

VIRTUAL: Hawaii Concussion Summit 2021

Ross Oshiro

University of Hawaii

Hawaii Concussion Awareness & Management Program

The University of Hawaii, College of Education, Kinesiology & Rehabilitation Science Department, Hawaii Concussion Awareness & Management Program Presents

LIVE STREAMING CONCUSSION SUMMIT 2021



College of Education
UNIVERSITY OF HAWAII AT MĀNOA



HAWAII PACIFIC HEALTH
KAPOLANI PALI MOHI STRAUB WILCOX
CREATING A HEALTHIER HAWAII



Speakers

- Seven Speakers from the East Coast to Hawaii presented Eleven presentations & demonstrations via Zoom webinar format over two days, July 8th & 9th 2021.

Course Objectives:

- Describe and discuss concussion subtypes and associated conditions, as well as gender and age frequency during acute concussions
- Discuss and evaluate the reliability, objectivity, and user friendliness of a noninvasiveness of a saliva-based microRNA diagnostic test and patient reported symptoms in the diagnosis of mTBI/concussions
- Describe and discuss the physiology of concussion with respect to the Autonomic Nervous System, Cerebral Blood Flow regulation, and the role of exercise tolerance testing in the prescription of individualized subthreshold aerobic exercise for the treatment of sport-related concussion and for Persistent Post-Concussive Symptoms (PPCS)
- Describe and discuss the relationship of sleep and concussion symptom reporting during the course of concussion recovery

Course Objectives:

- Apply the NATA Consensus Statement on the Prehospital Care of the injured athlete with a suspected catastrophic cervical spine injury into practice
- Explain and demonstrate the 8 conditions of Concussion Balance Test (COBALT) and what equipment is required to perform the test for the concussed patient
- Explain how integrated neuromuscular control and dual-task training may be beneficial for the treatment of concussion
- Summarize and discuss the utilization of the Helmetless Tackling Technique (HuTT) in Hawaii, year one results

Classifying Clinical Presentations of Concussion to Target Recovery

Presented by Angela Lumba-Brown, MD

Stanford Department of Emergency Medicine

Associate Vice Chair of Emergency Medicine, and by Courtesy Pediatrics and Neurosurgery
Co-Director, Stanford Brain Performance Center



Stanford | Emergency
MEDICINE | Medicine

Concussion Biomarkers: Blood, Blood Flow and Saliva

Hawaii Concussion Awareness and Management Program (HCAMP), I
Annual Concussion Summit
July 8-9, 2021

John Leddy, MD FACSM FACP FAMSSM

Professor of Clinical Orthopaedics and
Rehabilitation Sciences

Director – University at Buffalo Concussion Management Clinic
Team Physician- State University of New York at Buffalo

The Influence of Sleep Health on General Injury and Concussion Management

HAWAII CONCUSSION AWARENESS & MANAGEMENT PROGRAM (HCAMP)

VIRTUAL CONCUSSION SUMMIT 2021

TYLER DUFFIELD, PHD

Highlights From The Consensus Recommendations On The Prehospital Care of the Injured Athlete with a Suspected Catastrophic Cervical Spine Injury

Erik E Swartz, PhD, ATC, FNATA

Professor and Chair

Department of Physical Therapy and
Kinesiology

University of Massachusetts Lowell





NATIONAL ATHLETIC TRAINERS' ASSOCIATION
HEALTH CARE FOR LIFE & SPORT

Best Practices and Current Care Concepts in Prehospital Care of the Spine-Injured Athlete in American Tackle Football

Spine Injury in Sport Group (SISG)

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CREATING A HEALTHIER HAWAII





A Novel Intervention to Reduce Head Impact Exposure in Hawaiian Football Players and to Increase Community Awareness for Head-Safety

Erik Swartz, PhD, ATC, FNATA Univ of Massachusetts Lowell
Nathan Murata, PhD, ATC Univ of Hawaii at Manoa
Troy Furutani MS, ATC Univ of Hawaii at Manoa
Ross Oshiro, MS, ATC Univ of Hawaii at Manoa
Jay Myers, PhD Univ of Massachusetts Lowell
Jong Soo Lee, PhD Univ of Massachusetts Lowell
Steve Broglio, PhD, ATC Univ of Michigan
Gerard Gioia, PhD Children's Health Systems

