



**SASP Congress 2018 from 14-16 September 2018**

## **International speakers' Keynote addresses**



**Dr Emma Stokes**

**GLOBAL PHYSIOTHERAPY: A COMMUNITY BETTER TOGETHER**



## Dr Jeremy Lewis

### THE ELEPHANT IN THE ROOM: THE MEDICALISATION OF NORMALITY IN MUSCULOSKELETAL PRACTICE

Of all health conditions, low back pain is associated with the greatest number of years lived with disability, and as a group, musculoskeletal conditions are the 2<sup>nd</sup> largest group impacting on the global burden of health, with only mental health conditions associated with a greater burden.

Historically, musculoskeletal practice focussed on addressing traumatic events, primarily fractures and dislocations. In the 5<sup>th</sup> Century BCE Hippocrates advocated cauterising the anterior glenoid margin and then binding the shoulder into internal rotation to facilitate shrinkage of the anterior shoulder as a method of managing persistent shoulder dislocations. There is evidence from ancient Egypt (5<sup>th</sup> dynasty) of a mummy with a forearm fracture immobilised in a splint, and in 1852, Mathijesen, a Dutch army surgeon, described the use of Plaster of Paris to immobilise fractures. Although the management of trauma continues as an essential component of musculoskeletal conditions, musculoskeletal management has evolved and much of the focus is now centred on the management of non-traumatic presentations, most commonly associated with pain. Hypotheses have been presented to explain the pathoaetiology and management of these presentations. Many of them relate to 'abnormalities' of posture where deviations from an idealised norm is the basis for the presenting symptoms. Examples include; forward head posture and its association with headaches, neck and shoulder pain, lumbopelvic postural abnormalities and low back pain, deviations from subtalar neutral and foot pain. Other examples include an assumption that identified non-traumatic structural abnormalities, such as; rotator cuff tears, acromial spurs, medial meniscal tears, and many other presentations typically identified using a variety of imaging formats are the cause of symptoms, and surgery to 'restore' normal structure is required to reduce the pain and improve function.

Many of the techniques to restore 'normality' have been shown to be placebo procedures and outcomes may relate to the enforced post-surgical relative rest on the tissues and the ensuing graduated rehabilitation. Additionally, outcomes in some presentations may be more dependent on psychosocial factors than physical factors.

This lecture will address a number of these areas of uncertainty and will highlight areas of uncertainty in current musculoskeletal practice. Suggestions for how the musculoskeletal community may considering moving forward will also be discussed.

## Invited speakers' abstracts



### Dr Corlia Brandt

#### MANAGEMENT OF WOMEN WITH PELVIC FLOOR DYSFUNCTION: DEVELOPMENT OF A NEURO-MUSCULOSKELETAL APPROACH

The pelvic floor muscles (PFM) are important in the prevention and treatment of pelvic floor dysfunction (PFD). Controversy and a lack of research exist regarding the interaction between the PFM and abdominal muscles (motor control), biopsychosocial aspects, effective rehabilitation, and pelvic floor dysfunction. An integrated investigation into PFD was indicated, based on neuro-musculoskeletal models. The study aimed to determine the effect on/interaction among quality of life (QOL), PFM, and abdominal muscle function in women with PFD.

81 Women with PFD were randomised to three groups in a double-blind RCT. Group 1 (n=24) received a PFM training, group 2 (n=28) a core stability, and group 3 (n=29) a control programme for six months. The P-QOL, SF-36, ultrasound, POP-Q and PERFECT scale, electromyography, Sahrman scale and PBU were used to measure QOL, prolapse, PFM and abdominal muscle function. Outcome measures included medical and exercise history, exercise compliance and the Visual Faces Scale. Descriptive statistics, Spearman/Pearson correlation coefficients, and 95% CI's were used for analysis.

Data indicated socio-economic, lifestyle and emotional impairment, as well as abdominal and PFM dysfunction (n=100). PFM training yielded significant changes in the levator hiatus (Valsalva) (-3.5mm, 95% CI [-10.3;-1.8]), thickness of the perineal body (1.5mm, 95% CI [0.5;4.1]), and PFM endurance (2sec, 95% CI [1;5]) during the first three months. Group 2 had significant changes in abdominal muscle function (Sahrman and PBU levels, 95% CIs [1;3] and [1;9]), and QOL (95% CI [1.5;28.4]) in addition to improved PFM function up to six months. No statistically significant differences were found in the magnitude of the changes among the groups. Significant correlations were found between different muscle variables ( $r > 0.4$ ,  $p < 0.001$ ).

