### Scientific Programme

**Monday, 17 June 2019**

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<td>08:30 - 09:00</td>
<td>Other session, Sydney</td>
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<td><strong>Official Opening</strong></td>
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| 08:30 - 08:33 | Welcome words of the President of the Special Interest Group on Pain in Childhood  
Dr. A. Fernandes (PT) |
| 08:33 - 08:36 | Welcome words of the Chair of the Scientific Program Committee  
Prof. Dr. G.A. Walco (US) |
| 08:36 - 08:39 | Welcome words of the Chair of the Local Organization Committee  
Prof. Dr. E. Cignacco Müller (CH) |
| 08:39 - 08:49 | Welcome words of the Health Minister of Basel City  
Dr. L. Engelberger (CH) |
| 08:49 - 08:59 | Welcome words of the Director of Department of Health Professions,  
Bern University of Applied Sciences  
Prof. Dr. U. Brügger (CH) |
| 09:00 - 09:15 | Other session, Sydney                                      |
| **Art and Pain** |                                                                       |
| 09:00 - 09:15 | Dolography – the visual communication tool for pain therapy  
S. Affolter (CH) |
| 09:15 - 10:00 | Plenary session, Sydney                                      |
| **Plenary I** |                                                                       |
| 09:15 - 10:00 | Opioids – a balance between pain treatment and misuse and diversion  
Prof. Dr. E.J. Krane (US) |
| 10:30 - 11:15 | Plenary session, Sydney                                      |
| **Plenary II** |                                                                       |
| 10:30 - 11:15 | Chair: Dr. M. Bueno (The Hospital for Sick Children, Toronto, CA) |
Scientific Programme

10:30 - 11:15

Placebo and nocebo in infants and children
Prof. Dr. L. Vase Toft (DK)

11:15 - 12:00

Plenary III
Chair: Prof. Dr. R. Grunau (University of British Columbia, Vancouver, CA)

11:15 - 12:00

Trauma, vulnerability and pain
Dr. M. Ranger (CA)

12:30 - 13:30

Author Attended Poster Session 1

Chronic pain concepts and provision in Swiss pediatricians
M. Carlander (ZHAW, Winterthur, CH)

Behavioral and neuroanatomical outcomes of altered serotonin combined with a hypoxic-ischemic injury using a neonate rodent model
X. Cong (University of Connecticut, Storrs, US)

Paediatric post discharge pain: parent views of support from an Australian Nurse Practitioner Led Acute Pain Service
Dr. E. Forster (Griffith University, Brisbane, AU)

Characterizing social and academic aspects of school anxiety in pediatric chronic pain
R. Gibler (University of Cincinnati, Cincinnati, US)

Quality of life in youth with chronic pain: youth and parent resilience and risk factors
S. Lee (University of Guelph, Guelph, CA)

A multi-method examination into the connections between parent and child emotions during child acute pain
R. Moline (University of Guelph, Guelph, CA)

Conditioned placebo and nocebo-like effects in youth: the role self-efficacy, hope and anxiety
E. Weik (University of British Columbia, Vancouver, CA)

'Participation of paediatric caregiver on acute pain assessment and management in young children': perspectives of final year medical and nursing students, a qualitative study
Dr. K. Win (International Medical University, Batu Pahat, MY)

Cumulative pain/stress, gut microbiome and neurodevelopment in preterm infants
X. Cong (University of Connecticut, Storrs, US)
Impaired attention and memory deficits in juvenile-onset fibromyalgia
Dr. K. Jastrowski Mano (University of Cincinnati, Cincinnati, US)

Telomere length and salivary cortisol stress reactivity in very preterm infants
Dr. L. Provenzi (Scientific Institute IRCCS E. Medea, Bosisio Parini, IT)

Pain management during vaccination in primary care: preliminary results of a Portuguese national survey
C. Abadesso (Hospital Prof. Doutor Fernando Fonseca, Lisboa, PT)

Effects of pain on function, fatigue & health related quality of life in pediatric cancer patients
L. Bravo (University of North Carolina Chapel Hill, Chapel Hill, US)

Computer-based automatic assessment of pain in children: fusion of electrodermal activity and facial expression data via machine learning
K. Craig (University of British Columbia, Vancouver, CA)

Post operative pain assessment: validity of EVENDOL score
P. Delmon (CHU de Rouen, Rouen, FR)

How do primary care practitioners treat migraine in children?
Dr. M. Dupe (Trousseau Hospital, Paris, FR)

Experiences of needle procedures in relation to type 1 diabetes - a case study
Dr. M. Forsner (Umeå University, Umeå, SE)

Assessing the moderating role of parent insensitive behaviours on the relationship between parent and infant physiology post-needle
H. Gennis (York University, Toronto, CA)

Using repeated measures methods to characterize trajectories and estimate test-retest reliability of temporal summation of second pain
G.T. Han (Vanderbilt University, Nashville, US)

Evaluation of manually inflated cuff algometry in paediatric chronic pain patients: an exploratory study
D. Champion (Sydney Children’s Hospital, Randwick, Sydney, AU)

Nursing students’ knowledge and attitudes regarding paediatric pain: testing convergent validity for two instruments
A. Kusi Amponsah (University of Turku, Turku, FI)

A simple tool to measure procedural restraint intensity in children: validation of the PRIC (Procedural Restraint Intensity in Children) scale
Dr. B. Lombart (UPEC/ APHP, Paris e Arrondissement, FR)

Sociodemographic risk factors and learning disorders among Hungarian adolescents with chronic pain
Dr. J. Major (Semmelweis University, Budapest, HU)
Movement disorders in pediatric complex regional pain syndrome: a 5-year review of clinical presentation and outcomes
A. Hundert (The Hospital for Sick Children, Toronto, CA)

Pain and fear of cancer recurrence in long-term survivors of childhood cancer
M. Patton (University of Calgary, Calgary, CA)

Neurophysiological and behavioural measures of pain during neonatal hip examination
M. Pettersson (Örebro University, Örebro, SE)

A survey to evaluate the impact of co-morbidity presenting with pain in children managed by a specialist paediatric chronic pain service in the UK
Dr. D. Rajapakse (Great Ormond St Hospital NHS Foundation Trust, London, UK)

Profiling coping among youth with chronic pain: a person-centered methodology
Dr. P. Richardson (Stanford University School of Medicine, Palo Alto, US)

Early exposure to procedural pain is associated with development of thalamo-insula connectivity in very preterm neonates
Dr. J. Schneider (University Hospital Center and University of Lausanne, Lausanne, CH)

The global biomechanical and morphological assessment: understanding pain in adolescent idiopathic scoliosis
M. St-Georges (McGill University, Montréal, CA)

103 children with Cyclical vomiting syndrome: description and follow up. A monocentric study
Dr. B. Tourniaire (Trousseau Hospital, Paris, FR)

Remembering past pain and expecting future pain: a preliminary analysis on the role of child attention to pain and parental (non-) pain attentive behaviour
Prof. T. Vervoort (Ghent University, Ghent, BE)

An examination of the reciprocal and concurrent relationships between behavioural and cardiac indicators of pain during 12- and 18-month vaccinations
J. Waxman (York University, Toronto, CA)

Relationship between pain and risk factors for posttraumatic stress disorder in children and parents after accidental injury
Dr. M. Agoston (Children's Healthcare of Atlanta, Atlanta, US)

A systematic review of clinical practice guidelines for acute procedural pain on neonates
C. Balice (University of Lausanne / Ente Ospedaliero Cantonale, Bellinzona, CH)

Survey of nurses and doctors about pain management in neonates
C. Balice (University of Lausanne / Ente Ospedaliero Cantonale, Bellinzona, CH)
Intergenerational transmission of risk: parent chronic pain, trauma symptoms, and pain catastrophizing predict poorer outcomes for youth with chronic pain  
J. Beveridge (University of Calgary, Calgary, CA)

Child and parent predictors of healthcare utilization amongst children and adolescents with chronic pain  
Dr. K.A. Birnie (Alberta Children's Hospital, Calgary, CA)

Psychological distress in childhood increases the risk of back pain in adolescence. A prospective cohort study  
Dr. A. Borges Dario (The University of Sydney, Sydney, AU)

Is multi-site pain an indicator of pain severity?  
D. Brown (University of Witten/Herdecke, Datteln, DE)

Effectiveness and implementation of a multifaceted online knowledge translation intervention for reducing pain in hospitalized infants: protocol for a hybrid type 1 implementation study  
Dr. M. Bueno (The Hospital for Sick Children, Toronto, CA)

Sleep and pain-related fear in youth with chronic headache: a 6-month prospective study of functional outcomes  
M.A. Clementi (Boston Children’s Hospital/Harvard Medical School, Boston, US)

Post-implementation assessment of the Withdrawal Evaluation of Analgesia in Neonates (WEAN) protocol  
Prof. Dr. L. Franck (US)

Functional disability and psychological burden among adolescents with sickle cell disease: The role of pain acceptance and mindfulness  
J. Gise (Georgia State University, Atlanta, US)

Capturing pain: the use of photovoice in youth with complex regional pain syndrome  
Dr. A. Griffin (Stanford University School of Medicine, Menlo Park, US)

Cueing medication availability: operant influences on patient-controlled analgesia pump usage in children and adolescents  
Dr. K. Hainsworth (Medical College of Wisconsin, Milwaukee, US)

Retrospective comparison of two multimodal approaches to manage pediatric postoperative pain after pectus excavatum repair  
E. Hoeman (Ann & Robert H. Lurie Childrens Hospital of Chicago, Chicago, US)

Arthritis invaders: randomized controlled trial of an internet-based psycho-educational game for children with juvenile idiopathic arthritis  
A. Hundert (The Hospital for Sick Children, Toronto, CA)

Post-surgical pain and analgesia in neonates - an Australian experience  
E. Ilhan (Macquarie University, Sydney, AU)

A qualitative analysis of parents’ knowledge needs related to child cancer pain and its management  
Dr. J. Stinson (Hospital for Sick Children, Toronto, CA)
The story of my future: using story completion in adolescents with complex regional pain syndrome
A. Jones (University of Bath, Bath, UK)

Meeting the needs of sick children, and the requirements of the UNCRC as law in Sweden
K. Karlsson (University of Borås, Borås, SE)

Headaches in paediatric emergency department: care pathway and medical management
L. Lacan (University Hospital of Lille, Lille, FR)

Perceived pain controllability, consequences and pain coherence are associated with levels of reported pain in children and young people with Juvenile Idiopathic Arthritis
Dr. R.R. Lee (University of Manchester, Manchester, UK)

Acupuncture may help to reduce pain anxiety and fatigue in pediatric pain patients
A.T. Lewis (Stanford University School of Medicine, Stanford, US)

Enthesitis predicts persisting pain in children with Juvenile Idiopathic Arthritis: a case-control comparison from the ReACCh-Out cohort
Dr. T. McGrath (University of British Columbia, Vancouver, CA)

Morphine oromucosal solution for treatment of painful oral mucositis
B. Nielsen (Copenhagen University Hospital, Rigshospitalet, Copenhagen, DK)

Parent outcomes and parent perception of youth outcomes following intensive paediatric chronic pain rehabilitation at the Alberta Children’s Hospital
Dr. M. Noel (University of Calgary, Calgary, CA)

Changes in parent protective responses influence changes in child functioning and pain acceptance over the course of intensive pain rehabilitation
Dr. N. Rasic (University of Calgary, Calgary, CA)

Evaluation of pupillometry for CYP2D6 phenotyping in children treated with tramadol
F. Rodieux (Geneva University Hospitals, Geneve, CH)

International trends of chronic back pain in adolescents
R. Roy (Universitat Rovira i Virgili, Tarragona, ES)

Pain acceptance mediates changes in pain interference among youth with chronic pain participating in an outpatient interdisciplinary program
Dr. K. Salamon (Nemours/AI duPont Hospital or Children, Wilmington, US)

Adolescents’ and young adults’ attitudes toward coping strategies for menstrual pain
L. Seidman (UCLA, Los Angeles, US)
The effect of an educational intervention for strengthening pain management in children after surgery - a cluster randomized controlled trial using different methodological approaches
A. Smeland (Oslo University Hospital, Oslo, NO)

Battlefield acupuncture instead of opioids for abscess drainage in the pediatric emergency department
Dr. S.-L. Tsai (Columbia University, New York, US)

Gender dysphoria and chronic pain in youth: a case series
Dr. W.T. Zempsky (Connecticut Children's Medical Center, Hartford, US)

Impact of pain education: reduce the pain of vaccination in resource poor setting
Dr. M.D. Joshi (Far Western Community Hospital, Kailali, NP)

Improvements in procedural pain management in a Canadian pediatric teaching hospital: the TOUT DOUX program
J. Paquette (CHU Sainte-Justine, Montreal, CA)

Pain Neuroscience Education for children with functional abdominal pain related disorders: a randomised controlled pilot study
R. Pas (Vrije Universiteit Brussel, Brussel, BE)

ChildKind International: a decade of progress
Prof. Dr. N. Schechter (Boston Children's Hospital and Harvard Medical School, Boston, US)

Evaluation of an Educational Workshop on Acupuncture for Children
Dr. S.-L. Tsai (Columbia University, New York, US)

Paediatric Project ECHO (R) for pain: assessing the educational needs of Ontario healthcare providers related to management of paediatric pain
J. Tyrrell (The Hospital for Sick Children, Toronto, CA)

Opioids in children: advocating for good analgesia and decreasing risk of non-medical use
Dr. R. Agarwal (Stanford University School of Medicine, Stanford, US)

'The OuchLess Project' - improving the management of intravenous cannulation-related pain in children
T. Nair (Kandang Kerbau Women's and Children's Hospital, Singapore, SG)

Towards ChildKind International: structures and processes resulting from pursuit of certification at University of Chicago Medicine Comer Children's Hospital
J. Ott (University of Chicago Medicine, Chicago, US)

Plenary session, Sydney

13:30 - 14:00

Plenary IV

Chair: J. Collins (AU)
**Regular Workshop Session I - Workshop 1: Understanding non-acute pain in neonates and infants - Where are we at?**

Summary of presentation: Hospitalised neonates and infants are exposed to multiple painful procedures every day. Being non-verbal, this group is particularly vulnerable to ongoing and unrelieved pain. Repetitive exposures to painful, skin-breaking procedures may have short and long-term effects on the developing infant brain and nervous systems. The impact of non-acute pain (e.g. repetitive-episodic, prolonged, persistent, chronic pain) in young infants is largely unknown, and may be at least as significant as its impact on older children and adults. It is believed that these effects include prolonged hospitalisation, impaired growth trajectories, altered pain perception, and impaired neurodevelopment. The lack of a clinically useful framework for non-acute pain in infants and neonates is an obvious barrier to its study. If non-acute pain is not defined, researchers are unable to study its epidemiology, clinical implications, long-term outcomes, or management. More importantly, bedside clinicians are unable to identify when the hospitalised infant transitions from acute painful episodes to sustained non-acute pain states. Previous attempts to define chronic pain in this group were only partially successful; concerted additional efforts are needed to drive progress in this area. Before collecting any data, conceptual frameworks are necessary to frame non-acute pain in infants. The important contributions of parental factors and caregiving practices must be included to understand infants' behavioural and physiological responses. The role of factors outside the infant's immediate pain experiences in directing their transition from acute pain to non-acute pain must also be incorporated. This workshop brings together four disciplines to highlight recent efforts and stimulate novel ideas driving research in the area of non-acute pain in neonates and infants.

