The Pediatric Track at World Sleep 2019 will include some of the biggest names in the field offering cutting-edge science and information.

22.5 HOURS OF PEDIATRIC CONTENT have been added to the final Scientific Program. Register today to learn more about pediatric sleep medicine.

PEDIATRIC TRACK OVERVIEW

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<td>COURSE</td>
<td>Saturday</td>
<td>Pediatric Sleep</td>
<td>8:00am - 5:00pm</td>
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<td>DISCUSSION PANEL</td>
<td>Monday</td>
<td>Defining and identifying “restless sleep disorder” among sleep disorders of childhood</td>
<td>10:45am - 12:15pm</td>
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<td>KEYNOTE</td>
<td>Monday</td>
<td>Adolescent sleep: Timing is everything…or is it?</td>
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<td>Alternative diagnostic approaches to childhood obstructive sleep apnea</td>
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<td>Tuesday</td>
<td>Progression of childhood sleep-disordered breathing - natural and after intervention</td>
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<td>SYMPOSIUM</td>
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<td>SYMPOSIUM</td>
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<td>Sleep health disparities among children across three continents</td>
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<td>SYMPOSIUM</td>
<td>Wednesday</td>
<td>Global perspectives on adolescent sleep and health: Predictors, treatments, and policies</td>
<td>4:30pm - 6:00pm</td>
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Summary
Growing recognition of the prevalence and impact of sleep disorders in children highlights the need for improved knowledge regarding diagnosis and treatment. The overall objective of this course is to provide the sleep medicine provider with comprehensive and updated knowledge and tools to understand, diagnose and treat pediatric sleep disorders. Polysomnographic issues will be discussed within each presentation as appropriate.

8:00am – 8:10am  
Introduction  
Reut Gruber (Canada); Oliviero Bruni (Italy)

8:10am – 8:50am  
Insomnia in infants and children  
Judith Owens (United States)

8:50am – 9:30am  
Insomnia & DSPS in adolescence  
Reut Gruber (Canada); Daniel Lewin (United States)

9:30am – 9:50am  
Coffee break

9:50am – 10:30am  
SDB and OSA Part 1 - Clinical presentation, assessment, epidemiology, evaluation  
Eliot Katz (United States)

10:30am – 11:10am  
SDB and OSA Part 2 - Treatment-surgical interventions, CPAP, oral appliances, positional therapy, weight loss  
Sherri Lynn Katz (Canada)

11:10am – 11:50am  
Parasomnias  
Shelly Weiss (Canada)

11:50am – 12:30pm  
Pedicatric Narcolepsy and other hypersomnia  
Michel Lecendreux (France)

12:30pm – 1:30pm  
Lunch break

1:30pm – 2:10pm  
Movement disorders - RLS PLMD  
Rhythmic movement disorder  
Oliviero Bruni (Italy)

2:10pm – 2:30pm  
Break

2:30pm – 3:10pm  
Sleep and mood, anxiety, PTSD, ADHD and other psychiatric disorders  
Anna Ivanenko (United States)

3:10pm – 4:00pm  
Panel discussion, Q and A  
Reut Gruber (Canada); Oliviero Bruni (Italy); Judith Owens (United States); Daniel Lewin (United States); Eliot Katz (United States); Sherri Lynn Katz (Canada); Shelly Weiss (Canada); Michel Lecendreux (France); Anna Ivanenko (United States)

Defining and identifying “restless sleep disorder” among sleep disorders of childhood

10:45am - 12:15pm  
Room 118

Chair  
Lourdes DelRosso (Peru)

Summary
Pediatric sleep disorders have a significant impact in the life of children and their families. Lack of sleep can adversely affect a child’s development, health and performance. In spite of clear diagnostic criteria for sleep disorders, the diagnosis of these conditions in children can be challenging as symptoms can overlap, and other conditions can present with sleep disruption and daytime symptoms. A group of children with “restless sleep” have been identified. These children do not fit criteria of any other current diagnostic category. The parents have concerns that night time restlessness is associated with excessive sleepiness, school cognitive problems or behavioral problems (irritability or hyperactivity).

