfilment of their MSc or PhD</td>
<td>Six grants each year up to £1,000</td>
<td>Application form</td>
<td>ACPIN member for two years. Research must be disseminated through ACPIN route. Publication in professional journals is recommended and ACPIN needs to be acknowledged in publications.</td>
</tr>
<tr>
<td>ACPIN Presidents Grant</td>
<td>Project or research felt by the ACPIN president to be in the interest of ACPIN and the furthering of the neuro-physiotherapy profession</td>
<td>Once a year up to £2,000</td>
<td>A call for applications will be announced at the ACPIN AGM. There will be a four month application period until the deadline. The committee will decide each year whether there will be a call announced.</td>
<td>ACPIN member for two years. Research must be disseminated through ACPIN route. Publication in professional journals is recommended and ACPIN needs to be acknowledged in publications.</td>
</tr>
<tr>
<td>International ACPIN Research Facilitation Grant</td>
<td>The International ACPIN Research Facilitation Grant is to support travel to participate in research overseas in the field of neurological physiotherapy</td>
<td>Up to £1,000</td>
<td>Application form</td>
<td>ACPIN member for two years. Research must be disseminated through ACPIN route. Publication in professional journals is recommended and ACPIN needs to be acknowledged in publications.</td>
</tr>
</tbody>
</table>
Task group for the development of the ACPIN research project grants scheme: terms of reference

Purpose
• To provide the strategic lead on the development, implementation and evaluation of the ACPIN Research Project Grants Scheme
• To report to the ACPIN national executive committee on progress and issues

Outline of functions
• Develop the vision of ACPIN Research Project Grant Scheme with a framework of criteria and timescales for application and decision
• Provide a cost plan of an outline of the ACPIN Research Project Grant Scheme
• Provide a timescale for phased implementation of the ACPIN Research Project Grant Scheme
• Process applications and provide recommendation to the ACPIN executive committee on which applications to process
• Provide a structure that ensures successful applicants will contribute to ACPIN
• Oversee the delivery and evaluation of ACPIN Research Project Grant Scheme
• Develop and implement a review mechanism for the ACPIN Research Project Grant Scheme with set timescales

Membership/Representation
It is envisaged that this group will have no more than eight and no less than five members. Membership will primarily consist of ACPIN members which may include:
• ACPIN research officer (nominated secretary to the group)
• Executive committee members
• Regional representatives
• Regional committee members
• ACPIN members
• ACPIN members with experience in developing research applications and a research portfolio
• ACPIN members in a role in voluntary sector organisations with a remit for, or interest in supporting research in the neuro physiotherapy profession

• Patients, service users, local public representatives of people with long term neurological condition

Sub-groups
There may be occasion to undertake sub-group meetings to complete a specific piece of work. This may also apply when a member of the group has an interest in a received application and the application needs discussing without that member present in order to ensure impartiality of the group.

Any formed sub-groups will report to the main group, who will agree and lead on the direction to be undertaken.

Frequency
The frequency of meetings will be as agreed by the group to achieve the objectives in a timely manner. The frequency of meetings should be agreed by the task group within a three month period initially, and annual thereafter.

Reporting
Progress reports of the task group will be shared with the ACPIN national executive committee in a timely manner so they can be studied before meetings.

The group is to use the research@acpin.net email address for communication.

Review of terms of reference
This will be undertaken after the first three months initially, then annually thereafter, to ensure continuing relevance and ongoing development of the ACPIN Research Project Grant Scheme is in line with the general ACPIN strategy.

Interactive CSP update
September 2015

Chris Manning iCSP link moderator for neurology.

There are 10,768 CSP members registered with the neurology network.

This is more than the membership of ACPIN. So if you post a discussion or event on iCSP it will be viewed by a much greater audience and attract different points of view and reach a wider pool of possible course attendees.

A recent discussion on administering botulinum toxin injections under sedation or general anaesthetic has already attracted a significant number of posts. Anxiety or pain experienced during injections may be more common than is evident from the literature http://www.csp.org.uk/icsp/topics/botox-sedation?networkid=226047

Also have a look at this discussion if you haven’t already: Novak review casts doubt on efficacy of Bobath. Should we embrace or ignore it? http://www.csp.org.uk/icsp/topics/novak-review-casts-doubt-efficacy-bobath-should-we-embrace-or-ignore-it?networkid=226047&editorspick

Make sure you read the whole discussion. It has been copied from the paediatric network.