References:

Moderator: Prof. K.J.S. Anand (Stanford University School of Medicine, Stanford, US)
Scientific Programme

14:45 - 15:05  Understanding the Acute Pain Responding For Infants who are Chronically Pained: Contextual Factors  
Dr. R.R. Pillai Riddell (York University, Toronto, CA)

15:05 - 15:25  Definitions and prevalence of non-acute pain in hospitalised infants: A systematic review and meta-analysis  
E. Ilhan (Macquarie University, Sydney, AU)
Scientific Programme

Parallel workshop, Singapore

14:05 - 15:35

**Regular Workshop Session I - Workshop 2: The Perils are Plentiful, but the Prizes are Palpable: Dissemination and Implementation of Evidence for Improved Acute Pediatric Pain Treatment Across International Settings**

Summary of presentation: Acute procedural pain is common, under-recognized and under-treated in children across varied international healthcare settings. This situation is in stark contrast with major enhancements in the quantity and quality of evidence that has been generated to support improvements in acute procedural pain assessment and treatment. Evidence has been systematically evaluated, summarized, and synthesized in policies and procedures, as well as clinical practice guidelines locally, nationally and internationally. However, the treatment and prevention of painful procedures in infants and children has not decreased substantially over time (e.g. painful procedures in hospitalized infants range between 7-17/day [Cruz 2016]; nor has the proportion of children who experience unrelieved severe pain from these procedures [Carbajal 2017].

Integrating new research evidence on the prevention and treatment of pediatric acute pain was originally thought to be intuitive and the responsibility of the individual healthcare provider (HCP). Although HCPs are key players in mobilizing new knowledge, sustainable change involves organizational or system support. Translating knowledge into institutional and community practice is a science in and of itself, and involves effectively implementing and disseminating knowledge to enhance child health outcomes.

In this workshop, we will (a) review the basis of implementation science; (b) examine recent successful exemplars of implementing pediatric procedural pain strategies across institutions and practice settings, (c) evaluate common pitfalls and obstacles in improving pain prevention, and (d) discuss the clinical impact on implementation and dissemination strategies for children experiencing pain.

At the conclusion of the workshop, participants will have an enhanced understanding of how to effectively implement organizational and system knowledge translation strategies taking individual and organizational context into consideration.


WHO position statement on reducing pain at the time of vaccination. Available at: http://www.who.int/wer/2015/wer9039.pdf?ua=1

Moderator: Dr. B. Stevens (The Hospital for Sick Children, Toronto, CA)

14:05 - 14:25

**Implementation of the Implementation of Infant Pain Practice Change (ImPaC) Resource in NICUs**

Dr. B. Stevens (The Hospital for Sick Children, Toronto, CA)
Scientific Programme

Prof. Dr. S. Friedrichsdorf (US)

14:45 - 15:05 Implementation of a novel KT System for Mass Vaccination of Children
Dr. A. Taddio (University of Toronto, Toronto, CA)

14:05 - 15:35 Regular Workshop Session I - Workshop 3: The neurobiology of developing pain pathways

Summary of presentation: This workshop will provide the venue for presentation of cutting edge research by basic scientists involved in ongoing investigations of the neurobiology of developing pain pathways. It will highlight the innovative work of three experts in the pain field who study diverse yet complementary areas of pediatric pain and how these data can be translated to improve understanding of clinical problems. The symposium covers areas of interest to both basic scientists and clinicians as it will discuss the processes that underlie the development of pain in children and the long-term consequences of early life injury. The session will also relate to themes specifically identified by the scientific program committee including multidisciplinary basic science and translational pain research.

The cellular, molecular and physiological mechanisms of pediatric pain and are not well understood. This workshop will review the current gaps in our understanding of pediatric pain and the means by which we can use basic science data to address these gaps. This session will therefore take an in depth look at the developing peripheral and central pathways driving pain in neonates and how alterations to these systems during early life can drastically affect adult nociceptive responses. In addition, this workshop will help the attending professionals maintain an up to date understanding of innovative advances in the pediatric pain field in addition to obtaining novel information about how research findings may translate into better clinical outcomes or original therapies for pain in children.


Moderator: Dr. M. Jankowski (Cincinnati Children's Hospital Medical Center, Cincinnati, US)

14:05 - 14:25 Peripheral Mechanisms of Pediatric Pain
Dr. M. Jankowski (Cincinnati Children's Hospital Medical Center, Cincinnati, US)
Scientific Programme

14:25 - 14:45  Genetic dissection of spinal circuits involved in somatosensation
Dr. S. Koch (University College London, London, UK)

14:45 - 15:05  The somatosensory memory of neonatal injury
Dr. S. Walker (University College London, London, UK)
Parallel workshop, Osaka

14:05 - 15:35

Regular Workshop Session I - Workshop 4: Applying a transdiagnostic lens to childhood chronic pain: Examining shared mechanisms between pediatric pain and mental health disorders.

Summary of presentation: Over the last few decades, research has increasingly demonstrated that many distinct psychological disorders share core underlying vulnerabilities. This has stimulated a paradigm shift from disorder-specific research to a transdiagnostic approach. This transdiagnostic lens is now being applied to the study and treatment of pediatric chronic pain. Indeed, there is increasing evidence of co-occurrence between chronic pain and internalizing disorders such as anxiety and depression in youth, with emerging data that cognitive-affective processes are shared factors underlying these disorders. This workshop will present emerging transdiagnostic theory in pediatric chronic pain, as well as new empirical data. First, Dr. Jastrowski will provide insight into how broad deficits in executive functioning—including working memory, cognitive flexibility, and sustained attention—are associated with chronic pain. Further, she will discuss how executive functioning impacts functional disability across a variety of critical domains (i.e., emotional, social, and academic). Next, Dr. Heathcote will present a novel framework linking adolescent internalizing disorders with pediatric chronic pain through biases in cognition and threat-safety discrimination. This model argues that cognitive biases act as proximal mechanisms that mediate distal risks, such as genetics and temperament, on symptomatology. She will then present the first data examining threat-safety discrimination biases in adolescents with chronic pain, including brain imaging, psychophysiological, and self-report data. Last, Dr. Kashikar-Zuck will present longitudinal data on developmental trajectories of pain and mood symptoms from childhood to adulthood, including how these trajectories predict functioning over time. Drawing from a shared vulnerability model, the link between cognitive biases, internalizing symptoms (fear, anxiety, depression) and functional disability will be discussed. Speakers will also facilitate a lively discussion of current controversies and future directions for mechanistic understanding, as well as allow sufficient time for questions.


Moderator: Dr. K. Jastrowski Mano (University of Cincinnati, Cincinnati, US)

14:05 - 14:25

Executive Functioning in Pediatric Chronic Pain

Dr. K. Jastrowski Mano (University of Cincinnati, Cincinnati, US)

14:25 - 14:45

Information-Processing Biases in Pediatric Chronic Pain

Dr. L. Heathcote (Stanford University School of Medicine, California, US)
Scientific Programme

14:45 - 15:05
Mood symptoms in adolescence predict functional impairment in adulthood: Results from a longitudinal study of juvenile fibromyalgia
Dr. S. Kashikar-Zuck (Cincinnati Children's Hospital Medical Center (CCHMC), Cincinnati, US)

14:05 - 15:35
Regular Workshop Session IV - Workshop 19: Home alone - pediatric pain assessment and management at home

Summary of presentation: Pain is a common symptom children with complex medical conditions experience. Much of this pain is experienced at home and parents are expected to rely on their own knowledge and skills to manage this symptom, with little direction from healthcare providers. In order to best assist parents of children who are expected to experience pain in the home setting, we must first assess their knowledge as well as their misconceptions regarding pain expression in children, the necessity and safety of using analgesia at home, as recommended, and awareness of non-pharmacological methods that can be utilized to alleviate the child’s pain and suffering. Once we identify these needs, the healthcare provider must educate the parents, and examine the intervention’s efficacy.

While health conditions children experience may differ greatly, the parents remain the same. Our talk will present some of our research, where we found that parents had very similar needs even though their children had different pain provoking conditions. Although we found some cultural related differences in cancer pain studies conducted in Israel on Hebrew and Arabic speaking parents, we also found that parents possessed similar barriers (lack of knowledge and misconceptions of pain) and pain practices. These results were similar to the barriers and practices reported by Israeli, Hebrew speaking parents of children and young adults with cerebral palsy (CP). Unfortunately, the practice commonalities were mainly related to parents’ ability to identify pain expressions in their children experiencing pain, yet they provided them with little to no analgesia, mainly due to barriers and lack of direction in assessing and managing pain at home, in real-time. Lastly, our presentation will focus on a study examining the utility of a web-based intervention that monitors symptoms and assists in managing pain children and their parents are faced with at home.


Moderator: Dr. (Y. Zisk Rony (Hadassah - Hebrew University, Jerusalem, IL)

14:05 - 14:25
Parental Pain Knowledge and Practices at Home for Children and Young Adults with Cerebral Palsy (CP)
Dr. (Y. Zisk Rony (Hadassah - Hebrew University, Jerusalem, IL)

14:25 - 14:45
Cultural Differences and Similarities of Parents Treating Child Cancer Pain at Home
N. Shoshani (Hadassah - Hebrew University, Jerusalem, IL)
Scientific Programme

14:45 - 15:05  Pain Buddy
Dr. M.A. Fortier (University of California-Irvine, Orange, US)

Parallel workshop, Sydney

16:00 - 17:30  Regular Workshop Session II - Workshop 6: What can imaging brain activity tells us about pain and its consequences in infants and children?

Summary of presentation: The nervous system in infants and children is developing and plastic, which presents a challenge when attempting to manage and treat pain. Over the past few decades, human neuroimaging has become an established method for assessing central nervous system correlates of pain. Techniques, such as electroencephalography (EEG), near-infrared spectroscopy (NIRS) and magnetic resonance imaging (MRI), have been optimised for use in infants and children, providing an opportunity to investigate mechanisms underlying the development of pain perception, and to understand how early life experiences can modulate infant and childhood pain. A mechanistic understanding of the neural processes underlying pain perception in early life will help us make progress in the management of childhood pain.

In this Workshop, we will discuss (i) the measurement of noxious-evoked brain activity in infants, and its use in trials of analgesics and in investigations of non-pharmacological comfort techniques; (ii) the long-term consequences of early life pain; (iii) the emergence of consciousness and its relation to pain; and (iv) the maturational changes in structural and functional brain activity underlying early pain perception. Understanding the development of sensory and nociceptive activity in early life is valuable to researchers, practitioners and parents involved in understanding, measuring and treating childhood pain. We endeavor to provide an overview of the most recent advances from paediatric neuroimaging.


Moderator: Prof. R. Slater (University of Oxford, Oxford, UK)

16:00 - 16:20  Brain imaging provides an objective tool for measuring pain-related brain activity in infants
Prof. R. Slater (University of Oxford, Oxford, UK)

16:20 - 16:40  MRI reveals long-term consequences of pain in early life
Prof. Dr. R. Grunau (University of British Columbia, Vancouver, CA)

16:40 - 17:00  Understanding pain and consciousness in neonates
Scientific Programme

17:00 - 17:20
MRI reveals structural and functional connectivity shaping early pain perception
L. Baxter (University of Oxford, Oxford, UK)

Parallel workshop, Singapore

16:00 - 17:30
Regular Workshop Session II - Workshop 7: Paying attention to distraction: A critical consideration of distraction mechanisms and effectiveness in acute and chronic pain contexts.

Summary of presentation: Distraction is a currently widely recommended pain management technique to reduce child pain and distress across a variety of situations. Despite an apparent abundance of evidence supporting the effectiveness of distraction, systematic reviews highlight numerous limitations with the extant literature (e.g. poor conceptualization of distraction). Consequently, the exact underlying mechanisms and the critical components of distraction techniques remain unclear. Furthermore, a close look suggests distraction for pain may not be beneficial or adaptive for all children under all circumstances. A leading cognitive theory of distraction is based on the brain’s limited attentional capacity, hence shifting attention to a distractor means that a child will have less perceptual capacity to process and attend to pain. Following this reasoning, a distractor involving active engagement should work better compared to more passive distractors. However, research results on different types of distraction are inconclusive and individual differences on distraction effectiveness are common (e.g. distraction seem less effective for children catastrophizing about pain). Furthermore, evaluations of the effectiveness of distraction predominantly focus on acute pain experiences, limiting our understanding of distraction mechanisms and efficacy for chronic pain. This symposium will critically reflect on the current evidence for distraction across acute and chronic pain experiences. First, the symposium will focus on acute pain, which includes an overview of a newly published systematic review and randomised control trial in the context of needle procedures, exploring what this recent evidence reveals about the distraction mechanisms and issues with extant literature. Following the acute pain focus, we will present data on the use of distraction coping strategies, by both children and parents, across various chronic pain populations. To stimulate discussion, the symposium will end by presenting a contrasting approach to pediatric chronic pain treatment, i.e. ACT, and how neuropsychiatric factors may predict outcome in this type of treatment.


https://doi.org/10.1097/AJP.0000000000000628


Moderator: Dr. L. Caes (University of Stirling, Stirling, UK)
Scientific Programme

16:00 - 16:20 Comparing active versus passive distraction, with or without parental psycho-education, as a pain management technique during venepunctures.
Dr. L. Caes (University of Stirling, Stirling, UK)

16:20 - 16:40 Distraction as a coping strategy in chronic pain
Dr. M. McMurtry (University of Guelph, Guelph, CA)

16:40 - 17:00 Distraction or acceptance? The utility of ACT and the role of neuropsychiatric factors in predicting outcome
Dr. R. Wicksell (Karolinska University Hospital, Stockholm, SE)

17:00 - 17:20 Using review evidence to identify knowledge gaps and advance the science of distraction
Dr. K.A. Birnie (Alberta Children's Hospital, Calgary, CA)
Parallel workshop, Rio

16:00 - 17:30

**Regular Workshop Session II - Workshop 8: Acknowledging the “elephant in the room”: Uncertainty in the context of pediatric pain.**

Summary of presentation: Pain is an unpleasant and unwanted experience in acute and chronic contexts. Whilst typically undesirable, for many youth, the experience of pain is often understandable, adaptive, and expected. For example, pain may be associated with post-surgical healing, serve as a signal to avoid further danger, or be an expected consequence associated with various long-term conditions (e.g. arthritis). Yet, for many youth, the cause of the pain is unclear and is experienced in the absence of obvious pathology or physical threat. Beyond the experience of pain itself, these youth experience additional challenges associated with uncertainty surrounding the cause and meaning of their pain, such as anxiety and distress. This symposium seeks to explore and understand the experience of pain and uncertainty across a variety of pediatric pain settings (e.g. chronic pain, cancer) and from a range of perspectives (e.g. youth, parents, clinicians), to build a more comprehensive understanding of how uncertainty surrounding pain is perceived and managed.

At the end of this symposium, attendees will be able to:

- understand the nature, experience, and impact of diagnostic uncertainty in the context of chronic pain in youth, parents and clinicians.
- understand challenges experienced by clinicians in assessing and treating individuals with chronic pain in the absence of an identifiable pathological cause.
- understand the experience and impact of uncertainty around symptom perception after the experience of cancer in youth.
- understand how interventions that better explain pain to parents and youth with pain (e.g., pain neuroscience education) may serve to reduce uncertainty and improve understanding, ‘buy in’, and ultimately treatment outcomes.


