JOURNAL AND NEWSLETTER OF THE **ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS INTERESTED IN NEUROLOGY**

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Syn'apse

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CONTENTS

Welcome to the Autumn 1998 edition of Synapse. We hope that you like the new format of ACPIN's journal and newsletter. A lot of work has gone into the production of this edition, and we hope that the results of this meet with your approval. Please let us know!

As usual, we're trying to have a broad range of material contained within these pages. We do however remain at the mercy of our members and their willingness to send us material for potential inclusion. Do note that on page 32 we have a paper review, contributed by Lisa Burrows. Hopefully the ERA project, as well as journal clubs within regions and departments, will generate more of this type of inclusion. We also have a couple of articles relating to clinical research and experience. We are now getting more contributions of this sort, but please do continue to send them in. We operate a relatively informal peer review process for submitted articles. Our intentions are not to become 'elitist' as to what is published in these pages. Rather, we are endeavouring to support colleagues in their writing and contributions, where it is obvious that they have something important to share. Clinicians may not first-and-foremost consider themselves to be writers (though see page 31 for early news of something important in this respect). However, we undoubtedly all have material to share. As a clinical psychologist once said to me, 'everything you do should be able to be written up'.

Finally, do note that we continue to publish book reviews. Have you read a good book recently (other than *Captain Corelli's Mandolin*!), which you feel your clinical colleagues should be aware of, please let us know. Review copies of new neurological texts can usually be obtained, and an appropriate member of ACPIN then asked to review it.

Martin Watson
Editor

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From the Chair...

It is hard to believe that we are half way through the membership year and as usual, ACPIN has been an extremely active group. Several of our set projects have been completed – see later reports, but what is more exciting is that there are many more in the pipeline!

Yet again the expectations and demands placed upon ACPIN by our members, and especially the CSP has continued to grow. I sincerely hope that we are meeting everyone's needs.

At times it seems like a thankless task being on the National Committee, but the hard work and commitment certainly paid off in March of this year, as our first two day residential conference was a resounding success. Full reports appear later in this edition.

As you are aware ACPIN has volunteered to join a pilot scheme initiated by the CSP whereby they will collect our subscriptions alongside the renewal of our CSP membership. This is due to take place in November 1998. Our aim of combining forces with the CSP is so that this new procedure eases the tedious task of membership renewal for our members and our own membership secretary! You will be informed individually by ACPIN as to the changes. It is hoped that this transition period will run as smoothly as possible, I ask you to be patient if problems do arise.

Sadly this year is no exception from many others, Martin Watson the Synapse Editor has had to beg and plead with people to write articles. Synapse provides such a vital communication link between members, regional groups and the National Committee. This is one reliable method of disseminating information throughout the country. It seems such a sad reflection when there is such a wealth of material to share. Remember this is your Journal! Martin has worked alongside Kevin Wade, a Graphic Designer, to produce this edition so I hope you like the new format!

Following on from Dr Ann Ashburn's Presidential Address the term 'Clinical Specialist' is hitting the headlines. The CSP has produced a document in conjunction with the Standing Liaison Committee of Physiotherapists within the EEC (SLCP) to draft a statement defining the term specialist. ACPIN considers this to be a positive move but felt agreement throughout the country on the definition was required and it should be CSP lead not by individual trusts. Remuneration for the level of skill of the individual was also a concern. We felt that this could be the next challenge for Senior 1s with a wealth of clinical experience but who did not want to relinquish their clinical workload by moving into management positions. As a group we believe the combination of Superintendent, Clinical Specialist and Research Therapist could provide a solid basis for the development of evidence based practice. Watch this space there – could be 'Super Therapists'.

Finally a decision has been made as regards the Bobath Memorial Fund. The aim is to run a series of 'free' workshops on single case studies across the country, which will be open to all ACPIN members. See later report by Tricia Moffitt.

National Guidelines for Strokes are currently being developed; Margaret Hastings and Sheila Lennon are on the development panel. Dr Ann Ashburn will represent ACPIN as a member of the Support Group. The guideline development process will take place until September 1999. It can be certain that these guidelines will be long awaited and well received.

Two exciting Conferences are planned for next year. Our first Conference and AGM will take place on Saturday 20th March 1999, the title of the day being 'Neurophysiotherapy is the older Client', the venue being The Atrium, Royal Free Hospital, London. As you may have already read in Frontline the CSP and Clinical Interest Groups including ACPIN are combining forces to organise the next annual congress titled 'A New Beginning'. It will be held at The International Convention Centre in Birmingham over three days from 8th to 10th October 1999. The programme will be made up of individual Clinical Interest Group Conferences, as well as general research papers and prominent keynote speakers will open each day's activities. Look out for ACPIN's stimulating programme, which has just been finalised.

We welcome Nicola Hancock and Jackie Newitt to the Executive Committee and say goodbye and thank you to Rowena Wright for her tireless support.

A big thank you to all the National Committee members for all their hard work and support. Finally I would like to thank our members for their continued loyalty which enables ACPIN to remain such an industrious group!

Linzie Bassett MCSP SRP
Chairperson ACPIN

ARTICLES

The effect of a metronome on gait rhythm in Parkinson's Disease

Gay Moore MCSP
Senior Physiotherapist
Dorothy Robertson FRCP DM
Consultant Geriatrician

Three key words
- Gait
- Rhythm
- Metronome

This article is based on a poster presentation at the Royal College of Physicians Conference on Parkinsons Disease, June 12th 1998.

Introduction

The automatic execution of learned motor sequences, such as walking, depends on the interaction between the basal ganglia and supplementary motor area. This interaction is impaired in Parkinson's Disease (PD) resulting in gait abnormalities such as start hesitation, slow speed, reduced stride length and inability to maintain a consistent rhythm. Previous studies have shown improved motor performance with the use of external cues to access alternative voluntary motor control mechanisms. We present the results of a pilot study focusing on gait rhythm disturbance designed to assess the impact of a metronome on this probIem

Patients

Ten patients (7 with idiopathic PD, 3 with a Parkinson's Plus syndrome, mean Hoehn & Yahr score 3.5, range 3-4, 7 males and 3 females) were selected on the basis of observed difficulty maintaining a consistent gait rhythm within the St Martin's PD Day Hospital. The mean age was 76 (range 67-4), mean mental test score 26/30 range 21 to 30. Seven lived with carers, two in sheltered housing and one in a Residential Home. The

Subject No	Sex	Age	Housing	Clinical diagnosis	Years since diagnosis	Hoehn & Yahr test score	Mini-mental test score	Gait rhythm	Metronome cadence	Comments
1	M	73	with spouse	IPD	9	3	30/30	Loss of rhythm within 4 meters	96	Maintained gait rhythm for minimum of 40 meters
2	M	77	with spouse	Parkinsons plus	4	3	26/30	Loss of rhythm within 4 meters	88	Maintained gait rhythm for minimum of 40 meters
3	F	67	WCF	IPD	22	4	28/30	Loss of rhythm within 4 meters	88	Maintained gait rhythm for minimum of 40 meters
4	M	76	with spouse	IPD	15	4	29/30	Loss of rhythm within 4 meters followed by rising cadence	76	Needed prompting to listen and then maintain gait rhythm for minimum of 40 meters
5	M	79	RH	IPD	8	4	25/30	Loss of rhythm within 4 meters	86	Maintained gait rhythm for minimum of 40 meters
6	F	76	with spouse	IPD	6	3	30/30	Loss of rhythm within 4 meters	76	Maintained gait rhythm for minimum of 40 meters
7	M	75	with spouse	IPD	4	3	22/30	Loss of rhythm within 4 meters and shuffled right foot	86	Marginal improvement – not sustained for 40 meters
8	F	79	with friend	Parkinsons plus	8	4	27/30	Loss of rhythm within 4 meters	68	Did not listen. No improvement
9	M	78	with spouse	IPD	9	4	21/30	Start hesitation and frequent freezing	70-100	Arms took on the rhythm – no effect on gait
10	M	84	WCF	Parkinsons plus	6	4	22/30	Start hesitation Frequent freezing Rising cadence	80-100	Did not listen. No improvement

mean number of years since diagnosis was 9 with a range of 4-22 years (see table on previous page for patient details).

Methods

Patients were observed walking at their preferred speed within the Day Hospital by a single physiotherapist (GM) In eight subjects (numbers 1-8) it was possible to determine a natural cadence, although a steady rhythm was lost within 4 meters. The metronome was set to this rate by the physiotherapist and the walk repeated. The remaining two patients (Numbers 9 and 10) had widely varying cadences without a discernible pattern and a variety of different metronome rates were tried. All the patients were interested in using the metronome and several men recalled that the army marching cadence was 138 steps per minute. The metronome used was a quartz metronome which emits a loud low pitched click and could be adjusted within the range of 40-200 beats per minute. An optional ear piece is available which was not used in this study.

Results

Six of the patients whose natural cadence could be determined were able to maintain a consistent gait rhythm in time with the metronome for a minimum of forty metres (numbers 1-6). Improvement was marginal in number 7 whilst number 8, who did not appear to concentrate on the beat did not benefit. No improvement occurred in the patients without a discernible natural cadence, despite trying a variety of metronome rates (in patient No 9 the arms took on the rhythm without an effect on gait; patient No 10 lacked concentration for the beat and showed no response).

Conclusion

A discernible intrinsic gait speed and the ability to concentrate on the metronome were associated with a good response to the auditory cue. Further work is needed to clarify which patients may benefit and evaluate the potential impact of using a metronome in everyday life.

Report on the CSP Annual Congress 1997

Clare Scott Dempster

19th– 21st September 1997
Heriot-Watt University
Edinburgh

THE FIRST CHALLENGE that the CSP congress faced was ensuring that a good representation of English Physio's were brave enough to cross over Hadrian's Wall clasping their passports to enter the newly devolved Scotland! The numbers were measurably good however, with the lecture theatres full to capacity for the key speakers and the concurrent symposium sessions also well attended which despite the politics led to a cohesive and supportive spirit

'Measurement' the Ultimate challenge was the theme. And so it proved to be. Many of the papers seemed to concentrate on defining outcome measures, and finding ones amongst the battery that already exist that were reliable and valid. Efforts were made to try and simplify measures in order to encourage evidence based practice in the clinical setting, rather than it being focused in ivory towers. The use of simple equipment such as measuring tape, goniometers and stop watches, or even a wheel and string which is all that is required to measure gait giving data on velocity, force, acceleration were advocated. Gill Baer, lecturer at Queen Margaret College, demonstrated research that had shown accurate and sensitive correlations between reading the speed of gait back off a video recording whether it was slowed down or real time, against actual gait speed as measured by electronic timing beams. However there was the word of warning from Professor Peter Bowker, Dean of the Faculty of Health Care and Social Work Studies – University of Salford, on 'Instrumented measurement – its joys and sorrows' about being too limited by the methodology, and worse still not being totally clear from the outset of the aim and purpose of the investigation and above all making sure that the equipment/outcome measures actually measured what you needed them to. Professor De Souza, Professor of Rehabilitation at Brunel University, echoed this stating that outcomes should measure the objectives, i.e. be relevant and these objectives should be clearly defined before any assessment.

The more elite and sophisticated methods included research at Southampton – Joy Conway, Research Fellow for Professor Holgate in the Department of University Medicine Southampton, where the use of inhaled radio labelled agents were being mapped by MRI to produce three dimensional anatomical information revealing that particles over the size of 5 microns actually ended up in the stomach and evidence that the positioning of the patient dictated where in the lungs the agents were deposited. However, she stated that physiological measures can look impressive but there are always limitations.

Emphasis was placed on trying to bridge the gap between what can be achieved in the clinical setting, with the time, money and space restraints, verses the large scale well funded research projects. 'In the real world there is a difference between what we would like to do and what we can do' (Professor Bowker). A superb example of academia and clinicians co-operating together was a paper presented by Mark Smith clinician at Western General Hospital Edinburgh and working in collaboration with an established university based medical research team. By using simple mobility milestones he proposes to predict the outcomes of specific stroke subtypes and use his results for goal setting milestones (watch this space in forthcoming Synapse and hopefully the Arch Phys Med Rehab). This approach was encouraged further by Patricia McCoy in the Founders' Lecture as the way that Physiotherapy needs to grow and develop. She suggested three possible routes:

- joint teaching clinical posts
- joint teaching/ research posts
- short term secondments between trusts and schools

and hoped that the recent review by Alan Parle would bring Physiotherapy in line with the medical and nursing profession where these opportunities are already made possible by adequate funding and the correct approach within the NHS Hospitals.

The majority of the papers were on the whole trying to prove the effectiveness of physiotherapy, but the papers which perhaps stood out as the most thought provoking and challenging were the ones which echoed the early statements of Professor De Souza that: ***good research which showed what wasn't effective was as important as those that did*** and as with audit, the need to act

upon this information and not be frightened to change and abandon those practices which don't show clinical effectiveness. Audible gasps were heard when a paper by Jonathan McCrea, research student at Queen Margaret College Edinburgh, revealed that for a Grade 3 ++ spinal mobilisation the variation of force applied between MACP therapists ranged from 96 N to 448 N (470% difference). Professor De Souza highlighted the importance for this type of research which is trying to look at the quality of the input in order to prove the effectiveness of practice-output.

The message that this kind of research is giving, is of value and relevance to other areas in Physiotherapy. By monitoring the input i.e. force applied, we can then try to establish patterns in output – recovery. Once this is established then our practice can be made even more effective. In a similar way for neurology, work looking at techniques for measuring different aspects of muscle function by Dr Maria Stokes – Royal Hospital for Neuro Disability, is going right back to grass roots looking at what is happening in the muscles with injured limbs, not just atrophy but inability to activate all muscle fibres, and the relationship between force and size of muscle. If we know what the effect of our input is, the output can be anticipated. (I tentatively suggest that if we know what is happening at a muscular level, which muscles are over active, and which muscles are silent, then intervention with conditions for say spasticity can really start to be evaluated and the most effective intervention can be adopted.)

In contrast to the pure science, Rosemary Chesson, Reader in Health services Research, Robert Gordon University Aberdeen, highlighted the need to look at psychosocial measures which have hitherto been limited and failed to attract resources, perhaps because they are considered inappropriate, non reliable, too difficult or for what ever reason. She commented that often there is a mismatch of expectations between physiotherapists and patients with a failure of Physiotherapists to recognise that the patient's quality of life as well as what he/she can functionallly achieve was also their concern. Interaction also needs to be more equal, contact is in fact a meeting of two experts where the patient participates. Should we be giving patients what they require or what we think they need?