The ‘News’ section has information about new guidelines and consultations. Keep an eye on this as the timescale for response to some consultations is short.

Recent additions to documents have been useful. If you do come across useful policies, updates of documents, or articles please share them with the network.
Focus on

The life of a PhD student

From a discussion at a national ACPIN research workshop in early 2012, it was felt that entering into postgraduate research can be very daunting with no one knowing entirely what to expect. It was decided to follow two PhD students on their epic journey through the highs and lows that they will inevitably experience, to assist anybody who is thinking of pursuing the research avenue themselves. Here they both bring us up to date.

It is finished!

It feels great to say ‘It is finished!’ Surreal even! Wow! I think I need to say that again! ‘It is finished!’ I guess you can tell that I am excited! All the months of collecting data, analysing and the mammoth tasks of writing what appeared to be never-ending drafts are finished! Hmm… But I must also admit that mixed into this level of excitement is a hint of anxiety.

Common phrases used to describe a PhD are, ‘the beast’, ‘the journey’, ‘the process’ etc. I guess my favourite of all these descriptors is ‘the journey’, because it has been a journey indeed. A journey into what I described in my first blog as The unknown (Syna’pse Spring 2012). I remember watching a presentation with someone describing a journey. They used a picture of a straight road as their background slide for this presentation. A lovely picture too, I might add, but then, after some reflection, I thought about my journey and the picture I would use to illustrate my journey (see image below). I would still use the road analogy, but the road would have turns, bends, hills (high points), troughs (low points) and a few potholes (smile). So, the journey for me was not straightforward yet overall rewarding.

In this final blog I would like to share briefly some tips about how I navigated my way along this journey over the course of the PhD.

Top tips

• Believe that you have the ability to complete the PhD.
• Supervisors are not optional – they are crucial to have along the PhD journey. Therefore, build an open, honest and transparent relationship from early on in the journey. This will help you get through the points in the journey where you feel stuck, for example, in a pot hole or in a trough (low points).
• Surround yourself with people (family, friends, and colleagues) who support you and your vision. They also come in handy to help you proofread chapters and/or just to talk through/clarify some ideas that you might have.
• Set goals but make sure they are realistic and achievable. I have found that ticking off my short-term goals gave huge psychological mileage. Although short-term goals do not always seem like much, remember that they add to the bigger picture in ultimately achieving the long-term goal.
• Make use of opportunities along the journey; for example, teaching at the university and presenting at conferences, as well as collaborating with other researchers within and outside academia and beyond the boundaries of physiotherapy.
• Know when to take some time out! If you find you are getting stressed about a particular chapter, take a break from it! Do something fun! Anything that takes your mind off the PhD.
• Eat healthily and do not forget the exercise! It is so easy to sit for hours writing! Build exercise into your schedule.
• Remember to enjoy the journey.
• If all the above fail, then keep breathing – where there is life, there is hope! This is where I say goodbye! At this point, I would like to say thanks for providing this platform to share this journey over the past three years. I have been honest with these blogs to highlight the phases and/or stages one can go through. If you are interested in embarking on a PhD, my advice would be, ‘Go for it!’ You will not only gain a PhD at the end but I can guarantee that you will learn a lot more about yourself during the journey as well.

So I bid you farewell and all the best with your future career choice.

“Set goals but make sure they are realistic and achievable. I have found that ticking off my short-term goals gave huge psychological mileage.”
Hitting the wall

My previous blog finished somewhat melodramatically with ‘…my future is very much undecided. I am just focused on submitting the PhD.’ Let’s deal with these two points in order first. To recap – The NHS Trust where I had been working for ten years had made it clear that it would be easier for them if I did not return to clinical work once the research secondment had finished.

With this information, and a change in family circumstances, my wife and I took the huge step of deciding to move our family from Birmingham to Northern Ireland where my wife is from. Since May 2015 I have therefore been completing my PhD in Northern Ireland which is where I write this blog now (something totally unpredicted as I wrote the last blog). I also have a new job in stroke rehabilitation which starts in one month’s time at the South Eastern Trust.

