Pain Sciences & Clinical Rehabilitation Implications
June 23 & 24, 2018

Speaker:

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Derrick Sueki graduated from the University of Southern California receiving his Doctorate in Physical Therapy. He completed the Post Graduate Certificate Program in Physical Therapy at the University of South Australia with a special emphasis in Manipulative Therapy and Pain Mechanisms. In 2016, he successfully defended his PhD dissertation studying associative learning and the role of memory, trauma, and injury on pain, cardiovagal, and motor responses. He is an assistant professor in the Department of Physical Therapy at Azusa Pacific University and a faculty member in the Department of Physical Therapy at Mount Saint Mary’s University. Dr. Sueki is a chief author and editor of two orthopedic textbooks and has authored numerous works in texts and peer-reviewed journals. Dr. Sueki is the former Chair for the Orthopedic Specialty Council,
serves on the California State Physical Therapy Association's Research Council, and is currently serving on the Board of the Pain Management Special Interest Group of the APTA. Since 2001, he has been a primary therapist for the Association of Volleyball Professionals and current serves as their Southern California Medical Coordinator. He is a Board Certified Clinical Specialist in Orthopedic Physical Therapy and a Fellow of the American Academy of Orthopedic Manual Physical Therapists. He has spoken at the national, state, and regional levels on the science and management of pain, as well as the mechanisms underlying manual therapy.

**Course Description:** This course will cover paradigms of pain science including the fundamentals of the peripheral, the spinal, and subcortical, and cortical processing of noxious and threatening stimuli. Physiological responses such as peripheral sensitization, central sensitization, and cortical changes associated with chronic pain will be discussed. Pain memory, biopsychosocial, and associative learning models will be discussed and integrated into the clinical treatment of patients. Current pain science topics will be integrated with clinical reasoning paradigms and used to assess and rehabilitate people in pain. Instructor to participant ratio will not exceed 1:16 for breakout labs.

**Learning Objectives:**
1. Understand the history of the study of pain from early to current and developing concepts.
2. Understand a new conceptualisation of pain as a protective behavioural mechanism associated with actual or perceived threat to body tissue and the scientific evidence underpinning this conceptualisation.
3. Understand the difference between nociception and pain.
4. Understand the physiology underlying the neuroendocrinological behavioural processes that underpins nociception (i) in the periphery and (ii) centrally in the spinal cord.
5. Understand the physiology, conceptual and functional significance of peripheral sensitization, central sensitisation and cortical sensitivity on the perception of pain.
6. Be aware of the role of associative learning and pain memory in the development and perpetuation of pain as a behavioural response.
7. Be comfortable with the notion of pain education to patients in a physiologically accurate manner, including the role of explaining pain within a wider paradigm of clinical reasoning.
8. Be cognizant of the various outcome tools available to assess and predict pain and pain chronification.
9. Begin to understand how current pain science conceptualizations can be paired with manual therapy and movement science paradigms in the rehabilitation of patients.
10. Be aware of new treatments that are being developed and tested for chronic pain states.
Course Outline

Day One
8:00 am  Introduction (30 minutes)
8:30 am  PT and the Opioid Crisis (30 minutes)
9:00 am  History of Pain Science (15 minutes)
9:15 am  Break (15 minutes)
9:30 am  Mechanisms of Acute Pain Part 1 (75 minutes)
10:45 am Break (15 minutes)
11:00 am Mechanisms of Acute Pain Part 2 (60 minutes)
12:00 pm Lunch
1:00 pm  Mechanisms of Persistent Pain Part 1 (60 minutes)
2:00 pm  Break
2:15 pm  Mechanisms of Persistent Pain Part 2 (60 minutes)
3:15 pm  Break
3:30 pm  The Role of Memory and Associative Learning in Pain Perception (60 minutes)
4:30 pm  Day One Wrap Up and Questions