10:45am – 10:47am  
Introduction

10:47am – 11:07am  
Clinical and video polysomnographic findings in children with restless sleep  
Lourdes DelRosso (Peru)

11:07am – 11:27am  
Diagnostic criteria for pediatric RLS, PLMD and proposed criteria for RSD  
Daniel Picchietti (United States)

11:27am – 11:47am  
Hypermotor insomnia and other insomnia types in childhood  
Oliviero Bruni (Italy)

11:47am – 12:07pm  
Effects of iron deficiency on brain development  
Patricio Peirano (Chile)

12:07pm – 12:15pm  
Conclusion
K02: Adolescent sleep: Timing is everything...or is it?
10:45am - 12:15pm  | Ballroom A

**Keynote**
Mary A. Carskadon, PhD (United States)

**Summary**
A major focus of Dr. Carskadon’s scientific activities is research examining interrelations between the circadian timing system and sleep/wake patterns of children, adolescents, and young adults. Her findings have raised public health issues regarding the consequences of insufficient sleep for adolescents as well as concerns about early starting times of schools. Her work has affected education policy, prompting the AAP, CDC, and others to promote later school timing for adolescents and many school districts to delay school start times for high school students.

Carskadon’s current research includes an evaluation of how sleep and circadian timing influence smell, taste, food choices, and food consumption in overweight and assessing effects of serial nights of alcohol on sleep and next-day function in adults. Proposed new projects seek to (1) assess the chronic and direct effects of caffeine on circadian and homeostatic sleep systems in early adolescents; (2) evaluate sleep health disparities in inner-city children with chronic asthma; (3) measure gene methylation and genotype with observational phenotyping and experimental sleep interventions in young adults.

2:00pm – 2:02pm
**Introduction**

2:02pm – 2:45pm
Adolescent sleep: Timing is everything...or is it?

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**Alternative diagnostic approaches to childhood obstructive sleep apnea**
10:45am - 12:15pm  | Room 118

**Chair**
Albert Martin Li (Hong Kong)

**Summary**
Childhood OSA is a common condition and prevalence rate is often quoted as 3 - 5%. This condition has important clinical implications as if it is left untreated, a variety of complications can result, namely cardiovascular, neurocognitive and metabolic disturbances. Therefore it is important to recognize the condition early and offer prompt treatment. The current gold standard in diagnosing childhood OSA is overnight polysomnography (PSG). Unfortunately, PSG is rather labour and cost intensive.

In addition, it is not available in all paediatric units and therefore waiting time for patients to undergo PSG is often very long. This has resulted in unnecessary delay as patients have to wait for months and even years before a diagnosis is confirmed and management instituted. Recent research has focused on alternative diagnostic methods in order to prioritise patients suspected with OSA for early intervention and in some studies, methods to replace PSG are also being investigated.

In this panel discussion, the speakers will provide pro/con information on topics that aim to provide an up-to-date review of alternative tools being investigated / used for the diagnosis of childhood OSA.

3:00pm – 3:02pm
**Introduction**

3:02pm – 3:22pm
Pitfalls of polysomnography for childhood OSA, why is it failing us?
Rosemary Horne (Australia)

3:22pm – 3:42pm
Can parent-reported sleep symptom questionnaire and or overnight oximetry replace PSG?
Daniel Goh (Singapore)
Melatonin use in children: The promise and the peril

10:45am - 12:15pm  |  Room 118

Chair
Judith Owens (United States)

Summary
While there is a robust literature supporting the efficacy of melatonin in short-term pediatric clinical trials in special needs populations, many questions remain. For example, recent evidence suggests that over-the-counter preparations of melatonin may vary significantly in terms of actual concentration, and may contain contaminants such as serotonin. There are concerns regarding long-term safety considerations in children, including the impact on the hypothalamic-gonadal axis and the immune system. The appropriate timing and dosage of melatonin for circadian rhythm disorders in adolescents have yet to be determined.

