57th ISCoS

Abstract Book Instructional Course

The 57th ISCoS Annual Scientific Meeting combined with the 25th ANZSCoS ASM

13-15 September 2018 ICC Sydney, Australia





00000

Improving Patient Engagement and Adherence: An Introduction to Motivational Interviewing for Rehabilitation Professionals

Prof Charles Bombardier¹

¹University Of Washington, Seattle, United States

Instructional Course 3, Room C2.3, September 13, 2018, 11:30 - 13:00

Motivational interviewing (MI) is an evidence-based health behavior change counseling style widely used in healthcare settings. MI is defined as, "a collaborative, goal-oriented method of communication with particular attention to the language of change. It is designed to strengthen an individual's motivation for and movement toward a specific goal by eliciting and exploring the person's own arguments for change." MI has a solid theoretical foundation and is supported by more than 1000 clinical trials and over 100 meta-analyses according to PubMed. MI is highly applicable to rehabilitation settings because clinicians are often attempting to motivate patients to make durable changes in health promotion and health risk behaviors. However, based on the published empirical literature, MI is being used to a limited degree within SCI rehabilitation. Dr. Bombardier was trained as a MI trainer in 1998 and since then has conducted several successful clinical trials based on MI. He has exposed hundreds of rehabilitation professionals (MD, RN, PT, OT, SLP) to MI. He uses MI in his daily practice as a psychologist on an inpatient unit treating patients with SCI, traumatic brain injury, and stroke. He will use the 90 minutes to: (1) describe the theoretical and empirical basis of MI, (2) describe core MI micro-skills, (3) demonstrate selected MI micro-skills, and (3) engage the audience in a brief practice of selected MI techniques.

Enhancing wellbeing: Managing co-morbidity in adults with SCI

Dr Charles Bombardier², Dr Ashley Craig¹, Dr James Middleton¹

¹Sydney Medical School-Northern, The University of Sydney, St Leonards, Australia, ²Department of Rehabilitation Medicine, University of Washington, Seattle, USA

Instructional Course 9, Room C2.1, September 15, 2018, 14:20 - 15:50

- 1. Enhancing wellbeing: Managing co-morbidity in adults with SCI
- 2. Three speakers:

Charles Bomardier, PhD, Professor, Department of Rehabilitation Medicine, University of Washington Seattle, USA

Ashley Craig, PhD, Professor, John Walsh Centre for Rehabilitation Research, Sydney Medical School-Northern, The University of Sydney, Kolling Institute of Medical Research, RNSH, St Leonards, NSW, Australia.

James Middleton, PhD, Professor, John Walsh Centre for Rehabilitation Research, Sydney Medical School-Northern, The University of Sydney, Kolling Institute of Medical Research, RNSH, St Leonards, NSW, Australia,

- 3.
- (a) Present latest evidence for managing co-morbidity following a SCI, especially focused on psychological distress and cognitive impairment.
- (b) Based on latest clinical research, examine the impact of psychological distress (depression, grief) and cognitive impairment on adjustment.
- (c) Appraise the utility of the SCI Adjustment Model for an improved understanding of enhancing the lives of people with a SCI with special reference to the influence of co-morbidities.
- 4. Any level is suitable
- 5. Researchers, psychologists, psychiatrists, physicians, social workers, nurses
- 6. The following pre-reading is recommended (available on Researchgate):

Klyce DW, Bombardier CH, et al. (2015). Distinguishing grief from depression during acute recovery from spinal cord injury. Arch Phys Med Rehab, 96, 1419-1425.

Craig, A., Guest, R., Tran, Y., & Middleton, J. (2017). Cognitive impairment and mood states after spinal cord injury. J Neurotrauma, 34, 1156-1163.

Craig, A., Tran, Y., & Middleton, J. (2017). Theory of adjustment following severe neurological injury: evidence supporting the Spinal Cord Injury Adjustment Model (p.117-139). In A. Costa and E.Villalba (Eds.). Horizons in Neuroscience Res, Vol 29. NY: Nova Science Pub.