So my future is decided but what of the PhD? I have used many metaphors over the last years to describe a PhD from mountaineering, with its many false summits, to marathon running. To continue the latter – I think I ‘hit the wall’ around April and have been jogging/limping the final mile to the finish line ever since. The exciting parts of learning, finding out results and patient interaction were all behind me and all that stood in the way was attempting to achieve the best thesis I could (or as close to it as I can bear). It involved reading the minutiae of every sentence and deciding whether it could be better explained in a different way.

The frustrating issues that arise when you are writing any academic paper, such as referencing and labelling of tables and figures, is all complete and the final document is now with my supervisor for a final read through; come what may, I will submit it in the next fortnight. I think I am too involved at this moment to reflect fully on the whole experience and I hope to complete one final blog in the next Syn’apse.

I am aware that this blog was not to put people off research but to encourage more clinicians to become active in research and hopefully carry out post-

“A PhD is a fantastic chance to develop knowledge in a specific area of clinical practice but will also allow you to develop knowledge and critical thinking that transfers across all disciplines of physiotherapy practice.”

Another conference was the International Society for Physical and Rehabilitation Medicine that took place in Berlin in June. This was a disappointing conference in terms of the science being discussed but allowed me to make further contacts. It was also my first experience of having to stand up and directly contradict the speaker that had been on before me. Being someone who doesn’t care too much for argument this is something that I would previously have done anything to avoid. On this occasion I felt I was on the scientific high ground and was confident in my knowledge of the subject and felt I took it in my stride. This experience really showed me how far I have come in many ways. My understanding of spasticity, confidence in presenting, openness to question current practice and ability to overcome anxieties were all tested in these 15 minutes. These will be tested under even more daunting conditions for a prolonged period when I defend my thesis in my viva which should occur before Christmas.

A PhD is a fantastic chance to develop knowledge in a specific area of clinical practice but will also allow you to develop knowledge and critical thinking that transfers across all disciplines of physiotherapy practice. Perhaps more importantly it develops skills such as coping with stress and problem solving that allow you to become a more rounded individual generally. I truly believe that anyone with the interest to develop research skills should have the chance to do so. It is up to us as a profession to make this as easy to access as possible.
Use of Electrical Stimulation following stroke: a consensus statement

There is an increasing body of evidence supporting the use of electrical stimulation (ES) for patients affected by stroke. However, the available guidance is limited and practice is varied. As a result of this, the Scottish Stroke Allied Health Professionals Forum (SSAHPF) wished to explore the evidence base, particularly with respect to details of ES interventions, and to consult with clinicians about current practice in Scotland; the aim being to establish a consensus of opinion, based on the available evidence, and agreement on best practice for the use of ES following stroke.

The SSAHPF committee members nominated AHP practitioners, with an interest in ES following stroke, to form a working group. This dedicated, hardworking, enthusiastic and knowledgeable working group of physiotherapists and occupational therapists completed this unfunded piece of work in less than two years.

A Scotland-wide survey, aimed at physiotherapists, occupational therapists and orthotists, was conducted using SurveyMonkey®. Each question in the survey referred to the use of ES with stroke patients.

A literature search was carried out and the evidence used to provide specific guidance on the following interventions:

- The use of ES to restore motor control
- The use of ES for shoulder subluxation following stroke

It also considered:

- Parameters of treatment
- Contraindications
- ES devices available

Two audits were carried out (one in NHS Greater Glasgow and Clyde and one in NHS Ayrshire and Arran) to examine the feasibility of using ES to prevent shoulder subluxation in a ward setting.

The Clinical Physics and Bioengineering Medical Device Unit (Software) Department at NHS Greater Glasgow and Clyde reviewed a short list of potential ES devices for home use in stroke rehabilitation.

The consensus statement was critically reviewed by an expert panel of academics and practitioners before being published by the Medical Illustrations Department at NHS Greater Glasgow and Clyde. The full statement can be downloaded at: www.chss.org.uk/ssahpf/ecs-statement.pdf

A quick reference guide has also been produced and can be downloaded at: www.chss.org.uk/ssahpf/ecs-guide.pdf

Physiotherapist Gillian Alexander, Chair SSAHPF presenting the ES poster at the UK Stroke Forum in December 2014

Rand ML, Darbinian JA Effect of an evidence-based mobility intervention on the level of function in acute intracerebral and subarachnoid hemorrhagic stroke patients on a neurointensive care unit pp1191-1199.