Moderator: Dr. A. Jordan (University of Bath, Bath, UK)

16:00 - 16:20

**The pediatric period: Diagnostic uncertainty in youth with chronic pain and their parents**

Dr. M. Noel (University of Calgary, Calgary, CA)

16:20 - 16:40

**A clinical taboo: Clinicians’ experiences of managing diagnostic uncertainty in a paediatric clinical context.**

Dr. A. Jordan (University of Bath, Bath, UK)

16:40 - 17:00

**Using pain neuroscience education to enhance communication and connection between providers and patient families**

Dr. L. Simons (Stanford University School of Medicine, California, US)
Scientific Programme

17:00 - 17:20
The survivorship context: Living with pain-related uncertainty after childhood cancer
Dr. L. Heathcote (Stanford University School of Medicine, California, US)

Parallel workshop, Osaka

16:00 - 17:30
Regular Workshop Session II - Workshop 9: Sources of individual variability when using objective measures of paediatric pain

Summary of presentation: In experimental pain research there is considerable and consistent intra- and inter-individual differences in pain perception and sensitivity, the development of pain pathologies, and the response to interventions. In this workshop, each presenter will describe the emerging data from their labs that reveals the various sources of variability of the pain experience within the paediatric population, and the methods used to detect this variability. Data will also be presented which illustrates the existence of distinct pain profiles and response patterns, which are often ignored when averaging data across whole groups. It will be shown that these pain profiles can be discerned from healthy infants, a clinical population, and in animal models. This workshop will also include translational work, which uses an animal model of inflammatory pain in order to understand the potential mechanisms behind some of these different pain profiles. A secondary theme of this workshop, will be the application of diverse measures of pain across different developmental age groups. The variability of the pain experience can be observed in adolescents, using self-report as the standard measure for reporting pain. However, in order to measure this in a younger non-verbal population, researcher must instead focus on various objective measures, such as behaviour and neuroimaging. A strength of this workshop will be the presentation of different measures of the pain experience, including the cortical processing in neonates, behaviour in infants up to 1 year, and self-report in adolescents. Following this workshop, attendees will have a greater appreciation of the individual variability in the pain experience across different paediatric age groups, and a more in depth understanding of the various methods which can highlight these differences.

References:

Moderator: Dr. L. Jones (University College London, London, UK)

16:00 - 16:20
Patterns of pain-related cortical responses and the effects of age and sex
Dr. L. Jones (University College London, London, UK)

16:20 - 16:40
Capturing the variability in infant pain responses using behavioural cues
M. DiLorenzo (York University, Toronto, CA)

16:40 - 17:00
Pain profiles in adolescents with juvenile idiopathic arthritis and the underlying mechanisms
Dr. A. Learoyd (University College London, London, UK)
**Parallel workshop, Samarkand**

**16:00 - 17:30**  
*Regular Workshop Session II - Workshop 10: Biological influences on adolescent pain: Sex, stress, and inflammation*

Summary of presentation: Adolescence is a critical period of development during which there are various hormonal, immunological, neural and psychological changes that can affect the pain system. This workshop will focus on biological factors including sex and stress hormones as well as inflammatory markers, and their effect on experimental and clinical pain in adolescents. There is evidence that these factors can affect pain processing mechanisms and pain sensitivity. However, most of the current knowledge is based on animal models or human studies conducted in adult populations. For instance, there is evidence that sex hormones, including testosterone, modulate pain sensitivity and hence might be integral to explaining -at least part- of the sex differences observed in pain. Also, acute stress has been found to influence pain sensitivity in adults, an effect that has been related to cortisol reactivity. In patients with chronic pain, there is growing support for cortisol dysfunctions, which might -at least partly- affect chronic pain through its effects on learning and memory. Finally, inflammatory markers have been linked to pain sensitivity in chronic pain as well and are hypothesized to interact with psychological aspects of pain. To date, clinical and experimental studies that investigate these biological factors and their interaction with pain in this critical time window of adolescence are still scarce. Given the high incidence of chronic pain emerging in adolescence, as well as the high likelihood of pain persisting into adulthood, a better understanding of these biological processes in adolescence is important and may inform the development of early interventions or even preventive strategies to advance pediatric pain management.

References:


Moderator: Dr. H. Nahman-Averbuch (Cincinnati Children's Hospital Medical Center, Cincinnati, US)

**16:00 - 16:20**  
*The effect of testosterone levels on pain sensitivity*  
Dr. H. Nahman-Averbuch (Cincinnati Children's Hospital Medical Center, Cincinnati, US)

**16:20 - 16:40**  
*The effect of stress on fear learning and extinction in youth with chronic pain*  
Dr. I. Timmers (Stanford University, Palo Alto, US)

**16:40 - 17:00**  
*Chronic pelvic pain in adolescents with endometriosis: The role of psychophysical and inflammatory factors in the development of central sensitization*  
Prof. C. Sieberg (Boston Children's Hospital and Harvard Medical School, Boston, US)
Scientific Programme
Scientific Programme

Tuesday, 18 June 2019

Other session, Sydney

08:00 - 08:15  Art and Pain

08:00 - 08:15  Presentation 1
Dr. E. Reifert (CH)

Plenary session, Sydney

08:15 - 09:00  Plenary V
Chair: Prof. Dr. E. Cignacco Müller (CH)

08:15 - 09:00  Neonatal pain: pharmacology
Prof. Dr. J. van den Anker (University of Basel Children’s Hospital, CH)

Plenary session, Sydney

09:00 - 09:45  Plenary VI
Chair: Prof. Dr. D. Tibboel (NL)

09:00 - 09:45  Pain treatment in developing countries: Reducing the gap
Prof. Dr. F.O. Oyebola (NI)
Scientific Programme

Parallel workshop, Sydney

10:15 - 11:45

**Regular Workshop Session III - Workshop 11: Trauma and Pediatric Pain: Translational Examinations of Cognitive, Behavioural, Interpersonal, and Neurobiological Mechanisms**

Summary of presentation: Painful experiences (procedures, surgeries, injuries) can be traumatic for children and parents. However, emerging research is pointing to the powerful role of adverse childhood experiences (ACEs) and trauma in early life in the development of pain problems into adulthood. Nevertheless, despite decades of research on trauma and pain in the adult literature, surprisingly little research has examined the trauma-pain relationship in youth or the underlying mechanisms that drive this over time. Given recent implementation by the US government of separating parents and children at the US border, and compelling epidemiological research pointing to ACEs in the development of adult chronic pain, examination of how early life trauma gets “under the skin” to influence how children and adolescents experience acute and chronic pain has never been more timely. This symposium consists of an international panel of clinical and basic scientists examining the relationship between trauma and pain across infancy, childhood and adolescence, as well as the neurobiological, cognitive, behavioural and interpersonal mechanisms that drive this relationship over time. This symposium will inform advances in prevention and treatment of pain and trauma in these vulnerable youth.

At the end of this symposium, attendees will be able to:

- Understand key cognitive, behavioural, and neurobiological mechanisms underlying the trauma and chronic pain relationship in adolescence.
- Determine the influence of early life adversity on neurological function and immunological processes to understand the underlying mechanisms that increase risk for the development of chronic pain in an animal model.
- Understand the construct of allostatic load in the context of stress and/or trauma exposure and how this construct may relate to the maintenance of chronic pain conditions and/or associated physical and psychosocial impairment in youth.
- Recognize acute and posttraumatic stress symptoms associated with painful medical procedures in hospitalized children undergoing intensive care.

References:


Moderator: Dr. M. Noel (University of Calgary, Calgary, CA)
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<tr>
<th>Time</th>
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<tr>
<td>10:15 - 10:35</td>
<td>Unravelling the Relationship between Adverse Childhood Experiences, Post-Traumatic Stress, and Pediatric Chronic Pain: An Integrative Examination</td>
<td>Dr. M. Noel (University of Calgary, Calgary, CA)</td>
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<td>10:35 - 10:55</td>
<td>Epigenetic and Inflammatory Mechanisms underlying Early Life Trauma and Adolescent Pain</td>
<td>Dr. R. Mychasiuk (Monash University, Melbourne, AU)</td>
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<tr>
<td>10:55 - 11:15</td>
<td>The Relations between Acute and Posttraumatic Stress and Painful Medical Procedures in children hospitalized in the Paediatric Intensive Care Unit</td>
<td>Prof. J. Gold (University of Southern California, Los Angeles, US)</td>
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<tr>
<td>11:15 - 11:35</td>
<td>Adverse Childhood Experiences (ACEs) in Youth with Chronic Pain: Incidence and Phenomenology of Potential Underlying Mechanisms</td>
<td>Dr. S. Nelson (Boston Children's Hospital, Boston, US)</td>
</tr>
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Summary of presentation: Despite the worldwide adoption of family-centered care, a philosophy that embraces partnership among clinicians, youth and parents in care decision-making, it remains a novel approach in service planning, evaluation and research, particularly in pediatric pain. An emerging body of evidence demonstrates that parent and youth engagement in health services planning leads to better outcomes, safer and higher quality of care, and cost containment. The unique value of patient and family partners in program evaluation and research is also emerging; questions are more relevant and meaningful, data more appropriate and targeted, and processes, conclusions and recommendations more valid and sensitive to patients’ and families’ needs and priorities. Furthermore, youth and parent engagement in program planning increases their investment in later program evaluation, and so facilitates recruitment for future research. Despite the mounting requests from research funders for evidence of genuine patient and family engagement on research teams, it remains unclear on when and how to perform engagement tasks, particularly with youth and their parents. Moreover, empirical evaluation and reflections on the experience of such partnerships is lacking. The purpose of this workshop is to showcase successful patient and family engagement in multidisciplinary pediatric chronic pain program planning and research across three countries (Canada, Australia, Ireland). Youth and parent partner reflections will be integrated throughout.

At the end of this symposium, attendees will be able to:

1. Identify useful engagement strategies for youth with pain and their parents in service planning, evaluation and research

2. Discuss the impact of data collected through patient engagement on present and future planning, evaluation and research processes

3. Deliberate benefits and challenges of patient and family engagement in pediatric pain with various stakeholders (e.g. clinicians, researchers, funders and policy-makers)

4. Design and conduct a service planning, evaluation or research project using patient and family engagement principles.

References:


Moderator: Dr. K.A. Birnie (Alberta Children's Hospital, Calgary, CA)
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<th>Time</th>
<th>Session Title</th>
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<tr>
<td>10:35 - 10:55</td>
<td>Patient and families as partners in clinical service improvement</td>
<td>Dr. E. Kepreotes (John Hunter Children's Hospital, HNELHD, NSW, AU)</td>
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<tr>
<td>10:55 - 11:15</td>
<td>How can teachers increase their understanding of issues faced by young children who live with chronic pain?</td>
<td>Dr. S. O'Higgins (National University of Ireland, Galway, IE)</td>
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<td>11:15 - 11:35</td>
<td>Listening to youth with pain-related disability and their parents in designing and implementing an evaluation for an interdisciplinary pain treatment program</td>
<td>K. Hurtubise (University of Sherbrooke, Sherbrooke, CA)</td>
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Scientific Programme

Parallel workshop, Rio

10:15 - 11:45

**Regular Workshop Session III - Workshop 13: "Why Me?"
Individual Differences in Susceptibility to Pain in Little Rodents and Little People**

Summary of presentation: Pediatric chronic pain is a significant health problem. Estimates posit that 20% to 35% of children and adolescents are affected by chronic pain worldwide, and for 5-8% of children pain is severe and disabling. Pain experienced in pediatric hospitals is common, under-recognized, and undertreated, with more than 10% of hospitalized children showing features of chronic pain. The total costs to society incurred by care for children and adolescents with moderate to severe chronic pain has been extrapolated to $19.5 billion annually in the USA, with about 3% of pediatric chronic pain patients requiring intensive rehabilitation. Untreated chronic pain in childhood incurs a high risk for the subsequent pain and psychological disorders later in life.

However, it remains in large part enigmatic why some individuals experience pain or develop persistent pain beyond healing, and others do not. Pain and pathology are weakly correlated in both mice and in children, and experimental pain in healthy subjects varies enormously.

The three speakers will explore key aspects which support our understanding of the transition from acute to chronic pain and add to the discussion of nature versus nurture. This workshop aims to (1) review the neurobiological basis for pain vulnerability; (2) evaluate the current knowledge base regarding the influence of genetic factors, environmental risk factors, altered brain connectivity, and epigenetics on variable susceptibility to pediatric pain, as well as response to analgesics; and (3) present psychosocial, parent/child factors and psychophysical factors associated with transition from acute to chronic postsurgical pain.

The understanding of individual differences of underlying pain persistence can inform targeted approaches to promote pain recovery and reduce impact of chronic pain in childhood and beyond.


Moderator: Prof. J. Mogil (McGill University, Montreal, QC, CA)

10:15 - 10:35

**Lots of Pain in Little People and Little Rodents? Genetic and Environmental Risk Factors.**

Prof. J. Mogil (McGill University, Montreal, QC, CA)

10:35 - 10:55

**Nature versus Nurture: Exploring Vulnerabilities of Children and Adolescents with Chronic Pain.**

Prof. Dr. S. Friedrichsdorf (US)

10:55 - 11:15

**Chronic Postsurgical Pain in Children: Resolution and Persistence.**

Dr. J. Rabbitts (Seattle Children’s Hospital, Seattle, WA, US)
Parallel workshop, Osaka

10:15 - 11:45

**Regular Workshop Session V - Workshop 25: Innovative Methods of Assessment and Treatment of Chronic Pain in Pediatric Sickle Cell Disease: Unraveling the Acute to Chronic Pain Transition**

Summary of presentation: Chronic pain in sickle cell disease (SCD) is complex and challenging to assess and treat with limited evidence-base to guide clinical care. There is increasing awareness that chronic pain is part of the pain experience for many adolescents with SCD, often co-occurring within the context of acute vaso-occlusive pain episodes and accounting for a significant amount of morbidity. Recently published diagnostic criteria for chronic SCD pain provide the fundamental groundwork for improved assessment of chronic SCD pain. However, the ability to identify and screen youth for chronic SCD pain and associated biopsychosocial risk factors within a clinical context to then guide effective treatment remains limited.

This workshop will further advance novel assessment and treatment methods for chronic SCD pain by: 1) highlighting evidence of biopsychosocial risk factors for chronic SCD pain, 2) offering insights into the acute to chronic SCD pain transition, and 3) illustrating a systematic, patient-centered approach to treatment for chronic SCD pain. Guided by the biopsychosocial framework, we will first present on psychosocial risk factors associated with chronic SCD pain and risk factors predicting the transition from acute to chronic SCD pain over time. The clinical utility and application of a brief pain screening tool to identify youth with chronic SCD pain will also be discussed. We will then provide evidence of biological risk factors for the transition from acute to chronic SCD pain. This will include data supporting increased nervous system sensitization with a focus on quantitative sensory testing, changes in Substance P, and will highlight features of neuropathic pain evident among patients with SCD. The workshop will conclude with the development and efficacy of a novel m-health self-management program tailored for adolescents with SCD pain. Collectively, the workshop will provide innovative methods to guide improved assessment and treatment of chronic pain for youth with SCD.