Of the poster displays, of which there were many, one that particularly stood out was one looking at the process for the assessment of reflective practice by Marie Donachie, Senior Lecturer Queen Margaret College– Edinburgh. Physiotherapists were required to focus on what informs decisions and scrutinise them, in an attempt to prevent bad practice from becoming routine everyday practice. Though used with students many clinicians found it alarmingly helpful. This concept was echoed by Ieuan Ellis, Principal Lecturer and Head of the subject Division of Physiotherapy at the University of Northumbria – Newcastle, looking at the problems of measurement in education. He questioned whether assessment of practice based purely on observation really established differing levels of competence between individuals, and suggested that we need to know what people are thinking in order to assess their standard of practice correctly. The need for 'continually thinking physiotherapists' who have an open and flexible mind enabling them to receive new ideas was carried further by Professor Pat Salter, Head of Physiotherapy – Queen Margaret College – Edinburgh, who stressed the importance of distinguishing between training and education when teaching. He felt that many of the 'post graduate' courses run at hospitals were more training, ie teaching the HOW, a form of learning which he described as a narrowing of consciousness, focusing on arrival rather than travel. Education – the WHY, by contrast offers physio's the chance of a changed outlook, enabling people to continue to travel and involving continual exposure which he felt was best served by masters level post-graduate education. In order to enable this to be feasible to clinicians it would require changes in orientation of employers, the work place, and the academic situation.

Though there were many ideals proposed in this conference, it did not shirk away from trying to offer ways forward for clinicians to work towards. At the same time it recognised that there needs to be change from the Government and the CSP in targeting the funds for research and development for Physiotherapists that currently are absorbed by Nursing and Medicine, as well as the changes mentioned above in the workplace, and academia. As a last resort Professor Peter Bowker proposed the creation of a PIG – Pragmatic Investigation Group, which by its isolation from any other institutions would be 100% more approachable to the regular practitioner!

To Oxford or not!

Senior Staff
Wolfson Rehabilitation Centre, Wimbledon, London
St George's Hospital, Tooting, London
St John's Therapy Centre, Clapham, London

In July 1998 the Senior Staff working in Neurology at the Wolfson Rehabilitation Centre, Wimbledon, St George's Hospital, Tooting and St John's Therapy Centre Clapham met for their monthly Professional Development Training afternoon. The subject was 'Incomplete Spinal Cord Injury' with the following afternoon programme:

- An overview of incomplete Spinal Cord injury (SCI)
- Outcome Measures in incomplete SCI
- Feedback from questionnaire to the group on use of Outcome Measures with Incomplete SCI
- Discussion on Outcome Measures in Incomplete SCI
- Use of Functional Electrical Stimulation (FES) in Incomplete SCI

The afternoon was an interesting and stimulating one. One of the key questions the group wanted answered was should they be using muscle charting with the Oxford Scale as an assessment and outcome measure. From the questionnaire it was apparent that the group had a split opinion although a larger proportion were in favour of the use of the Oxford Scale. It was however evident that group members had different criteria for when they did or did not use it with incomplete SCI. The group also reminded themselves that the Oxford Scale was originally devised for use in patients with peripheral nerve injuries to detect signs of any innervation, and that the scale was not designed to be used with upper motor neurone (UMN) problems (Wade 1992).

Prior to the study afternoon two members of the group had telephoned some of the country's spinal injury units on an informal basis to see what scales they used and the group had read some articles on SCI which used the ASIA impairment scores.

The aim of the discussion session was to establish some local criteria for use or non use of the Oxford Scale with Incomplete SCI to ensure consistency in recording and transfer of information when clients moved between the neurological physiotherapy services in Wandsworth.

The group found this difficult and much discussion was promoted. The end result was the following.

Criteria for use

- for 'pure' lower motor neurone lesions
- when spasm is absent from the muscle group being tested
- may be used for just some muscle groups and not all if changes in muscle tone are a problem

Considerations for use

- should its use be combined with use of another functional outcome scale and if so which one?
- should the Oxford Scale only be used when muscle tone is assessed as 0 to 2 (or 3) on the Modified Ashworth Scale
- should the Oxford Scale only be used with patients where incomplete movement is evident and not those where movement is only observed in spastic patterns

As you can see we ended up, as so often, with as many questions as we did answers. We therefore thought it would be useful to share our thoughts with ACPIN members and see if any other areas have developed criteria or guidelines for the use of Oxford scaling with Incomplete Spinal Injury. If anyone has any suggestions or comments they would like to share with us please write to the address below.

It also crossed our minds that as this is a discrete group of patients with a well established classification system being used already ie ASIA, and that perhaps it may be possible to gain a national consensus on how we record outcome for this patient group. Is this something someone out there would like to take on? Is it already happening and we've missed it? Is it something our national centres of excellence could provide consensus guidelines on for the rest of us to implement locally? Should ACPIN take it on as a project? We'd love to hear your opinions. Please write to: Professional Development Training Group, c/o Rehabilitation Gym, Physiotherapy Dept, St George's Hospital, Tooting SW17 or St John's Therapy Centre, St John's Hill, Clapham SW12.

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3. Gordon and Mao 1994 *Muscle Atrophy and Procedures for Training After Spinal Cord Injury* **Physical Therapy** vol 74 no 1 page 50-59

4. Jaegar et al 1989 *Standing the Spinal Cord Injured Patient by Electrical Stimulation* **Trans. Biomech Eng** vol 36 page 720-728

5. Marsolis et al 1985 *Functional Electrical Stimulation for Walking in Paraplegia* **Journal of Bone and Joint Surgery America** vol 69 page 728-733

6. Smith et al 1994 *Reliability of Percutaneous Intramuscular Electrodes for Upper Extremity Functional Neuromuscular Stimulation in Adolescents with Tetraplegia* **Archives of Physical Medicine and Rehabilitation** vol 75 page 939-945

7. Triolo et al 1996 *Implanted Functional Neuromuscular Stimulation Systems for Individuals with Central Spinal Cord Injuries: Clinical Case Reports* **Archives of Physical Medicine and Rehabilitation** vol 77 page 1119-1128

8. Wade 1995 *Measurement in Neurological Rehabilitation* **Oxford University Press** 4th Edition

9. Muslumanoglu et al 1997 *Motor, Sensory and Functional Recovery in Patients with Spinal Cord Injuries* **Spinal Cord** vol 33 page 386-389

10. Burns et al 1997 *Recovery of Ambulation in Motor - Incomplete Tetraplegia* **Archives Physical Medicine and Rehabilitation** vol 78 (11) page 1169-1172

11. Mange et al 1992 *Course of Motor Recovery in the Zone of Partial Preservation in Spinal Cord Injury* **Archives Physical Medicine and Rehabilitation** vol 73 page 437-441

OTHER JOURNALS

The aim of this section is to list the titles of papers which have been recently published in key journals and which may be of interest to ACPIN members

AMERICAN JOURNAL OF OCCUPATIONAL THERAPY

• 1998 vol 52 no 4

• Shapero Sabar J *The issue is - occupational therapy after stroke: are we providing the right services at the right time?* pp299-302

• 1998 vol 52 no ?

• Wu C-y et al *Effects of objects affordances on reaching performance in persons with and without cerebrovascular accident* pp447-456

AGE AND AGEING

• 1998 vol ? no ?

• Barnes MP *Management of spasticity* pp239-246

• Hsieh C-L et al *Inter-rater reliability and validity of the Action Research arm test in stroke patients* pp107-114

• McNamee P et al *Cost analysis of early supported hospital discharge for stroke* pp345-352

ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION

• 1998 vol 79 no 2

• Di Fabio RP et al *Extended outpatient rehabilitation: its influence on symptom frequency fatigue and functional status for persons with progressive multiple sclerosis* pp141-146

• Moreland JD et al *Electromyographic biofeedback to improve lower extremity function after stroke: a meta-analysis* pp134-140

• 1998 vol 79 no 3

Note that supplement 1 (March 1998) of this journal is on the topic of Brain Injury Rehabilitation

• Corrigan JD et al *Outcomes in the first 5 years after traumatic brain injury* pp298-305

• Kernozek TW Lewin JE *Seat interface pressures of individuals with paraplegia: influence of dynamic wheelchair locomotion compared with static seated measurements* pp313-316

• Roth EJ et al *Impairment and disability: their relation during stroke rehabilitation* pp329-335

• Rutchik A et al *Resistive inspiratory muscle training in subjects with chronic cervical spinal cord injury* pp293-297

• 1998 vol 79 no 4

• Brienza DM Karg PE *Seat cushion optimization: a comparison of interface pressure and tissue stiffness characteristics for spinal cord injured and elderly patients* pp388-394

• Carey JR et al *Tracking control in the nonparetic hand of subjects with stroke* pp435-441

• Craig AR et al *Immunizing against depression and anxiety after spinal cord injury* pp375-377

• Darragh AR et al *Environment effect on functional task performance in adults with acquired brain injuries: use of the assessment of motor and process skills* pp418-423

• Hoenig H et al *The reliability of a self-reported measure of disease impairment and function in persons with spinal cord dysfunction* pp378-387

• Post MWM et al *Predictors of health status and life satisfaction in spinal cord injury* pp395-401

• 1998 vol 79 no 5

• Chiara T et al *Cold effect on oxygen uptake perceived exertion and spasticity in patients with multiple sclerosis* pp523-528

• Colantonio A et al *Head injury in young adults: long-term outcome* pp550-558

• Denys P et al *Side effects of chronic intrathecal Baclofen on erection and ejaculation in patients with spinal cord lesions* pp494-496

• Francisco G et al *Electromyogram-triggered neuromuscular stimulation for improving the arm function of acute stroke survivors: a randomized pilot study* pp570-575

• Katz DI et al *Recovery of arm function in patients with paresis after traumatic brain injury* pp488-493

• Kroll HR et al *Deep vein thrombi associated with the use of plastic ankle-foot orthoses* pp576-578

• Lin VWH et al *Functional magnetic stimulation for restoring cough in patients with tetraplegia* pp517-522

• McHenry MA *Velopharyngeal airway resistance disorders after traumatic brain injury* pp545-549

• Moberg-Wolff EA *An aggressive approach to limb dystonia: a case report* pp589-590

• Reiter F et al *Low-dose botulinum toxin with ankle taping for the treatment of spastic equinovarus foot after stroke* pp532-535

• Stineman MG et al *Functional task benchmarks for stroke rehabilitation* pp497-504

• 1998 vol 79 no 6

• Rintala DH et al *Chronic pain in a community-based sample of men with spinal cord injury: prevalence severity and relationship with impairment disability handicap and subjective well-being* pp604-614

• Semlyen JK et al *Traumatic brain injury: efficacy of multidisciplinary rehabilitation* pp678-683

• Watanabe TK et al *Diagnosis and rehabilitation strategies for patients with hysterical hemiparesis: a report of four cases* pp709-714

AUSTRALIAN JOURNAL OF PHYSIOTHERAPY

• 1998 vol 44 no 2

• Morris M et al *How to conduct a dose response trial of Parkinson's disease medication* pp131-134

• Morris M et al *The role of the physiotherapist in quantifying movement fluctuations in Parkinson's disease* pp105-116

BRITISH JOURNAL OF OCCUPATIONAL THERAPY

• 1998 vol 61 no 4

• Gilmore R Strong J *Pain and multiple sclerosis* pp169-172

• 1998 vol 61 no 6

• Summerville P McKenna K *Sexuality education and counselling for individuals with a spinal cord injury: implications for occupational therapy* pp275-279

• 1998 February

• Shah S *Current concepts and controversies in stroke recovery: rehabilitation implications* pp83-88

BRITISH JOURNAL OF THERAPY AND REHABILITATION

• 1998 vol 5 no6

• Tussler D *The Oswestry standing frame: use following spinal cord injury* pp292-?

• 1998 vol 5 no7

• Nolan M Nolan J *Rehabilitation in multiple sclerosis: the potential nursing contribution* pp370-

BRITISH MEDICAL JOURNAL

• 1998 vol 316 no 7131

• Crimlisk HL et al *Slater revisited: Six year follow up of patients with medically unexplained motor symptoms* pp582-586

• Hewer RL et al *Should stroke medicine be a separate subspeciality?* (letter) p628

• 1998 vol 316 no 7132

• Chavdhuri KR Clough C *Subcutaneous apomorphine in Parkinson's disease* p641-

• 1998 vol 316 no 7138

• Rose MR *Neurological channelopathies* p1104

• Wyller TB *Early discharge after stroke* p1168

• 1998 vol 316 no 7139

• Ben-Shlomo Y et al *Investigation by Parkinson's Disease Research Group of United Kingdom into excess mortality seen with combined levodopa and selegiline treatment in patients with early mild Parkinson's disease: further results of randomised trial and confidential inquiry* p1191

• Stenager EN et al *Suicide in patients with stroke: epidemiological study* p1206

• 1998 vol 316 no 7140

• Quinn N Bhatia K *Functional neurosurgery for Parkinson's disease* p1259

CLINICAL REHABILITATION

• 1998 vol 12 no 1

• Bradley L et al *Electromyographic biofeedback for gait training after stroke* p11

• Clark MS Smith DS *The effects of depression and abnormal illness behaviour on outcome following rehabilitation from stroke* p73-

• Hanger HC et al *What do patients and their carers want to know about stroke? A two-year follow-up study* p45-

• Sim J *Respect for autonomy: issues in neurological rehabilitation* p3-

• Steenbergen B et al *Manual dexterity and keyboard use in spastic hemiparesis: a comparison between the impaired hand and the 'good' hand on a number of performance measures* p64-

• 1998 vol 13 no 3

• Hatzitaki V Hoshizaki TB *Dynamic joint analysis as a method to document co-ordination disabilities associated with Parkinson's disease* pp182-189

• 1998 vol 12 no 2

• Hakim PM Bakheit AMO *A study of the factors which influence the length of hospital stay of stroke patients* pp151-156

• 1998 vol 12 no 3

• Luther A et al *Reliability of stroke patientsí reports on rehabilitation services received* pp238-244

• Maheswaran R Davis S *Experience of an open referral system for stroke rehabilitation in the community* pp265-271

ERGONOMICS

• 1998 vol 41 no 3

• Seelen HAM et al *Postural motor programming in paraplegic patients during rehabilitation* pp302-316

GAIT AND POSTURE

• 1998 vol 7 no 1

• Zijlstra W et al *Voluntary and involuntary adaptation of gait in Parkinson's disease* pp53-63

• 1998 vol 7 no 2

• Kerrigan DC et al *The modelling of adult spastic paretic stiff-legged gait swing period based on actual kinematic data* pp117-

JOURNAL OF OCCUPATIONAL SCIENCE

• 1998 vol 5 no 1

• Pentland W et al *The relationships between time use and health and well-being in men with spinal cord injury*

INTERNATIONAL JOURNAL OF ALTERNATIVE AND COMPLEMENTARY MEDICINE

• 1998 vol 16 no 3

Parkinson's disease and massage therapy p24

INTERNATIONAL JOURNAL OF REHABILITATION RESEARCH

• 1998 vol 21 no 1

• Target P et al *Enhancing work outcome for three persons with traumatic brain injury* pp41-50

• 1998 vol 21 no 2

• Clark MS Smith DS *Factors contributing to patient satisfaction with rehabilitation following stroke* pp143-154

• Engel S et al *Employment outcomes following spinal cord injury* pp223-230

• Faby S *A model for diagnostics in neurological rehabilitation* pp113-126

• Ring H et al *Quality of care on a stoke rehabilitation ward: the use of urinary incontinence as tracer* p241-

LANCET (THE)

• 1998 vol ? no ?