7. Each speaker will talk for 20 minutes with 10 minutes questions on clinical implications.

Professor Bombardier will talk on depression as a co-morbidity following a SCI. This will involve discussing the nature and risk of depression, its potential negative impacts on adjustment in the long-term, as well trajectories of depression up to 12 months post-injury. He will discuss the important differences between grief and depression, and how to distinguish between the two. He will present results from a depression treatment trial and research on treating grief.

Professor Craig will talk on the impact that cognitive impairment will have on people with SCI. He will present latest prospective research in adults with an acute SCI, from initial inpatient rehabilitation through to discharge and into the community, especially on the impact that cognitive impairment can have on mood, function and adjustment. He will discuss the different factors than are associated with cognitive impairment and highlight the influence that being an inpatient in rehabilitation as compared to living in the community has on adjustment and cognitive function.

Professor Middleton will present and discuss a non-linear dynamic model (SCI Adjustment Model) that explains the influence that time and multiple moderator and mediator factors can have on early and long-term adjustment, with special reference to the influence of co-morbidities depression and cognitive impairment. He will emphasize the importance of such a model for improving our clinical understanding and management of how people adjust following SCI.

FES Exercise for Health, Fitness and Clinical Benefits: The State of the Art

Prof Glen Davis¹, Dr Ashraf Gorgey², Mrs Ines Bersch³, Dr Vanesa Bochkezanian⁵, Dr Nazirah Hasnan⁴

¹Faculty of Health Sciences, The University Of Sydney, Lidcombe,, Australia, ²Hunter Holmes McGuire VA Medical Center, Richmond,, USA, ³Swiss Paraplegic Centre, Nottwil,, Switzerland, ⁴University of Malaya Medical Centre, Kuala Lumpur,, Malaysia, ⁵Central Queensland University, , Australia

Instructional Course 8, Room C2.3, September 15, 2018, 10:50 - 12:20

Functional Electrical Stimulation (FES) elicited exercise has long been proposed to improve health, fitness and functional outcomes in neurological populations. High-quality scientific evidence or systematic reviews supporting such claims is sparse. This Instructional Course will synthesise current scientific evidence (with emphasis on recent studies and research of high quality) around improving health and lowering cardiovascular disease risk after spinal cord injury. The speakers, who comprise experts in their respective fields, will take a "state of the art" approach to clarifying important issues of "minimum "dose-potency" and optimum "dose-potency" of FES exercise. The speakers also will link how the physiological adaptations that each will address, underpin changes to health and disease risk, and how both physiological adaptations and improved health leads to improved functional outcomes, enhanced activities of daily living and community re-engagement.

Collaborate, Aspire, Respect and Enable (CARE) – The Stoke Mandeville Needs Assessment and Goal Planning programme, enabling user participation and lifelong skills development following SCI

Dr Jane Duff¹, Miss Lucy Robinson¹, Miss Tracey Geddis¹

¹National Spinal Injuries Centre, Stoke Mandeville Hospital, Buckinghamshire Healthcare NHS Trust, Aylesbury, United Kingdom

Instructional Course 6, Room C2.4, September 13, 2018, 16:00 - 17:30

OUTLINE:

1. Programme Overview - The Stoke Mandeville Needs Assessment and Goal planning programme was developed over 30 years ago by Professor Paul Kennedy (Kennedy at el, 1988). It has been commended by the Committee of Accreditation of Rehabilitation Facilities (CARF, 2011; 2014) and received recent UK acclaim (Health Service Journal Finalist, 2016 for Most Effective Adoption and Diffusion of Best Practice Category).

The evidence based outcome measure, the Needs Assessment Checklist (NAC, Kennedy & Hamilton, 1999), is used by SCI Centres across the world and recognised as one of the best international rehabilitation measures (Dawson et al, 2008).