Social/emotional aspects, co-morbidities, PFM and abdominal muscle function may affect the neuro-musculoskeletal interaction and biomechanics necessary for effective prevention and treatment of PFD.

Co-morbidities, associated symptoms and signs of PFD, and the effect they may have on motor control and QOL, motivates for a comprehensive, patient-specific, lifestyle orientated, and biopsychosocial rehabilitation model for patients with PFD.



## Dr Ina Diener

### IS MANUAL THERAPY FOR MUSCULOSKELETAL DYSFUNCTION A DYING ART IN OUR PROFESSION?

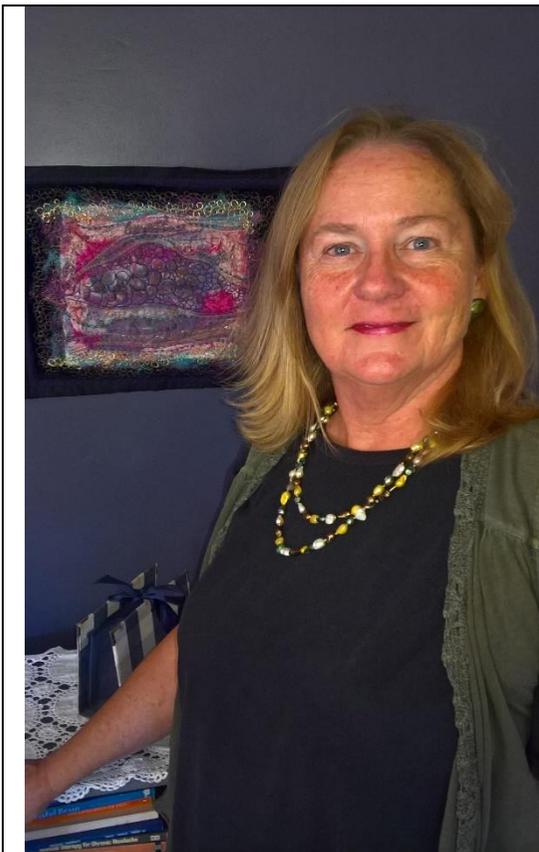
Manual therapy is currently much under discussion by physiotherapists at congresses and on social media. This presentation aims to discuss the current evidence for the use of manual therapy in musculoskeletal pain conditions, and will be suggesting the role of orthopaedic manual therapists in an evidence-based approach to musculoskeletal pain.

Presentations at the last IFOMPT congress where this was extensively discussed and abundant research in the field will be reviewed.

The collective opinion, based on the outcome of research in the last ten years, is that the local effect of manual therapy is less than always proposed, and that the neurophysiological effect of joint movement plays a meaningful role in successful outcomes. Other strong outcomes of research was established where manual therapy was used in conjunction with exercise and pain education.

OMT has a local as well as distant neurophysiological effect. OMT, as other therapies, should be delivered in a biopsychosocial paradigm, where a therapeutic alliance and effective clinical communication are the cornerstones of the intervention. OMT should be part of a package of care, which should also include therapeutic exercise and pain neuroscience education. The end-result of OMT intervention should be for a patient to get back to their preferred function and participation. OMT is therefore not a dying art, but has evolved beyond only targeting structures. OMT therefore, should form a meaningful part of a package of care in musculoskeletal pain conditions.

It is the ethical responsibility of physiotherapists to maintain their knowledge and skill in the field they are working. Healthcare costs are escalating and more professions enter the field of musculoskeletal care. Physiotherapists must practice and promote the best evidence-based care to maintain their important position in the healthcare team.



## Anita Erens

### ARE WE AS PHYSIOTHERAPISTS ABLE TO BE PART OF THE MEDICO-LEGAL TEAM?

When there is some form of personal legal claim such as where a person has incurred an injury in a road accident, suffered damages and has a civil claim, had an injury on duty or has been the victim of medical negligence and their ability to move has been affected whether in the short or long term, a physiotherapist should be consulted to give expert evidence in the claim. However, this is not happening as frequently as should be and it is being left up to other professions to make recommendations regarding the physical rehabilitation. Physiotherapists often feel unskilled in how to provide the necessary information for the legal team or they provide it, not appreciating the pitfalls they can encounter.