• Andrews K *Prediction of recovery from post-traumatic vegetative state* p1751-

• Kampfl A et al *Prediction of recovery from post-traumatic vegetative state* pp1763-1767

• 1998 vol 351 no 9101

• Dai J *Recovery of axonal transport in 'dead neurons'* (letter) p499

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Reviews from the ACPIN National Conference – Neurophysiotherapy into the next Millennium

The Queen Hotel in the City of Chester was the setting for ACPIN's first residential conference, which was attended by 150 delegates from all over Europe.

The planning of such an event was an awesome task, slightly hampered by the arrival of four babies. It was a tremendous learning experience for all those concerned, namely Rowena Wright, Anthea Dendy, Ros Wade, Clare Scott-Dempster, Nicola Hancock and myself. I can safely say that as a team we have learnt from our mistakes. Despite a few hiccups, mainly behind the scenes, the whole conference proved to be highly successful. The general feedback being that this style of conference meets the educational requirements of ACPIN members.

Further feedback from comments made by delegates will be discussed later in this report. A resumé of the conference will be given by delegate Nicola Goodwin.

The two days consisted of a series of lectures and tutorials from eminent speakers, see following report by Clare Scott-Dempster. Delegates were able to explore and challenge the various treatment techniques that we as physiotherapists use today in clinical practice. The whole ethos of the two days was to promote debate on the question: 'What is the scientific basis and research evidence for clinical effectiveness in current practice?'. ACPIN feels that we need to build up a body of evidence that supports our clinical skills and judgement, based on research rather than looking at past clinical work, which will reinforce our unfaltering aim to improve the quality of patient care.

The aim was to encourage each physiotherapist to leave the conference wanting to search for papers that support their practices and base their clinical judgements on this. General comments regarding the conference have been sub-divided into the following categories:

1. Organisation A high standard, very professional. Good handouts and programme.

2. Venue Change from normal 'physio' environment. Good, some delegates classed it as a treat!

3. Accommodation Sharing was problem, especially as delegates were unaware of this. The organising committee apologise for any inconvenience caused and have taken your comments on board.

4. Catering On the whole the catering was very good. Comments regarding the lunchtime queues have been forwarded to the hotel.

5. Facilitators Most delegates felt this was a good idea as it promoted discussion within the tutorial groups.

6. AGM This is always a problem, but as our constitution states, an AGM is required each year. The future plan is to allow 30 minutes for the AGM and use display boards for reports on the year's activities.

7. Advertising Apologies to members who received 3 flyers. This problem is currently being addressed and will be resolved for future conferences.

General Comments

- **Medical bookstall** Two companies were approached but failed to respond to our request.
- **Microphones and P.A. system** The hotel informed us that the system was tested on Thursday evening, we have complained about the lack of assistance and back up system.
- **Mobile phones** For all future conferences it will be stipulated that all phones are switched off during lectures.
- **Final lecture** It will be requested that all delegates unable to stay for the duration of the final lecture remain outside the lecture theatre so as not to disturb the proceedings by leaving part way through.

Thank you to everyone who completed an evaluation form, your comments have been extremely helpful, and we as a committee will act on them when planning future residential conferences.

Linzie Bassett MCSP SRP
Chairperson ACPIN

The following information is a summary of the opinions and perceptions of the delegates who attended the two day conference as they fed back via an evaluation form.

Prior to the Conference each speaker had been given a set of objectives which were that each delegate should:

- be able to identify the scientific basis of each approach
- be able to identify the key issues that underpin the clinical application of the approach
- have had an opportunity to question/discuss aspects of each approach
- be challenged to reflect on their own clinical practice
- be able to identify how the approach has evolved in response to clinical experience
- be able to identify evidence of effective intervention within each approach in terms of research

Overall the Movement Science (van VIiet), PNF (Rochford), Teler (Mawson), Muscle Imbalance (FitzGerald), Neurodynamics (Wade), Rood's Techniques (Baily-Metcalfe) lectures/tutorials were found to be the most useful and popular.

In answering the above objectives the Movement Science and PNF presentations gave the most well backed up argument supported with good research evidence. Some questioned the autonomy of the patient with the Movement Science approach, and its usefulness for the more complicated neurological conditions with severe cognitive problems.

In contrast the Johnstone approach (Gail Cox-Steck) and Conductive Education (Julia Waller) which also inspired many, were perceived to lack a scientific basis or rationale. Similarly, though Janice Champion provided many with the practical demonstration that they had been waiting for with the Gym Ball, some questioned why this, The Analysis and measurement of Physical Ability (Noreen Hare), and CranioSacral Therapy (Susan Hollenbury) were included as they had no backing research or evidence. The latter actually disturbed many with words such as 'faith healing', and 'religion' appearing on the forms more than once.

If inspiration was what people were seeking, Alison Baily-Metcalfe brought Rood's techniques to life in a most provoking way. Many others were prompted to reappraise old ideas of PNF and the Johnstone techniques by being brought up to date in such an informative and enlightening manner, dispelling many old myths.

There was a general call for more courses in Movement Science, Muscle Imbalance, and Neurodynamics. The latter two speakers (David Fitzgerald and Anita Wade) despite coming from a predominantly Musculo Skeletal perspective were extremely well received and perceived to be worth investigating by many … watch this space for future Study Days! Betty Hutcheon also bravely accepted to come and talk on Sensory Integration knowing that her work was largely related to children. There was a mixed response from the delegates, some feeling that they could relate it to adults and would be willing to try, others wanting to *know* if it was relevant to adults!

Both the Bobath and Gym ball presentation were felt to be a good update/recap but with no new lessons. Sharon's openness of the need for hard evidence and offering an update of things to come was found to be positive for the future, and she valiantly survived the faulty PA system.

Despite a terrible time of day to present Sue Mawson with her clarity and excellent speaking qualities inspired many to try out Teler.

In summary the Conference was generally extremely well received, the standard of presentation being exceptionally high, and clearly the hard work and effort of all the speakers, but in particular those leading the tutorials who had to repeat themselves on four separate occasions was an amazing achievement and from the above it can be seen how their efforts succeeded in maintaining interest and enjoyment throughout.

Clare Scott Dempster
ACPIN Honourary Membership Secretary

TREMENDOUS HARD WORK and organisation from the ACPIN National Committee was rewarded by an exceptional conference style residential course held at The Queens Hotel Chester. 150 delegates enjoyed a full programme run from 9am – 6pm on Friday and 9am – 5pm on Saturday. With the additional Gala Dinner on the Friday evening from 7.30pm, we certainly were kept busy! The sessions were divided into lectures involving presentations to all 150 delegates and tutorials in four smaller groups. The tutorials allowed greater opportunity for questions, facilitated discussion and moreover did not suffer from the complications of the PA system that affected some of the lectures. The following represents a personal overview summarising each of the sessions.

Day one

■ **Bobath** (lecture) *Sharon Williams*
A review of the current definition of The Bobath Concept was discussed with emphasis placed on a continually evolving approach. With respect to the future, related research projects were introduced including the effects of enhanced therapy and cortical mapping (Leeds), measurement of normal movement (Chesterfield), and exploration into associated reactions (London). Finally, plans were announced for an MSc for Bobath tutors at the Sheffield Hallam University and possible plans for a four week validated Basic Bobath Course.

■ **Neurodynamics** (tutorial) *Anita Wade*
Much interest was shown in the relatively new application of this musculoskeletal concept to neurological patients. Possible mechanisms of affect were presented along with an overview of assessment, treatment, and contra-indications. Good examples of relevant neurological applications were given, although these were sadly more anecdotal rather than research orientated. A clear reference list was provided for further reading.

■ **Muscle imbalance** (tutorial) *David Fitzgerald*
This enigmatic speaker gave possibly the most popular tutorial in presenting a framework to allow 'integration of the muscle imbalance philosophy to the treatment of neurologically impaired patients'. Principles covered were postural alignment, specific muscle length tests, muscle strength tests and links into function. Many delegates will be tempted to seek further, more comprehensive courses following this taster of muscle imbalance.

■ **The Johnstone Concept** (lecture) *Gail Cox Steck*
A mainly clinical presentation was given on this approach used at the Johnstone Treatment Centre in Switzerland. Many fascinating studies of patients in treatment were shown. Intriguing treatment techniques of inflatable air splints, rocking devices and the 'wolf turntable' were discussed. Lack of scientific basis and poor relevance to function were two issues raised in the open questions.

■ **Craniosacral Therapy** (tutorial) *Susan Hollenbury*
This was possibly a difficult forum in which to present a topic so diverse from the conventional approach used by the majority of delegates. A technique of 'non-invasive touch of the therapist to influence and encourage the inherent healing potential within the body' was portrayed. Whilst a strong speaker, the obvious scepticism within the audience was apparent.

■ **Analysis and Measurement of Physical Ability** (tutorial) *Noreen Hare*
A simple explanation of this scaling system was presented. The main problem with neurological patients was considered to be the 'inability of the nervous system to use or develop the basic postural mechanisms, which facilitate automatic, efficient responses to a gravity influenced environment'. Questions were raised over the strong, possibly outdated, hierarchical model on which the scale is based.

■ **Movement Science** (lecture) *Paulette van Vliet*
Probably one of the few lectures with good scientific grounding, this was a stimulating presentation of a problem solving approach. Five key aspects to the approach were highlighted: cognitive orientation, biomechanics of motor control, task specific treatments, the patient as an active learner, and self-monitored practice. Questions were at times controversial, ranging from application to certain types of patients such as head injuries and uses with the very acute patients.

■ **Feedback of Clinical Guidelines** *Madeline Simpson*
The day culminated in a review of a survey of four regions that had used the 1995 'Standards of Physiotherapy Practice in Neurology' produced by ACPIN. Results demonstrated that although useful for reference, the standards were often inappropriate for clinicians, as many of the standards depended on issues of staffing or funding which only managers could control. These points are to be considered by ACPIN when the standards are updated in the future.

Day two

■ **PNF** (lecture) *Nikki Rochford*
This speaker presented a revised image of this, an old approach and was able to answer questions on many practical uses with neurological patients. Three main areas were discussed: table treatments, mat treatment, and gait treatments. The focus is now more on handling and techniques, plus 'finding the patient's groove', rather than the disciplined conventional patterns. Concern was expressed at lack of incorporation of cognitive or functional components when using 'blocked practice' but the techniques could be used in conjunction with other approaches.

■ **Gym Balls** (tutorial) *Janice Champion*
A history of the origins of this technique and initial development in orthopaedics was discussed. A practical element was introduced into the session with demonstrations of the application to neurological patients and use of 'actions and reactions' for best effect.

■ **Sensory Integration** (tutorial) *Betty Hutcheon*
This was perhaps a new concept to some delegates, nevertheless, it can be seen that it overlaps with elements of other approaches. The tutor, an OT working in paediatrics, described it as 'the neurological process that organises sensation from ones own body and from the environment'. The basis was again on the developmental sequence but also an 'inner drive' on the part of the child. Key concepts used were the environment, suspended equipment, non-directive approach to treatment, and exploration with creativity. An interesting tutorial yet perhaps of clinical relevance to only a minority of delegates.

■ **Conductive Education** (tutorial) *Julia Waller*
An overview of the history of the approach was given with emphasis placed upon the importance of the voice for 'rhythmic intention'. Personal experiences of its use in patients with Parkinsons Disease were described but perhaps even more clinical applications with neurological patients would have been beneficial.

■ **The Rood Technique** (tutorial) *Alison Baily Metcalf*
A thoroughly stimulating presentation with which to finish the second day, including a complex explanation of the theory behind the concept. The philosophy of treatment was portrayed as 'the interaction of somatic, autonomic, and psychic factors and their role in the regulation of motor behaviour'. Three important concepts were addressed: the duality of muscles, movement based on the ontogenetic sequence and facilitation, activation and inhibition via the anterior horn cell. The closing proposal of adopting elements of the approach into treatment appeared to be the overwhelming message from most of the sessions.

■ **TELER** (lecture) *Sue Mawson*
An original delivery was given comparing the medical model to the healthcare model when examining outcomes. The concept of TELER was described and then applied to neurological patients. Links were made to current research projects that are endeavouring to further validate these scales.

Summary

As a first attempt at a residential course of this nature, superb organisation surpassed itself in offering a significant volume of information within such a tight schedule. Excellent handouts were provided and the food was first class. Perhaps the one criticism might be the disappointing lack of research based evidence to support many of the approaches. Whilst efforts are being made to remedy this, results are unlikely to be available until after the millennium. In all, great value for money and a thoroughly enjoyable two days.

Nicola Goodwin

Abstracts from the ACPIN National Conference – Neurophysiotherapy into the next Millennium

USE OF THE GYMNASTIC BALL

Janice Champion

The Gymnastic ball was first introduced to therapists in Switzerland in 1969 by Dr. Susanne Klein-Vogelbach who was a teacher at the Basel School of Physiotherapy.

She was awarded a Doctorate in 1979 for her work on a system of functional movements and her treatment method which included the use of the gymnastic ball.

The results of her studies led to the following observations:

- the ball has a large enough supporting surface for the patient to feel safe.
- Due to the convexity of the ball a constant demand is put on the patient's equilibrium and highly developed functions such as equilibrium reactions can be retrained effectively.
- the ball can be used for mobilising and stabilising activities, for postural control and body awareness.

Dr Klein-Vogelbach developed specific techniques/exercises using the gymnastic ball for orthopaedic conditions and it was Domenica Hasler in the late 70s and early 80s who adapted Klein-Vogelbach's method for the treatment of spinal injuries and neurological conditions.

Domenica Hasler, with Klein-Vogelbach's permission taught day courses in this country to increase therapist's awareness of the potential of the gymnastic ball. It was found that the use of the gymnastic ball can produce one or more of the following effects:

- Co-contraction of trunk muscles
- Automatic stabilisation of all joints
- Mobilisation of trunk and limb joints
- Strengthening of postural muscles
- Development of a sense of symmetry (Hasler 1981)

By using techniques/exercises that demanded automatic responses from the patient, balance reactions could be facilitated. Klein-Vogelbach's exercises used imaginative names such as 'The Cowboy', 'The Crab', 'The Bed of the Fakir' to describe them and very importantly all the exercises were broken down into Actions and Reactions

'Actions' are the instructions and/or the primary initiating movements and the 'Reactions' are the spontaneous equilibrium reactions which result and are seen as a change in supporting surface or as counteractivity leading to a stabilising effect.

