



**THE INTERNATIONAL
SPINAL CORD SOCIETY
ANNUAL SCIENTIFIC MEETING
ISCoS 2020: VIRTUAL**

INSTRUCTIONAL COURSES ABSTRACT BOOK

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#ISCoS2020GoesVirtual**

Overcoming Adversity after Spinal Cord Injury: A Positive Psychology Perspective

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A traumatic spinal cord injury (SCI) creates a series of profound psychological challenges for the individual. The injury has the power to challenge the validity of one's beliefs about life and can lead an individual to question one's fundamental understanding of the world. This process of adjustment is usually accompanied by high levels of psychological distress and depression. Ultimately however, it is possible that over time, depression and other natural emotional responses to injury can give way to emotional growth and personal development. The psychological resources, social supports, skills, and personality traits of a person play an important role in determining whether the individual will be able to find long-term and positive benefits from such a challenging life event. Survivors of traumatic events such as SCI can not only heal from their trauma, but may actually grow into a stronger, more driven, and a more resilient person because of their trauma. This resilience comes about by the development of adaptive coping skills. People who have higher levels of self-esteem, social support and personal mastery before encountering the injury are likely to engage in more adaptive styles of coping, resulting in a greater frequency of positive long-term effects and positive outcomes. Ultimately, they perceive stress as an opportunity for growth and self-renewal. In contrast, people who have lower levels of self-esteem prior to the injury are likely to engage in more maladaptive styles of coping, resulting in poorer outcomes. They are worn down and negatively impacted by the stress. As rehabilitation professionals, it is our responsibility to encourage positive methods to manage stress and to help the individual in developing a deep determination to overcome the overwhelming challenge of an injury. Strong emotional support during this time of crisis will ultimately facilitate personal growth and resilience.

This instructional course on positive psychology will explore issues related to psychological adjustment and emotional growth after a spinal cord injury. The faculty of the symposium, a psychologist, psychiatrist and peer counselor will each explore how the rehabilitation team can facilitate psychological adjustment with healthy positive coping strategies. Each presenter will speak for 20 minutes. The title of Dr. Ducharme's presentation will be "Post Traumatic Growth after Spinal Cord Injury". Dr. Kumar will speak on the topic, "Can Psychiatric Disorders be Minimized by Early Intervention? A Psychiatrist's Experience in a Tertiary Care Center." Mr. Raghav will speak on the topic "Is Overcoming Physical Limitations Enough? Perspective of a Person with Spinal Cord Injury". Sufficient time for interaction and discussion will conclude the course.

UTI in neurogenic bladder after SCI

Prof Jean Jacques Wyndaele¹, Dr Michael Kennelly², Prof Jürgen Pannek³

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UTI is amongst the most prevalent complications after SCI, both in the acute care as during follow up. The incidence of generalised infections originated from the lower urinary tract is much higher than in the general population. UTI creates many hazards for health and quality of life. In this course we aim to give an actual overview of what we know today of prevalence, causes, risk factors, ways to diagnose, ways to treat, ways to prevent together with more in debt knowledge about bacterial populations, antibiotic resistance, biofilm, use of microbiota.

Program 90 min

1. Welcome JJW 1 min
2. UTI incidence, prevalence, causes, risk factors clinical pictures JJW 20 min
3. Ways to diagnose, UTI SCI Basic Dataset KM 20 min
4. Ways to treat PJ 20 min
5. Case discussions Q/A 30 min
6. Take home messages

As we have 30 min for discussion Dr Anna Rapidi and Dr Liu Nanproposed to offer cases for discussion

Getting your work published in Spinal Cord: Tips from the Editor

Prof Lisa Harvey¹

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Learning Objectives:

Following this session participants will be able to:

- List the publication priorities of Spinal Cord
- Explain the process from submission to publication
- Write a strong rebuttal letter to reviewers' comments
- Summarise the key methodological features of different types of studies
- Provide examples of common errors when reporting studies
- Explain the rationale for moving away from p values
- Outline the importance of using the Equator reporting guidelines
- List some of the key ethical issues in publication
- Benefits of publishing in Spinal Cord

Course Outline (90 mins):

60 min: Key tips for getting your work published in Spinal Cord

30 min: Question and answer session

Description:

Spinal Cord is the Official Journal of the International Spinal Cord Society. It commenced in 1963 and currently appears monthly online and in print. It is multi-disciplinary and publishes contributions across the entire spectrum of research ranging from basic science to applied clinical research. It focuses on high quality original research, systematic reviews and narrative reviews.

This workshop will be of interest to those wishing to better understand the publication priorities of the journal and how decisions about suitability for publication are made. It will briefly outline the publication process from time of submission to publication, and the importance of writing a strong rebuttal letter. Some time will also be devoted to summarizing the key methodological issues important for different types of studies. The session will also provide examples of common requests made to authors such as removing excessive precision (eg. "mean age of 54.327 years" or "32.54% of participants") and using person-centered language. There will be some discussion around the move away from over-reliance on p values and the encouragement of point estimates (with measures of variability). Delegates will also be introduced to the many different Equator reporting guidelines and some of the key ethical issues in publication. Finally, delegates will be provided with ample time to ask questions and/or provide suggestions about the future direction of the journal.