If we as a profession want to ensure that persons incurring mobility dysfunctions because of one of the aforementioned reasons, are adequately compensated so they can make use of our services to achieve full rehabilitation, then it is our task as a profession to address this issue. We need to train ourselves to be able to provide the essential information to meet and assist the requirements of the legal claim.

The aim of the talk will be to give a general overview of the legal process focusing on when and how physiotherapists can be consulted. It will identify skills needed and suggest possible ways of developing them so that they can become an integral part of the medico-legal team.

## Lorraine Jacobs

### THE THERAPEUTIC ALLIANCE - THINKING BEYOND MUSCLES AND JOINTS

As persistent pain, disability and distress, attributed to musculo-skeletal disorders continues to increase, it is clear that the traditional biomedical model of care is insufficient. The complex clinical presentation of patients with persistent musculoskeletal pain cannot be attributed to biomechanical and physical dysfunction only. Psychosocial factors such as pain beliefs, emotional responses and maladaptive behaviours play a role in the development of persistent pain.

The biomedical approach in physiotherapy assumes that pain can be reduced to an identifiable cause, and alleviated through the application of a specific intervention, such as the correct selection and precise implementation of a manual therapy technique.

A systematic review conducted in 2015 concluded that physiotherapists only partially recognise the cognitive, psychological and social factors in people with low back pain, and prefer dealing with the more mechanical aspects of low back pain. They feel that they lack the requisite skills and confidence to address and treat multidimensional pain presentations.

In South Africa in 2016 participants in a brief on-line educational programme, based on the biopsychosocial approach completed the Physiotherapists Attitudes and Beliefs Scale (PABS) prior to and after participation. Before the programme the majority of Physiotherapists presented with a strong biomedical focus, whereas afterwards they presented with a stronger biopsychosocial focus.

In Psychotherapy it is suggested that there are two possible pathways of change – specific effects, associated with specific interventions, and non-specific effects or 'common factors'. A successful clinical outcome is only partially associated with specific effects, and that a large component of treatment efficacy is attributable to these 'common factors'. Common factors include the therapeutic alliance, acquisition and practice of new behaviours, and clients' positive expectancies. The therapeutic alliance is described as a working relationship established between a therapist and client through collaboration, communication, therapist empathy, and mutual respect.

In Physiotherapy, different techniques with different theoretical underpinnings and anticipated treatment effects may result in comparable clinical outcomes. The 'common factors' model may also play a large role in these outcomes. It is suggested that the 'common factors' model complements the biopsychosocial model. The development of a therapeutic alliance may assist the physiotherapist to implement the biopsychosocial model in clinical practice. The training of physiotherapists in the effective use of the therapeutic alliance is discussed.





## Eleonora Lozano

### Burn care: a review of recommendations and practice guidelines for physiotherapists

The talk on *ISBI practice guidelines for burns* aims to discuss the practice guidelines (PGs) for burn care established by the 2014-2016 International Society of Burn Injury (ISBI) committee to improve care of burn patient in both resource-limited settings (RLs) and resource-abundant settings. An important component of this effort is to communicate a consensus opinion on recommendations for burn care for different aspects of burn management. An additional goal is to reduce costs by outlining effective and efficient recommendations for management of medical problems specific to burn care. These recommendations are supported by the best research evidence, as well as by expert opinion. Although the ISBI vision was the creation of clinical guidelines that could be applicable in RLS, the ISBI PGs for Burn Care have been written to address the needs of burn specialists everywhere in the world.

Included in the talk on *Clinical practice recommendations for positioning of the burn patient*, is a review of the recommendations for positioning patients with acute burn. Review of the literature revealed minimal evidence-based practice regarding the positioning of burn patients in the acute and intermediate phases of recovery. These positioning recommendations are designed to guide those rehabilitation professionals who treat burn survivors during their acute hospitalization and are intended to assist in the understanding and development of effective positioning regimens.