References:


Moderator: Dr. S. Sil (Emory University School of Medicine, ATLANTA, US)

10:15 - 10:35

**Identifying youth with chronic sickle cell pain: How pain and psychosocial functioning change over time**

Dr. S. Sil (Emory University School of Medicine, ATLANTA, US)

10:35 - 10:55

**Mechanisms of pain in sickle cell disease: Thinking outside of the sickled cell**

Dr. A. Brandow (Medical College of Wisconsin, Milwaukee, US)
Scientific Programme

10:55 - 11:15

User-centered adaptation of the iCanCope self-management platform for youth with sickle cell pain
Dr. J. Stinson (Hospital for Sick Children, Toronto, CA)

Parallel workshop, Samarkand

10:15 - 11:45

Regular Workshop Session IV - Workshop 16: Thinking outside the diagnostic box: advancing how we think, write and talk about children’s pain

Summary of presentation: How we talk about pain – either in publications, in the way we frame symptoms or communicate with patients – reflects how we think about pain. Sometimes names describe the symptom (e.g. irritable bowel disorder), sometimes they have no relationship to the entity and may be a person or place (e.g. Crohn Disease, Lyme disease), and sometimes they may describe the underlying pathology (e.g. small fiber neuropathy). Our current nomenclature has been a victim of the mind/body duality postulating either physical or psychological causes, although various fields of research have begun to examine the intricate interaction between the two. The name for the category of non-progressive disorders that are characterized largely by pain without obvious anatomical or physiologic pathology has been in flux for centuries. These are entities whose etiologies have not yet been discovered, may be multifactorial and part of a continuum of biological entities (ie endophenotypes).

Those entities require a category as they have many similar symptomatic characteristics, often overlap, respond to a variety of psychotropic or even non-specific treatments. Currently in use is functional disorder but that may change to chronic primary pain disorder with the new ICD 11. This workshop aims to review new data with regard to newly defined ICD-11 diagnosis of chronic primary pain condition and provide clinicians with an empirical overview of specific and non-specific interventions, as well as concrete suggestions for harnessing the clinical encounter to provide pain relief for children.


Moderator: Dr. J. Kossowsky (University of Basel, Basel, CH)

10:15 - 10:35

Giving pain a name: the implications of nomenclature
Prof. Dr. N. Schechter (Boston Children’s Hospital and Harvard Medical School, Boston, US)

10:35 - 10:55

Words that hurt and words that heal: the therapeutic encounter as a tool to manage children’s pain
Dr. T. Oberlander (University of British Columbia, Vancouver, CA)

10:55 - 11:15

Harnessing psychosocial and non-specific treatment approaches in pediatric primary pain
Dr. J. Kossowsky (University of Basel, Basel, CH)
Scientific Programme

11:15 - 11:35
Reframing chronic pain: Lessons learned from past trials and implications for future research
Dr. H. Köchlin (Universität Basel, Basel, CH)

Poster session, Poster exhibition

12:30 - 13:30
Author Attended Poster Session 2

Pratice survey on postfracture analgesia in a french pediatric emergency department
Dr. J. Avez-Couturier (CHU Lille, Lille, FR)

Functional magnetic resonance imaging reveals dependency between spontaneous brain activity and noxious stimulus response at the level of the individual infant
L. Baxter (University of Oxford, Oxford, UK)

Preliminary findings between parent physiological activity, and parent reassurance and nonprocedure-related talk during children’s acute pain
K. Constantin (University of Guelph, Guelph, CA)

Using a brief screening tool to examine associations among parent factors and child functioning in youth with chronic pain
Dr. L. Harrison (Stanford University School of Medicine, Palo Alto, US)

Dialectical behavior therapy (DBT) for pediatric chronic pain
Dr. R. Holloway (Keck USC School of Medicine, Los Angeles, US)

Descriptive prospective study in children and adolescents consulting for headaches in paediatric emergencies at the CHRU of Lille for one year
Dr. A. Leroux (University Hospital of Lille, Lille, FR)

Central pain modulation in children with functional abdominal pain related disorders
R. Pas (Vrije Universiteit Brussel, Brussel, BE)

The role of microglia in the postnatal maturation of spinal somatosensory circuitry during normal development and after early postnatal injury
Y. Xu (UCL, London, UK)

Vincristine-induced pain: an inflammatory neuropathy
H. Starobova (University of Queensland, St. Lucia, AU)

Improving the treatment of children’s presenting and procedural pain during emergency department visits: a province-wide quality improvement collaborative in Canada
Dr. J. Thull-Freedman (Alberta Health Services, Calgary, CA)

Does the number of repetitive painful procedures during early life affect acute and long-term sensory outcome? Evidence from a translational model
Dr. N.J. van den Hoogen (Maastricht University, Maastricht, NL)
Pain and pain management at home after tonsil surgery
F. Alm (School of Health Sciences, Örebro University, Örebro, SE)

Associations between insensitive parent behaviours and infant pain-related distress: is infant temperament a moderator?
S. Badovinac (York University, Toronto, CA)

Self-report sleep measures are better predictors of pain disability and coping than actigraphy measures in an inpatient rehabilitation program for children with chronic pain
Dr. I. Boggero (Cincinnati Children’s Hospital Medical Center, Cincinnati, US)

Opioid prescribing for children at a non-paediatric hospital
Dr. T. Burns (University of Washington, Seattle, US)

The relationship between child pain-related injustice appraisals and pain-related outcomes: the mediating role of child anger
F. Daenen (Ghent University, Ghent, BE)

Relations between age and pain catastrophizing on outcomes in youth with Complex Regional Pain Syndrome
Dr. G. D’souza (Stanford University, Stanford, US)

Pain at home following adenotonsillectomy & use of an electronic pain diary
Dr. C. Frigon (Montreal Children's Hospital, Montréal, CA)

Triage of at-risk headache patients using the pediatric pain screening tool
Dr. M.L. Gremillion (Children's Hospital of Wisconsin, Milwaukee, US)

Cognitive functioning in pediatric pain patients - a retrospective analysis
S. Grothus (Children’s and Adolescents’ Hospital Datteln, Germany, University of Witten/Herdecke, Datteln, DE)

Trajectory of change in intensive interdisciplinary pain treatment using multi-level modeling
Dr. S. Williams (Cincinnati Children's Hospital, Cincinnati, US)

Prevalence of pain in children in an academic medical center
Dr. C. LaFond (University of Chicago Medicine, Chicago, US)

Pain severity of common neonatal procedures: a review of neonatal pain scores and clinician rankings
M.P. Laudiano-Dray (UCL, London, UK)

Translation and cultural validation of the adolescent pediatric pain tool (APPT)
Dr. D. Madi (American University of Beirut, Beirut, LB)

Population pharmacokinetics of intraperitoneal bupivacaine in young children and postoperative morphine requirements
P. Meier (Boston Children's Hospital and Harvard Medical School, Boston, US)
Scientific Programme

Somatosensory testing for indicators of central sensitisation in children and adolescents with chronic pain
D. Champion (Sydney Children’s Hospital, Randwick, Sydney, AU)

Impact of multidisciplinary pain management in hospitalized burned children
Dr. M. Pizarro (UDELAR, El ´Pinar, UY)

Chronic postsurgical pain in children: a prospective observational study to examine the transition from acute to chronic pain after major surgery
B. Rosenbloom (York University, Toronto, CA)

The first two weeks at home after scoliosis surgery - adolescents’ diaries, a qualitative study
Dr. A.-C. Rullander (Umeå University, Umeå, SE)

Prevalence of posttraumatic stress disorder in children and adolescents with chronic pain
L. Stahlschmidt (Children’s and Adolescents’ Hospital Datteln, Datteln, DE)

Comparing physical and psychosocial symptoms at home in children and adolescents with and without cancer pain, fatigue, and nausea
V. Torres (Children's Hospital Los Angeles, Los Angeles, US)

Who are we treating, parent or child? Comparison between parent and child reporting of perceived daily function in context of paediatric chronic pain, using PedsQLTM
Dr. E. Wallace (Royal Hospital for Children, Glasgow, UK)

Depression mediates the relationship between insomnia and paediatric chronic pain over time
T. Wihak (University of Calgary, Calgary, CA)

Parental experiences of injustice in the context of pediatric chronic pain: an interpretative phenomenological analysis
F. Baert (Ghent University, Gent, BE)

Patient and family experience of an intensive interdisciplinary treatment program for pediatric persistent pain
Dr. A. Baerveldt (Holland Bloorview Kids Rehabilitation Hospital, Toronto, CA)

Parents’ views on pain management of the hospitalized neonate
C. Balice (University of Lausanne / Ente Ospedaliero Cantonale, Bellinzona, CH)

Utilization of ketamine for inpatient pediatric sickle cell disease inpatients admitted at tertiary care facilities
Dr. P. Birmingham (Lurie Children's Hospital, Chicago, US)

A virtual reality biofeedback computer game for pediatric pain relief: a randomized controlled trial
M. Bishop (Georgia State University, Atlanta, US)

Epidural analgesia for better pain control after surgery in children
C. Borges (Hospital Prof. Doutor Fernando Fonseca, Amadora, Lisboa, PT)
Scientific Programme

Procedural pain management in Neonatal Intensive Care Units: towards a model of predictive factors
Prof. D. Cruz (University of Évora, Evora, PT)

Socio-medical aftercare (AC) for severely impaired pediatric chronic pain patients: Design of a multicenter randomized controlled trial (RCT)
M. Dogan (Children’s and Adolescents’ Hospital Datteln, University of Witten/Herdecke, Datteln, DE)

Pain management in paediatric oncology: an audit of adjuvant use and its impact on opioid sparing and pain control
Dr. T. Fabila (KK Women’s & Children’s Hospital, Singapore, SG)

Advancing understanding of older adolescents and young adults with chronic pain
Dr. A. Feinstein (Stanford University School of Medicine, Menlo Park, US)

Readiness to change and program outcome in a pediatric pain clinic
Dr. A. Hahn (Nationwide Children’s Hospital, Columbus, US)

A chart audit and patient survey on pain management at a pediatric hospital in Ontario, Canada
Prof. D. Harrison (CHEO and University of Ottawa, Ottawa, CA)

Treatment outcomes within a multidisciplinary pediatric pain clinic: the value of PROMIS
Dr. J. Hoehn (Nationwide Children’s Hospital, Columbus, US)

iCanCope with PostOp Pain: development of a smartphone-based pain self-management app for adolescents following surgery
A. Hundert (The Hospital for Sick Children, Toronto, CA)

Lidocaine infusion for the treatment of chronic pain in children
Dr. L. Isaac (University of Toronto, Toronto, CA)

Skin-to-skin care reduces nociceptive brain activity in human newborns
Dr. L. Jones (University College London, London, UK)

Child and parent experiences in an interdisciplinary pain clinic intake: changes in pain related cognitions and beliefs about treatment effectiveness
Dr. A.N. Junghans-Rutelonis (Children's Hospitals and Clinics of Minnesota, Minneapolis, US)

Children’s strategies for dealing with fear and pain experienced during hospital care
I. Kleye (University in Borås, Borås, SE)

Medication and health care utilization in school children with recurrent headache
A. Kupitz (Children’s and Adolescents’ Hospital Datteln, Germany, University of Witten/Herdecke, Datteln, DE)

Painful procedures in critically ill children in the US: what are we doing and to whom?
Dr. C. LaFond (University of Chicago Medicine, Chicago, US)
Acute postoperative opioid consumption trajectories and long-term outcomes in paediatric patients after spine surgery
M. Li (McGill University, Montreal, CA)

From one pain to many: identifying risk factors for development of overlapping pain conditions in pediatrics
Dr. D. Logan (Boston Children's Hospital, Boston, US)

The successful use of low-dose methadone as an adjunct when treating complex pain in children
Dr. E. Malmros Olsson (Karolinska University Hospital, Stockholm, SE)

Liver biopsies - pain management outside the operating room in infants
Dr. P. Mittermaier (Karolinska University Hospital, Stockholm, SE)

The feasibility of a weekly pediatric pain rehabilitation program
S. Naidu (Stanford University, Menlo Park, US)

Effects on self-reported sleep when adolescents with recurrent pain participate in the Help Overcoming Pain Early (HOPE) intervention
Dr. S. Nilsson (University of Gothenburg, Gothenburg, SE)

Feasibility and program evaluation of an online peri-operative cognitive-behavioral therapy intervention for adolescents having major surgery
Dr. J. Rabbitts (Seattle Children's Hospital, Seattle, WA, US)

Does media use increase the risk for headaches? Results of a cross-sectional study in school children
N. Rosenthal (Children's and Adolescents' Hospital Datteln, Germany, University of Witten/Herdecke, Datteln, DE)

The in-betweens: multimodal inpatient pain treatment in an uncertain and unstable stage of life
Dr. S. Schenk (German Pediatric Pain Center, Children's and Adolescents' Hospital Datteln, Witten/Herdecke University, Datteln, DE)

Inpatient ketamine utilization for pediatric admitted with a pain diagnosis
N. Seewald (Lurie Children's Hospital, Chicago, US)

Analgesia for arterial puncture/cannulation in neonates: a systematic review
Dr. V. Shah (Mount Sinai Hospital, Toronto, CA)

Inpatient utilization of meperidine in US pediatric tertiary care hospitals
C. Stake (Lurie Children's Hospital, Chicago, US)

Pain during wound or burn dressings in 95 ambulatory children: an observational prospective monocentric study
Dr. B. Tourniaire (Trousseau Hospital, Paris, FR)

Challenges in treating young children with headaches related to intracranial pressure changes
Dr. R. Agarwal (Stanford University School of Medicine, Stanford, US)
Becoming a paediatric pain physician: the journey began in a short coat  
Dr. T. Burns (University of Washington, Seattle, US)

The saga of the retained epidural catheter: a case report  
Dr. G. D'souza (Stanford University, Stanford, US)

Bioethical approaches to pediatric pain  
Dr. M.A. Flores (Universidad Nacional Autonoma de Mexico (UNAM), Mexico, MX)

Educational needs of nursing students on pediatric pain management in Ghana: a descriptive cross-sectional study  
A. Kusi Amponsah (University of Turku, Turku, FI)

Adult ratings of pediatric pain: the roles of anxiety and nursing training  
C. Shneider (Georgia State University, Atlanta, US)

Pain of intramuscular injection of vitamin a in premature babies  
V. Alix (Hôpital Antoine Béclère Réanimation Néonatale, Clamart, FR)

Guideline development for the paediatric non-pharmacological procedural pain management in Switzerland  
R. Kugler (Universitäts-Kinderspital Zürich, Zurich, CH)

Evaluating a parent-directed knowledge translation resource for improving vaccination pain management in children  
N.E. MacKenzie (Dalhousie University, Halifax, CA)

A survey on the influence of cultural beliefs on Asian healthcare workers’ perceptions of pain: a pilot study  
S.H. Ng (KK Women’s & Children’s Hospital, Singapore, SG)
Scientific Programme

Parallel workshop, Sydney

13:30 - 15:00

Regular Workshop Session III - Workshop 15 Comparing Apples to Apples? A Multidisciplinary Examination of the Efficacy of Intensive Interdisciplinary Pain Treatment for Youth with Abdominal Pain, Headache, or Musculoskeletal Pain

Summary of presentation: Chronic pain is common among children and adolescents; 1 in 4 youth experience chronic pain, most commonly headache, abdominal pain, and musculoskeletal pain (King 2011). Chronic pain is highly disabling, including physical impairment, school absence, and disruption in developmental activities. Intensive interdisciplinary pain treatment (IPT) programs see youth with the highest levels of chronic pain and disability who have not succeeded in outpatient treatment. Traditionally, IPT programs were designed for a musculoskeletal pain population, as these patients are often the most impaired from a physical standpoint (e.g., using assistive devices for mobility). In recent years, many IPT programs have expanded their model to treat highly disabled children with various types of chronic pain, including headache and abdominal pain. However, no formal research has examined the efficacy of IPT for patients with non-musculoskeletal pain presentations.