This symposium will address a number of fundamental concerns regarding melatonin use in children, including what is currently known regarding melatonin neurophysiology in the developing brain, the challenges of establishing clinical guidelines for melatonin use in children, the challenges of establishing clinical guidelines for melatonin use in the face of somewhat limited empirical evidence, indications for use of melatonin in a variety of pediatric populations, and future directions for research.

10:45am – 10:47am
Introduction

10:47am – 11:03am
Update on the neurophysiology of melatonin in children and adolescents
Jonathan Lipton (United States)

11:03am – 11:19am
Safety of short term and long term pharmacologic treatment with melatonin in children
Inge van Geijlswijk (The Netherlands)

11:19am – 11:35am
Melatonin in children with autism and neurodevelopmental disorders: The latest evidence
Paul Gringras (United Kingdom)

11:35am – 11:51am
Establishing clinical guidelines for melatonin use in children
Oliviero Bruni (Italy)

11:51am – 12:07pm
“Vitamin M”: Melatonin and insomnia in children
Judith Owens (United States)

12:07pm – 12:15pm
Conclusion
11:19am – 11:35am
Findings from Penn State longitudinal cohort to evaluate predictors for incident SDB
Edward Bixler (United States)

11:35am – 11:51am
The cohort study of pediatric OSA following surgery treatment
Yu-Shu Huang (Taiwan)

11:51am – 12:07pm
Are OSA related complications reversible following intervention?
Rosemary Horne (Australia)

12:07pm – 12:15pm
Conclusion

3:00pm – 4:30pm  I  Room 219

New perspectives in the management of pediatric narcolepsy

Summary
Narcolepsy is a chronic and disabling disorder affecting sleep and wakefulness, characterized by excessive daytime sleepiness (EDS), sudden sleep episodes and attacks of muscle atonia mostly triggered by emotions (cataplexy). Narcolepsy is a lifelong disorder, however not progressive, due to the loss of hypocretin neurons, and which occurrence during childhood is frequent. The occurrence of the disorder during childhood and adolescence should be taken into consideration. Narcolepsy in children and adolescents is still under-diagnosed and is often mistaken in its onset for other diseases or even neglected.

Young patients affected by the disorder often show dramatic and abrupt impairment in their social skills and academic performances due to excessive daytime sleepiness, fatigue and lack of energy. The goal of the symposium is to underline the clinical characteristics of pediatric narcolepsy and to highlight the therapeutic outcome for the disorder.

Chair
Michel Lecendreux (France)

3:00pm – 3:02pm
Introduction

3:02pm – 3:18pm
Clinical features in the narcoleptic child: How clinical evaluation may orientate towards therapeutic decisions
Giuseppe Plazzi (Italy)

3:18pm – 3:34pm
Pediatric narcolepsy, auto-immunity and potential therapeutic outcomes
Lucie Barateau (France)

3:34pm – 3:50pm
Pediatric narcolepsy and psychiatric features and treatment issues
Paul Gringras (United Kingdom)
Limited media exposure is associated with poor sleep patterns in ultra-orthodox female adolescents: The forbidden fruit effect?
Tamar Shochat (Israel)

Electronic media use and sleep among adults: Is it all the same?
Liese Exelmans (United States)

Conclusion

Sleep and mental health in adolescents
12:30pm – 2:00pm | Room 119

Summary
Adolescence, covering the second decade between childhood and adulthood, is a period of fundamental development in brain and behavior, and also a time of increased vulnerability to mental health problems. Good quality and sufficient sleep is critical for optimal mental health; sleep complaints are a key symptom of psychiatric disorders, and shorter sleep is a known risk factor for depression, substance use disorders, and suicide. Given the substantial changes that occur in sleep across adolescence, with shorter sleep duration, later bedtimes, and altered sleep composition in older adolescents, it is important to focus on sleep-mental health associations during this period to ultimately determine whether sleep modifications are effective at lowering risk for mental health issues.