The popularity of *video game use in burns rehabilitation* has grown because, in addition to facilitating maintenance of range of motion (ROM), the virtual imaging characteristics of these games provide distraction from pain. The Paediatric Burns Unit (PBU) at Chris Hani Baragwanath Academic Hospital (CHBAH) received a Microsoft Xbox 360 Kinect™ as an adjunct to be used for therapy and rehabilitation. This study aimed to investigate the effect of using the Xbox Kinect™ on outcomes of children in the PBU at CHBAH. The use of the Xbox Kinect™ used in this study has been shown to be a beneficial and useful adjunct to burns rehabilitation in this paediatric burns population. Currently, there is limited information and research into interventions for children with burns in South Africa. The addition of Xbox Kinect™ to standard physiotherapy in-patient care, at this facility, was both enjoyable and effective and should be considered where funding is available.

## Prof Brenda Morrow

### CURRENT PERSPECTIVES IN MANAGING CHILDREN WITH RESPIRATORY MUSCLE WEAKNESS



Neuromuscular disorders (NMD) in childhood may be acute or chronic, congenital or acquired, and affecting different targets in the neuromuscular pathway. In severe cases, respiratory muscle weakness occurs, impacting on cough efficacy and ultimately resulting in chronic pulmonary insufficiency and recurrent chest infections, which predispose to morbidity and mortality. Optimising pulmonary function and cough clearance are among the main aims of physiotherapy management in children with NMD and respiratory muscle weakness.

This talk aims to provide an overview of paediatric NMD, including pathophysiology and impact on the respiratory system. The role of respiratory muscle training, to preserve or improve respiratory muscle strength, in NMD will be discussed, presenting evidence from South African clinical studies; as well as an overview of cough augmentation modalities, as per the recommendations of the 228<sup>th</sup> European Neuromuscular Confederation's International Workshop on Airway Clearance Techniques in Neuromuscular Disorders, held in the Netherlands in 2017 (the presenter is a member of this Confederation). These modalities include those aimed at supporting the inspiratory component of the cough (e.g. manual insufflation/bagging, breath stacking and glossopharyngeal breathing); augmenting expiratory cough flow (e.g. manually assisted cough); and supporting both inspiration and expiratory flow (e.g. mechanical insufflation-exsufflation). The role of "peripheral" vs. "proximal" airway clearance techniques will further be explored and explained in the context of respiratory muscle weakness in NMD.

From a survey undertaken amongst South African physiotherapists, it appears that there is limited exposure and experience in managing paediatric and adolescent patients with NMD. Current cardiopulmonary physiotherapy management of children with NMD in South Africa is generally suboptimal and not aligned with international standards. Urgent attention needs to be placed on the role of physiotherapy in preventing or minimizing the respiratory complications of NMD in order to improve the quality of life of children living with NMD in South Africa.

## Bonus lecturers' abstracts



**Dr Veronica Ntsiea**

### **STROKE REHABILITATION IN SOUTH AFRICA**

Stroke survivors face many challenges such as having no dedicated beds, early discharge due to pressure on bed numbers, too few neurological rehabilitation centres and limited therapy at community level. In stroke rehabilitation, the goal is to discharge patients at their optimal functional independent level. Sometimes patients are sent home without rehabilitation and they receive no intervention once they are at home. Thus, carers need to be involved actively with rehabilitation and receive training from therapists to assist from an early stage with mobility, transfers, and activities of daily living. Successful rehabilitation outcomes depend on the effectiveness of treatment and the extent to which a patient complies with the treatment regime.

Stroke rehabilitation and research includes the following: prevention and management of risk factors; acute, subacute and chronic stage management of stroke survivors; determination of functional outcomes at admission, discharge and post discharge; Caregiver and stroke survivors' knowledge, strain, quality of life, and perceptions; Community reintegration (including return to work).

Literature that covers all South African based stroke rehabilitation research will be presented. The aim is to work towards a more centralised approach towards stroke management in South Africa and possibly Africa at large.



## Greg Lynch

### Are you sure you have cleared the Spine?

It is well established that the Cervical, Thoracic or Lumbar spine can cause somatic referred pain into the extremities. Commonly, this extremity pain is accompanied by spinal pain and the relationship between the two is clear enough to make it obvious both to the patient and to the healthcare professional that the source of the problem is indeed spinal. It has been reported in the literature and it is common clinical experience among practitioners that extremity pain of spinal origin can also present as isolated pain with no obviously accompanying spinal pain. In these cases, the patient may interpret the pain as coming from the extremity and without an adequate differentiation process the healthcare professional may also make this interpretation. This can lead to wasted time and resources and suboptimal outcomes, as the intervention is not applied to where the source of the problem lies.