The Gymnastic Ball is now available in many different sizes and is used successfully by many different specialities within physiotherapy to maintain, regain and improve range of movement and postural control.

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MUSCLE IMBALANCE IN THE TREATMENT OF NEUROLOGICAL DYSFUNCTION

David D Fitzgerald

The purpose of this workshop is to provide a clinical framework allowing integration of muscle imbalance philosophy to the treatment of neurologically impaired patients. It will provide an overview of contemporary biomechanics and muscle physiology as applied to functional movement.

The principles of muscle imbalance relate to some of the following issues:

1. Postural alignment - this yields information regarding habitual resting position of muscles. A muscles tension generating capacity is directly related to its length.
2. Specific muscle length tests - information regarding relative lengthening or shortening of muscle. Length changes alter the functional positions in which a muscle can generate force. Short muscles are preferentially recruited, may limit range of motion, and have reduced capacity to generate force in outer range. Lengthened muscles are commonly inhibited, allow excessive motion and have a reduced capacity to generate force in inner range. These are often muscles which have a postural stabilising role.
3. Muscle strength tests - we are not concerned with absolute strength but rather the ability to maintain force throughout a range of motion. Generally, we are concerned only with forces required to move the limbs and trunk as opposed to applied external resistance.
4. It is imperative that muscle length and strength tests are interpreted in the light of functional significance.

In assessing functional tasks we attempt to quantify the degree of 'relative flexibility'. This means accurate assessment of where the motion is occurring and the proportional contribution of motion that occurs in the involved structures. Whilst accepting that functional movement involves both central programming as well as peripheral effector, muscle imbalance analysis attempts to quantify the peripheral component which must be capable of executing the central commands.

THE ANALYSIS AND MEASUREMENT OF PHYSICAL ABILITY

Noreen Hare

INTRODUCTION

The analysis and measurement of Physical Ability is the process of investigation contributing to assessment, recomended by the Hare Approach. Therapists deal directly with dysfunction discomfort, deformity, deterioration all evidence not only of neurological impairment but of a body at risk with its environment. If body performance and the effects of the environment are combined in assessment,the result will be realistic evidence to support advice and intervention schemes. The two fundamental principles of the Hare Approach are, first, that ability should be recognised and recorded as evidence of the viability of the nervous system; and, second,that the primary deficit demonstrated in neurological disorder is the inability of the nervous system to use or develop the basic postural mechanisms which facilitate automatic, efficient response to the demands and forces of a gravity influenced environment.

WHAT IS PHYSICAL ABILITY?

The individual's level of compatability with their immediate environment, that is with gravity and the earth's surface (Hare 1990). This may be affected 'externally' by an unsafe or slippery surface, inappropriate footwear, uncomfortable badly designed furniture; and, 'internally' by fatigue, pain,and more relevantly, a damaged nervous system. On dry land our performance, wherever we are, what ever we do, is subject to the affect of gravity: which gives the body weight (which needs to be appropriately distributed and organised), and permits the body to fall (in space we tumble, in water we rotate). The earth's surface is the supporting surface to all our activities on dry land. The body, a central core (the trunk) with five appendages has a specific relationship with the supporting surface through the base of the position (the interface between the body and the surface). This relationship,which is dependent upon trunk/base interraction establishes conformity within the base; permits movement to occur over it; and thirdly, allows displacement of the base. If and when these three attributes are established movement, postural change and adjustment will be possible.

Within the 'sandwich'of gravity and the supporting surface it is important to emphasise the role of the trunk in establishing and maintaining a lively and consistent relationship with the base of every position.

In simple terms, the trunk is responsible for anchoring body weight over the base and adjusting body weight over the base,inter laterally and antero posteriorly. An adequate base and the ability to anchor and adjust weight over it provide the foundation stones of efficient movement and posture. (Foley 1983; Hare 1990; Marsden 1981; Martin 1967)

HOW IS PHYSICAL ABILITY ANALYSED?

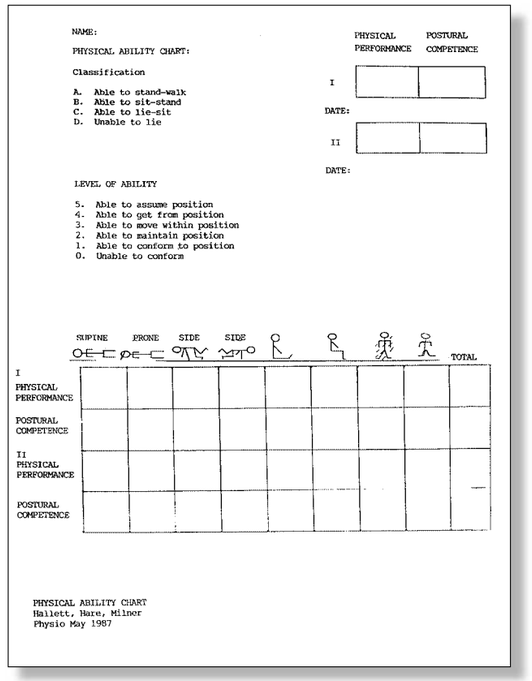
1. Observation of performance (what he/she can do) and competence (how he/she does it);
2. Observation of starting position/s;
3. Investigation of the base of the position;
4. Evaluation of the trunk/base relationship;
5. Investigation of the trunk (for deformity, pain, limitation). These observations and investigations are carried out in eight positions ; supine,prone,right and left side lying; floor sitting, stool/box sitting; wall standing, free standing.

HOW IS PHYSICAL ABILITY MEASURED ?

By the application of the five levels of ability and one level of disability to the eight positions described above. These levels are:

5. able to assume the position;
4. able to move from the position (displace the base);
3. able to move within the position;
2. able to maintain the position;
1. able to conform to the position (supporting surface)
0. unable to conform to the supporting surface.

In explanation: if the client/body is unable to conform to the supporting surface, all abilities above that level will be compromised and of necessity, inefficient. However, to complete assessment and measurement, all levels of ability should be tested. Levels 1-4 require that the client is placed in the position before testing; Levels 1 and 2 are static,without movement, and essential to the development/ training of higher levels of



postural,movement and functional ability.(Hallet et al 1987.Hare 1993).

NB The eight positions in lying sitting and standing and the levels of ability were recognised as the sequence essential to the development of upright posture from a study of mothers and first born infants. The sequence provides an insight into the components of posture and movement, in particular the role of the trunk, which is invaluable to the understanding of neurological disorder at any age. (Green E,1995; Hare N 1991; Pountney et al 1990).

IN CONCLUSION

Physical ability describes an individual's level of compatability with their immediate environment at any time, age, in any circumstance. It is recognised as two equal and opposite states: BALANCE a state of maximal efficiency, minimal fatigue and effort, predictable limb and head movements and unawareness of the status quo; FALLING in contrast: a state of reduced efficiency, increasing effort and fatigue, unpredictable limb and head movement, increase in muscle tone, and an acute awareness of the status quo. The concept is applicable to any diagnostic category as well as to the able bodied in situations where control of the environment is threatened. The Physical Ability Scale is the tool which provides the structure for use in either situation.

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■ CRANIOSACRAL THERAPY

Susan Hollenbery

Craniosacral Therapy offers the neuro-physio a change of direction. The opportunity to treat the whole person as well as the condition.

A patient with a neurological condition suffering distressing symptoms provokes the desire to alleviate their various forms of discomfort. The questions that arise for us are - What were the immediate causative factors of the presenting symptoms? What are the compensatory factors? How can we go about interacting with this patient to bring about relief and change?

Working with Craniosacral Therapy as a therapeutic modality allows the possibility of influencing the predisposing as well as the precipitating and symptomatic factors of any condition.

In Craniosacral Therapy a very gentle, receptive touch, with developed and enhanced proprioception, is used to assist the body in its own healing processes.

Through the hands, the practitioner is able to perceive how the body's internal structures may have formed patterns, unique to that individual, or congestion and resistance and fixation. Interference and restriction of body structures will adversely affect body physiology and chemistry. With this in mind it will be realised that the presenting symptoms may in fact be just part of the total diagnostic and symptomatic picture. Using Craniosacral Therapy allows physiological function to be directly influenced.

It is the close inter-relationship between the cranial bones and sacrum, the membrane system, the neural tissues and the fluid system, wherein lines the healing potential of the body, that forms the basis for the application of the therapy.

The non-invasive touch of the therapist is able to influence and encourage the inherent healing potential within the body. It enhances the body's own ability to self-correct and self-balance and bring about its own order and release of restrictions.

Understanding the relationship between the health of the body and dysfunction during illness and disorder and how this can be approached and influenced through Craniosacral Therapy will be outlined and discussed.

■ SENSORY INTEGRATION

Betty Hutchon

Head Paediatric Occupational Therapist

Sensory Integration is "the neurological process that organises sensation from ones own body and from the environment and makes it possible to use the body effectively within the environment." *Ayres*, 1978

It has been estimated that 10% of the children in this country have trouble learning to speak, read or write, although they have normal or above average intelligence. These children may be described as having "specific learning difficulties" or "Developmental Coordination Disorder". Present are subtle but definable differences in neurological functioning, often known as soft signs.

Research has shown that children with specific learning difficulties have poor organisational skills and behaviourial problems. They frequently do not sense the world normally. They have difficulties organising incoming sensations to produce motor output, ie movement, perception, speech, learning and behaviour.

Usually sensations flow in a well organised manner from the sensory receptors to the CNS. The brain is then able to locate, sort and order the sensory input, coordinate motor output and sensory feedback in a smooth process – without such organisation the child is unable to use sensation effectively to make appropriate responses and may present with the following:

- Over or under-reactive to being touched, own body movements, sights and sounds.
- Activity level that is unusually high, or unusually low.
- Coordination problems.
- Delays in speech, language, motor skills, or academic achievement.
- Poor organisation of behaviour.
- Poor self-concept.

Dr A Jean Ayres, OTR, studied children with the above problems and proposed a theory known as Sensory Integration – the basic premise being the description and prediction of the relationship between neural functioning, sensory motor behaviours and academic learning. Sensory Integration is a neurobehavioural theory and treatment approach. The theory has three components.

THEORY

Learning is dependent on the ability of normal individuals:

- to take in sensory information, derived from the environment and from movement of their bodies.
- to process and integrate the sensory inputs within the CNS.
- to use the sensory information, to plan and organise behaviour.

Referring to the attached diagram, developed by Ayres to describe her theory, it is possible to see how different types of sensory information come together to form the end products required for the child to function independently.

DYSFUNCTION

When individuals have deficits in processing and integrating sensory inputs, deficits in planning and producing behaviour occur that interfere with conceptual and motor learning.

Diagnosis of sensory integrative dysfunction requires the evidence that the underlying basis is a deficit in central processing of vestibular, proprioceptive or tactile inputs. Sensory integrative dysfunction can be found frequently among children with speech and language delay, behaviourial problems, learning disorders, more severe neurological disorders such as autism, and general developmental delay.

TREATMENT

Sensory Integration treatment techniques refer to the use of enhanced, controlled sensory stimulation in the context of a meaningful, self-directed activity in order to elicit an adaptive behaviour. Adaptive responses improve the ability of the CNS to process and integrate sensory inputs, and, through this process, to enhance conceptual and motor leaning. The emphasis is on the integration of vestibular proprioceptive and tactile input not just the motor response.

KEY CONCEPTS

The Environment must be emotionally warm and structured to provide the child wth the necessary sensory inputs. Suspended equipment is mandatory. A non-directive approach is taken, that is adult-guided where the therapist "intrudes" in a child centred programme. The programme is non-threatening: sensory input is provided: the emphasis is non-cognitive, and the sequences flexible. Exploration and creativity is encouraged, and child-therapist contact is developed. Sensory input is provided via

use of equipment and activities. The child's sensory systems are monitored throughout the sessions by the therapist and adaptive responses are facilitated through the programme. Sensory integrative therapy is reality based, and play and fun are important components of a session. The therapist must skilfully monitor the child's responses and activity level to ensure a balance of challenge and success.

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■ TELER: PROVIDING THE EVIDENCE OF EFFECTIVE INTERVENTION

Sue Mawson

The presentation will begin by identifying the differences between the Medical Model of outcomes and the Health Care Practitioners Model. The positive and negative aspects of both will be explored (Bland and Altman, 1995) as a preparation for an introduction to the TELER method of measurement. A brief outline of how this method was developed and the underlying assumptions on which it is based (Le Roux, 1993) will be given.

It will be suggested that the TELER system fulfils the needs of patients with neurological deficits, enabling a collaborative, goal directed approach that potentially enhances patient and carer compliance and motivation (Mawson, 1993). Further more the ability of the method to be used at a clinical level in the decision making process and as a research tool (Grocott, 1997, Buri,1997) will be identified.

The presentation will summarise by suggesting that we need, as neurophysiotherapists, to be flexible and innovative in research methods used, understanding the limitations and uses of designs such as the Randomised Controlled Trial (RCT). We must be critical and analytical about our choices of outcome measurements, enabling us to prove evidence of effective intervention both in a clinical setting and in future research studies.

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■ ABSTRACT ON THE ROOD APPROACH

Alison Baily-Metcalfe MSc BSc MCSP LPT

The Rood Approach for the treatment of Central Nervous System (CNS) disorders was developed by Margaret Rood in the 1950s. Rood's technique can be categorized as one of facilitation and inhibition of movement. It is one of several of the Neurophysiological Approaches which developed at that time and is centered upon four basic concepts to consider during treatment: Duality. Ontogenetic Sequence, Developmental stages and the level of excitability of the Anterior Horn Cell (AHC). This is not how Rood termed her approach, in fact, she wrote very little so that most of the information on the Approach is the interpretation of others (Goff 1982, O'Sullivan 1994, Stockmeyer 1967).

As with the other Neurophysiological Approaches (notably Bobath, PNF & Brunnstrom), Rood's rationale for treatment has received a great deal of criticism, particularly because of the naiveté of it's physiological rationale. Although this criticism is justified, it does not mean that the treatments are without value. The presentation will include a brief explanation of Rood's rationale for treatment and a review of the literature which highlights the benefits and limitations of many of the aspects of this approach.