Chair
Fiona Baker (South Africa)

Introduction
12:30pm – 12:32pm

Insufficient sleep and affective functioning in adolescents
Peter Franzen (United States)

A longitudinal view on relationships between sleep, substance use, and mental health in adolescents
Aimee Goldstone (United States)

The role of sleep in attention deficit hyperactivity disorder in adolescents
Reut Gruber (Canada); Anna Ivanenko (United States)

Efficacy of sleep interventions in at-risk adolescents
Matthew Blake (Australia)

Conclusion

Sleep health disparities among children across three continents
3:00pm – 4:30pm | Room 212

Summary
The social ecology model (SEM) is a theory-based framework for understanding the complex and interactive effects of personal, interpersonal, community and social factors on behavior that is commonly used to examine health disparities. Framed by the SEM, this symposium aims to present research on sleep health disparities among children in three countries.

Sleep is a foundation for a happy, stable, healthy and inclusive social life. The family plays a major role in shaping children’s sleep behavior, and the family dynamic interacts with externalities, such as the demands of work, education, neighborhood and broader social participation. As such, the child, their family, and cultural context are each key factors in a strong social fabric. Sleep provides an opportunity to understand the impact of care environments on the child in a new way, and identifies new points for change to reinforce family function, health, and social harmony. This approach, drawing upon the SEM model, could have impacts in the broader community, especially for those families experiencing adversity.

Chair
Monica Roosa Ordway (United States)

Introduction
3:00pm – 3:02pm

Individual determinants of sleep in children living with socioeconomic adversity
Monica Roosa Ordway (United States)

The impact of parental adverse childhood experiences on children’s sleep in China
Guanghai Wang (China)

Sleep insecurity within Australian communities and co-design of community interventions to support children’s sleep health
Karen Thorpe (Australia)

Social impact on children’s health: The role of childcare
Sally Staton (Australia)

Cross cultural (Asian, Australian, American) differences of SEM model of sleep: Putting it all together
Simon Smith (Australia)

Conclusion
Global perspectives on adolescent sleep and health: Predictors, treatments and policies
4:30pm – 6:00pm | Room 119

Summary
Sleep disorders are common among adolescents around the world, including insomnia, delayed sleep-wake phase disorder, and insufficient sleep syndrome. In order to improve sleep among adolescents, it is essential to understand the biological and environmental factors that contribute to sleep disorders, and there is a critical need to develop and validate novel interventions to improve sleep duration and sleep quality in this age group. This symposium brings together international experts on adolescent sleep disorders, examining both contributing factors and interventions for adolescents from multiple perspectives.

Chair
Lisa J. Meltzer (United States)

4:30pm – 4:32pm
Introduction

4:32pm – 4:48pm
Pre-pubertal sleep patterns forecast adolescent sleep preferences and mental health functioning
Candice A. Alfano (United States)

4:48pm – 5:04pm
Internet- and group-CBT for adolescents with insomnia; the contribution of mindfulness techniques, and the effects on sleep and mental health
Ed J. de Bruin (The Netherlands)

5:04pm – 5:20pm
Modifying the impact of eveningness chronotype (‘Night-Owls’) in youth: A randomized controlled trial
Allison G. Harvey (United States)

5:20pm – 5:36pm
Bright light therapy and physical activity for adolescents with Delayed Sleep-Wake Phase Disorder: Effects on sleep and depression symptoms
Cele Richardson (Australia)

5:36pm – 5:52pm
Impact of delaying high school start times on adolescent sleep and health
Lisa J. Meltzer (United States)

5:52pm – 6:00pm
Conclusion