The programme upholds values in action that are crucial to user's developing lifelong rehabilitation skills, enabling them to become Expert by Experience (Yoshida et al, 2015).

Programme overview, theory and core principles - 10 mins (Dr Jane Duff)

- 2. How goal setting principles facilitate adjustment, enable patient's readiness for rehabilitation, provide transparency about expectations and reduce behavioural challenge in rehabilitation 10 mins (Dr Jane Duff)
- 3. Participant Interactive Exercise Stoke Mandeville Needs Assessment Checklist demonstration 15 mins (Dr Jane Duff, Lucy Robinson and Tracey Geddis)
- 4. Case example Translating goals into life skills goal setting practice (Dr Jane Duff); facilitating bespoke patient knowledge (Lucy Robinson) and practical skills development (Tracey Geddis) 25 mins
- 5. Individualising Education Education for our patient population has become increasingly complex due to factors such as high incidents of incomplete patients, increasing numbers of comorbidities such as dementia and migratory globalisation meaning that English can often be a second language. Implementing an individualised service, the successes and challenges (Lucy Robinson) 10 mins
- 6. Discussion and facilitated group work of goal planning in action and to apply skills to participant's home area 15 mins
- 7. Summary Key discussion points from group work will be summarised and audience reflections welcomed 5 mins

Handouts and takeaway information will be provided.

Refining rehabilitation and improving outcomes following tendon transfer surgery in people with tetraplegia

Dr Jeremy Simcock¹, Dr Johanna Wangdell², Dr Jennifer Dunn¹

¹University of Otago, Christchurch, New Zealand, ²Sahlgrenska University Hospital, Gothenburg, Sweden

Instructional Course 5, Room C2.3, September 13, 2018, 16:00 - 17:30

Learning objectives

- Understand how the combination of nerve- and tendon transfer can be integrated into the rehabilitation of people with tetraplegia to improve hand function
- To introduce advancements in rehabilitation strategies for both deltoid-triceps tendon transfer and grip reconstruction surgeries and describe their functional outcomes.
- To increase understanding of the importance of specialised rehabilitation after upper limb reconstructive surgery.

All levels of participations are suitable

Target audience is all clinicians who treat people with tetraplegia in all stages of their rehabilitation. Prior experience of hand surgery is not essential but interest in improvement upper limb function in tetraplegia is recommended.

Outline of the course

Individualising upper limb reconstruction and integrating it into the rehabilitation of people with tetraplegia J Simcock (18 mins)

Improved upper limb function and thus autonomy and independence is one of the goals of the rehabilitation journey for people with tetraplegia. As people pass through each phase of the journey, different aspects of upper limb reconstruction come to the fore. These phases and reconstructive interventions will be discussed.

Accelerated deltoid-triceps rehabilitation protocol and outcomes J Dunn (18 mins)

Changes in donor graft and suture technique has enabled the normally long rehabilitation period of 12 weeks following deltoid-triceps surgery to be halved. This talk will describe the accelerated rehabilitation protocol following deltoid-triceps surgery using hamstring graft and compare post-operative results between the accelerated rehabilitation protocol (n=21) and standard rehabilitation protocol (n=39).

Early activation of grip reconstruction following tendon transfer surgery J Wangdell (18 mins) Strong sutures facilitates early activation of transferred tendons. Within 24 hours after surgery the patient starts to actively move using the reconstructed function. This new treatment concept also includes maintenance of normal activity during the postoperative period. Results demonstrate this is a safe procedure with a positive impact on outcome and patients experiences.

Putting it all together – "Boot Camp" following reconstruction of the upper limb J Dunn (15 mins) Case studies of an intensive rehabilitation stay six months following the completion of all upper limb reconstructive surgery will be presented. The specific aims of this 'boot camp' is to integrate new upper limb movement provided by surgery into daily living to improve function, improve independence and ultimately decrease the need for attendant care.