According to Stockmeyer (1967) Rood's philosophy of treatment, "is concerned with the interaction of somatic, autonomic and psychic factors and their role in the regulation of motor

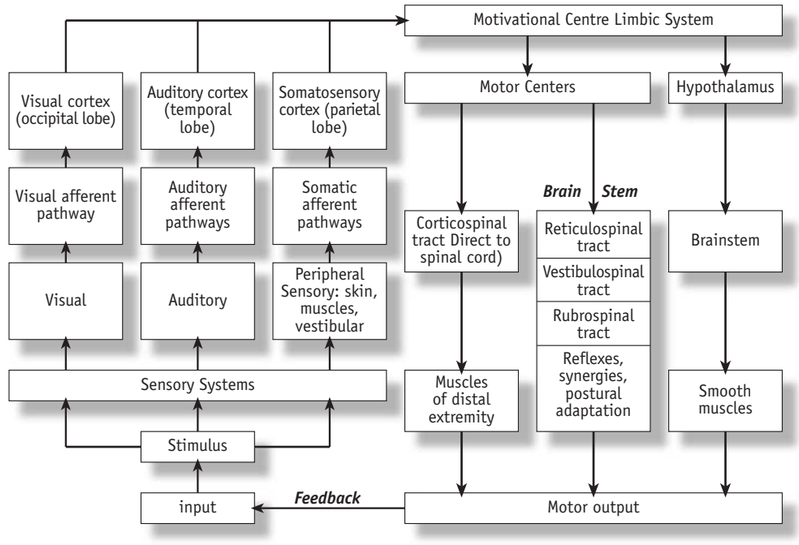

Diagram of the Central Nervous System structures involved in sensory input and motor output *Umphred (1991)*

behavior." The above diagram is useful for understanding the view of the CNS as a basis for Rood's holistic approach.

Holism is reflected in the concept of Duality, the idea that the entire organism has developed to respond in two ways. These are protection (mobility) and growth of the individual through adaptation and contact with the environment (stability) (Umphred & McCormack 1990). Both muscles and receptors are grouped to favor one of these functions more than the other (although never exclusively). The therapist uses this information when choosing his/her techniques to influence muscle activation.

The excitability of the AHC can be either facilitated or inhibited (Wall 1988). This information can be utilized to access the CNS and produce the desired movement. Common techniques with which many therapists will be familiar include tapping, quick stretch, resistance, quick icing, joint approximation, inhibitory pressure, stretch release, stretch pressure, and vibration. Both temporal and spatial summation are often employed during the use of these modalities to enhance their overall effect. Research also supports the idea that the nervous system is hardwired in such a way that stimulating the dermatomal representation of the muscles can result in stimulation of the muscles through altering the excitability of the AHC (Paillard 1988, Rider 1971).

Another major tenet of Rood's philosophy is the idea of the Ontogenetic Sequence. She distinguished four bases for movement (increasing in complexity): Mobility, Stability, Mobility superimposed on stability, and Distal mobility with proximal stability. It is suggested that progressing through this sequence of movements can be used to help the patient regain control of a limb.

It is widely recognized that the use of the developmental sequence is not consistent with the currently developing theory of how the nervous system functions. While this means that the Rood Approach as presented in the 1950s cannot be embraced and used fully, it does not mean that the entire approach is unusable. All theories evolve and this is an excellent example of that process.

Very little research has been carried out to examine the effectiveness of any treatment approach. This paper has attempted to consider the evidence base behind the practice of Rood's Approach. It would seem that of the many factors which Rood considered when treating CNS damaged people, the use of exteroceptive and proprioceptive modalities to influence the excitability of the AHC has the greatest degree of scientific credence. Although we would not choose to use these techniques in isolation. they present us with a useful adjunct to our current practice.

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■ PROPRIOCEPTIVE NEUROMUSCULAR FACILITATION

Nikki Rochford

Proprioceptive neuromuscular facilitation (PNF) is a treatment technique that incorporates the use of methods of stimulation, facilitatory techniques and functional patterns. It is used in three main ways: table treatments where the patient is in supine or side lying; mat treatments which facilitate the functional movements from supine through to sitting and standing, and gait treatments.

PNF was first developed by Herman Kabat and Maggie Knott in Vallejo, California in the 1940s. The technique was primarily developed for the treatment of patients with neuromuscular dysfunction and was initially based upon the following therapeutic components which when combined together enable facilitation: resistance, stretch, mass movement patterns, reflexes & reversal of antagonists (Kabat 1952).

The use of mass movement patterns was supported by the work of a number of authors (Gellhorn 1949, Coghill cited Kabat & Knott 1953, Hellebrandt 1951). Gellhorn (1949) demonstrated that stimulation of the motor cortex of monkeys resulted in activation of functionally inter-related muscle groups rather than single muscles, this can best be described by Beever's axiom 'the brain knows nothing of the action of individual muscles but only of movement'

Sherrington's work was much cited by Kabat (1952) and forms the basis of the principle in PNF that motor output is dependent on sensory input. Three main PNF techniques are derived from the work of Sherrington: irradiation, reciprocal inhibition and successive induction. Maximal resistance was advocated by Kabat & Knott (1953) who demonstrated with EMG studies that the use of active and active-assisted exercises failed to recruit all available motor units whereas resistance did. Similarly Gelhorn in 1947 found that a cortical stimulus could be enhanced by the introduction of peripheral resistance thus suggesting a peripheral input could have a direct cortical effect.

Based on the above work Kabat accepted that sensory input was essential for the production of movement. However, he also proposed that movement was driven by motor programmes from within the CNS (Kabat & Knott 1953). Consequently PNF attempts to use peripheral stimulation to enhance the facilitation of remembered functional movement patterns.

Much of the clinical research available relates to the use of contract relax as opposed to passive stretching for muscle lengthening (Osternig et al 1990, Cornelius et al 1992,) or the use of diagonal spiral patterns as opposed to cardinal patterns (Arsenault et al 1978, Surburg 1977). More recently clinical trials have been undertaken investigating the use of PNF in neurological rehabilitation and the results demonstrate that this may be a useful intervention (Wang 1994, Kraft et al 1992, Dickstein et al 1986). The authors do not specify the particular techniques used and it is in this field that clinical trials would be advantageous in the future.

Much of the PNF taught and used in Great Britain concentrates wholly on table treatments and so may be criticised for not embracing motor learning theory. This does not take account of the substantial role of mat work and gait practice in this therapeutic intervention. PNF may be considered as a useful tool for ensuring the facilitation, repetition and the practice of appropriate movement patterns, however transfer of the skills gained should be rapidly incorporated into the functional activity required by the patient.

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■ THE JOHNSTONE CONCEPT IN A MULTI-MODAL APPROACH

Gail Cox Steck

The brain injured adult patient is confronted with some major problems:

1. Changes in postural tone.
2. Impairment or loss of motor control
3. Impaired or diminished memory for normal movements.
4. Ineffective feedback and feedforward mechanisms.
5. Social changes (family,work or leisure time).

The Johnstone concept as presented here will be used in an eclectic approach. It is based on over 40 years of clinical experience and successful outcomes from Mrs Johnstone. We have expanded the concept by constantly integrating strategies from theoretical advances in motor control and learning.

The concept offers a realistic and dynamic set up, to support, in our opinion the best possible recovery of the patient. Note that as of 1995 there were no evidence-based studies on the effectiveness of one type of physiotherapy as being superior to another. (U.S. Dept.of Health and Humane Resources 95)

The aims of the rehabilitation programme are:

1. Create an active learning environment for the patient.
2. Control abnormal tone in an interdisciplinary 24-hour set up.
3. Ensure high quality rehabilitation for motor control,reasoning abilities,social skills,emotional healing and herewith long term results.
4. Reintegrate the patient back into society. Training patient, carers, and supporters.

WAYS AND MEANS TO ACHIEVE THESE AIMS

1. Initially the rehabilitation programme must start in a learning environment, where realistic goals and treatment strategies are negotiated with patients and home-care team to enhance motivation.
2. Interdisciplinary team work in order to influence the normality of future motor patterns, keeping compensation to a minimum and to prevent the establishment of learned non-use (Taub et al).(For example through handling techniques,positioning, structuring the environment for active training and learning integrated into functional goals keeping compensation and abnormal patterns of movement at a minimum.)
3. The possibility for a long-term rehabilitation management plan and follow-up. This in the form of individual neurotherapy sessions for months and possibly up to a few years, tune-up courses for patients and carers, group therapy formed according to ability and re-instruction of home programmes and care-givers in the patient's residence.
4. Outcome must stand up to the test of long term accountability.

PRACTICAL APPLICATION

(specific difference to other therapeutic strategies)
To make this ambitious programme realistic, Margaret Johnstone has comprehensively developed various tools to be integrated in the rehabilitation programme and to be used by the crew.

In particular inflatable pressure splints and rocking devices. Over the years in order to ensure variety in dynamic and specialised training outside abnormal patterns of movement, other devices and equipments were introduced into the training programme according to stages of recovery (eg fitter, Wolf-turntable, moped bicycle, arjo standing etc)

These tools are applied according to careful and continuing evaluation of the patient's resources and limitations (motor, sensory, cognition and perception as well as short and long term goals.)

Inflatable pressure splints are used for:

1. Biomechanical advantages:
   - Influencing muscle tone and length-associated tissue changes.
   - Stabilisation and mobilisation
   - Prevention and treatment of muscle contractions, especially in delayed treatment cases.
2. Dynamic boost to sensory input:
   - Intermittent pressure
   - Weight bearing

Rocking devices (rocking chair, rocking machine, rocking table) are used for:

- Rhythmical movements to influence muscle tone and for relaxation
- Vestibular stimulation
- Dynamic weight transference
- Stimulation of automatic movements induced by the rocking motion in combination with inflatable pressure splints.(Feys et al)

CONCLUSION

Living with disabilities after a brain lesion challenges you forever.

Notwithstanding enormous progress in the knowledge of central nervous system functions it is unrealistic to know all the answers. The dilemma of the patient always remains the same. He or she wants to move, achieve practical goals, and this in the easiest and most economic way. Mrs Johnstone has taught us through her concept how to support patients in their learning process as partners to construct learning landscapes for maximal recovery and to prevent compensation.

Margaret Johnstone FCSP, a master clinician and keen observer of humans in their movements and their beings, has dedicated over 40 years of her life to the treatment of neurological patients. Based on the experience of her clinical work she has written five successful books.

Her main suggestion being the establishment of a rehabilitation management plan in the private setting with the home-care team to assist recovery, ease the burden placed on families and so help pave the way to improve quality of life. Especially for this precious aspect of life therapy Mrs Johnstone was awarded a fellowship from the Chartered Society of Physiotherapy in 1990.

A MOVEMENT SCIENCE BASED APPROACH

Paulette van Vliet

Over the last fifteen years or so, a Movement Science based therapeutic model has been developed by Janet Carr, Roberta Shepherd and their colleagues. It has been derived from theoretical and experimental studies in the broad area of movement science, by a deductive process. Through this process, guidelines for the rehabilitation of stroke patients have been formulated. The theoretical framework on which these guidelines are based could be applied to patients with other movement disorders.

In this session, five key aspects of this approach will be outlined:

1. It is a cognitively oriented approach and the patient is an active learner in the rehabilitation process. It is assumed that stroke patients have the same learning needs as the non-disabled, i.e. they need to have a clear goal, sufficient practise and appropriate feedback about their performance.
2. A sound analysis of the biomechanical and motor control of normal and abnormal movement underpins training.
3. Since movements are normally organised so that they are specific to a particular goal and set of environmental conditions, training is task-specific.
4. Active motor control, particularly the control of muscle activity, e.g. appropriate force and timing, is believed to minimise the clinical signs of spasticity. Tasks for the patient to practise are carefully formulated in order to prevent unnecessary muscle activity and compensatory strategies.
5. An environment is created which is conducive to the transfer of learning into everyday life. This process includes the organisation of self-monitored practise.

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NEURODYNAMICS IN NEUROLOGY

Anita Wade MCSP SRP

Rehabilitation using Neuro Dynamics (ND) began following completion of an Orthopaedic 'ANT' Course in 1989. Neural tissue mobilising has evolved in the treatment and assessment of orthopaedic patients following the development of the 'Straight Leg Raise Test', Maitland(1986), The 'Slump Test', Maitland(1985) and its further development of the 'Upper Limb Tension Tests', Elvey(1979) and Butler, Gifford(1989). Its application usually focused on its use to treat pain.

It seemed sensible to forecast that it could be used to stimulate the nervous system in a way we had not addressed before i.e. by focusing on the anatomical pathways of the peripheral nervous system and our ability to use this to move and stimulate it. Orthopaedic therapists were already finding they were having beneficial affects on motor deficiencies caused by peripheral neural pathologies. Therefore it seemed logical to assume that if the neural tissue was mobilised in upper motor neurone pathologies the trophic stimulation should result be beneficial here also. This was the author's theory and in practice using ND did cause clinical improvements.

It is used to access the nervous system via the peripheral nerves to help in the rehabilitation of patients with Upper Motor Neurone pathologies.

USE

ND is used with neurological patients at all stages of their rehabilitation.

In the early stages mobilising the nervous system helps to prevent adverse neural tension developing, likely where the patient is immobile and has alteration of tone. Where adverse neural mobility has developed mobilising of the neural tissue is used to regain range of movement.

Movement of the neural tissue is used to affect motor and sensory responses. It enhances motor responses and therefore the re-education of movement, (selectively and in patterns). It is therefore an important tool where there is low tone and is used to assist in lowering high tone.

Sensation has been seen to improve following use of neurodynamics.

It is thought the sympathetic nervous system is stimulated during some techniques involving the 'Slump'.

ASSESSMENT

Prior to assessment a knowledge of peripheral neuroanatomy and functional anatomy is necessary including the course and innervation of the nerves. It is necessary to know the 'Base Tension Tests', how to perform them and what are the normal perameters. These are described by Butler and Gifford(1989). It should also be understood how intraneural and extraneural structures affect neural mobility.

Assessment addresses any adverse neural mobility, lack of motor activity and lack of sensation.

Where adverse neural tension is found its causes need to be established, differentiating between soft tissue tightness and neural immobility.

Normal movement needs to be assessed and analysed in the usual way relating problems that may be related to ND problems.

Decide how ND may be applied and incorporated into treatment.