Research Assistants:

Darian Brothers
Elissa Roblero
Ivet Rodriguez
Kiera Godowski

Expert Consultants:

Coach James Dunn
Coach Greg Taguchi
Coach Calvin Lee



Riddell

Simbex



Head Impact Location of Offensive and Defensive Linemen in Hawaiian High School Football



DARIAN BROTHERS, LAT, ATC, PRESENTING AUTHOR

KYOKO SHIRAHATA, PHD, ATC

TROY FURUTANI, MS, ATC

ROSS OSHIRO, MS, ATC, LMT

NATHAN MURATA, PHD

JAY MYERS, PHD, AT-RET

ERIK SWARTZ, PHD, ATC, FNATA

Exercise for Concussion: Physiology and Implementation

Hawaii Concussion Awareness and Management Program (HCAMP), I
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John Leddy, MD FACSM FACP FAMSSM

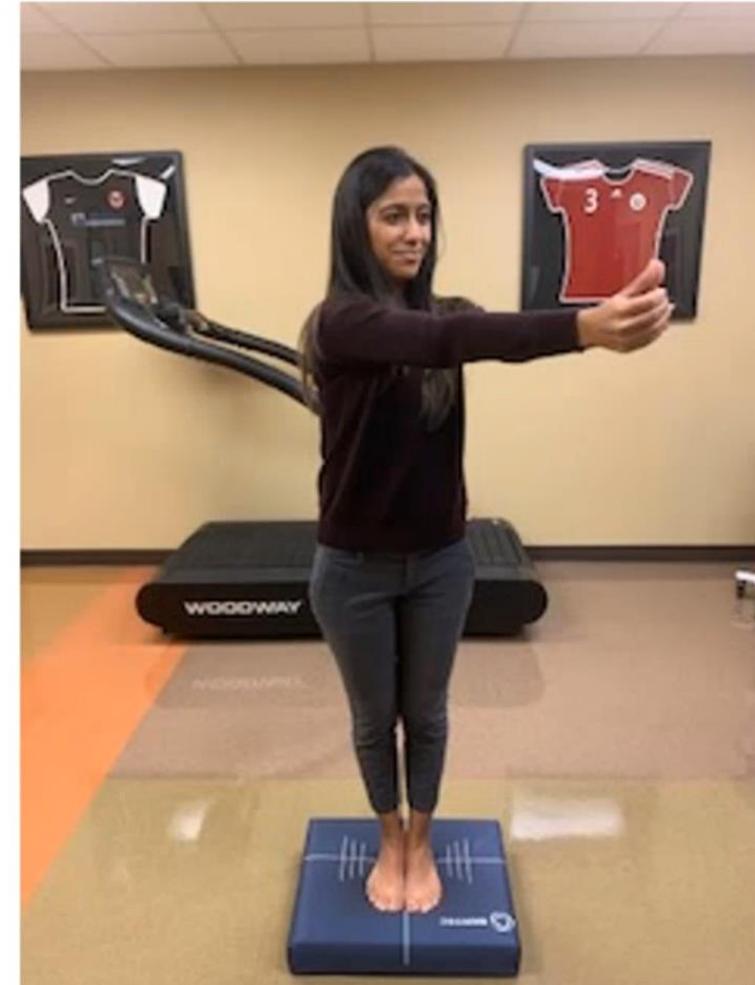
Professor of Clinical Orthopaedics and
Rehabilitation Sciences

Director – University at Buffalo Concussion Management Clinic
Team Physician- State University of New York at Buffalo

Emerging Concussion Rehabilitation Approaches: Incorporating Neuromuscular Control and Dual-Task Training into Return-to-Play Progressions

David R. Howell, PhD, ATC

Department of Orthopedics, CU Anschutz School of Medicine
Sports Medicine Center, Children's Hospital Colorado