Sakakibara BM, Miller WC Prevalence of low mobility and self-management self-efficacy in manual wheelchair users and the association with wheelchair skills pp1560-1563.

Silverman AM, Molton IR, Alschuler KN, Zhang L, Yan T, You L, Li K Sakakibara BM, Miller WC pp1262-1268.


Jeffries EC, Hoffman SM, de Leon R, Dominguez JF, Semerjian TZ, Melgar IA, Dy CJ Energy expenditure and heart rate responses to increased loading in individuals with motor complete spinal cord injury performing body weight-supported exercises pp1467-1473.

Kegelmeyer D, PD EDGE Task Force Measurement characteristics and clinical utility of the Parkinson Disease Quality of Life Measure (39- and 8-item versions) in individuals with Parkinson Disease pp1551-1552.

Klyce DW, Bombardier CH, Davis TJ, Hartoonian N, Hoffman JM, Fann JR, Kalpakjian CZ Distinguishing grief from depression during acute recovery from spinal cord injury pp1419-1425.

Sandroff BM, Benedict RH, Moti RW Nonsignificant associations between measures of inhibitory control and walking while thinking in persons with multiple sclerosis pp1518-1524.


Tielenmans NS, Scheppers VP, Visser-Meily JM, Post MW, van Heugten CM Associations of proactive coping and self-efficacy with psychosocial outcomes in individuals after stroke pp1492-1498.

Clinical Rehabilitation

Volume 29: 6


Bastawrous M, Gignac MA, Kapral MK, and Cameron JI Adult daughters providing post-stroke care to a parent: a qualitative study of the impact that role overload has on lifestyle, participation and family relationships pp592-600.


Volume 29: 7


Volume 29: 8


Chou CY, Ou YC, Chiang TR Psychometric comparisons of four disease-specific health-related quality of life measures for stroke survivors pp816-829.


Gomes-Osman J, Field-Fote EC Cortical vs. afferent stimulation as an adjunct to functional task practice training: a randomized, comparative pilot study in people with cervical spinal cord injury pp771-782.

Lee IH The effect of postural control intervention for congenital muscular torticollis: a randomized controlled trial pp795-802.

Marinho-Buzelli AR, Bonnymann AM, Verrier MC The effects of aquatic therapy on mobility of individuals with neurological diseases: a systematic review pp741-751.


Volume 29: 9


Tyson SF, Burton L, McGovern A The impact of a toolkit on use of standardised measurement tools in stroke rehabilitation pp926-934.

Disability and Rehabilitation

Volume 37: 11


McKillop A, Parsons J, Stark J, Duncan L, Miskelly P, Parsons M A day in the life of older people in a rehabilitation setting: an observational study pp963-970.

Shipigelman (On How to support the needs of mothers with physical disabilities? pp928-935.

De Souza LH, Frank AO Problematic clinical features of powered wheelchair users with severely disabling multiple sclerosis pp990–996.


Volume 37: 12
Bergsma A, Oup EHC, Geurts ACH, de Groot IJM Upper extremity function and activity in facioscapulohumeral dystrophy and limb-girdle muscular dystrophies: a systematic review pp1017–1032.


Volume 37: 13


ARTICLES IN OTHER JOURNALS

Volume 37:14


McGlincney MP, Davenport S Exploring the decision-making process in the delivery of physiotherapy in a stroke unit pp1277–1284.


Scobie L, Duncan EA, Brady MC, Wyke S Goal setting practice in services delivering community-based stroke rehabilitation: a United Kingdom (UK) wide survey pp1291–1298.

Volume 37:15


Volume 37:16


Fritz HA, Lyack C, Luborsky MR, Messinger SD Long-term community reintegration: concepts, outcomes and dilemmas in the case of a military service member with a spinal cord injury pp1501–1507.


Volume 37:17

Paterson P, Carpenter C Using different methods to communicate: how adults with severe acquired communication difficulties make decisions about the communication methods they use and how they experience them pp1522–1530.