Youth completing IPT programs show robust short- and long-term improvements in pain, function, and psychological outcomes (Hechler 2014). In the pediatric pain literature, there are differences in pain presentation between diagnostic groups; children with musculoskeletal pain have higher levels of functional disability and somatic symptoms compared to children with abdominal pain and headache (Logan 2013). However, in an IPT setting, it is unknown whether pain presentation or program outcome differs between pain diagnostic groups. This workshop includes speakers from three international IPT programs (US and Canada) and two disciplines (psychology and physical therapy) examining differences in functional, psychological, and physical outcomes by various pain diagnostic groups (musculoskeletal, headache, and abdominal pain). Results of their studies show that while some differences exist between pain diagnostic groups in pain presentation, generally all patients benefitted from IPT. Improved understanding of the nuances between pain populations could lead to improved IPT program outcomes and help foster a better partnership with children and families in their care and pain management.


Moderator: Dr. S. Williams (Cincinnati Children’s Hospital, Cincinnati, US)

13:30 - 13:50

Changes in Functional Disability and Pain for Pediatric IPT Patients with Abdominal Pain, Headache, and Musculoskeletal Pain

Dr. S. Williams (Cincinnati Children’s Hospital, Cincinnati, US)
Scientific Programme

13:50 - 14:10
What are the impacts of IIPT? The experiences and perceptions of youth with chronic pain and their parents
K. Hurtubise (University of Sherbrooke, Sherbrooke, CA)

14:10 - 14:30
Psychological Similarities and Differences amongst Pediatric IIPT Patients with Abdominal Pain, Headache, and Musculoskeletal Pain
Dr. C. Conroy (Boston Children's Hospital, Waltham, US)

14:30 - 14:50
Measuring Physical Function and Disability in Children with Non-Musculoskeletal Pain Complaints
J. Shulman (Boston Children's Hospital, Waltham, US)
Parallel workshop, Singapore

13:30 - 15:00

**Regular Workshop Session IV - Workshop 17: Pain in children and adolescents with intellectual and developmental disabilities - time to act!**

Summary of presentation: Children and adolescents with intellectual and developmental disabilities (IDD) are at increased risk for pain as a secondary condition. Etiologies of pain often include surgical, procedural, gastrointestinal, neuromuscular, and rehabilitative-related pain. The likelihood for pain increases with the severity of the disability meaning that those with the most severe impairments are at most risk for pain (Breau et al., 2003), yet this group typically has the least ability to communicate their pain. Disturbances in cognition and communication reduce the individual with IDD’s ability to self-report their pain. Moreover, indicators of pain in this group are often ambiguous, idiosyncratic and diminished, and often misinterpreted by caregivers as caused by stress or agitation (Belew et al., 2014). The last decade of pain research in IDD has focused on the creation of pain assessment tools. While this work has adequately highlighted the problem of pain in IDD and has resulted in multiple pain assessment tools for use in clinical practice; there is little evidence of impact on patient care. In fact, both clinical experience and research indicate that pain is still undertreated (Barney, et al., 2017). The majority of existing research describes the problem, but little research has addressed treatment interventions although there is an urgent need for clinical practice change. The aim of this workshop is to describe current knowledge on pain in children and adolescents with IDD and present examples of dissemination of research findings into clinical practice, as well as ongoing and planned intervention studies.

References:

Moderator: Prof. F. Symons (University of Minnesota, Minneapolis, US)

13:30 - 13:50

**Do we know what we need to know to act now to assess pain in children with IDD?**

Prof. F. Symons (University of Minnesota, Minneapolis, US)

13:50 - 14:10

**Clinical implementation of evidence-based pain assessment and treatment practices in IDD**

Dr. C. Barney (Gillette Children's Specialty Healthcare, Saint Paul, US)

14:10 - 14:30

**Tell us about pain and what will make it better - devising a patient/parent-directed pain intervention in children/adolescents with cerebral palsy - The CPPain-project**

Dr. R.D. Andersen (Telemark Hospital, Skien, NO)
14:30 - 14:50

Let’s Talk About Pain: Improving Respite Workers’ Pain-Related Knowledge and Skill Use Through an Empirically-Informed Training Program

L. Genik (University of Guelph, Guelph, CA)
Scientific Programme

Parallel workshop, Rio

13:30 - 15:00

Regular Workshop Session IV - Workshop 18: The Bigger Picture: The role of social, emotional, and cognitive development in shaping pain responses across early childhood

Summary of presentation: The first years of life are replete with painful events, ranging from everyday scrapes and bruises to pain associated with medical care (e.g., immunizations). The biological process of nociception in early childhood does not develop in isolation. Rather it influences and is influenced by the rapid cognitive and social development. It can be argued that at no time is this confluence of biopsychosocial dimensions of pain greater than in early childhood. For instance, child pain experiences evoke verbal as well as non-verbal parent-child interactions, which considerably evolve with the child’s developing language and communication skills. Further, children’s understanding and self-report of pain rapidly changes with children’s cognitive development throughout the early years. Finally, the influence of pain in infancy cascades far beyond the momentary pain experience affecting children’s short- and long-term cognitive-developmental outcomes (e.g., memory, attention). The proposed symposium will examine how psycho-social aspects of a child’s pain experiences evolve throughout early childhood, most notably influenced by parent-child interactions during everyday pain experiences in home, daycare, and medical contexts, parent-child conversations about past pain, and children’s ability to self-report pain. The panel consists of an international group of scientists from three continents, applying a multi-dimensional developmental lens to pediatric pain research in the clinic, lab, and real-world settings.

At the end of this symposium, attendees will be able to:

- discuss new directions in harnessing the power of parents to manage pain in medical contexts.
- understand more about the development of children’s ability to self-report multi-dimensional aspects of an acute pain experience.
- understand optimal assessment techniques to assess the dynamics of caregiver-child interactions towards preschoolers’ everyday pain experiences within natural settings.
- understand how parents and children reminisce about past autobiographical events involving pain and sadness, as well as how these narratives are associated with children’s prosocial reactions.

References:


Scientific Programme

13:30 - 13:50
Managing infant pain: Is preventing insensitivity better than promoting sensitivity?
Dr. R.R. Pillai Riddell (York University, Toronto, CA)

13:50 - 14:10
Children's ability to provide multi-dimensional self-report of acute pain experiences: Cognitive-developmental factors
Dr. T. Jaaniste (Sydney Children's Hospital, Randwick, Sydney, AU)

14:10 - 14:30
The role of caregiver responses in shaping pre-schoolers pain responses in natural settings
Dr. L. Caes (University of Stirling, Stirling, UK)

14:30 - 14:50
Co-constructing the past: Examining mother- and father-child narratives about past events involving pain versus sadness
M. Pavlova (University of Calgary, Calgary, CA)
Scientific Programme

Parallel workshop, Osaka

13:30 - 15:00

Regular Workshop Session I - Workshop 5: Clinical Application of Mindfulness for Adolescents with Chronic Pain Conditions and their Parents: Lessons learned from In person to e health Modalities.

Summary of presentation: Mindfulness based interventions (MBIs) are emerging as promising interventions to target the distress and uncertainty that often accompany health conditions. Mindfulness is a form of awareness that involves “paying attention on purpose in the present moment, and nonjudgmentally.” In MBIs, individuals with chronic pain are taught to approach rather than avoid painful sensations and assume a dispassionate attitude towards catastrophic cognitions (I can’t stand the pain) and emotions (anxiety and frustration) that often accompany and exacerbate pain. Over time participants learn that while pain may be unavoidable, suffering and distress are optional. While a growing body of research exists to demonstrate the effectiveness of MBIs for adults with chronic pain, studies assessing MBIs for paediatric chronic pain are just emerging. MBIs delivered to adolescents with chronic pain appear to be acceptable and feasible for adolescents attending tertiary care pain clinic and show some encouraging preliminary outcomes. However, in most studies between 30- 50% of those approached to participate in in-person groups are unable to do so because they live too far from hospital. In the current workshop, participants will learn about 1) findings from a research program on an 8 week in- person MBI specifically tailored to adolescents with chronic pain, including session content, experiential exercises and consideration of differences in mindfulness content for chronic versus relapsing/remitting conditions 2) description and results of a 2 x weekly mindfulness group for parents of children with chronic pain and 3) challenges and benefits of providing MBIs online to adolescents, including practical suggestions from a study of adolescents with IBD.


Moderator: Dr. D. Ruskin (Hospital for Sick Children, Toronto, CA)

13:30 - 13:50

Findings from an 8 week In-Person Mindfulness Group: Specific Content Adaptations for Adolescents with Chronic Pain
Dr. D. Ruskin (Hospital for Sick Children, Toronto, CA)

13:50 - 14:10

Mindfulness treatment for parents to support adolescent coping and family functioning.
Dr. D. Wallace (Children’s Mercy hospital, Kansas City, US)

14:10 - 14:30

Providing Acceptance and Commitment Therapy Online to Adolescents: Lessons Learned and Things to Consider
Dr. D. Ruskin (Hospital for Sick Children, Toronto, CA)
Parallel workshop, Samarkand

13:30 - 15:00

**Regular Workshop Session IV - Workshop 20: The Asian experience - Prevalence and Parenting Needs**

Summary of presentation: It is well recognised that parental behaviour and attitudes affect engagement and prognosis for a child with chronic pain. While mainstream thinking about parenting and the parent-child relationship has been largely guided by Western cultural beliefs and images, Asian parenting is typically more authoritarian where parents are seemingly strict with high expectations of the child’s duty to family and society and maintenance of “face” or social standing, through stoicism and self-sufficiency. As such, even admission of pain may be construed as weakness and a source of shame for the family. As a result, parents are much less willing to believe the child in pain, to seek medical help and to engage in psychological therapies. This results in poor awareness and even poorer support in a region where pediatric chronic pain exists indubitably. Fortunately, with the slow occidentalisation of the Asian region, more children and parents are coming forward to seek help for this significant health and socioeconomic scourge.

In this workshop we aim to:

1. examine the prevalence of pediatric chronic pain and associated psychological factors in more than 1000 children across Selangor, Malaysia,
2. describe the psychological profile of the parent-child dyad presenting to our Singapore clinic and expound on the challenges that parents describe in their interactions with their child with chronic pain
3. discuss parental responses to chronic pain and the support that parents of children with chronic pain have expressed through our Pain nurse’s telehealth experience.


Moderator: Prof. Z. Jamil Osman (Cyberjaya University College of Medical Sciences, Cyberjaya, MY)

13:30 - 13:50

**The prevalence of chronic pain amongst adolescents and associated psychosocial factors in Selangor, Malaysia**

Prof. Z. Jamil Osman (Cyberjaya University College of Medical Sciences, Cyberjaya, MY)

13:50 - 14:10

**Understanding parents’ perceptions of their child’s pain and working effectively with them to improve outcomes.**

J. Especkerman (Kandang Kerbau Women’s and Children’s Hospital, Singapore, SG)

14:10 - 14:30

**Asian parenting in a child with chronic pain**

N. Jayakrishnan (KKH, Singapore, SG)
Parallel workshop, Sydney

15:30 - 17:00

**Regular Workshop Session V - Workshop 21: Exploring the critical role of parents in pediatric pain: From managing needles to complex rehabilitation.**

Summary of presentation: Parenting is widely recognised to be rewarding, challenging and a defining life event. Yet, parenting a child who experiences pain can pose additional stressors and challenges for the parent. Such challenges are varied and may include managing needle fear in an acute vaccination setting to liaising with educational professionals in the context of supporting a child with chronic pain to engage with school. Of importance is how parents respond to their child or young person when they are experiencing pain, both acutely and when engaging with pain related treatment. Importantly, it is also critical to consider the impact of such parental outcomes and behaviour on the functioning of young people and parents themselves. Using a variety of complementary qualitative and quantitative methodologies, this symposium will highlight and explore the specific nature of parenting behaviours and cognitions across varied pain acute and chronic pain settings. A particular focus will be placed on critically considering outcomes of parental behaviour for parents, children and young people.

At the end of this symposium, attendees will be able to:

- describe what is known about parenting during pediatric acute pain
- identify the importance of considering non-verbal responses, including vocal cues, facial expressions, and physiology in parent-child interactions during acute pain
- understand how mothers and fathers experience and make sense of ‘resilience’ in the context of parenting a young person with chronic pain.
- reflect on what can be learned from parents who display resilience in terms of promoting better outcomes for young people who experience chronic pain and their parents.
- consider how clinicians can create impactful parent interventions that support change in the child.
- understand parental perceptions of ACT based treatment for pediatric chronic pain.


Moderator: Dr. C.M. McMurtry (University of Guelph, Guelph, CA)
### Scientific Programme

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<tr>
<td>15:30 - 15:50</td>
<td>Parenting in acute pain contexts: State of the art and future directions</td>
<td>Dr. C.M. McMurtry (University of Guelph, Guelph, CA)</td>
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<tr>
<td>15:50 - 16:10</td>
<td>Bouncing back: Parental resilience in the context of pediatric chronic pain</td>
<td>Dr. A. Jordan (University of Bath, Bath, UK)</td>
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<td>16:10 - 16:30</td>
<td>Do parents need to change? Parent mediation of child improvements in interdisciplinary treatment</td>
<td>Dr. J. Gauntlett-Gilbert (Royal United Hospitals Trust, Bath, UK)</td>
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<tr>
<td>16:30 - 16:50</td>
<td>Parent experiences of Acceptance and Commitment Therapy (ACT) treatment for pediatric chronic pain</td>
<td>Dr. M. Kanstrup (Karolinska Institutet, Stockholm, SE)</td>
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Parallel workshop, Singapore

15:30 - 17:00

**Regular Workshop Session V - Workshop 22: Tackling the problem of infant pain relief - multidimensional approaches to assessing analgesics**

Summary of presentation: Despite the short-term effects and possible long-term consequences of pain in early life, pharmacological analgesics are infrequently given for acute painful procedures due to concerns regarding side effects, and a lack of evidence of efficacy or appropriate doses. The necessity to rely on surrogate measures of pain in infants and the ethical challenges associated with conducting clinical trials mean that it can be difficult to assess analgesics in the infant population. In this workshop we will discuss the current evidence for the use of pharmacological interventions for procedural pain in infants, and describe new approaches that can be used to gain a better mechanistic understanding of analgesic action, including multimodal assessments of pain (such as behaviour, physiology and brain activity) and the use of pharmacokinetic and pharmacodynamic modelling.