Discussion 15 mins

The Spinal Cord journal workshop. Cohort studies are fraught with difficulties: some key methodological considerations

Prof Lisa Harvey^{1,4}, Prof Marcel Post^{2,4}, Dr Martin Brinkhof^{3,4}

¹Sydney School of Medicine, University of Sydney, Sydney, Australia, ²Centre of Excellence in Rehabilitation Medicine, University Medical Centre Utrecht and De Hoogstraat Rehabilitation, Utrecht, The Netherlands, ³Swiss Paraplegic Research, Nottwil, Switzerland, ⁴Spinal Cord: the official journals of ISCoS, Buckinghamshire, United Kingdom

Instructional Course 1, Room C2.1, September 13, 2018, 09:00 - 10:30

Learning objectives:

At the end of this workshop participants should be able to:

- 1. describe key methodological considerations for cohort studies
- 2. distinguish between cohort studies designed to determine prognosis and cohort studies designed to determine causation
- 3. explain confounding and when it is important
- 4. outline key considerations when quantifying risk
- 5. argue the importance of understanding key epidemiological principles for good study design

Target Audience

This workshop is targeted at those conducting cohort studies and/or those interested in better understanding how to read and interpret the results of these types of studies. This could include researchers and clinicians from all professions.

Prior learning, experience and qualifications

Participants will benefit most if they have a basic understanding of research methodology and in particular cohort studies. Some understanding of the following concepts would also be useful (but not essential): confounding, colliding, prognosis, regression, causation, sampling, regression and risk.

Outline of the course

Lisa Harvey - Introduction (15 minutes)

- o Introduction: objectives of the workshop
- o Key differences in the aim and design of cohort studies for prognosis and causation.
- o Importance of a representative sample

Martin Brinkhof – Cohort studies for causation (25 minutes)

- o Problems of confounding in cohort studies designed to determine causation
- o Cohort studies for causation need to start with a Directed Acyclic Graphs: a brief introduction
- o The complications of follow-up: Getting risk right

Marcel Post – Cohort studies for prognosis (20 minutes)

- o Cohort studies for prognosis need a start with a few key candidate predictors: these do not need to be on the causal pathway.
- o Ensuring predictors precede outcome: is this possible in cross-sectional cohort studies?

Lisa Harvey – Conclusion (10 minutes)

o Implications for submissions to Spinal Cord: the underlying clinical question needs to be clear and expressed either in terms of prognosis or causation.

o The design, analysis and interpretation needs to follow epidemiological principles

Discussion (15 minutes)

Electrical Stimulation Paradigms to Improve Bone and Muscle Health in Adults and Children with Spinal Cord Injury

Dr Therese Johnston¹, Dr Ashraf Gorgey², Dr Gail Forrest³

Thomas Jefferson University, Philadelphia , United States, ²Hunter Holmes McGuire VA Medical Center, Richmond, United States, ³Kessler Foundation, West Orange, United States

Instructional Course 4, Room C2.2, September 13, 2018, 16:00 - 17:30

Skeletal muscle atrophy, altered body composition, continuous loss of bone, and muscle fatigue are consequences following spinal cord injury (SCI). These adaptations are associated with a disturbance in energy balance, cardiovascular profile, and muscle, increasing risks of obesity, an abnormal metabolic profile, and increased fracture risk below the level of injury. Clinical practice strives to optimize rehabilitation strategies necessary to improve functional recovery after SCI; however, there are no established interventions to prevent or reverse the aforementioned adaptations. Historically evidence-based practice suggested that training with functional electrical stimulation (FES) and neuromuscular electrical stimulation (NMES) is an important rehabilitation intervention that can ameliorate several of the consequences after SCI. In addition, testosterone replacement therapy (TRT) has stemmed as an important pharmaceutical agent that is likely to promote positive changes following SCI.

This presentation will address the evidence and current research being conducted for health related outcomes of FES and NMES alone and in combination with TRT for adults with SCI. For pediatric SCI, evidence will be presented for outcomes with FES and NMES. As FES and NMES are being used clinically with people with SCI, this information can be translated into the rehabilitation setting.