Volume 37:18


Volume 37:19

Volume 95:6
Chevan J, Haskovitz EM Reported characteristics of participants in physical therapy-related clinical trials pp884–890.


Shumway-Cook A, Matsuda PN, Taylor C Investigating the validity of the environmental framework underlying the Original and Modified Dynamic Gait Index pp864–870.

Volume 95:7
Balemans ACJ, van Wely L, Becher JG, Dalmeijer AJ Longitudinal relationship
among physical fitness, walking-related physical activity, and fatigue in children with cerebral palsy. pp996-1005.


Liao LR, Ng FYF, Jones AYM, Pang YC. Cardiovascular stress induced by whole-body vibration exercise in individuals with chronic stroke. pp966-977.


Volume 95:8


Huang YJ, Chen KL, Chou YI, Hsueh IP, Ch Hou CY, Hsieh CL. Comparison of the responsiveness of the Long-Form and Simplified Stroke Rehabilitation Assessment Scale of Movement: group and individual-level analysis. pp1172-1183.


Physiotherapy Research International

Volume 20:2


Volume 20:3


Stanton R, Ada L, Dean CM, Preston E. Feedback received while practicing everyday activities during rehabilitation after stroke: an observational study. pp166-173.

Physiotherapy Theory and Practice

Volume 31:4


Elvén M, Hochwälder J, Dean E, Söderlund H. Effects of Postinfarct rehabilitation on motor recovery and motor map plasticity in squirrel monkeys. pp166-173.

Physiotherapy Theory and Practice

Volume 31:6

Pettersson AF, Laksov KB, Fjellström M. Physiotherapists’ stories about professional development. pp396–402.


Stroke

Volume 46:6


Volume 46:7


**Volume 46:8**

**Volume 46:9**


Regional reports

Kent

Natalie Fisher

Kent ACPIN has had an exciting few months. Anna Hargrave stepped down as regional representative but remains an active member of the committee. Nikki Guck continues to be our chair. Lorraine West was elected minutes secretary. Helen Cooke was elected as PRO and Venkat Potamsetti was elected membership secretary. We would also like to welcome new committee members: Penny Bulley, Rowan Turner, Stacey Taylor, Jane Cast and Victoria Wisniewska. Our committee remains strong and membership is healthy in Kent.

We have held some well attended evening lectures since May. A dyspraxia lecture by Sarah Daniels, clinical specialist OT at the National Hospital for Neurology and Neurosurgery; was the best attended evening lecture in Kent ACPIN’s history appealing to our colleagues from different professions within the MDT.

In July we held an excellent and thought-provoking evening lecture on functional movement disorders by Dr Coebergh, consultant neurologist. This received excellent feedback and was also very well attended. Janice Champion presented a gymnasium ball course in September and in November we hosted a PNF course with Pam Bagot.

Kent ACPIN are in the process of planning a two-day stroke conference in 2016. It is set to be an exciting event and we hope to see you all there!

I would like to personally thank all the committee members who regularly take time to develop and organise CPD events. If you would like to join the committee please email us, as we would love to have you. Also do contact us if you have any suggestions for courses or lectures. We aim to keep the events relevant for our members.

Oxford

Kim Radford

2015 has been a successful year for Oxford ACPIN so far. We have had consistently high membership numbers and a strong committee. This year, we have welcomed Helen Gaskell back to join us on the committee. We would also all like to thank Bev Reetham for her hard work and dedication during her time as secretary, as she passes this role on to Sophie Gwilym.

This year we have had a fantastic programme. Our mainstay as ever is our evening lectures which continue to be well attended and received. These have included inspiring lectures on posture management in lying, with Bex Oakley, and LSVT Big for Parkinson’s Disease. We also ran a successful course on observational gait analysis in June.

Our programme included an insight from neuropsychologist, Ian Baker in September, an interesting look into epilepsy, in Reading in October and graded exercise in November. We are very excited to be hosting our first evening lecture in Reading and are hoping that this will better serve our members in and near to Berkshire. Please do feel free to give us feedback, offer to host a venue for an evening lecture or join us on the committee!

I would just like to say a big thank you to our members. As ever, keep ideas for lectures and courses coming.