Recommended content level: Intermediate

Target audience: Clinicians and researchers

Prerequisites: Those who are interested and/or experience in getting studies published in Spinal Cord

Conflicts of Interest: The speaker declares no conflicts of interest

Results of the International Spinal Cord Injury Survey: a unique worldwide collaboration of 22 countries to describe the experience of living with SCI

Prof Marcel Post^{1,5}, Mrs. Christine Fekete², Prof. James Middleton³, Prof. Jan Reinhardt⁴

¹De Hoogstraat Rehabilitation, Utrecht, Netherlands, ²Swiss Paraplegic Research, Nottwil, Switzerland, ³John Walsh Centre for Rehabilitation Research, the University of Sydney, Sydney, Australia, ⁴Institute for Disaster Management and Reconstruction of Sichuan University, Chendu, China, ⁵Department of Rehabilitation Medicine, University Medical Center Groningen, ,

The International Spinal Cord Injury (InSCI) community survey was developed to gain information about functioning, health, and well-being of persons living with SCI within and across diverse nations. The survey was executed in 2017-2018 in 22 countries. Data on a total of 12,591 persons with traumatic or non-traumatic SCI were collected.

The majority of participants were males (73%), median age was 52 (IQR 40-63), 60% had a partner, and median education was 12 years (IQR 9-15). Paraplegia was the main diagnosis (63%), traumatic etiologies the major cause of injury (81%), and median time since injury (TSI) was 9 years (IQR 4-19).

In this instructional course, we will present the background and design of InSCI, the first main results and how InSCI relates to implementation of a Learning Health System for Spinal Cord Injury (LHS-SCI), which is a joint effort of ISCoS and ISPRM.

Chair: Marcel Post

1: Design and Coordination of the InSCI Survey: Christine Fekete, Switzerland (15 minutes)

Swiss Paraplegic Research initiated and coordinated the study in collaboration with the 22 national study centers. In this presentation, we will discuss (1) the design, coordination, logistics and quality control procedures developed for this project, and (2) the characteristics of the study sample, including differences between higher and lower income countries.

2: Work Participation: Professor Marcel Post, Netherlands (15 minutes)

Observed and expected employment rates, and differences between InSCI participants and population averages per country were analyzed. The worldwide observed employment rate was 38%, with a wide variation across countries from 10.3% up to 61.4%. Some countries showed substantially higher or lower employment rates than expected based on the composition of their sample. Gaps between the observed employment rates among participants with SCI and the respective general populations ranged from 14.8% to 54.8%.

3: Impact of Environmental Barriers: Professor Jan Reinhardt, China / Switzerland (15 minutes)

The prevalence of experienced environmental barriers across countries was compared with analysis of determinants of environmental barriers at the individual and country level. Most barriers were experienced with regard to accessibility, climate, transportation, finances, and state services. More severe barriers were experienced in lower income settings, in particular for medical supplies and finances.

4: Health Indicators and Quality of Life: Professor James Middleton, Australia (15 minutes)

How performance indicators of the health system are linked to self-reported satisfaction with life domains was analyzed. The most important health system indicators were social attitudes and access to health care services, followed by nursing care, access to public spaces, the provision of vocational rehabilitation, transportation, medication and assistive devices. With some exceptions, persons with SCI living in higher income countries generally reported higher QoL than people in lower income countries

5: The way forward: Professor James Middleton (15 minutes)

How to use results of the InSCI survey as evidence for implementation of recommendations for improving the societal response to the needs of persons with SCI at the national level in collaboration with ISCoS and ISPRM as international societies.

6: General discussion (15 minutes)

Promising treatment options for pain among people with spinal cord injury: a complementary and integrative medicine perspective

Dr Janneke Stolwijk-swuste¹, MPH Jennifer Coker³, Prof Marcel Post^{1,2}

¹Center of Excellence for Rehabilitation Medicine, UMC Utrecht Brain Center, University, Utrecht, Netherlands, ²University of Groningen, University Medical Center Groningen, Department of Rehabilitation, Groningen, Netherlands, ³Craig Hospital, Englewood, United States

Pain is one of the most severe secondary health conditions among people with spinal cord injury (SCI). The current treatment is strongly focused on medication. Medication, however, is often only partly effective and can bring serious side effects. A wide range of non-pharmacological treatments, some “alternative” or “controversial”, are used by people with SCI, but information on its use and effectiveness is largely lacking. This instructional course highlights developments in complementary and integrative medicine in treatment of pain after SCI.