Course Outline:

- 1) Measurement of bone and muscle health, and common pharmaceutical and rehabilitation interventions: Dr. Johnston (15 mins). Dr. Johnston will discuss measurement techniques for clinical and research applications as well as interventions being used in some rehabilitation settings to address the sequelae of bone and muscle loss.
- 2) Bone and muscle outcomes following FES randomized control trials in pediatric and adult SCI: Dr. Johnston (10 mins). Dr. Johnston will present and discuss the findings of 2 clinical trials conducted by her research team.
- 3) Changes in muscle size, intramuscular fat, visceral adiposity and metabolic profile following a clinical trial of NMES and TRT: Dr. Gorgey (25 mins). Dr. Gorgey will present on the effects of 16-week resistance training combined with testosterone replacement therapy (TRT) on body composition, muscle size, basal metabolic rate as well as ectopic adiposity following spinal cord injury.
- 4) Health profile changes following a randomized control trial of multi muscle NMES/FES: Dr. Forrest (25 mins). Dr. Forrest will present results related to different stimulation protocols effect on torque and muscle volume and include interim data related to an ongoing blinded randomized clinical trial for NMES, Standing and testosterone.
- 5) Discussion/Questions: All (15 minutes)

Spinal cord injury pain: translating evidence into best practice

Prof James Middleton¹, <u>Prof Thomas Bryce²</u>, <u>Prof Marcel Post³</u>, <u>Prof Philip Siddall⁴</u>, <u>A/Prof Colleen O'Connell⁵</u>
¹State SCI Service, NSW Agency for Clinical Innovation, Sydney, Australia, ²Department of Rehabilitation Medicine, Icahn School of Medicine at Mount Sinai, New York, United States of America, ³Center of Excellence for Rehabilitation Medicine, De Hoogstraat Rehabilitation, Utrecht, The Netherlands, ⁴Pain Management Service, Greenwich Hospital, HammondCare and The University of Sydney, Sydney, Australia, ⁵Dalhousie University Faculty of Medicine and Stan Cassidy Centre for Rehabilitation, Fredericton, Canada

Instructional Course 7, Room C2.1, September 15, 2018, 10:50 - 12:20

This course will involve presentations by four experts in SCI pain management from different countries and regions of the world (USA, Europe, Australia and Canada). The broad aim of the workshop is to move beyond 'describing the problem' of SCI pain to exploring innovative practical solutions that translate current knowledge and evidence into best practice care for people with SCI. Presentations will cover the following:

(i) From current knowledge of SCI pain classification, diagnosis and pharmacological treatment to emerging new treatments (Thomas Bryce, 15 minutes)

Professor Bryce will firstly highlight some of the key challenges related to the classification and diagnosis of different types of pain following SCI. He will then discuss the limitations of current pharmacological treatments where reality does not meet the expectations of persons with SCI and the impact of this on treatment choices and care planning. Lastly, he will briefly highlight promising new emerging treatments.

(ii) The role and effectiveness of evidence-based, non-pharmacological approaches and challenges for wide implementation (Marcel Post, 15 minutes)

Professor Post will provide an overview of the evidence underlying use of non-pharmacological treatments for neuropathic pain, presenting the latest published evidence as well as results from an ongoing survey of people with SCI visiting the outpatient department. He will then detail the challenges and opportunities for wider implementation, including issues such as strength of available evidence, acceptability of these treatments, models of reimbursement and modes of delivery.

(iii) Developing new models of care for managing SCI pain (Philip Siddall, 15 minutes)

Professor Siddall will first describe the model of care developed in NSW, Australia for enhancing the provision of effective and accessible SCI pain management. He will discuss the range of resources and programs supporting this approach. These include: incorporation of current evidence-based information into a guided on-line tool; development of accessible on-line educational resources; an internet-delivered SCI Pain Program; and videoconferencing from centres of expertise to people living in rural and remote areas.