South Trent

Kate Caldwell

Hello to everyone in South Trent! Our regional committee is currently quite small with representation from Nottingham, Mansfield, Leicester and Northampton. We would love to see more members join us to organise and contribute suggestions and ideas for future events.

Since March we have held a couple of events: our AGM was followed by a great lecture on functional disorders by Volker Teveleit (clinical specialist physiotherapist in Nottingham) and we held an observational gait morning with Ben Ellis also in Nottingham. In October we had a locomotion course with Jenny Williams. We appreciate the feedback we had about running a Pilates course and remain unsure if it will be financially viable to run this. We will keep you posted. We are also looking into a MS study day; balance rehabilitation and neurological pain.

If there are any other ideas or topics you wish to have a course or lecture about we are always pleased to hear from our members.

South West

Angie Gibbon and Nicola Doran

Since our last report South West ACPIN have continued to be busy. Our main committee and sub-committees have organised several events and we are working hard at communication between us. We have also been planning courses at a variety of locations across the patch to help foster networking opportunities.

In our last report we mentioned our very successful AGM entitled ‘Sharing local expert practice’ which included poster presentations and a great opportunity for sharing practice. Since then our other events have included: an MS study day in collaboration with MS Trust (Devon), a two-day Vestibular course (Chippenham), an Ataxia patient demonstration evening (Newton Abbot) and our summer social evening also covering local updates in MS held at the MS Therapy Centre in Bradley Stoke (Bristol).

South West ACPIN in collaboration with Saebo UK had a one-day course in September at the University of Plymouth.

Future events planned include a rock-tape course in conjunction with Hobbs Rehabilitation (Shepton Mallet), a soft splinting course, spinal cord injury, peripheral neuropathy, FES and an evening Pilates lecture.

Thank you all for your ongoing support for ACPIN in your region. Please feel free to contact us with any future course ideas or suggestions at southwest@acpin.net

Sussex

Miria Putkonen

Sussex ACPIN has offered a busy and varied programme this year. The AGM was within a study day presented by Gemma Alder exploring the current clinical evidence and treatments of the wide range of upper limb neurological presentations. This challenged those attending to consider both the advances science has made in neurological understanding and how they can best apply this knowledge for the benefit of their patients.

In May Ann Holland presented a Bobath locomotion study day, which was well
represented and had excellent feedback. An evening presentation by Gilly Davy entitled ‘Neuroplasticity: how to create meaningful change’ was held in September and the exploration of this wide and crucial subject was relevant for professionals at all levels of experience.

Later in the month Pam Bagott presented on the use of PNF resulting in stretching the participants handling knowledge and muscle length!

In October we had an evening presentation on Post Polio syndrome at the Conquest Hospital by Clare Hall.

Sussex ACPIN continues to promote its aim of encouraging learning in our field. This year we have continued to subsidise courses for ACPIN members, and have supported a member to attend further training.

Wessex

Alice Wilson

Wessex ACPIN would like to welcome all new members and thank existing members for their continued support. We are pleased by the range of professions attending our events and would like to extend a very warm welcome to them.

We are very happy to welcome Sarah Gibney and Sarah Paterson to our committee. Kat Chambers has stepped down from the committee; thank you to Kat for all of your hard work. Kat has kindly agreed to act as a link for the Bournemouth/Poole area. Our regional rep, Lindsay O’Connor, is on maternity leave and we look forward to hopefully welcoming her back in the future. Most areas of the region are now represented on the committee, something we are keen to develop as far as possible.

Events have been well attended, with an evening lecture on the ACPIN splinting guidelines by Beth Clarke, a consultant OT in Winchester in April, followed by our AGM. August brought us a very interesting session, Nordic walking in neurology, where delegates particularly enjoyed the practical element of the evening.

In September we had a lecture on carer burden in ESD, with plans for an evening lecture on neurophysiology and study days on cognition, functional neurological disorders and a re-run of our very successful neurological hydrotherapy course by Jacqueline Pattman. We are also hoping to run a course relating to MS, UL management and possibly a Neuro-Pilates study day. We are trying to vary the geographical location of our events in order to try and be as accessible as possible for all members. Please do let us know if you would be able to help with finding a venue, particularly in the far west and east of the region. We are looking into the use of Webex for events in the future to help those who live far from events.