Why is this workshop of importance?
Infants in neonatal intensive care receive multiple painful procedures a day as part of their essential care. These procedures are thought to have long-term consequences, not only on pain sensitivity but also on brain structure and function, and on cognitive ability. However, analgesics can also have short-term and long-term adverse effects. New approaches to assessing analgesics, which provide a more detailed understanding of efficacy, safety and action in infants, are essential to shed light on optimising analgesic strategies in this vulnerable population.

Fund of knowledge the workshop will provide
This workshop will provide attendees with knowledge of surrogate markers of pain in infants which can be used to assess analgesics; an appreciation of the evidence for the use of different analgesics in infants; and an awareness of how we can gain a better understanding of analgesic action in future clinical trials to optimise efficacy and minimise side effects.


Moderator: Dr. C. Hartley (University of Oxford, Oxford, UK)

15:30 - 15:50

**Investigating analgesic efficacy and safety in infants using physiology**

Dr. C. Hartley (University of Oxford, Oxford, UK)

15:50 - 16:10

**Fentanyl for procedural pain in infants**

C. McNair (University of Toronto, Toronto, CA)

16:10 - 16:30

**Pharmacokinetics and pharmacodynamics of analgesics in infants**

Prof. Dr. J. van den Anker (University of Basel Children’s Hospital, CH)

16:30 - 16:50

**Using noxious-evoked brain activity to assess analgesic efficacy in infants**

D. Gursul (University of Oxford, Oxford, UK)
Regular Workshop Session V - Workshop 23: Mind-body perspectives on chronic post surgical pain in children: role of parent-family interactions, genetics-epigenetics and mindfulness based meditation

Summary of presentation: Challenges in pediatric pain management lead to inadequately treated acute postsurgical pain and a heightened risk for chronic postsurgical pain (CPSP). CPSP occurs in 14.5-38% of the 5 million children undergoing surgery every year. CPSP in adolescents leads to depression, poorer grades, reduced emotional well-being, and attention problems. In fact, 35%-80% of people addicted to prescription opioids report they were first exposed to opioids for legitimate treatment of pain, including postsurgical pain. Opioid prescribing rates among adolescents have nearly doubled from 1994 to 2007, and drug overdose deaths in US teens climbed 19% from 2014 to 2015, from 3.1 to 3.7 deaths per 100,000. Approximately half of these deaths were related to respiratory depression from use of prescription pain relievers. It is a major life stressor for parents and caregivers given the financial and social constraints posed by the need for frequent physician visits. CPSP occurs not only due to widespread transcriptional dysregulation and sensitization throughout the pain neuraxis. Family dynamics, parent-child interactions, psychosocial factors and genetic-environmental interactions play a major role in acute to chronic pain transitions. Our workshop is timely as it provides wide ranging perspectives on parent-child, mind-body connections and neural processes underlying chronic pain transitions in children; speakers will also discuss mechanisms and efficacy of opioid sparing mindfulness based analgesia and anxiety relief for prevention and management of chronic pain. Novel complementary research findings presented by our expert panel of multidisciplinary speakers (pediatric pain clinician-scientist, pediatric psychologist and a basic science mindfulness and brain imaging expert) will be leveraged by psychophysical, psychosocial, pharmacological, systems biology integrated genomic, epigenetic and brain imaging data from clinical research and animal studies.


Moderator: Prof. V. Chidambaran (Cincinnati Childrens Hospital, Cincinnati, US)
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<tr>
<td>15:30 - 15:50</td>
<td>Genomic and epigenetic enriched processes influencing chronic postsurgical pain and anxiety sensitivity in children</td>
<td>Prof. V. Chidambaran (Cincinnati Children's Hospital, Cincinnati, US)</td>
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<td>15:50 - 16:10</td>
<td>Parent-child interactions and psychosocial factors in pediatric chronic postsurgical pain</td>
<td>Prof. C. Sieberg (Boston Children's Hospital and Harvard Medical School, Boston, US)</td>
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<td>16:10 - 16:30</td>
<td>Mindfulness-based analgesia and anxiety relief: efficacy and unique mechanisms regulating pain</td>
<td>Dr. F. Zeidan (Wake Forest School of Medicine, Winston-Salem, US)</td>
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Scientific Programme

15:30 - 17:00

Parallel workshop, Osaka

Regular Workshop Session V - Workshop 24: Quantitative Sensory Testing in Pediatric Pain: Methods, Perspectives and Applications

Summary of presentation: Quantitative Sensory Testing (QST) is a non-invasive method that has been used extensively in clinical pain research over the past 3 decades. The term QST collectively refers to a group of procedures that assess perceptual responses to sensory stimuli with the purpose of assessing somatosensory function. QST has significantly advanced our understanding of the neurobiological mechanisms and psychosocial influences that underpin typical and atypical sensory processing in adults, which in turn, has aided in the identification and refinement of tailored pain therapies. QST has more recently been applied to pain research in children. However the application of QST to pediatric populations has seen unique challenges, such as the complexity of somatosensory development across childhood. There also remains variability in its use with children. This workshop will provide a comprehensive overview of the use of QST in pediatric pain and will present cutting edge research using this modality to assess sensory processing in children. In this workshop, an international and interdisciplinary panel of speakers will discuss the utility and practical use of various QST paradigms (e.g., sensory phenotyping, conditioned pain modulation), present data on sensory profiles of various clinical populations (e.g., children with neurodegenerative disorders, children with chronic pain, young adults born extremely preterm), and share QST applications for the development of novel therapeutics. Common ethical and methodological issues associated with the use of QST in children, and strategies for dealing with these issues, will be presented. Finally, perspectives on meaningful patient and family engagement in QST studies will be discussed. This workshop has relevance for clinicians and scientists working in a broad range of domains including: neuroscience, translational research, psychosocial care, and medical management of pediatric pain.

References:


Moderator: Dr. S. Walker (University College London, London, UK)

15:30 - 15:50

Conditioned Pain Modulation in Children, Adolescents, and Young Adults
Dr. S. Walker (University College London, London, UK)

15:50 - 16:10

Bridging Bench and Bedside: Developing Novel Therapies for Sensory Abnormalities in Children
L. Cornelissen (Harvard Medical School, Boston, US)
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<tr>
<td>16:10 - 16:30</td>
<td>QST in Pediatric Patients with Cerebral Palsy (CP) Implicates a Neuropathic Genesis of Pain Syndromes</td>
<td>M. Blankenburg (Olga hospital, Klinikum Stuttgart, Stuttgart, DE)</td>
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<tr>
<td>16:30 - 16:50</td>
<td>Practical Perspectives on the Use of QST in Pediatric Pain Research</td>
<td>P. Tutelman (Dalhousie University, Halifax, CA)</td>
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Parallel workshop, Samarkand

15:30 - 17:00

Regular Workshop Session III - Workshop 14 Bringing pediatric pain management into the 21st century: Using learning health systems to engage patients and families in individualized pain assessment and treatment

Summary of presentation: How do learning health system (LHS) registries help actively engage patients and families in treatment and research?

LHS registries allow for cross-discipline collaboration to guide research and facilitate precision healthcare in the treatment of chronic health conditions. Our symposium focuses on the development and implementation of several such registries of patient-reported health status in the field of pediatric chronic pain: Peds CHOIR-Pediatric Collaborative Health Outcomes Information Registry, Riley Hospital Pediatric Pain Registry, and WeCOPE-WEb-based Comprehensive Pain Evaluation. In the seminal 2011 report Relieving Pain in America, the Institute of Medicine identified the need for better pain data, calling for the development of national registries and LHS. LHS utilize technology to partner with patients and clinicians, to continuously improve the accuracy of assessment and offer support for clinical decision making. LHS registries help us answer questions such as: how can we target assessment to meet this patient’s/family’s goals, what strategies will engage patients and families in treatment most effectively, how can we measure treatment impact, and can we personalize care based on patient needs and values? They also foster multi-site research collaborations, imperative for advancing the knowledge in our field.

Advantages of LHSs will be highlighted including: enable large trial designs and longitudinal outcomes research; facilitate point-of-care decision making; integrate standardized measures providing validated comparative metrics across groups; offer computer adaptive testing to decrease respondent and provider burden; facilitate collaboration across providers, clinical settings, and multisite comparisons.

Symposium aims are: (1) review how LHS can inform precision medicine, actively engage patient/family in treatment, enhance clinical intervention and research in pediatric pain conditions, (2) outline steps in developing local and national LHS, and (3) present case illustrations to showcase the uses of LHS registries and provide guidance on leveraging LHS for optimal, individualized pain management.


Moderator: Dr. R. Bhandari (Stanford University School of Medicine, Menlo Park, US)

15:30 - 15:50

Leverage LHS registries to actively engage the patient and family in pain management treatment

Dr. R. Bhandari (Stanford University School of Medicine, Menlo Park, US)
Scientific Programme

15:50 - 16:10
What to consider when implementing a LHS registry
Dr. E. Scott (University of Michigan, Ann Arbor, US)

16:10 - 16:30
How an LHS fosters a shared understanding of youth presenting with overlapping pain conditions
Dr. D. Logan (Boston Children’s Hospital, Boston, US)

16:30 - 16:50
Utilization of Learning Health Systems to enhance clinical intervention and research in pediatric chronic conditions
M. Miller (Indiana University-Purdue University in Indianapolis, Indianapolis, US)

17:00 - 17:40
Special Lecture

17:00 - 17:40
How to address pediatric pain management in a humanitarian setting: practical insights from MSF on challenges and successes in the field
Dr. J. Brandenberger (Médecins Sans Frontières, Geneva, CH)
Scientific Programme

Wednesday, 19 June 2019

Other session, Sydney

08:00 - 09:00  Media Festival

Congratulations to:
Kathryn Birnie & Jen Stinson
Christine Chambers
Rachael Coakley
Amanda Feinsten
Kirsten Hanrahan
Denise Harrison
Sana Minhas
Tanuja Nair
Laura Seidman & Team
Bill Zempsky
Boris Zernikow

Their videos submitted to the Media Festival have been accepted. Sections from these videos covering different aspects of pediatric pain will be screened on Wednesday 19 June at 8am in Basel, Switzerland at the Media Festival between 8-8.45am.

There will be an on-stage discussion between the winners, the audience and comments from the Media Festival Judges between 8.45-9am

Chair: Dr. L. Kuttner (CA)
Summary of presentation: Chronic pain affects 11% - 38% of children and adolescents, impairing emotional well-being, academic success, and social engagement. It represents a persistent multifaceted condition that involves neurological, psychological, and environmental interrelated processes. Moreover, it is frequently resistant to pharmacological treatment and the longterm effectiveness of psychological interventions may remain uncertain.

Randomized controlled trials comparing analgesic drugs with placebos have consistently revealed strong placebo effects. Thus, the placebo component of any genuine analgesic treatment is hypothesized to contribute significantly to the therapeutic effect of any treatment.

Recent studies show that placebo effects are strong and consistent in pediatric drug trials. However, the mechanisms underlying these responses in children, as well as the cognitive and neural correlates of how learning, expectations and executive function shape placebo-induced analgesia remain poorly understood. Current knowledge raises critical and unanswered questions about the placebo effect in children. If placebos are not ‘nothing’, then what are they? Namely, what is the functional capacity/limitations of placebos in the pediatric pain context, and can we harness their power to manage pain in children?

This workshop will review the developmental character (i.e. age, cognition) of the placebo effect in children, how experimental manipulations of leaning/conditions influence sensory perception and explore ways to harness its developmental character as a way to use the placebo effect in managing complex childhood pain. In particular, this workshop will focus on learning mechanisms, such as classical conditioning, and how this might influence thermal sensory perception in children. We will discuss how these relationships can be mediated by executive functioning, personality traits and states of self-efficacy, as well as the implications these findings might have for future research and clinical care.


Moderator: Dr. T. Oberlander (University of British Columbia, Vancouver, CA)
Scientific Programme

09:45 - 10:05
Executive Function mediates the association between sensory discrimination of thermal stimuli and the nocebo effect in youth
Dr. R. Neuenschwander (University of Bern, Bern, CH)

10:05 - 10:25
Internal states of low self-efficacy can induce learned nocebo effects on thermal sensation in youth
E. Weik (University of British Columbia, Vancouver, CA)

Parallel workshop, Singapore

09:05 - 10:35
Regular Workshop Session VI - Workshop 27: Rare pain disorders - stories of pins and needles, of genes and of success!

Summary of presentation: All over Europe and USA health care systems try to improve the early diagnosis and adequate treatment of people with rare conditions. Many of the rare diseases are associated with pain and some are also life-limiting like severe forms of Epidermolysis bullosa. A subgroup of rare conditions are pain conditions (like erythromelalgia or paroxysmal hemicrania) and some rare pain diseases are sub-types of more common pain conditions like migraine (f.e. hemiplegic migraine). Additionally, digital and genomic advances have given rise to a new era of individualized medicine, which could potentially lead to a better understanding, diagnosis and treatment of both rare and common pain phenotypes. Combining digital approaches to track patient’s symptoms, behaviors, functionality and quality of life over time in response to interventions with analytical approaches that examine the associations between phenotype and genotype are key components in the development of more effective and personalized pain treatment. Research and publication on rare pain conditions is sparse and exchange of knowledge during congresses is even more important as in pain conditions that are heavily studied from several research groups around the world. Therefore the workshop will provide new data and the opportunity to exchange personal experience on rare paediatric pain conditions.

2. Kossowsky et al. Association between genetic variants and clinical symptoms among sub-classes of migraine and probable migraine. In prep

Moderator: Prof. Dr. B. Zernikow (DE)

09:05 - 09:25
Paroxysmal hemicrania and other trigeminal autonomic cephalalgias in children - from symptoms to long term outcome!
Prof. Dr. B. Zernikow (DE)

09:25 - 09:45
Erythromelalgia, paroxysmal extreme pain and related conditions - genes and challenges
Prof. C. Berde (Boston Children’s Hospital, Boston, US)

09:45 - 10:05
Migraine or Carl the chameleon - spooky phenotypes and wild genotypes
Dr. J. Kossowsky (University of Basel, Basel, CH)
Scientific Programme

Parallel workshop, Rio

09:05 - 10:35

**Regular Workshop Session VI - Workshop 28: Promoting Psychological Flexibility in Youth with Chronic Pain: Evidence from Acceptance and Commitment Therapies**

Summary of presentation: Chronic and recurrent pain in children and adolescents results in physical, emotional, and social symptoms that negatively impact all aspects of quality of life. It is crucial to find transdiagnostic approaches to support management of chronic pain in these youth and their families. Acceptance and Commitment Therapy (ACT) is one model of treatment which has demonstrated versatility in its ability to address both physical and emotional experiences simultaneously. The focus of ACT is on fostering greater psychological flexibility; the ability to respond flexibly in the presence of external stressors and unwelcome, internal, thoughts, feelings, and physical sensations. It is therefore ideally suited to children and adolescents living with chronic or recurrent pain. There is a growing body of empirical support for ACT with adolescents and adults living with chronic pain (e.g., McCracken & Morley, 2014; Wicksell et al., 2007, 2011). This session aims to provide evidence to support the use of ACT in pediatric chronic pain as well as demonstrate ways to incorporate ACT into clinical practice.