TREATMENT

Treatment uses adaptations and application of the 'tension tests', nerves are mobilised not stretched. Components of the 'Tension Tests' are used these are the 'Sensitising Movements' (SMs). SMs may be used singularly or in combinations. They can be used locally at the site of the problem or distally depending on the sensitivity of the problem. Depending on the affect wanted treatment can be used: ps: laterally or contralaterally, repetition rates altered, different speeds used, applied proximal or distal to problem, in tension or out of tension, with amplitude variations. Combinations of different Tension Tests are commonly used in treatment. *Mobilising specified for a particular problem will help re-establish mobility, stimulate activity and/or improve sensation.*

CONTRAINDICATIONS

- Malignancy involving nervous system/vertebral column.
- Cauda equina lesions
- Tethered Cord Syndrome

CONSIDERATIONS AND EXAMPLES

- Without normal mobility of the sciatic nerve it is difficult to achieve normal swing through in walking.
- Normal stance is not possible without normal mobility of the femoral nerve.
- A normal Slump in sitting is necessary to achieve forward weight bearing over the hips and normal movement into standing.
- Mobilisation of the radial nerve using 'Upper Limb Tension Test 2', (Butler,91), stimulates active extension of the wrist and digits.
- Mobilisation of the sciatic nerve, adapting SLR, (Butler,9 1), facilitates activity of hamstrings.
- Mobilisation of the SLR reduces apparent 'adaptive shortening' around the hip and knee.
- Mobilisation of the sciatic nerve facilitates hip abductors and therefore increased hip stability.

THEORY OF AFFECT

Patients with neurological problems have intraneural pathologies in the central nervous system, the Primary Pathology'.

Then develops 'Secondary Pathologies' in the spinal cord and other areas of the central nervous system due to adverse trophic stimulation from the primary pathology. ie abnormal functioning at spinal cord and other levels.

'Distal Pathologies' develop in peripheral nerves and muscles, as a result of abnormal stimulation from the Primary and Secondary Pathologies. eg Abnormal tone, sensation and movement.

THEORY

1. It is thought ND has a physiological affect on nerve conduction. We can stimulate the peripheral nerves through neural tissue mobilising (ND)(via the distal Pathology) > so helping to normalise nerve

conduction from the peripheries to the spinal cord > and normalising its resulting stimulation to higher/lower spinal levels(the Secondary Pathology). Consequently feedback to central areas (the Primary Pathology) and consequently distally (Secondary and Distal Pathologies) is going to be more normal. With a resulting mechanical affect on movement and therefore improved function and improved sensation. The affects will be to affect tone, sensation and movement.

2. Treatment mobilising the neural tissue re-establishes any adverse neural tension/mobility, Butler and Gifford(1989)

SUMMARY

ND fits into present treatments, based on rehabilitation of normal movement and should be integrated into all our rehabilitation programmes.

Treatment addresses maintenance or regaining of neural mobility, motor stimulation and improvement of sensory loss.

CONCLUSION

The use of ND has been used and evolved successfully by the author over the past eight years in Neurological Rehabilitation. Development should continue with future back up of research preferably clinical and neurophysiological. Documentation of case studies applied to neurological treatments would also be of value especially to clinicians aiming to incorporate (ND) into their treatments.

As with all areas of Rehabilitation the use of ND should continue to evolve with its continuing and more extensive application in treatments.

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■ CONDUCTIVE EDUCATION

Julia Waller

Conductive Education is not a therapy, neither is it a magical cure. It is a method of working with handicapped children and adults constructively. The aim is simple, to equip the handicapped person to cope in the normal situation. The aim is not to make the handicapped person normal and without a handicap, but to make him a handicapped person behaving in a normal way. Its essence is simple - expect normal. (Siddles, 1976)

Andras Peto developed his concept by regarding motor disorders as a learning difficulty to be overcome rather than as a condition to be treated or accommodated to. Peto set out to establish mechanisms of development that would otherwise not occur. How he actually developed his method is unclear but he was influenced by the philosopher Martin Buber and psychologists Vygotski and Luriya. The role of speech in the regulation of motor acts and in mental development have been evident and particularly Luriya's work in the role of speech in establishing alternative cortical systems in the cases of motor disorder.

Peto developed Conductive Education in Hungry in the 1950s and his work has been further developed by Dr Hari. Unfortunately neither have produced a clear picture of their overall theoretical position. The fundamental tenet of conductive education is that a motor disorder may be brought under control by teaching. This distinguishes itself as a neuropsychological approach.

THE BASIC PRINCIPLES

- Observation of patient
- Group - homogeneous groups which stimulate, motivate and develop their initiative.
- Conductor - a professional who co-ordinates the patient's day so they perform to the best of their ability.
- Task series - functional activities broken down into component parts.
- Rhythmical Intention - correct wording of each component part. Intention varies for each client group.
- Programme - goal directed

Conductive Education was developed for cerebral palsy children initially and further to include the treatments of hemiplegia, parkinsons disease, multiple sclerosis, head injury and multiple handicap.

The National Institute of Conductive Education in Birmingham has established the role of the conductor in England in the last ten years with close links with Hungary. Some encouraging case studies are emerging but there is as usual a need for further research.

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■ BOBATH INTO THE MILLENNIUM

Sharon Williams
Bobath Tutor

The Bobath concept is a problem solving approach to the treatment of individuals with disturbances of tone, movement and function due to a lesion in the CNS. (IBITAH 1996) The treatment is an interactive process between the therapist and the patient where facilitation leads to improved selective movement.

With the knowledge of plasticity and a systems based approach the therapist uses afferent input as a basis for directing plastic adaptation of the CNS. Our aim is to use afferent input to:

- Strengthen normal synaptic chains and neuronal sets.
- Guide axonal sprouting
- Facilitate unmasking of alternative previously subservient pathways to regain normal function (Kidd, Lawes, Musa 1992)

We aim to potentiate the system to make choice.

In the past practise formed the basis for development. Now development in the understanding of motor control and how the concept addresses the recovery of function forms the basis of Bobath into the future.

As a group we take very seriously the need to research to become more evidence based. There is ongoing research by therapists that could provide positive ways of objectively measuring the outcome of our therapy, such as Teler (Mawson 1993), cortical mapping, EMG studies and single case studies.

BBTA needs to become more proactive in research and one major development forward is to persue becoming associated with a university. Our initial goal will be to gain acceptance of our tutor training programme at M level which will mean that all future trainees will have to be involved in research.

With the possible change of our basic course to four weeks in length and to cover all neurological conditions this may become a modular course.

Another major aim is as a group to have an objective measure of our treatment that will be taught on all courses.

As Mrs Bobath said the concept involves the whole patient, his sensory, perceptual and adaptive behaviour as well as his motor problems. We all learn and change our ways of treating according to our growing knowledge. Changes are good and necessary and will continue. (Bobath 1990)

But in the words of Kidd (1992) 'Look to the future with vigour and not with a fondness on the past'

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Minutes of ACPIN Annual General Meeting

March 21st 1998
The Queen Hotel, Chester

Chairperson: Linzie Bassett
The meeting commenced at 12.05pm. Linzie Bassett declared the meeting open and welcomed members.

1. APOLOGIES
Sue Edwards, Tamsin Hartley, Sally-Ann Adams, Pam Evans

2. MINUTES OF AGM 1997
These were approved and signed as a true record of the meeting.
Proposed Maggie Campbell
Seconded Rowena Wright

3. PRESIDENTIAL ADDRESS
Dr Ann Ashburn

Dr Ashburn focused attention on the need to define the term 'clinical specialist'. The baseline requirements such as 'a minimum of two years experience in neurology at senior 1 grade' or 'evidence of post-graduate training' are perhaps clear and acceptable, but to be a 'specialist' demands additional skills which are more difficult to define or quantify, such as 'the ability to assess and identify problems', 'treatment skills and management',or 'the evaluation of treatment'. The conference had demonstrated the high level of skills that physiotherapists have in assessment and identifying problems in the area of motor control. However, the management of neurological patients requires a broader knowledge and understanding of many other facets such as cognition, perception, family issues, the enviroment, all of which influence the rehabilitation model. A specialist must consider all aspects.

In the area of treatment and management, a specialist needs to demonstrate a wide knowledge and be able to give explanations behind the choice of interventions; the consideration of multiple problems; good communication skills; be able to demonstrate the effect of intervention and the response gained, as well as have considered many other issues such as plans for discharge.

A specialist must evauate their interventions thoroughly and ensure that appropriate measures are used to link the treatment aims with the desired goal.

Finally, a specialist needs to demonstrate the ability to question and research their work.

The challenge is for each therapist to review their practice, to consider how to develop the services provided, to review the philosophies behind their interventions and to consider the future management.

4. CHAIRPERSONS ADDRESS
As ACPIN reflects on its achievements of another year, its been a productive year in many ways-not least the baby boom within the committee.

Dr Ann Ashburn has continued to offer ACPIN an experienced perspective on many important issues, and her work and dedication to the clinical guidelines project has been invaluable. Sadly, we say goodbye to Ann as she retires as president, and thank her for her tireless support and commitment over the past three years.

However, as we turn our attention towards the millennium, we welcome Sue Edwards, Lead Professional Advisor for Physiotherapy at the National Hospital for Neurology and Neurosurgery, London, as our new president, who will rise to the challenge of taking ACPIN forwards into the year 2000.

ACPIN continues to be a dynamic and proactive clinical interest group, with a membership of 980, although unfortunately the South Wales group disbanded earlier in the year.

Synapse provides a vital link in the communications network, but another plea goes out for material, in order that the high standard of the production can be maintained.

Following much discussion, ACPIN has agreed to be involved in a pilot scheme initiated by the CSP for the collection of membership subscriptions, alongside the collection of membership fees. To enable this to happen, 1998 membership will only run until December 31st 1998, so bringing us in line with the CSP. It is envisaged this will pave the way for the option of direct debits in the future.

I am pleased to inform you of the high profile the CSP has placed on evidence-based practice and the resulting launch of the new clinical effectiveness and research unit. ACPIN has this year had an audit completed of its Standards, by Madeline Simpson, and we are grateful for all her work, a summary of which has been presented.

The eagerly awaited clinical guidelines on splinting and casting have also been finalised by an eminent group of physiotherapists. Despite many difficulties, the culmination of two years work has resulted in the production available today.

ACPIN's autumn study day will appeal to all the 'technophobes' amongst us, and is entitled"Have you got the Millennium Bug?' This will be held in Birmingham.

ACPIN is already planning for 1999, and will be joining with the CSP in a new format for the Annual Congress. This will consist of keynote speakers, scientific papers, and clinical programmes, of which ACPIN is one.

As ACPIN, now in its 10th year continues to prosper, we look forward to the future and thank you all for your support.

5. TREASURERS REPORT 1997/1998

ACPIN RESERVES
as of March 6th 1998
- Business reserve
  £18,639.00 (from which the conference will be paid £16,000 approx)
- Bobath Memorial Fund
  £4,607.58
- Current Account
  £10.00

CASH FLOW FOR 1997/8
- Income
  £52,793.61
- Expenditure
  £51,056.53
- Balance
  £1,737.08 (after payment of conference)

Income is made up from:
- Membership fees 71.2%
- Database fees 0.4%
- Study days 25.0%
- CSP 3.4%

Expenditure has three major areas
- Travel 24%
- Synapse 19%
- Capitation fees 16%

Other expenditure is in areas such as stationary, post, administration etc.

Accountants
There was a unanimous vote to retain the accountants, who are:
Langer & Co
8-10 Gatley Road,
Cheadle.

6. SUB-GROUP REPORTS

1. PRO This group works to facilitate communication between the National Executive committee, the members and the CSP. It has regular commitments to maintain the display board, update the information pack for the regional representatives, address current issues such as the use of videos and risk assessment by discussing with the relevant groups and advising members on ACPIN's advice. The other main role is formulating, and writing motions for ARC.

2. Research This group has been working with the CSP to identify and prioritise areas of research in terms of possible eligibility for funding in the future; developing guidelines for members for critically appraising articles, and reviewing the current involvement of ACPIN members in research

3. Education This group has the aim of facilitating post-graduate learning by organising study days, responding to clinical questions, reviewing the reasons behind the poor attendance of members to certain courses, such as study leave, funding, non-accreditation of neuro courses, and to give advice to groups as required.

4. Clinical Interest Group (CIG) Liason ACPIN has a representative who attends four meetings a year organised by the CSP for all the clinical interest groups. The main areas discussed this year have been the proposed pilot scheme by the CSP for collection of ACPIN subscriptions, arrangements for Congress 1999, and strategies to enhance relationships with the CSP.

7. NOMINATIONS
There were two vacancies on the Executive committee. A vote was taken and the following two members were accepted.
- **Nicola Hancock**
  Proposed Nina Melville
  Seconded Kate Ball
- **Jackie Newitt**
  Proposed Ralph Hammond
  Seconded Jill Hall

8. LAUNCH OF CLINICAL GUIDELINES BY ROWENA WRIGHT.

9. AOB
None

Meeting Closed at 1.00pm.

We are sad to announce the death of Jennifer Bryce, Principle of the Bobath Centre and past President of ACPIN, in August this year. An obituary will be printed in the next edition of Synapse

Is ARC for us?

Anthea Dendy

- **Does ACPIN want to carry on sending representatives to ARC?**
- **Do our members know we go to ARC?**
- **Do our members feel it is useful and relevant for ACPIN to submit motions?**

These are all questions I've asked myself over the last few years as we rallied to find representatives and doggedly tried to encourage our members to come forward with issues that concern them and they would like to see debated at ARC.

ACPIN has always been recognised as one of the most active CIGs at ARC. ACPIN could always be relied upon to have an opinion and express it. Sadly over the last two years our input has dwindled and no representatives have attended on our behalf.

I am sure that everyone is aware that the format of ARC has changed, particularly in response to the demand for more clinical issues to be debated. ACPIN can now send one representative per 250 members – yes we can now have four representatives – all expenses paid by the CSP. As one of the largest CIGs it is unbelievable that we could find no one who wanted to go this year.

The result of this was so that our motion could be debated one of our members, who was attending in their steward role, had to suspend standing orders to allow her to propose our motion on ACPIN's behalf – thanks Clare. Other CIGs had already approached us wanting to second our motion and they were bitterly disappointed that we were going to withdraw it as it was an issue that they also felt strongly about.

Fortunately, thanks to Clare, our motion was carried and the CSP will now have to respond to it.

To remind you our motion read as follows:

Congress calls on the CSP to highlight the need for clinical specialist posts to ensure the development and retention of senior clinicians.

Clare made several demands on our behalf and we are currently writing to the CSP to see how these are being addressed. These included:

- to publish the benefits of having specialist posts in *Frontline*
- to send guidelines of good practice out to Physiotherapy Managers to encourage them to be proactive in creating these posts
- to nominate a contact officer at the CSP in the Professional Affairs department who can advise both managers and clinicians

After a motion is passed it has to be discussed by Council and action taken. Council's response is published in *Frontline*.

Motions for ARC, which takes place in May have to be submitted to the Agenda Committee by January. As a sub-group of the National Committee the communications group formulate these at the National meeting in November, having asked for suggestions of hot issues from the National Committee and all regions via their representatives.

Once the motions have been submitted the group will carry out any relevant research for information to assist and support our representatives who are proposing the motion. This includes assistance in writing their speech if that is what they want – fax messages fly to and fro as I am sure you can imagine.