We are hoping to overhaul our section of the ACPIN website, with profiles of the committee, adverts for upcoming events as well as records of meetings. Again, any feedback on what members would like to see is gratefully received.

We are happy to be involved with the CSP South Central network, which is an exciting new development. In the future we hope to share educational events and help raise the profile of our profession, utilising the great resources available in our region. We will keep you posted! Please see on twitter @CSPsouthcentral.

We have a small but active committee and are always on the lookout for new members. Committee membership is a great opportunity to gain new skills and meet people from throughout the region. If you are interested please email us and maybe come to a committee meeting to see what we do.

A repeat plea but please could you make sure that you update your contact details so that we have your correct email and postal addresses. Unfortunately there are always a number of undelivered emails each time we circulate information, so you may be missing out! It is very easy to update details, please visit www.acpin.org where it can be done electronically.

Please do not hesitate to contact us with any queries or suggestions and we look forward to seeing you at future events.
Writing for Syn’apse

Syn’apse is the official peer-reviewed journal of the Association of Chartered Physiotherapists in Neurology (ACPIN). Syn’apse aims to provide a forum for publications that are interesting, informative and encouraging debate in neurological physiotherapy and associated areas.

Syn’apse is pleased to accept submitted manuscripts from all grades and experience of staff including students. We particularly wish to encourage ‘novice’ writers considering publication for the first time and ACPIN provides support and guidance as required. All submissions will be acknowledged within two working weeks of receipt.

Examples of articles for submission:

Case Reports
Syn’apse is pleased to accept case reports that provide information on interesting or unusual patients which may encourage other practitioners to reflect on their own practice and clinical reasoning. It is recognised that case studies are usually written up retrospectively. The minimum length is 1,500 words and the following structure is suggested:

Title – this should be concise and reflect the key content of the case report.

Introduction – this sets the scene giving background to the topic, and why you consider this case to be important; for example, what is new or different about it? A brief overview of the literature or the incorporation of a few references is useful so people can situate the case study against what is already known.

The patient – give a concise description of the patient and condition that shows the key physiotherapeutic, biocultural and psychosocial features. Give the patient a name, but not their own name. Photographs of the patient will need to be accompanied by explicit permission for them to be used. Only relevant information to the patients’ problems should be included.

Intervention/method – describe what you did, how the patient progressed and the outcome. Aims, treatment, outcomes, clinical reasoning and the patient’s level of satisfaction should be addressed. Indications of time scales need to be considered.

Implications for practice – discuss the knowledge gained, linking back to the aims/purpose, and to published research findings. Consider insights for treatment of similar patients, and potential for application to other conditions.

Summary – list the main lessons to be drawn from this example. Limitations should be clearly stated, and suggestions made for clinical practice.

References – the Harvard style of referencing should be followed (please see Preparation of editorial material below).

Original research papers
These should not exceed 4,000 words and papers should include the following headings:

• Abstract – (maximum of 500 words)
• Introduction
• Method – to include design, participants, materials and procedure
• Results
• Discussion
• Conclusions – including implications for practice
• References

Abstracts of thesis and dissertations
Abstracts from research (undergraduate and postgraduate) projects, presentations or posters will be welcomed. They should be up to 500 words, and broadly follow the conventional format: introduction, purpose, method, result, discussion, conclusion.

Audit report
This is a report which contains examination of the method, results, analysis, conclusions of audit relating to neurophysiotherapy, using any method or design. This could include a Service Development Quality Assurance report of changes in service delivery aimed at improving quality. These should be up to 2,000 words.

Sharing good practice
This Syn’apse feature aims to spread the word amongst ACPIN members about innovative practice or service development. The original format for this piece started as a question and answer session, covering the salient points of the topic, along with a contact name of the author for readers to pursue if they wish. Questions were loosely framed around the following aspects (this would be for an audit):

• What was the initiating force?
• How did you go about it?
• What measurements did you use?
• What resources did you need?
• What did you learn about the process?
• How has it changed your service?

Product news
This is a short appraisal of up to 500 words, used to bring new or redesigned equipment to the notice of readers. This may include a description of a mechanical or technical device used in assessment, treatment management or education to include specifications and summary evaluation. Please note, ACPIN and Syn’apse take no responsibility for these products; it is not an endorsement of the product.