(iv) The development and implementation of best practice recommendations for management of Pain after SCI (Colleen O'Connell, 15 minutes)

A/Professor O'Connell will summarise the national evidence-based "living" guidelines for the management of neuropathic pain after SCI, and then discuss how implementation of these best practices is being facilitated in Canada through an SCI Knowledge Mobilization Network (KMN). The processes for KMN

activities, including drivers analysis, will be described, highlighting personal experiences as a network member at a small rehabilitation centre. This offers unique insights into the challenges and solutions of guideline implementation with limited resources, supporting greater transferability to other sites/programs.

(v) Interactive Discussion (All speakers & workshop participants, 20 minutes)

The audience and panel of speakers will engage in facilitated interactive discussion of strategies to improve SCI pain management practices. This may include wider implementation of existing strategies, further development and utilisation of current evidence and resources, collaborative international ventures to explore models of care that foster best practice in an effective and accessible manner, as well as future directions for research in related knowledge translation activities.

Development and Validation of the International SCI Basic Data Sets in Practice Areas of High Relevance to Children and Youth

Dr Lawrence Vogel¹, Dr Kathy Zebracki², Dr Marika Augutis³, Dr Andrea Behrman⁴

¹Thomas Jefferson University, Philadelphia, United States, ²Shriners Hospitals for Children , Chicago, United States, ³Karolinska Institutet Stockholm and Sundsvall Hospital, , Sweden, ⁴Kentucky Spinal Cord Injury Research Center and the University of Louisville, Louisville, USA

Instructional Course 2, Room C2.4, September 13, 2018, 09:00 - 10:30

This instructional course will discuss the development and validation of select International SCI Basic Data Sets in Children and Youth.

Objectives:

- 1. Describe the purpose and content of the newly developed International SCI Basic Caregiving, Pediatric Activity and Participation, and Education Data Sets.
- 2. Describe preliminary assessment of reliability and validity of the International SCI Basic Bowel Data Set Version 2.0 and the Basic Caregiver Data Set Version 1.0 in children and youth.
- 3. Apply the Caregiving, Pediatric Activity and Participation and Education Data Sets to pediatric cases.

Course Layout:

0:00-0:10 Introduction and Overview of the Project Mulcahey

0:10-0:30 Caregiving and Activity\Participation Basic Data Sets Zebracki

0:30-0:40 Discussion

0:40-0:50 Education Basic Data Set Augutis

0:50-0:55 Discussion

0:55-1:10 Reliability and Validity of the Caregiver and Bowel

Version 2.0 Basic Data Sets in Children and Youth Mulcahey

1:10-1:15 Discussion

1:15-1:30 Participant Application of Caregiving, Pediatric

Activity and Participation and Education Data Sets to

pediatric cases Behrman

1:30 Adjourn

Instructional course on Yoga for persons with spinal cord injury

Mr Shivjeet Raghav¹, Mr Rajiv Virat¹, Ms Pragya Ghildyal¹, Mr Hemant Rohilla¹, Dr Shashi Bhushan Kumar¹ ¹Indian Spinal Injuries Centre, Delhi, India

Instructional Course 10, Parkside 1, September 15, 2018, 10:50 - 12:20

Yoga is an invaluable gift of India's ancient tradition. The word 'yoga' derives from Sanskrit and means to join or to unite, symbolizing the union of body and consciousness. It embodies unity of mind and body; thought and action; restraint and fulfillment; harmony between man and nature; a holistic approach to health and well-being.

International Day of Yoga, is celebrated annually on 21 June, as it is the longest day of the year in the Northern Hemisphere and shares special significance in many parts of the world. Yoga is more than a physical activity. Yoga cultivates the ways of maintaining a balanced attitude in day-to-day life and endows skill in the performance of one's actions.