Comprehensive training is provided by the CSP for all representatives.

So – is there anyone out there who would like to represent ACPIN at ARC next year? Having been twice myself I can assure you that although initially it is very daunting at the end of the day it is good fun and you cannot help but get totally caught up in the proceedings. We are hopeful that at least one member of the communication sub group will attend but we are looking for three other keen and interested people.

Perhaps if I list a few of the topics we could consider formulating motions or you might see one you feel inspired by or strongly enough about to propose it.

Topics could include:

- Lack of provision of Rehabilitation services in the Green Paper
- The impact of Primary Care Groups
- Increased numbers of physiotherapists working in the community in isolation
- increased numbers of therapists employed in MDTs leading to professional isolation and fragmentation
- Threats to junior rotations with new health care structuring
- Increasing resources from the CSP into research to help bring up our evidence base as quickly as possible

and there are, I am sure, many, many more.

In answer to my original question I believe ARC is for ACPIN; we should be there and we should be there responding to and putting forward the views of our members and not those of a few people on the committee. Having a motion passed at Congress can promote change. Our call for the definition of a Clinical Specialist led to the CSP defining what a specialist was at a time when the term was being strongly resisted.

If you have any views on ACPIN and ARC, would like to attend as an ACPIN representative, or have ideas for motions please let myself or your Regional Representative know. **ARC next year is in May in Glasgow.**

Guidelines for the use of videotaping in clinical practice

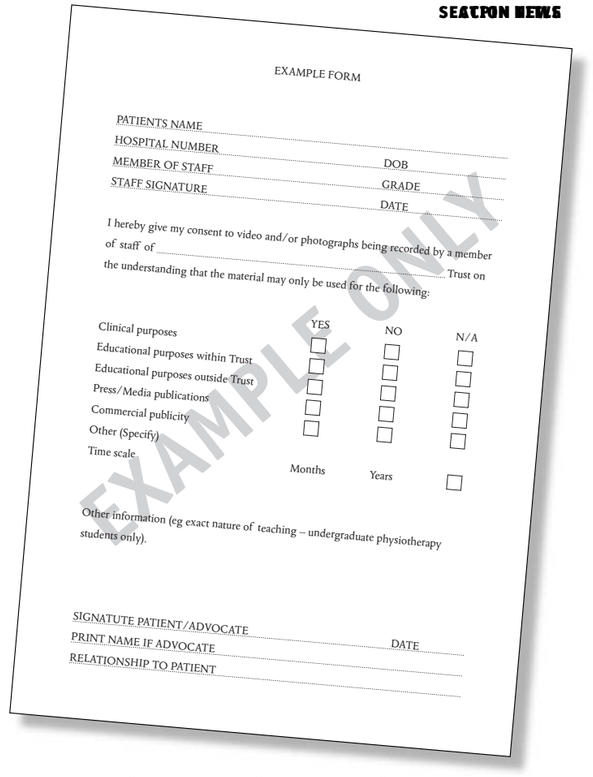
It was brought to the attention of the National ACPIN committee by one of our members that we should be ensuring that we are fulfilling our legal requirements with regard to the use of videotaping with patients/clients.

Following this and consultation with the Dept of Health, ACPIN have drawn up the following recommendations.

We strongly recommend that our members consult with the trust in which they work to draw up a local policy for consent to videotaping.

When drawing up a policy we recommend the following is considered:

- videotapes and photograph material made for clinical purposes should be treated as medical records and should be retained in the same way.
- methods of secure storage of the above should be agreed.
- videotapes and photographic material made for other purposes e.g. teaching/commercial, may be erased.
- prior to use of video or photographic material, medical notes should be recalled to confirm no change in the patient's/client's circumstances which may make use of the material inappropriate.
- the potential purpose of videotape/photographs should be discussed, agreed and consent documented (see example form).
- the above should have a time scale.
- the policy should include a procedure for the release of videotapes or photographs.
- an explicit written consent form should be included in the policy.
- consent from the trust, consultant or GP may also be required.


EXAMPLE FORM

PATIENTS NAME
HOSPITAL NUMBER
MEMBER OF STAFF DOB
STAFF SIGNATURE GRADE
DATE

I hereby give my consent to video and/or photographs being recorded by a member of staff of Trust on the understanding that the material may only be used for the following:

	YES	NO	N/A
Clinical purposes	☐	☐	☐
Educational purposes within Trust	☐	☐	☐
Educational purposes outside Trust	☐	☐	☐
Press/Media publications	☐	☐	☐
Commercial publicity	☐	☐	☐
Other (Specify)	☐	☐	☐

Time scale Months ☐ Years ☐

Other information (eg exact nature of teaching – undergraduate physiotherapy students only).

SIGNATUTE PATIENT/ADVOCATE
PRINT NAME IF ADVOCATE DATE
RELATIONSHIP TO PATIENT

EXAMPLE ONLY

Bobath Memorial bank account

Patricia Moffitt
ACPIN Treasurer

BACKGROUND

This bank account was established from profits made following the ACPIN course organised in memory of Dr and Mrs Bobath. It has remained dormant since then, apart from accumulating interest. **Current Balance = £4,675:46**.

At March's Chester Conference/AGM, I collected suggestions from ACPIN members on how best to utilise this money and would like to take this opportunity to thank all members who contributed their ideas.

Following collation of this, two popular ideas were discussed at July's National meeting and in reaching a decision the following points were taken into consideration:

- Importance of practical use and accessibility to clinicians
- Awareness of the importance of evidence based practice
- Affordable within the limited resources
- Significant work dedicated to the memory of Dr and Mrs Bobath

THE DECISION

ACPIN will run a series of "free" workshops on SINGLE CASE STUDIES across the country open to ACPIN members.

General Objectives of workshops

- To gain sufficient knowledge and confidence for participants to produce quality case studies
- To facilitate dialogue and dissemination of ideas amongst clinicians.

General Aims

- All workshop participants to document their own single case study
- Publication of all or some of these case studies, as a resource and inspiration to all physiotherapists
- Participants will be able to disseminate knowledge gained to their colleagues, hopefully encouraging others to write their own case studies.

National ACPIN will now begin to plan these workshops and obviously once organised, further details will be given. If anyone has experience in writing single case studies and/ or feels they would be able to assist in any way, we would be delighted to hear from you!

REVIEWS

Books

FUNCTIONAL MOVEMENT REEDUCATION: A CONTEMPORARY MODEL FOR STROKE REHABILITATION

Susan Ryerson\Kathryn Levit

The author's stated purpose of this book is to expand current knowledge of normal movement and provide a new model for applying normal movement to neurological treatment of the stroke patient.

The authors, an American physiotherapist and occupational therapist, both NDT trained and members of the International Bobath Instructor\Tutor Association, have developed this model out of clinical practice and describe it overall as a system of assessment and treatment based on the study of normal movement and functional performance.

This book is large, containing almost 300 pages, but the layout is very clear and easy to follow. It is divided into three sections.

The first chapter in Section I outlines a very simple theoretical framework for understanding how functional movements are organised and executed. The relationship between normal functional movement and movement re-education is introduced as well as terminology describing the model.

The following chapter highlights the main problems contributing to the loss of normal movement at a very introductory level and attempts to interrelate them in order to obtain a systematic approach to assessment and treatment, which are described in the final two chapters of this section.

The treatment model is based on movement re-education and task specific functional training. The treatment examples given appear to be appropriate in most cases but are described in a somewhat long-winded fashion and are very prescriptive in style. They appear to be completely unsubstantiated with minimal attempt at demonstration of evidence based practice. Discussion to a much greater depth of the model including more of the current relevant literature (in the previous chapter) may have qualified this particular chapter more effectively.

The chapters in Section II concentrate on analysis of abnormal movement of the trunk, upper and lower extremities following stroke. The illustrations are again numerous and clearly presented with descriptive text to support them.

Assessment guidelines, treatment goals and techniques are presented for each body component in separate chapters. There is a wide selection of treatment techniques, perhaps with an over emphasis on weight bearing exercises through the upper limb, which again have clear photographic illustrations and are easy to follow sequentially.

Section III progresses on to analysis of more global functional movements such as sit to stand and walking. The chapters follow a similar format as those in Section II with a similar use of clear photographic illustrations.

Overall, this rather simplistic model for applying normal movement to treatment of the stroke patient does not appear to introduce anything new and is far less substantiated than other current models of treatment. It does, however, offer a wide variety of therapeutic techniques, albeit prescriptive at times, which are very well illustrated. These technique ideas would be particularly helpful to undergraduate and newly qualified therapists embarking on this clinical area. It should be used, however, in conjunction with other more scientific tests to help substantiate ideas in the clinical setting.

Edinburgh: Churchill Livingstone
ISBN: 0-443-08913-2
1997 Hardback
488 pages
9 line and 1,458 halftone illustrations
£65.00

Rosie Hitchcock
.

Articles

A ONE YEAR FOLLOW UP STUDY ON THE EFFECTS OF ACUPUNCTURE IN THE TREATMENT OF STROKE PATIENTS IN THE SUB-ACUTE STAGE: A RANDOMIZED CONTROLLED STUDY.

Kjendahl. A et al (1997)
Clinical Rehabilitation 11: pp 192 - 200

The article is exactly what the title dictates it should be. It is aimed at the therapists involved in the sub-acute management/treatment of patients who have experienced a stroke, and are interested in exploring alternative treatments to compliment traditionally existing ones.

The authors are from a Physiotherapy background and reiterate the importance of an individualised multi-disciplinary approach. The article is subheaded and well set out. The methodology is that of a randomized controlled trial involving 45 patients with hemiparesis and no previous history of CVA. Two equal groups where involved, one receiving a multi-therapy/disciplinary approach and the other a multi-therapy approach with extra sessions of acupuncture throughout the year. The data collection and tests are well explained in this section although, later, the tables need a lot of concentration to be fully understood. However, the information they provide is actually relevant and there is some good diagrammatic presentation. Two acupuncturists trained in traditional Chinese medicine where used and were not involved in the routine management of patients.

The three indices for measurement were the Motor Assessment Scale for stroke patients (MAS), Sunnas index of Activity of Daily Living (ADL) and the Nottingham Health Profile (NHP), and the procedures for these where standardised.

Results show that the acupuncture group improved significantly more than the controls during the treatment period of six weeks and even more during the following year, both according to MAS, ADL, NHP and social situations. Statistics show the margin of error to be small in all areas tested, therefore indicating the significance of the results.

The main concern regarding this well designed study is the fact that the placebo effect of the acupuncture is not counteracted in the study ie. the patient is not blind to the study. Either acupuncture is used or it isn't and the patient will know about it. The authors admit the study cannot give conclusive evidence supporting the cause and effect of acupuncture on stroke outcomes. However, the results do strongly indicate that traditional treatment may not alone release the full rehabilitation potential of patients with this pathology, and that acupuncture may improve motor function, ADL, quality of life and social function.

Lisa Burrows
Senior Physiotherapist

REGIONS

EAST ANGLIA

I have recently taken over from Nicola Hancock as Regional Representative. Please do feel free to contact me with ideas for courses or study days. I look forward to meeting you at future events.

Sharon Griffin
Regional Representative
Tel 01603 712889

LONDON

London Membership has dropped slightly this year to approximately 140 and we are planning a drive to increase membership over the Summer months.

However, though membership numbers are lower the evening lectures and weekend workshops have been well attended. Thus far, we have had two very interesting evening lectures: one from Kay Coombes on 'Consideration for the Face and Oral Tract in Neuro Rehabilitation', and the other from Jane Burridge on 'Functional Electrical Stimulation'. In June, we ran a Bobath Workshop with Kathryn Keaveney on 'Balance'. This involved theoretical principles and a patient demonstration which was well received by all who attended. July saw another patient demonstration of an Incomplete Spinal Cord Injury which was also very popular.

We are now looking forward to several more lectures including:

1. **Biomechanics in Neuro-Rehabilitation** October 1998 (Fiona Coutts)
2. **Physiotherapy for the Acute Neurosurgical Patient** November 1998 (Fran Woodward and Jane Milligan)
3. **Taking the Plunge in Evaluating Research Articles** December 1998 (Jenny Freeman).
4. **The Use of Muscle Imbalance in Neuro-Rehabilitation** January 1999 (Heather Mckibben)
5. **Goal setting in Neurorehabilitation** February 1999

The only other thing to add is that the London Branch Committee is in the midst of change again! Ralph Hammond, Chair, has resigned as has the Course Coordinator, Sue Rowley. The new Chairperson is Sarah Farmer and the Course Coordinator is Helen Edwards.

Emma De Vina
Regional Representative

SCOTLAND

Katie Wilkie (Regional Representative) and Deborah Simpson (Treasurer) have decided to resign. On behalf of ACPIN SCOTLAND we would like to thank them both for all their time, hard work enthusiasm and commitment.

Membership presently stands at about 70.

We would like to extend our thanks to the speakers who have educated, enthused and enlightened us, over the last year.

This year's programme finishes with a two day motor re-learning course in August and the Critical Evaluation of Literature (date to be confirmed)
If anyone has any ideas or thoughts regarding next year's programme please contact any committee member.

Sally Bowes
Regional Representative

WESSEX

Wessex ACPIN seems to be enjoying a bumper year with an increase in membership to 56. This could be due to the greater emphasis we now place on organising study days within our yearly programme, not to mention the value for money! All the Bobath run courses on low tone, high tone and gait were well attended, and we hope to get the same response for our Ataxia course in November.

Finally our committee has had another change around as follows:

- **Chair**
  Claire Blaxill
  Physio Dept
  Southampton General Hospital
- **Regional representative**
  Helen Foster
  Physio Dept
  Southampton General Hospital
- **Membership Secretary** (after Sept)
  Jo Forrest
  Amulree Day Hospital
  St Mary's Hospital
  Portsmouth
  PO3 6AD

PROGRAMME 1998

- September Wed 23rd **How to evaluate a research article** (Rosie Hitchcock, Southampton)
- October Wednesday 14th **Functional electrical stimulation** (Jane Burridge, Southampton)
- November Wednesday 11th **Posture assessment and seating** (Alison Lomax, Salisbury)
- December Friday 6th **Study day on Ataxia** (John Marsden & Anne Holland, Southampton)

LETTERS

PHYSIOTHERAPY FOR HEMINEGLECT IN ADULT STROKE PATIENTS

To the Editor,
May we, through your newsletter Synapse, convey our very sincere thanks to all ACPIN members who kindly took the time to complete and return our questionnaire 'Physiotherapy for Hemineglect in Adult Stroke Patients.' We were very pleased indeed with the 91% response rate, and most grateful to members for their help. We are currently writing up the results and hope to submit the paper for publication. We are also most grateful for financial support given by the West Midlands Board of the CSP, which covered the costs of the survey. The survey formed the basis of a third year student honours project (Jemma Mears) and will also contribute to a PhD study looking at management of hemineglect in elderly stroke patients (Maggie Bailey).