1. Complementary and integrative healthcare used by people with SCI to treat pain.

Jennifer Coker, USA, (25 minutes)

Results from a survey on complementary and integrative healthcare (CIH) used by people with SCI will be presented. A total of 411 people from five sites in the Spinal Cord Injury Model Systems responded to the survey, with 69.3% of participants currently using CIH and over half of them using CIH specifically for pain relief. Participants reported using 52 unique types of CIH to treat pain; most commonly reported were massage (24.5%), cannabis (23.9%), cannabidiol (6.7%), and acupuncture (4.3%). Most participants found CIH helpful in relieving pain (93.9%). One-third of participants reported using cannabis and/or CBD for pain relief, with 94.0% reporting it to be helpful in relieving pain. Prescription and/or over-the-counter medications were used in addition to cannabis in 62.0% of the sample.

2. Use of non-pharmacological treatments of neuropathic SCI pain in the Netherlands, Marcel Post, Netherlands (25 minutes)

Results will be presented of a survey among former patients with SCI from two Rehabilitation Centers in the Netherlands. A total of 371 participants returned the questionnaire, of whom 262 participants experienced pain. Neuropathic pain was reported most often (74.4%), followed by musculoskeletal pain (51.5%). Of patients with pain, 78.2% reported past or current use of non-pharmacological treatments for their pain. Most non-pharmacological treatments used were physiotherapy (48.5%), exercise (39.5%), cannabis (19.5%) and massage (17.2%). Most positive effects were reported for exercise and physiotherapy. For NP, TENS was also reported as effective.

3. Alternative approaches in treating neuropathic pain after SCI: cannabis and topical analgesics, Janneke Stolwijk, Netherlands (25 minutes)

There is a lack of consensus on the use of cannabinoids for the treatment of neuropathic pain (NP) in SCI. An overview of the literature on the effect of cannabinoids on pain in SCI will be given. Different methods of intake of cannabinoids, its availability in the Netherlands and its costs will be discussed.

Results of a review of the literature on effect of topical analgesics on NP in SCI and results of 8 semi-structured interviews with patients who have been using topical analgesics will be presented. In conclusion, evidence on the use of topical analgesics in SCI is scarce. Case reports, case series and interviews suggest that the use of topical analgesics can be beneficial in treating SCI-related NP.

4. Discussion (15 minutes)

Spinal Cord Injury Neurogenic Bowel and Bladder measures, advances and new recommendations.

Dr. Tracey Wheeler¹, Dr. Denise Tate², Dr. Gianna Rodriguez², Dr. Marcel Post³

¹Craig H. Neilsen Foundation, Encino, United States, ²University of Michigan, Ann Arbor, United States, ³De Hoogstraat Rehabilitation, Utrecht, and University Medical Center Groningen, Groningen, Netherlands

Denise G. Tate, PhD, Department of PMR, University of Michigan, USA

Gianna Rodriguez, MD, Department of PMR, University of Michigan, USA

Marcel Post, De Hoogstraat Rehabilitation, Utrecht, and University Medical Center Groningen, Groningen, the Netherlands

(moderator) Tracey Wheeler, PhD, Craig H. Neilsen Foundation, Encino California, USA

Introductions / objective (5 min) Tracey Wheeler

A synopsis of the course will be provided:

This course will focus on recommendations for SCI patient self-report and clinical evaluation/measurement tools used in the assessment of neurogenic bowel & bladder. A multi-year effort was undertaken by community experts to evaluate neurogenic bowel and bladder measurement tools. Measures were selected for evaluation based on previous use in research studies as well as clinical diagnostics and assessment in SCI. Evaluations focused on the reliability, validity, strengths, deficiencies and ease of use. Clinical assessments and diagnostic tools, self-report measures (SRMs) and data sets were evaluated based on their psychometric properties. Criteria for evaluation of clinical measurement tools were modeled after the National Institutes of Health (NIH), National Institute of Neurological Disorders and Stroke (NINDS) Common Data Elements (CDEs) guidelines. Over 25 experts in the area of SCI measurement participated in this process and resulting set of recommendations. A discussion of how these measures can be used to test specific hypotheses in SCI animal models and human studies, including what changes have been recommended to further advance translational research in this area will conclude the course.

Review of Taskforce: Patient self-reported outcome measures and international SCI datasets for neurogenic bowel & bladder. (20 min) Marcel Post

A review of the taskforce efforts including meetings, measure selection, review criteria and participants will be provided.

Clinical Urinary & Gastroenterological Tract Assessments and Recommendations for Use in SCI/D. (20 min) Gianna Rodriguez

A review of the clinical assessments including measure selection and findings will be provided along with clinical experience.

Recommendations for Use of Measures and Integration with the National Institutes of Health (NIH), National Institute of Neurological Disorders and Stroke (NINDS) Common Data Elements (CDEs). (20 min) Denise G. Tate

An update on the taskforce efforts to communicate outcomes along with and update on the recommendations provided to NIH for CDE inclusion will be provided.

Discussion (15 - 20 min) Facilitated discussion by Tracey Wheeler