Being in a wheelchair does not preclude you from being able to participate in and enjoy the benefits of yoga. Yoga is an effective mind-body exercise that helps relieve stress and lower blood pressure, while also benefiting you physically in many other ways. There are many styles of yoga and varieties of poses, and it can be a gentle form of exercise that can be done by most anyone.

It is extremely important for individuals to practice yoga on a daily basis, whether they are an able-body individual or a wheelchair user. Yoga has been known to help relieve pain in the body, as well as help individuals obtain a greater focus.

Therapeutic benefits of yoga for persons with SCI:
☐Helps relieve anxiety, nervousness and headaches.
☐Helps to strengthen resignatory system by diaphragmatic strengthening, improved coordination of
respiratory muscles and thoracic expansion.
Creates greater postural support through creating pressure in abdominal and thoracic cavities which can
protect the spine during long, slow flexion/extension movements.
Helps strengthening the muscles of stomach and abdomen.
Helps in giving flat toned tummy, improves digestion, circulation and clear the sinuses.
Rejuvenates cells, helping in reducing wrinkles and signs of ageing.
Yoga poses for persons with SCI:
1.Weight reduction yoga
a)Sukhm wavam (Marm un)

a)Sukhm vyayam (Warm up)

b)Chakki chalasana (mill churning pose)

c)Ardh naukasana (supine elbow plank)

d)Sarpasana (snake pose)

e)Marjari asana (cat pose)

f)Ardh Naukasana (half boat pose)

2.Stress and anxiety

a) Anuloma Viloma, Chandre bhedi, Sitali (breathing)

b)Shavasana (dead body pose)

c)Ardha titli asana (half butterfly pose)

- d)Makarasana (crocodile pose)
- e)Ardh Bhujangasana (half cobra pose)
- 3. Bowel and bladder management
- a)Kapalbhati, Bhastrika (breathing)
- b)Mandukasana (frog pose)
- c)Ardh matsyendra (half fish pose)
- d)Ardh naukasana (supine elbow plank)
- 4.Immunity
- a)Seetkari (breathing)
- b)Singhasana (roaring lion pose)
- c)Ardh padmasana (half lotus pose)
- 5.Self stretching
- a)Ardh pashchtimotanasana (seated forward bend)
- b)Ardh janusirasana (half head to knee pose)
- c)Ardh gowmukhasana (half cow pose)
- d)Ardh sarpasana (half snake pose)

Course Program

- -Introduction of Yoga for wellness (Rajiv Virat 10 minutes)
- -Amalgamation of Yoga with exercise regime (Hemant Rohilla 10 minutes)
- -Live demonstration of Yoga poses (Pragya Ghildyal 20 minutes)
- Practice session for participants (Rajiv and Pragya 30 minutes)
- -Discussion (Shivjeet Singh Raghav 20 minutes)

Α			
Augutis, Marika	112		
D			
B	113	Damahandian	F7 40
Behrman, Andrea	112	Bombardier, Charles	57, 19
Bersch, Ines	332	Brinkhof, Martin	152
Bochkezanian,	332	Bryce, Thomas	198
Vanesa			
С			
Craig, Ashley	19		
<i>,</i>			
D			
Davis, Glen	332	Dunn, Jennifer	135
Duff, Jane	182		
F			
-	22		
Forrest, Gail	32		
G			
Geddis, Tracey	182	Gorgey, Ashraf	332, 32
Ghildyal, Pragya	219	0-7,	, ,
Н			
Harvey, Lisa	152	Hasnan, Nazirah	332
•			
J			
Johnston, Therese	32		
V			
K	210		
Kumar, Shashi Bhushan	219		
M			
Middleton, James	19, 198		
0			
O'Connell, Colleen	198		

P Post, Marcel Post, Marcel 152 198 R Raghav, Shivjeet Rohilla, Hemant 219 219 Robinson, Lucy 182 S Siddall, Philip 198 Simcock, Jeremy 135 V Virat, Rajiv Vogel, Lawrence 219 112 W Wangdell, Johanna 135 Z Zebracki, Kathy 112