This symposium will review research on ACT in a varied sample of youth living with chronic or recurrent pain conditions. First, Dr. Goubert will demonstrate how mindfulness and psychological flexibility, byproducts of ACT, influence and predict functioning in pediatric samples living with chronic pain and those undergoing scoliosis surgery. Next, Dr. Ahola Kohut will review the impact of mindfulness and ACT in adolescents living with inflammatory bowel disease. Lastly, Dr. Holmström will present results of an open trial of ACT for children with chronic pain.


Chair: Dr. R. Wicksell (Karolinska University Hospital, Stockholm, SE)

09:05 - 09:25

**Psychological flexibility as a predictor of physical and psychosocial functioning in youth with chronic pain and youth undergoing a major surgery**

M. Beeckman (Ghent Health Psychology Lab, BE)

09:25 - 09:45

**Acceptance and Commitment Therapy in Adolescents with Inflammatory Bowel Disease: Living with Uncertainty and Relapsing and Remitting Pain**

Dr. D. Ruskin (Hospital for Sick Children, Toronto, CA)

09:45 - 10:05

**Open clinical trial of Acceptance and Commitment Therapy for Children and Adolescents with chronic pain - outcome and characteristics of responders**

Dr. R. Wicksell (Karolinska University Hospital, Stockholm, SE)
Regular Workshop Session VI - Workshop 29: Pain in chronic critically ill children: How can parents and families help?

Summary of presentation: why is this workshop of importance and what fund of knowledge will it provide? (300 words) Pain management in chronic critically ill children is challenging, because these children experience numerous stressful and painful events that often require continuous analgesia and sedation. However, prolonged sedation increases the risk for delirium and benzodiazepine withdrawal syndrome. A pre-requisite of appropriate management involves adequate assessment of the child’s pain and consideration of the wider context including the child’s pain history, their response to pain and what interventions and strategies have been used in the past. The child’s parents often have considerable experiential knowledge and expertise in relation to managing their child’s pain and comfort. This knowledge and skill set will often have been developed over months and years of providing care to their child within the home setting. Parents develop expertise and are able to ‘read’ their child’s body language, are often able to differentiate between pain and distress and they know what has worked and what has not worked in relation to their child’s pain management. However, parents and families are rarely involved in the process, so their critically important contribution can be overlooked or ignored leading to suboptimal management of the child’s pain. This workshop considers the particular challenges faced by professionals working within children’s intensive care and managing the pain of a child with a chronic illness. The workshop also focuses on the experiences of parents and families as well as and how health professionals can best prepare parents to engage effectively in their child’s pain care.


Moderator: Prof. Dr. A.S. Ramelet (CH)
Parallel workshop, Samarkand

09:05 - 10:35

Regular Workshop Session VI - Workshop 30: Ethics of conducting and publishing placebo/no treatment trials of analgesic effects of pain treatments for acute procedural pain in infants

Summary of presentation: High quality evidence suggests that breastfeeding healthy infants up to 12 months of age; providing skin-to-skin care for preterm infants, and giving small volumes of sucrose or glucose to preterm and term newborns and infants up to 12 months of age all produce analgesic effects during short lasting needle related procedures in infants. Given this strong evidence-base, there is no longer uncertainty about the effectiveness of these strategies in reducing pain during commonly performed painful needle related procedures of heel lance, venipuncture or vaccinations.

Nevertheless, studies evaluating analgesic efficacy and other pain treatments continue to be published that include placebo/no treatment group trials including preterm newborns, term newborns, and young infants beyond the neonatal period. The question of whether such studies breach the principal of Equipoise has been debated in the pediatric pain world.

This workshop, using the example of sweet solution analgesia, a much debated pain management strategy, will include a summary of the evidence to date along with arguments for and against continued exploration and subsequent publication of this pain management strategy. The workshop presenters include a clinical researcher, a journal section editor and an ethicist, who between them, will present on this important and controversial topic, highlighting the ethics of neonatal and infant pain research globally, and where such studies stand in terms of the set of ethical principles regarding human experimentation in the Declaration of Helsinki.


Moderator: Prof. D. Harrison (CHEO and University of Ottawa, Ottawa, CA)

09:05 - 09:25

Ethics of conducting placebo/no treatment trials of analgesic effects of sweet solutions in newborns and young infants

Prof. D. Harrison (CHEO and University of Ottawa, Ottawa, CA)

09:25 - 09:45

Ethics of publishing placebo/no treatment trials in pediatric pain

Prof. C. Chambers (IWK and Dalhousie University, Halifax, CA)

09:45 - 10:05

Biomedical ethics perspectives of the controversy surrounding placebo/no treatment groups in acute pain studies on infants

A. Shriver (University of Oxford, Oxford, UK)
Scientific Programme

11:00 - 11:45

**Plenary session, Sydney**

**Plenary VII**

Chair: Dr. J. Rabbitts (Seattle Children’s Hospital, Seattle, WA, US)

11:00 - 11:45

**Intergenerational pain transmission**
Prof. Dr. A.C. Willson (US)

Other session, Sydney

11:45 - 12:30

**General meeting of members, IASP SIG on Pain in Childhood**

Poster session, Poster exhibition

13:00 - 13:45

**Author Attended Poster Session 3**

**Impact of toddler sex on the relationship between caregiver and toddler co-regulation during vaccinations in the second year of life**
O. Bucsea (York University, Toronto, CA)

**Children’s previous pain experience relates to parent physiological, not self-reported, responses to their child’s completion of the cold pressor task**
K. Constantin (University of Guelph, Guelph, CA)

**Pain management after discharge from pediatric emergencies**
Dr. B. Hallopé (Hopital Robert Debré, Paris, FR)

**Neural mechanisms underlying fear conditioning in youth with chronic pain: examination of subcortical brain structure**
M. Heirich (Stanford University School of Medicine, Palo Alto, US)

**Obsessive-compulsive traits in youth with chronic pain**
Dr. R. Holloway (Keck USC School of Medicine, Los Angeles, US)

**Pain in Lebanese children with cancer**
Dr. D. Madi (American University of Beirut, Beirut, LB)

**Attentional biases in pediatric chronic pain: preliminary evidence from a longitudinal eye tracking study on pain and mental health in youth**
S. Soltani (University of Calgary, Calgary, CA)

**Quantitative sensory testing influences treatment in paediatric chronic pain interdisciplinary clinic**
A. Bruneau (McGill University, Montreal, CA)

**Do cerebral representations of heat pain change from early adolescence to adulthood?**
Dr. M.-E. Hoeppli (Cincinnati Children’s Hospital Medical Center, Cincinnati, US)
Moderate to severe pain days in hospitalized children
Dr. C. LaFond (University of Chicago Medicine, Chicago, US)

IDEA (Impact Douleur Enfant Adolescent): quantitative and qualitative description of children and adolescents referred to 14 French outpatient pediatric pain clinics
Dr. J. Avez-Couturier (CHU Lille, Lille, FR)

Pain experience, physical function, pain coping, and catastrophizing in children with sickle cell disease who had normal and altered sensory patterns
I. Baldwin (Drexel University, Philadelphia, US)

Growing pains and restless legs syndrome: aetiological implications of improved phenotypic definitions
D. Champion (Sydney Children’s Hospital, Randwick, Sydney, AU)

Evaluation of therapeutic bath pain management practices in burned children
P. Cimerman (Hopital Trousseau, Paris, FR)

Noxious-evoked responses in neonates after experimental stimulation of the hand, foot and thigh
M. Cobo (University of Oxford, Oxford, UK)

Diagnosing complex regional pain syndrome (CRPS) in children: evaluation of the Budapest Criteria
Y. Friedrich (Boston Children’s Hospital and Harvard Medical School, Boston, US)

Pain management policies and practices across Portuguese pediatric emergency departments
C. Abadesso (Hospital Prof. Doutor Fernando Fonseca, Lisboa, PT)

Efficacy and safety of 2-chloroprocaine infusions via paravertebral catheters for postoperative analgesia in infants undergoing major thoracic or abdominal surgeries
Dr. C. Greco (Boston Children’s Hospital and Harvard Medical School, Boston, US)

Measurement and modulation of noxious-evoked brain activity following immunisation
D. Gursul (University of Oxford, Oxford, UK)

Do children’s self-reports differ from the proxy reports of fear levels during needle procedures in children with cancer?
L. Hedén (University of Borås, Borås, SE)

Associating circulating inflammatory cytokines with perioperative pain in adolescents undergoing spinal fusion surgery: an exploratory study
J.J. Liao (Shriners Hospitals for Children-Canada, Montreal, CA)

Pain in a pediatric emergency department
C. Abadesso (Hospital Prof. Doutor Fernando Fonseca, Lisboa, PT)

Characterization of persistent pain in adolescents with sickle cell disease
Dr. S. Martin (David Geffen School of Medicine at UCLA, Los Angeles, US)
Virtual reality analgesia during burn wound debridement of children with large severe burns who do have vs. who do not have Acute Stress Disorder symptoms
Prof. W. Meyer (Shriners Hospitals for Children-Galveston, Galveston, US)

Can parent and infant behaviours during vaccination tell us about preschool attachment status?
M. O’Neill (York University, Toronto, CA)

The impact of parental protective behavior upon child pain behavior in the context of cancer-related painful procedures: the moderating role of parental self-oriented distress
E. Rheel (http://www.paininmotion.be, Jette, BE)

It hurts but I’m fine! How self-determination theory helps in understanding resources mechanisms in adolescents with chronic pain
A. Riggenbach (Université de Lausanne, Lausanne, CH)

Gestational age in the validation of the Bernese Pain Scale for Neonates
K. Schenk (Bern University of Applied Sciences, Bern, CH)

Children’s fear and pain during needle-injection. Preliminary results from a qualitative observational study of children 5-15 years, parents and nurses during a training session for home-administration
K. Sørensen (Oslo University Hospital, Oslo, NO)

Le Trouillomètre - The Scary Scale: a self-report fear scale validated for children aged 6 to 12 years old
S. Thurillet (Hôpital Mère Enfant, Limoges, FR)

Munchausen by proxy in 50 children with chronic pain
Dr. B. Tourniaire (Trousseau Hospital, Paris, FR)

Toward understanding children's experience of having a parent with chronic pain: a focus group study
Prof. T. Vervoort (Ghent University, Ghent, BE)

Feasibility of a novel test battery for a paediatric interdisciplinary pain program including accelerometry, quantitative sensory testing and sensitivity to physical activity
E. Woods (Child and Adolescent Health Service Western Australia, Perth, AU)

Adolescent risk and resilience profiles and their associations with treatment compliance in pediatric chronic pain: a person-centered analysis
Dr. R. Aggarwal Dutta (Nemours/AI duPont Hospital or Children, Wilmington, US)

Using the Canadian Occupational Performance Measure to understand adolescents’ priorities in intensive interdisciplinary rehabilitation treatment for persistent pain
Dr. A. Baerveldt (Holland Bloorview Kids Rehabilitation Hospital, Toronto, CA)

Development of an intervention to improve the management of painful procedures in neonates
C. Balice (University of Lausanne / Ente Ospedaliero Cantonale, Bellinzona, CH)
External cold and vibration for pain management of children undergoing needle-related procedures in the emergency department: a randomized controlled non-inferiority trial
Dr. S. Le May (University of Montreal, Montreal, CA)

Family history of pain is associated with musculoskeletal pain in children and adolescents: systematic review with meta-analysis
Dr. A. Borges Dario (The University of Sydney, Sydney, AU)

Exploring the relationship between parent pain perceptions and treatment adherence in children with arthritis
Y. Brandelli (Dalhousie University, Halifax, CA)

Inpatient treatment of pediatric complex regional pain syndrome at tertiary care facilities in the US
J. Fanelli (Lurie Children’s Hospital, Chicago, US)

At their fingertips: the effects of child-led distraction using a tablet computer on children's distress and pain during painful medical procedures; a randomised controlled trial
J. Ferullo (Curtin University, Bentley, AU)

How children and parents want to improve communication with health care providers
Prof. A. Fjellman-Wiklund (Umeå University, Umeå, SE)

Capturing pediatric headache at-risk populations for brief pain biofeedback/cognitive-behavioral treatment
Dr. K. Fleischman (Boston Children's Hospital and Harvard Medical School, Boston, US)

Saliva-extracted DNA is a noninvasive DNA sampling technique for examining epigenetic modifications in pediatric pain research
Dr. L.A. Hatfield (University of Pennsylvania, Philadelphia, US)

The significant hospital and safety barriers encountered during placement of a novel tunneled intrathecal catheter for metastatic cancer pain
Dr. E. Holland (Seattle Children's, Seattle, US)

Dexmedetomidine reduces opioid requirements but prolongs length of stay after same day adenotonsillectomy
Dr. C. Houck (Boston Children's Hospital, Boston, US)

Resilience beyond risk: pain self-efficacy mediates the association between protective parenting behavior and functional outcomes in youth with chronic pain
Dr. S. Huestis (Stanford University School of Medicine, Menlo Park, US)

Procedural pain management: patients' report on efficacy of numbing device for venepunctures in the Asian outpatient paediatric setting
N. Jayakrishnan (KKH, Singapore, SG)
Chronic pediatric pain interference in activities of daily living: do we see eye to eye?
Dr. A.N. Junghans-Rutelonis (Children's Hospitals and Clinics of Minnesota, Minneapolis, US)

Best treatment option(s) for patients with chronic primary musculoskeletal pain: protocol for a network meta-analytic approach
Dr. H. Köchlin (Universität Basel, Basel, CH)

Decreasing recurrent pain and anxiety in medical procedures with a paediatric population (DREAM): a pilot study
Dr. S. Le May (University of Montreal, Montreal, CA)

How can children with juvenile arthritis be more involved in health care?
V. Lundberg (Umeå University, Umeå, SE)

IV acetaminophen stewardship for children's appendectomy pain management
R. Manworren (Ann & Robert H. Lurie Childrens Hospital of Chicago & Northwestern University, Chicago, US)

The mediating role of anger in the relationship between pain-related injustice appraisals and pain outcomes in pediatric chronic pain
M. Miller (Indiana University-Purdue University in Indianapolis, Indianapolis, US)

A ‘dyadic dance’: pain catastrophizing as a moderator of daily relationships between parent protective responses, mood and youth pain
A. Neville (University of Calgary, Calgary, CA)

Managing low pressure headache in the paediatric population
Dr. S. Rastogi (Great North Children's Hospital, Newcastle-upon-Tyne, UK)

A multi-modal, peri-operative treatment guideline to decrease opioid use and length of stay on post operative pediatric spinal fusion patients
M. Reynolds (Seattle Children’s Hospital, Seattle, US)

Should pyeloplasties have pumps? An audit of post-operative analgesic regimes of children undergoing pyeloplasty
F. Richards (Great Ormond Street Hospital for Children NHS Foundation Trust, London, UK)

Reduced perceived stress and improved parenting behaviours in parents of children with chronic pain following use of a mindfulness and psychosocial support mobile application
L. Seidman (UCLA, Los Angeles, US)

Analgesia for percutaneous central venous catheter insertion in neonates: a systematic review
Dr. V. Shah (Mount Sinai Hospital, Toronto, CA)

'If I was hurting, I probably wouldn’t be thinking about mindfulness' - a qualitative investigation of mindfulness in pediatric chronic pain
S. Shih (Georgia State University, Atlanta, US)
Does treating Vitamin D deficiency in children and adolescents with chronic pain improve their functioning?
Dr. C. Soprano (Nemours/A.I. DuPont Hospital For Children, Wilmington, US)