Maggie Bailey MSc BA MCSP CertEd DipTP
Lecturer
Department of Physiotherapy Studies, Keele University, Keele, Staffs ST5 5BG
Jemma Mears BSc MCSP
Physiotherapist
The Manor Hospital, Walsall, West Midlands

GUILLAIN-BARRÉ

To the Editor,
The GUILLAIN-BARRÉ Syndrome or GBS is a disease of the peripheral nervous system, causing sudden weakness, loss of sensation; sometimes with severe pain leading to paralysis. Fortunately with good nursing and care most patients recover.

The GBS Support Group provides emotional support to patients and families; visits by former patients to those currently suffering to offer encouragement and support; supplies literature about the illness and three journals per annum to members and endeavours to educate the public and medical community about the Support Group and maintains their awareness of the illness.

To help new patients and their carers to learn about this relatively rare condition further information can be obtained through our:

1. Tel/fax no: 01529304615
2. 24 hour FREE HELPLINE on 0800 374 803
3. E-mail: admin@gbs.org.uk
4. Web site: www.gbs.org.uk
5. Or simply write to us at the address below.

We have recently re-issued all our literature which has been professionally verified and at your discretion we invite you to review the contents and to reproduce anything which you feel may be of interest to your readers.
Yours sincerely,

Mike McCook Weir
Publicity Officer
Guillain-Barré Syndrome Support Group of the United Kingdom
Lincolnshire County Council Offices, Eastgate, Sleaford, Lincolnshire NG34 7EB

CMT INTERNATIONAL UK

Dear Physiotherapist,
CMT International UK is the support group for those people who are affected by Charcot-Marie-Tooth Disease (CMT) - also known as Hereditary Motor and Sensory Neuropathy (HMSN) and Peroneal Muscular Atrophy (PMA).

Many people, both children and adults, are referred to the physiotherapist for treatment. We know from our members that, because there is very little written about CMT, the physiotherapists welcome any information which we can send to them.

I am therefore writing to all members of ACPIN to offer them the chance to send for copies of our leaflets (free of charge). The two leaflets we have available are "Hereditary Motor and Sensory Neuropathies" written by the late Professor Anita Harding who was Professor of Neurology at the National Hospital, London, and "What Is Charcot-Marie-Tooth Disease" written by ourselves.

I can also let physiotherapists have a supply of these to hand to any patient they may be treating who is unaware there is a support group.

I look forward to hearing from you.
Kind regards.

Mrs Margaret Read
Secretary
CMT International UK
121 Lavernock Road, Penarth, South Wales CF64 3QG
01222 709537
Email MEREADCMT@aol.com

THERAPEUTIC HANDLING

Dear Colleague,
Pen Robinson has asked me to reply to your letter. I service the CSP Moving and Handling Development Group (M&HDG), a sub-group of the Professional Practice Committee.

The M&HDG have been working hard on a new version of the Moving and Handling Pack, which will be ready late Summer/early Autumn and they are hoping to launch it at the CIG conference. They are aware of the problems which the new version of "The Handling of People" has brought about for members in general - not only those working in neurology. You will no doubt be aware of the Joint Statement drafted by CSP, RCN and CSP (see below), which was negotiated because of similar problems.

Once the pack is finished the group will be drafting a questionnaire to go to all SIGs to find out what their members' problems are in relation to moving and handling. They will then be better able to assess all members' needs for advice and clarification on specific physiotherapy related problems. (The Handling of Patients is written for nurses).

Their advice on the standing pivot transfers is as before, and applies to other handling manoeuvres too. If a physiotherapist wished to use a method which may be considered hazardous done by some operators, then he or she must be able to demonstrate comprehensive assessment and clinical reasoning for doing so. Account must be taken of any assess-

ments under the Manual Handling Regulations as well as the clinical needs of the patients. These tasks cannot necessarily be delegated to others, who may not have the underpinning knowledge and handling skills of the physiotherapist. Staff must not be put at risk of damaging themselves.
Yours sincerely,

Mrs Jane Langley MCSP
Senior Professional Adviser
The Chartered Society of Physiotherapy
14 Bedford Row, London
WC1R 4ED
Tel 0171 306 6666
Fax 0171 306 6611

PARTNERSHIP IN THE MANUAL HANDLING OF PATIENTS
Joint statement by The Chartered Society of Physiotherapy (CSP), The College of Occupational Therapists (COT) and The Royal College of Nursing (RCN)

The three professional bodies are committed to prevention of back injuries to staff and the implementation of the manual handling legislation. Their members, as professionals handling individual patients, are aware of the difficulties of applying employers' manual handling policies and the guidance from the Health and Safety Executive and professional bodies.

Health care professionals, assessing the patient's situation from different perspectives, sometimes arrive at different solutions to manual handling questions. There may seem to be a conflict between safer handling policies and the rehabilitation or maintenance needs of the patient. If manual handling risks are to be avoided and patients are still to benefit from treatment, it is essential that any such conflict is resolved by consultation and co-operation between all health care workers involved, whether at policy making level or in devising the care and treatment plan for the individual. The key is in assessment of patients and sensitive understanding of others' roles when developing a care/treatment plan or delegating tasks.

Both the Health and Safety legislation and professional procedures call for therapists and nurses to assess their patients and devise suitable management programmes. Assessments for care/treatment plans are not separate for those for the elimination of manual handling hazards, and decisions on the methods of moving the patient, together with treatment plans, flow from the same informed decision making process. Within a multi-professional health care team, there should be knowledge of and respect for, the role of each member, leading to compatible and complementary care plans. Each professional and the patient, should know the contribution to be made to treatment and care by every member of the team. Multi-professional protocols and single case notes have proved useful in achieving this.

When professionals, following assessment, wish to delegate an on-going task, including manual handling, to another professional, care worker or relative/carer, they should take a number of considerations into account. In relation to the task in question, these include:

- the knowledge, training, skill, competence, health and physical capabilities of the person accepting the delegation, (eg staff from various disciplines and grades have different core skills and background knowledge: a nurse may not have the same handling skills as a physiotherapist or an occupational therapist),
- the setting, environment and available equipment where that person will carry out the task, (eg open ward or small bungalow, King's Fund bed or double divan),
- any constraints on the person taking the delegation, (eg staff numbers, time or resources available, employers' policies),
- the general severity and stability of the patient's condition, (eg may possibly have a heart attack or is subject to fainting),
- the times when the task will be carried out in relation to any variation of the patient's condition or ability during the day, (eg the drug regime makes the patient's state vary – as in Parkinson's disease, or the patient functions better in the morning but tires in the evening),
- the patient's predicted response to manual handling, (eg the patient is very nervous and only consents to stand and transfer with one particular staff member, or may suddenly 'buckle' without warning),
- the availability of help or supervision and the possible implications for the handling process, (eg different handling strategies may be identified if the task is to be performed on a ward where help is readily available or if one lone health care worker is visiting a patient's home),
- monitoring at suitable intervals, (eg the professional must monitor and check that the task is being carried out effectively and according to instructions)

The CSP, COT and RCN call on all their members to discuss and resolve with colleagues any areas of disagreement on the methods to be used in the handling of individuals or groups of patients. The three professional bodies would like to collect evidence of problems with implementation of safer handling policies, so that any appropriate further general help and guidance can be given. Please write, in confidence, to Mrs Jane Langley, Senior Professional Adviser, 14 Bedford Row, London WC1A 4ED.
August 1997

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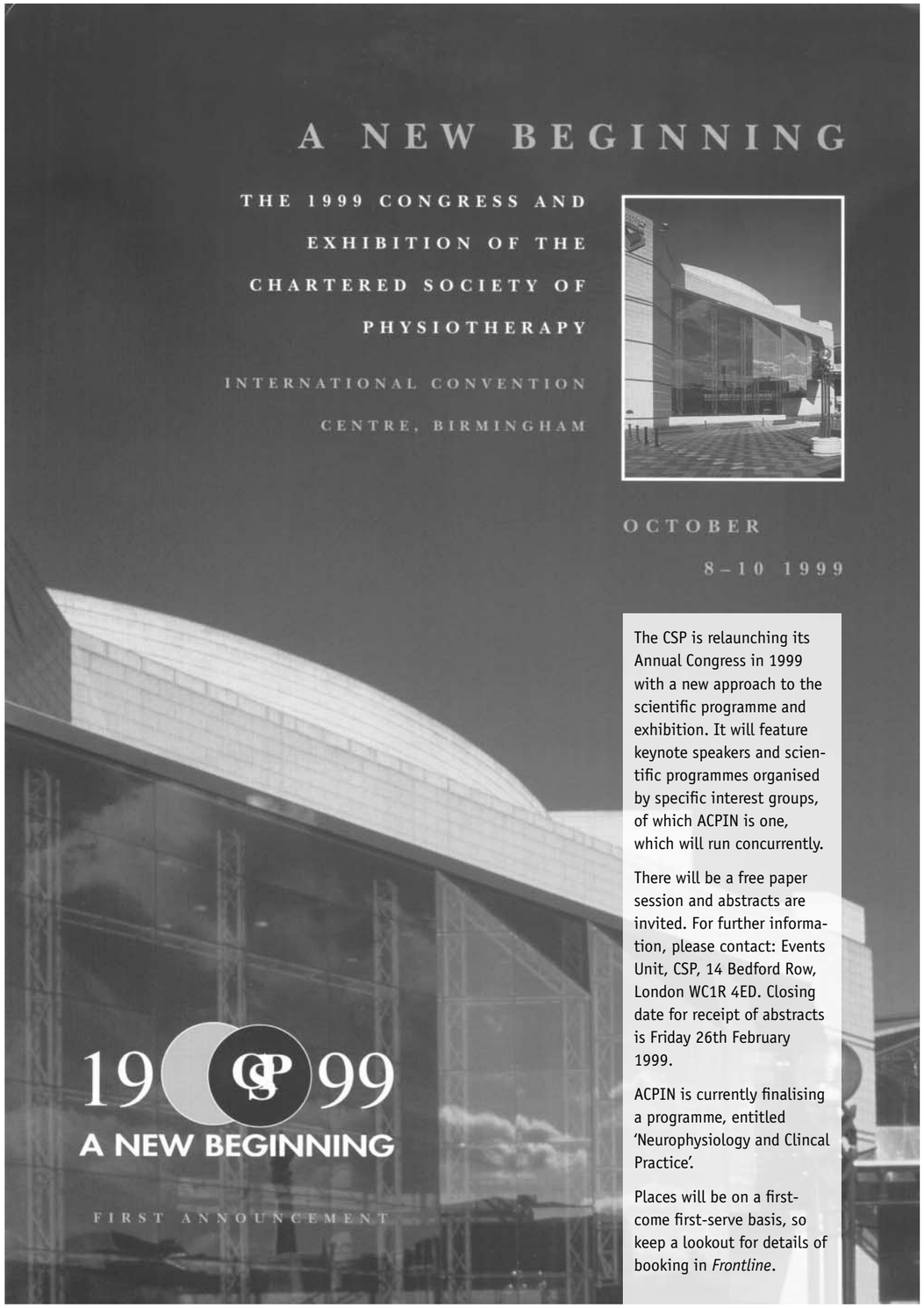

The CSP is relaunching its Annual Congress in 1999 with a new approach to the scientific programme and exhibition. It will feature keynote speakers and scientific programmes organised by specific interest groups, of which ACPIN is one, which will run concurrently.

There will be a free paper session and abstracts are invited. For further information, please contact: Events Unit, CSP, 14 Bedford Row, London WC1R 4ED. Closing date for receipt of abstracts is Friday 26th February 1999.

ACPIN is currently finalising a programme, entitled 'Neurophysiology and Clincal Practice'.

Places will be on a first-come first-serve basis, so keep a lookout for details of booking in *Frontline*.

GUIDELINES

FOR AUTHORS IN SYNAPSE

Synapse is the official newsletter of ACPIN. It aims to provide a channel of communication between ACPIN members, to provide a forum to inform, instruct and debate regarding all aspects of neurological physiotherapy. A number of types of articles have been identified which fulfil these aims. The types of article are:

RESEARCH REPORT
A report which permits examination of the method, argument and analysis of research using any method or design (quantitative, qualitative, single case study or single case design etc).

AUDIT REPORT
A report which contains examination of the method, results, analysis, conclusions and service developments of audit relating to neurology and physiotherapy, using any method or design.

REVIEW PAPER
A critical appraisal of primary source material on a specific topic related to neurology.

TREATMENT REPORT/CASE STUDIES
A report of the treatment of a patient or series of patients which provides a base line description of established treatments, or a new insight into the techniques or treatment of people with a specific problem.

SERVICE DEVELOPMENT QUALITY ASSURANCE REPORT
A report of changes in service delivery aimed at improving quality.

ABSTRACTS
Abstracts from research projects, including those from undergraduate or higher degrees, audits or presentations. They should be up to 300 words and where possible the conventional format: introduction, purpose, method, results, discussion, conclusion.

TECHNICAL EVALUATION
A description of a mechanical or technical device used in assessment, treatment, management or education to include specifications and summary evaluation.

PRODUCT NEWS
A short appraisal of up to 500 words, used to bring new or redesigned equipment to the notice of the readers. ACPIN and Synapse take no responsibility for these assessments, it is not an endorsement of the equipment. If an official trial has been carried out this should be presented as a technical evaluation.

POINTS OF VIEW
Articles discussing issues of contemporary interest and any other matters relating to neurological physiotherapy.

LETTERS TO THE EDITOR
These can be about any issue pertinent to neurological physiotherapy or ACPIN. They may relate to material published in the previous issue(s) of Synapse.

COPY SHOULD BE:

- typed or printed
- double spaced
- on one-sided A4 paper with at least a 1" margin all round
- consecutively numbered
- include the name, qualifications, current position, and contact address of the author(s).
- Ideally, a disk copy of the material should also be included. Documents preferred in *Microsoft Word* for Macintosh or Windows.

References should use the Harvard system. In the text quote the author(s) surname and date (Bloggs 1994). At the end of the article give the full references with the first author/editors name in alphabetical order, eg Bloggs A (1994). 'The use of bandages in the treatment of people with head injuries'. *Phvsiotherapy* 67, 3, pp56-58.

Tables and figures should be given appropriate titles and numbered consecutively as they appear in the text. Each should be presented on separate sheets of paper after the text.

Any **photographs** and line drawings should be in black and white, in sharp focus with good contrast and at least 5" x 7".

Two copies of each article should be sent to:

Martin Watson
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