Reviews
Course, book or journal reviews relevant to neurophysiotherapy are always welcome. Word count should be around 500. This section should reflect the wealth of events and lectures held by the ACPIN Regions every year.

OTHER REGULAR FEATURES
Focus on...
This is a flexible space in Syn’apse that features a range of topics and serves to offer different perspectives on subjects. Examples have been a stroke survivor’s own account, an insight into physiotherapy behind the Paralympics and the topics of research, evidence and clinical measurement.

Five minutes with...
This is the newest feature for Syn’apse, where an ACPIN member takes ‘five minutes’ to interview well-known professionals about their views and influences on topics of interest to neurophysiotherapy. We are always keen to receive suggestions of individuals who would be suitable to feature.

PREPARATION OF EDITORIAL MATERIAL
Copies should be produced in Microsoft Word. Whenever possible diagrams and tables should be produced in electronic form, eg Excel, and the software used clearly identified.

The first page should include:

• The title of the article
• The name of the author(s)
• A complete name and address for correspondence

Professional and academic qualifications for all authors and their current positions

For original research papers, include a brief note about each author that indicates their contribution and a summary of any funds supporting their work.

All articles should be well organised and written in simple, clear, correct English. The positions of tables and charts or photographs should be appropriately titled and numbered consecutively in the text.

Photographs of the patient will need to be accompanied by explicit permission for them to be used. Only relevant information to the patients’ problems should be included.

Permissions and ethical certification: either provide written permission from patients, parents or guardians to publish photographs of recognisable individuals, or obscure facial features. For reports of research involving people, written confirmation of informed consent is required.

SUBMISSION OF ARTICLES
An electronic and hard copy of each article should be sent with a covering letter from the principal author stating the type of article being submitted, releasing copyright, confirming that appropriate permissions have been obtained, or stating what reprinting permissions are needed.

For further information please contact the Syn’apse editor Joe Buttell at: synapse@acpin.net

The Editorial Board reserves the right to edit all material submitted. Likewise, views expressed in this journal are not necessarily those of the Editorial Board, nor of ACPIN. Inclusion of any advertising matter in this journal does not necessarily imply endorsement of the advertised product by ACPIN.

While every care is taken to ensure that the data published herein is accurate, neither ACPIN nor the publisher can accept responsibility for any omissions or inaccuracies appearing or for any consequences arising therefrom.

ACPIN and the publisher do not sponsor nor otherwise support any substance, commodity, process, equipment, organisation or service in this publication.
Regional representatives
November 2015

East Anglia
Tabitha Mathers
eastanglia@acpin.net

South West
Angela Gibbon
southwest@acpin.net

Kent
Anna Hargrave
kent@acpin.net

Surrey & Borders
Suneel Kumar
surrey@acpin.net

London
Andrea Shipley
london@acpin.net

Sussex
Miria Putkonen
sussex@acpin.net

Manchester
Cathy Field
manchester@acpin.net

Wales
Adele Griffiths
wales@acpin.net

Manchester
Cathy Field
manchester@acpin.net

Wessex
Lindsay O’Connor
wessex@acpin.net

Merseyside
position vacant
merseyside@acpin.net

West Midlands
Cameron Lindsay
wmidlands@acpin.net

Northern
Kelly Winter
northern@acpin.net

Yorkshire
Karen Hull
yorkshire@acpin.net

Northern Ireland
Jacqueline Crosbie
nireland@acpin.net

North Trent
Anna Wilkinson
northtrent@acpin.net

North Trent
Anna Wilkinson
northtrent@acpin.net

Oxford
Kim Radford
oxford@acpin.net

Scotland
Gillian Crighton
scotland@acpin.net

South Trent
Kate Caldwell
southtrent@acpin.net

Visit the ACPIN website
to apply for or to renew your membership, find out what is happening in your region, download past presentations from ACPIN conferences and much more!

www.acpin.net
Musculoskeletal pain: a study of its effect on patients with idiopathic Parkinson’s Disease

Use of mechanical insufflation-exsufflation in neurological conditions in the UK

Sharing good practice: Use of Electrical Stimulation following Stroke

“One third of patients have MSK pain prior to the PD diagnosis and 60% report back pain.”