Preliminary support for improvements in parents’ responses to children’s chronic pain with a moderate level of parent intervention in an intensive interdisciplinary pain rehabilitation program
Dr. M. Tsai Owens (Seattle Children’s Hospital, Seattle, US)

Live lullaby singing during painful procedures in preterm and term infants
A. Ullsten (Örebro University, Örebro, SE)

A case series comparing the effectiveness of a bespoke interdisciplinary paediatric inpatient therapy programme in Asia
M.M.Y. Yeong (KK Women’s & Children’s Hospital, Singapore, SG)

Users’ evaluation of an e-learning curriculum on neonatal pain assessment in Portuguese (Brazil): the Programa de Avaliação da Dor Neonatal (PAD-Neo)
Dr. M. Bueno (The Hospital for Sick Children, Toronto, CA)

Parental perceptions of how prepared they are for their child’s painful burns dressing changes: a Qualitative Study
J. Butler (University of Queensland, Brisbane, AU)

Fitting the square peg into the round hole! A standardised approach to therapeutic intervention in children with complex pain, is it possible?
T. Jones (John Hunter Children’s Hospital, HNELHD, Newcastle, AU)

Adolescent pain science education: consensus on learning objectives
H.B. Leake (University of South Australia, Adelaide, AU)

Continuous fascia iliaca compartment block as an alternative in the treatment of a persistent hip pain: a case report
Dr. A.C. Lopes Pinheiro (Hospital Municipal Jesus, Rio de Janeiro, BR)

Integration of patient reported outcomes to assess postoperative pain: feedback from parents
S. Minhas (Lurie Children’s Hospital, Chicago, US)

A developmental cost analysis of pediatric chronic pain
A. Rajagopalan (Stanford University School of Medicine, Palo Alto, US)

Painful procedures predominate in memory of adult survivor of childhood cancer
Prof. I. Nuchprayoon (Chulalongkorn University, Bangkok, TH)

Pain prevalence in hospitalized children with cancer: a prospective cross-sectional survey
Dr. C. Ugaz Olivares (Instituto Nacional de Enfermedades Neoplasicas, Lima, PE)

Ultrasound-guided Quadratus Lumborum Block versus caudal block for postoperative analgesia in children undergoing acute diseases of the abdominal cavity
B. Zaletskyi (Vinnitsa National Medical University, Vinnitsa, UA)
Scientific Programme

Other session, Sydney

13:45 - 14:15

Trainee Poster Prize Presentation

Plenary session, Sydney

14:15 - 15:00

Plenary VIII - Early Career Award

Dr. Tine Vervoort
Ghent University, Belgium

Tine Vervoort is a Research Professor at the Department of Experimental-Clinical and Health Psychology, Ghent University, Belgium. Dr. Vervoort came to her career as a research psychologist interested in pediatric psychology with a background in psychiatric (child/adolescent) nursing and clinical psychology. Having completed her PhD in clinical psychology on social determinants of child pain expression she has systematically conceptualized the dynamic interaction between children in pain and caregivers in terms that facilitate empirical study of family socialization and social context as determinants of child pain experience.

Drawing upon an affective-motivational account of pain, she has developed a theoretically integrative and clinically informative program of research addressing

1) (social) determinants of child pain expression and experience
2) the role and interrelationship of child pain-related attention and memory biases
3) the role of observer emotion regulation in understanding observers’ emotional and behavioural responses and, most recently
4) the nature and role of parental and child injustice appraisals in the context of child pain.

Her work has been presented at numerous international congresses and published within internationally peer-reviewed papers. She is likewise the recipient of a number of prestigious national and international awards/grants. She is also the proud mother of 4 boys.

Plenary session, Sydney

15:00 - 15:45

Plenary IX - Distinguished Career Award

Prof. Dr. Ruth Grunau
University of British Columbia, Vancouver, Canada

Dr. Ruth Grunau has a PhD in Psychology and is a Professor in the Neonatology Division, Dept. of Pediatrics, University of British Columbia, and Senior Scientist in the BC Children’s Hospital Research Institute. She is a pioneer in the field of infant and childhood pain. Her early research produced the first tool to quantify infant pain, still widely used today. She went on to use physiological, hormonal, behavioral and more recently, brain-based approaches to show the long-lasting adverse effects of pain and stress in premature babies. Her work has had a major influence upon the management of pain in infancy.
Scientific Programme

Parallel workshop, Sydney

16:15 - 17:45

**Regular Workshop Session VII - Workshop 31: Primary Care - Prevention of pain chronification starts here!**

Summary of presentation: Functional pain in children and adolescents is a common and increasing health care problem. Primary care is usually the first point of contact for these patients. If this treatment is successful, pain chronification can be prevented. However, we know that many primary care physicians lack confidence when confronted with a child with recurrent pain of unknown origin, which may arise from uncertainties regarding the diagnostic approach and the appropriate treatment.

To date, limited information is available on pediatric primary care treatment for functional pain and its impact for the patient. Therefore, this workshop aims to provide detailed information on the patient group, the treatment provided and the effectiveness of treatment. Additionally, new ideas on how to incorporate psychological approaches into primary care are presented.

References:


Moderator: Dr. J. Wager (Children’s and Adolescents’ Hospital, Datteln Witten/Herdecke University, Datteln, DE)

16:15 - 16:35

**Patient and parents expectations in primary care - What are physicians supposed to do?**

Dr. J. Wager (Children’s and Adolescents’ Hospital, Datteln Witten/Herdecke University, Datteln, DE)

16:35 - 16:55

**The course of abdominal pain in primary care - Can we predict outcome?**

Dr. J. Wager (Children’s and Adolescents’ Hospital, Datteln Witten/Herdecke University, Datteln, DE)

16:55 - 17:15

**New treatment approaches in primary care - Can we improve outcome?**

Prof. C. Liossi (University of Southampton, Southampton, UK)
Parallel workshop, Singapore

16:15 - 17:45

**Regular Workshop Session VII - Workshop 32: Sex and gender effects on pediatric pain: evidence from healthy and chronic pain patients**

Summary of presentation: Sex differences have a profound influence on pain. Abundant evidence demonstrates that females have higher prevalence of chronic pain and higher pain sensitivity to experimental pain. Interestingly, this divergence in pain sensitivity between the sexes emerges during adolescence. Substantial development occurs across early life and childhood in many of the biopsychosocial areas related to the pain experience, with adolescence in particular representing a critical period of change. Some of the changes hypothesized to be particularly relevant to the development of sex differences in pain include emerging sex hormones, cognitive changes in executive functioning and emotion regulation, identity development, and shifting social influences. Gender role is a psychosocial mechanism that likely influences sex differences in how pain is experienced, expressed, and interpreted by others, however, the interplay between gender and sex and their effect on pain are unclear. Most evidence on sex and gender differences in pain stem from studies in adults. Better understanding of these effects in youth, and how they emerge over the course of development, will lead to better understanding of pediatric pain and improve pain management. Related to actual sex differences, it is critical to understand how adult (e.g., parents, health care providers) observers of children’s pain – who are likely making diagnostic and treatment decisions – perceive differences in pain across gender. Specifically, there are data to suggest that adults hold implicit and explicit gender biases that impact their ratings of acute pediatric pain. The present workshop aims to take a developmental perspective to understanding the effects of sex and gender on the pediatric pain experience, considering the effects of early life through adolescence, and the role of adults (e.g., parents, health professionals) in shaping and assessing this experience.


Moderator: Dr. H. Nahman-Averbuch (Cincinnati Children’s Hospital Medical Center, Cincinnati, US)

16:15 - 16:35

**The role of puberty on sex differences in pain**
Dr. H. Nahman-Averbuch (Cincinnati Children's Hospital Medical Center, Cincinnati, US)

16:35 - 16:55

**A developmental perspective on sex differences in pain**
Prof. C. Chambers (IWK and Dalhousie University, Halifax, CA)

16:55 - 17:15

**Gender Biases in Adult Pediatric Pain Ratings**
Prof. L. Cohen (Georgia State University, Atlanta, US)
Scientific Programme

Parallel workshop, Rio

16:15 - 17:45

Regular Workshop Session VII - Workshop 33: Virtual Reality and Pain Management: The reality of VR for managing procedural pain in children suffering from acute or chronic pain

Summary of presentation: Hospitalized and outpatient pediatric procedures such as burn wound care, venipunctures, chemotherapy treatments are considered painful and generate significant anxiety in children. Children tend to apprehend the pain and show signs of distress (cries, agitation, fear, anxiety) even before the procedure is even initiated. Procedural pain is still largely managed pharmacologically mostly through the use of opioids, benzodiazepines and other pharmacological agents which cause a lot of side effects and do not always provide sufficient pain reduction. Neither simple analgesia nor topical anesthetics proved effective for pain reduction in this population for these procedures. Moreover, opioids and procedural sedation do not appear to be feasible alternatives as they require surveillance, prolonging the time of the procedure added to their several undesired side effects. Therefore, it would be imperative to explore non-pharmacological pain management methods as they require minimal preparation and are usually not accompanied by side effects. Recently, the effectiveness of multimodal approaches combining medication with non-pharmacological interventions for procedural pain relief has been highlighted. Distraction techniques engaging multiple senses may grab the child’s attention more than the techniques that only engage one sense (e.g. music), hence, the increasing interest in more immersive and interactive methods of distraction such as Virtual Reality (VR). VR is an active distraction method that allows the user to interact with an immersive environment generated by a computer stimulating different senses. Not only has VR shown promise for pain reduction in different settings but its positive effect has also been reported on anxiety and general distress during painful medical procedures.

Our workshop aims to present studies showing how VR can be used as a distraction method for procedural pain management of children from various clinical environments and suffering from acute or chronic pain.


Moderator: Dr. S. Le May (University of Montreal, Montreal, CA)

16:15 - 16:35

The reality of Virtual Reality for managing acute and chronic pain

Prof. J. Gold (University of Southern California, Los Angeles, US)

16:35 - 16:55

Distraction using Virtual Reality for procedural pain management in children undergoing orthopedic and burn care

Dr. S. Le May (University of Montreal, Montreal, CA)

16:55 - 17:15

Virtual Reality distraction for Adolescents with Cancer undergoing painful procedures

Dr. J. Stinson (Hospital for Sick Children, Toronto, CA)
Summary of presentation: Despite the increasing attention to repeated pain exposure in early-life and long-term cognitive, behavioral, and social consequences, our understanding of the mechanisms by which maternal led interventions mitigate infant pain response and potentially promote greater regulation remain underexplored. This symposium brings together researchers at the basic and clinical levels to highlight translational science on the impact of maternal-led interventions on immediate and later pain reactivity and regulation.

This symposium will provide an overview of research in humans as well as in animals suggesting the role of peripheral and central nervous system mechanisms by which maternal-led interventions impact on pain-related outcomes. We will provide insights related to the underlying neurobiological mechanisms of nurturing touch and explore ways to improve behavioral and neurologic outcomes after early life adversity. Findings from novel animal models of nurturing maternal contact as well as human studies examining the impact of maternal contact during pain in early life will highlight immediate and long term behavioral and neurologic outcomes across full term and preterm born populations. This symposium will be of interest to multidisciplinary researchers and clinicians aiming to optimize newborn outcomes following early life pain by supporting nurturing maternal care.

References:


Moderator: Dr. M. Campbell-Yeo (Dalhousie University, Halifax, Nova Scotia, CA)
Parallel workshop, Samarkand

16:15 - 17:45

Regular Workshop Session VII - Workshop 35: It takes two to tango: Evaluating the role of parents in psychological interventions for pediatric chronic pain

Summary of presentation: Parents play a crucial role when it comes to their child’s pain\(^1\). There is increasing support that parent distress, responses to their child’s pain (e.g., protectiveness, solicitousness), and modeling of pain behaviors may negatively impact children’s pain coping and pain-related functioning in the context of pediatric chronic pain. On the other hand, parent psychological flexibility, acceptance of their child’s pain and modeling of active coping strategies may have positive effects on children’s coping and functioning. Thus, parental factors represent important targets for psychological interventions for pediatric chronic pain. Studies that have included parents as active targets are emerging and showing positive effects. For instance, changes in parent psychological flexibility following an acceptance and commitment therapy (ACT)-based program were associated with changes in child’s acceptance\(^2\). Further, parental factors may moderate children’s responsiveness to pain interventions. Indeed, recent evidence suggests that higher levels of parent distress may increase a child’s risk of poor responsiveness to psychological pain treatment\(^3\). However, how parent responses to interventions affect their child’s functioning and how parent factors may moderate youth treatment responsiveness is not yet fully understood. In this workshop, we will present parent data collected in four different psychological interventions for youth with chronic pain, performed in the United States, the Netherlands and Sweden. We will discuss different approaches to targeting parents in the context of pediatric chronic pain treatment, parent-related changes over the course of treatment, as well as how such changes are associated with treatment responses in their children. The interventions highlighted represent the breadth of evidence-based psychological interventions for pediatric chronic pain, including two exposure-based treatments, ACT, and Internet-delivered cognitive behavioral therapy (CBT). Together, we aim to increase our understanding on parental influences on pediatric chronic pain, which may further inform and optimize parent-targeted treatment strategies to ultimately improve child’s pain-related outcomes.


Moderator: Dr. I. Timmers (Stanford University, Palo Alto, US)

16:15 - 16:35

Parental influences on child’s chronic pain in the context of GET Living: an exposure-based treatment

Dr. I. Timmers (Stanford University, Palo Alto, US)

16:35 - 16:55

2B Active: treating pain-related fear in adolescents and parents with chronic pain

T. van Meulenbroek (Maastricht University, Maastricht, NL)
Scientific Programme

16:55 - 17:15
Parent pain reactivity and psychological flexibility as predictors of treatment outcome in Acceptance and Commitment Therapy for children and adolescents with chronic pain
Dr. V. Zetterqvist (Karolinska University Hospital, Stockholm, SE)

17:15 - 17:35
Longitudinal changes in parent factors in response to internet-delivered CBT for pediatric functional abdominal pain
Dr. A. Stone (Vanderbilt University, Nashville, US)
Scientific Programme

Thursday, 20 June 2019

08:15 - 08:30
Other session, Sydney
Art and Pain

08:15 - 08:30
Presentation 2
Dr. E. Reifert (CH)

08:30 - 09:15
Plenary session, Sydney
Plenary X
Chair: Dr. L. Simons (Stanford University School of Medicine, California, US)
Neuropathic pain
Prof. Dr. A. LeBel (US)

09:15 - 10:00
Plenary session, Sydney
Plenary XI
Chair: Prof. Dr. G.A. Walco (US)
Communicating with families about pain
Prof. Dr. N. Schechter (Boston Children's Hospital and Harvard Medical School, Boston, US)

10:30 - 12:00
Plenary session, Sydney
Plenary XII
Chair: Prof. R. Slater (University of Oxford, Oxford, UK)
Debate: Walking the tightrope of effects: Pros and cons of morphine for neonatal pain
Prof. Dr. R. Grunau (University of British Columbia, Vancouver, CA)
Prof. Dr. D. Tibboel (NL)

12:00 - 12:30
Other session, Sydney
Wrap up, Summary, ISPP 2021
Chair: Dr. A. Fernandes (PT)