Day Two
8:00 am  Recap and Questions
8:15 am  Pain and PTSD (30 minutes)
8:45 am  Pain and Emotions (30 minutes)
9:15 am  Break
9:30 am  The Management of Pain Part 1 (150 minutes)
  Early Intervention
  The Soft Skills
  Therapeutic Alliance
  Motivational Interviewing
  Interventions
  Pain Education
  Graded Imagery
12:00 pm Lunch
1:00 pm  The Management of Pain Part 2 (75 minutes)
  Mindfulness
  Graded Exposure
  Movement Re-education with Pain Memory focus
2:45 pm  Break
3:00 pm  The Management of Pain Part 3 (90 minutes)
  Manual Therapy and Threat Desensitization
  Pain and Nutrition
  Pain and Sleep
4:30 pm  Summary, Wrap Up, Questions
Agenda:

Day One Objectives 1-5 will be covered with time built in for questions/discussions

1. (90 min) Understand the history of the study of pain from early to current and developing concepts.
2. (90 min) Understand a new conceptualisation of pain as a protective behavioural mechanism associated with actual or perceived threat to body tissue and the scientific evidence underpinning this conceptualisation
3. (60 min) Understand the difference between nociception and pain.
4. (120 min) Understand the physiology underlying the neuroendocrinological behavioural processes that underpins nociception (i) in the periphery and (ii) centrally in the spinal cord.
5. (120 min) Understand the physiology, conceptual and functional significance of peripheral sensitization, central sensitisation and cortical sensitivity on the perception of pain.

Day Two Objectives 6-10 will be covered with time built in for questions/discussions

6. (90 min) Be aware of the role of associative learning and pain memory in the development and perpetuation of pain as a behavioural response.
7. (90 min) Be comfortable with the notion of pain education to patients in a physiologically accurate manner, including the role of explaining pain within a wider paradigm of clinical reasoning.
8. (60 min) Be cognizant of the various outcome tools available to assess and predict pain and pain chronification.
9. (120 min) Begin to understand how current pain science conceptualizations can be paired with manual therapy and movement science paradigms in the rehabilitation of patients.
10. (120 min) Be aware of new treatments that are being developed and tested for chronic pain states.

Assessment of Competency:
Pre and post assessment tools (discussion)

Teaching Methods:
Lecture/lab/discussion: 16 hours

Course Sponsor: Azusa Pacific University, Department of Physical Therapy

Course Fee: $500.00

Discounts available to any PT Students from any accredited school, APU Alumni and Clinical Instructor who have mentored APU students during this calendar year.

Course Location:
Azusa Pacific University 701 East Foothill Blvd Azusa CA 91702
Target Audience:

Physical Therapists, Physical Therapy Assistants, Physical Therapy students, Residents, Fellows

Cancellation and Refund Policy

A participant in an Azusa Pacific University, Department of Physical Therapy Course is entitled to canceling the course at their discretion no later than 14 days prior to the course. The participant will however be assessed a 15% cancellation fee. No refunds are granted after that date but fees will be credited for use towards future Azusa Pacific University, Department of Physical Therapy Courses. Should Azusa Pacific University, Department of Physical Therapy need to cancel a course, a full refund will be given to the course participant. Should you have questions, please feel free to email us.

CEUs:

16 contact hours, 1.6 CEUs - PTs and PTA: CPTA approval pending

Registration and payment:

To register with a credit card (Visa, Master Card or Discover) please contact Yolanda Moreno at (626) 815-5020. Please fax or email the attached registration form to Yolanda Moreno at ymoreno@apu.edu or via fax to (626) 815-5017.

To register with a check, please make your check to APU and mail check and completed registration form to: Azusa Pacific University Department of Physical Therapy 701 E Foothill Blvd. Azusa, CA 91702 – 7000 Attention: Yolanda Moreno

Recommended/Required Readings and Bibliography:


**Additional Resources:**
Power point presentations/handouts
Videos