
Final Program

Fifty First Annual Meeting

International Neuropsychological Society

February 1-4, 2023
San Diego, California, USA

CE Workshop 01: Mindfulness Meditation Induced Analgesia Engages Multiple Unique Brain Mechanisms

Presenter: Fadel Zeidan

9:00am - 12:00pm
Wednesday, 1st February, 2023
Town & Country Ballroom B

Abstract & Learning Objectives:

For millenniums, mindfulness was believed to diminish pain by reducing the influence of self-appraisals of noxious sensations. Today, mindfulness meditation is a highly popular and effective pain therapy that is believed to engage multiple, nonplacebo-related mechanisms to attenuate pain. Recent evidence suggests that mindfulness meditation-induced pain relief is associated with the engagement of unique cortico-thalamo-cortical nociceptive filtering mechanisms. The proposed talk will provide a succinct, yet comprehensive delineation demonstrating that brief mindfulness-based mental training significantly reduces acutely evoked chronic low back pain through non-opioidergic mechanisms. Recent findings indicate that mindfulness-based pain relief, after brief mental training, can significantly uncouple self-referential from nociceptive neural mechanisms, an important finding for the millions of individuals seeking a fast-acting and non-pharmacologic pain treatment. Upon conclusion of this course, learners will be able to:

1. Recognize if mindfulness reduces pain
2. Describe brain mechanisms supporting mindfulness-based pain relief

3. List the physiological systems supporting mindfulness

CE Workshop 02: Bi/Multilingualism and its Impact on Stroke/Neurodegenerative Disease

Presenter: Suvarna Alladi

9:00am - 12:00pm
Wednesday, 1st February, 2023
Town & Country Ballroom C

Abstract & Learning Objectives:

Modifying risk factors by using effective cognitive strategies across the life-course may prevent or delay up to 40% of dementias through enhancing reserve/resilience. Reserve/Resilience is an emerging concept and refers to the ability of the brain to cope with neuropathology and neurodegeneration. Emerging evidence suggests that bi/multilingualism is associated with cognitive advantages and improves resilience against dementia, stroke and other cognitive disorders. Seven thousand languages are spoken across the world and speaking a second/third or more languages is a natural phenomenon. Further, with globalization, societies are becoming increasingly linguistically diverse and half of the world's population is bi/multilingual. Exploring beneficial effects of bi/multilingualism will have an impact on dementia risk reduction and recovery from brain injury. Bi/Multilingualism has been demonstrated to delay age at onset of dementia and also improve cognitive and language recovery after stroke. Advantages to executive function are thought to underlie its

beneficial effects. Cortical morphometric, white matter connectivity and functional brain changes in bilinguals represent the neural basis for its effect on cognitive reserve/resilience. In this presentation, insights from studies that have explored the role of bi/multilingualism in impacting cognitive resilience against dementia and stroke will be discussed in the context of global research.

Upon conclusion of this course, learners will be able to:

1. Describe the impact of bilingualism on age at onset and cognitive manifestations of dementia and stroke
2. Discuss the mechanisms that underlie the potentially protective effects of bilingualism in dementia and stroke
3. Describe the role of bi/multilingualism on cognitive reserve/resilience in disorders of the brain

CE Workshop 03: Stroke in the Developing Brain: Mechanisms, Outcomes, and Intervention

Presenter: Robyn Westmacott

9:00am - 12:00pm

Wednesday, 1st February, 2023

Town & Country Ballroom D

Abstract & Learning Objectives:

Over the past 10-15 years, significant progress has been made in the diagnosis and treatment of pediatric stroke. Accordingly, the focus of much research has turned to understanding factors that determine neurological and neuropsychological outcomes in this population. This Continuing Education (CE) course will start by defining key terms in the field of pediatric stroke and reviewing current understanding of epidemiology, pathophysiology, diagnosis, and medical treatment. Next, we will review recent neuropsychological literature on cognitive outcomes following pediatric stroke, highlighting the vulnerability of the developing brain, the long-term deficits that often result from early disruption of brain function and subsequent brain development, and the significant variability in outcomes seen across individuals.

Heterogeneity in outcomes has been linked to a range of clinical and demographic factors, including those related to the brain (e.g., stroke

type, lesion location and size, adaptive and maladaptive patterns of reorganization), the child (e.g., age at stroke, age at assessment, comorbid neurological conditions) and the environment (family stress, parent mental health, educational support). Multi-disciplinary approaches to intervention will also be discussed. Finally, directions for future research will also be outlined, as we are just starting to understand how these factors interact to impact neurocognitive outcome and resiliency following pediatric stroke.

Upon conclusion of this course, learners will be able to:

1. Describe the epidemiology, pathophysiology, and neurological outcomes associated with stroke in infants and children
2. Illustrate the variability in neuropsychological outcomes after pediatric stroke and highlight important determining factors of these outcomes
3. Apply current research into outcomes and treatments to neuropsychological practice

INS Business Meeting

12:00 - 12:55pm

Wednesday, 1st February, 2023

Town & Country Ballroom B

CE Workshop 04: Cancer Survivorship Across the Lifespan: Mechanisms and Modifiable Factors

Presenter: Kevin Krull

1:00 - 4:00pm

Wednesday, 1st February, 2023

Town & Country Ballroom B

Abstract & Learning Objectives:

Long-term survivors of pediatric cancer are at elevated risk for cognitive impairment, which manifests in different ways at different times throughout survivorship. Although some cognitive impairment may result from the cancer itself, as is the case with a brain tumor, impairment has been consistently associated with exposure to CNS-directed therapies like neurosurgery, cranial irradiation, intrathecal