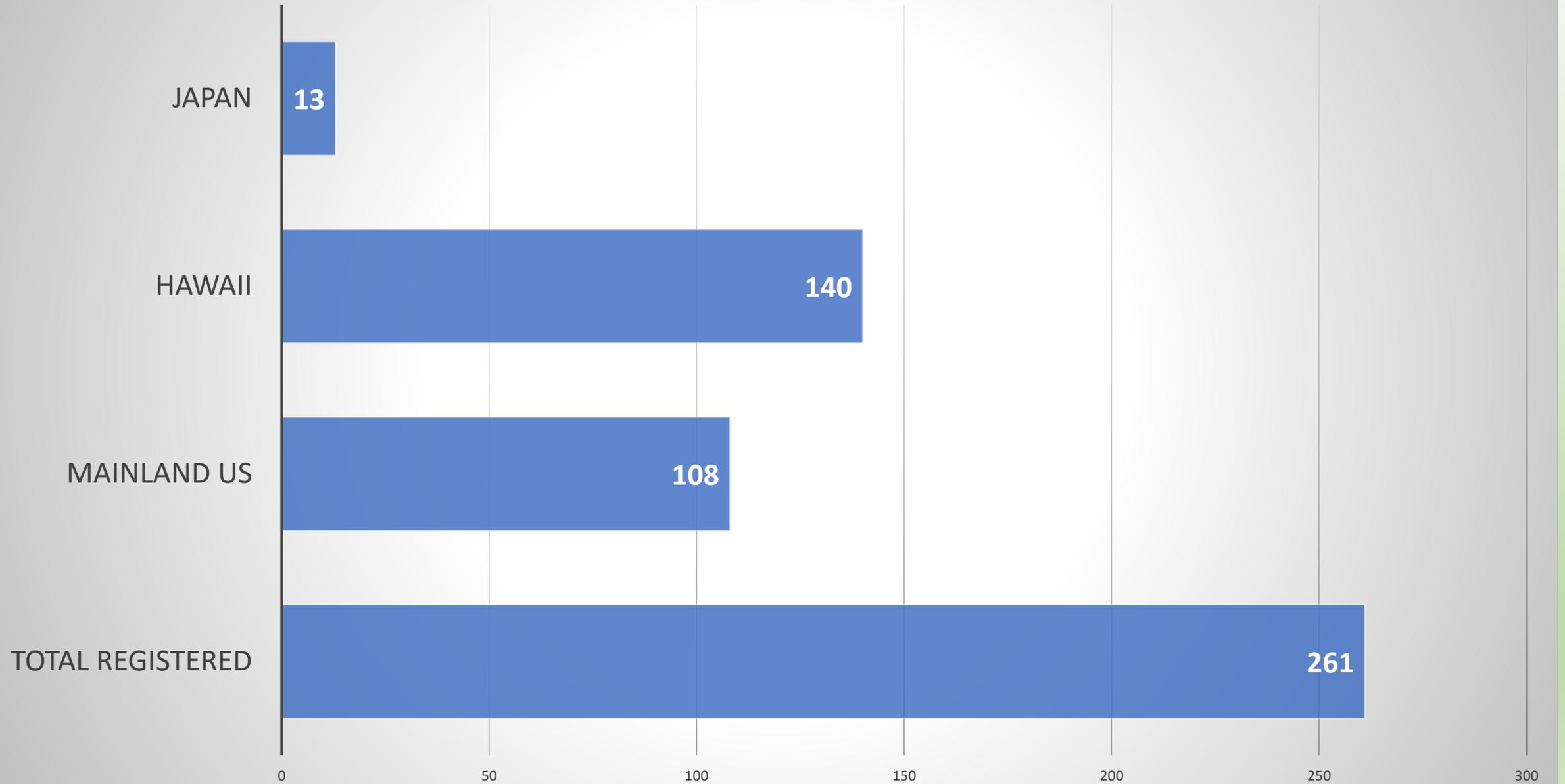
The Concussion Balance Test (COBALT) and the Modified Concussion Balance test

Shelly Massingale, PT, MPT

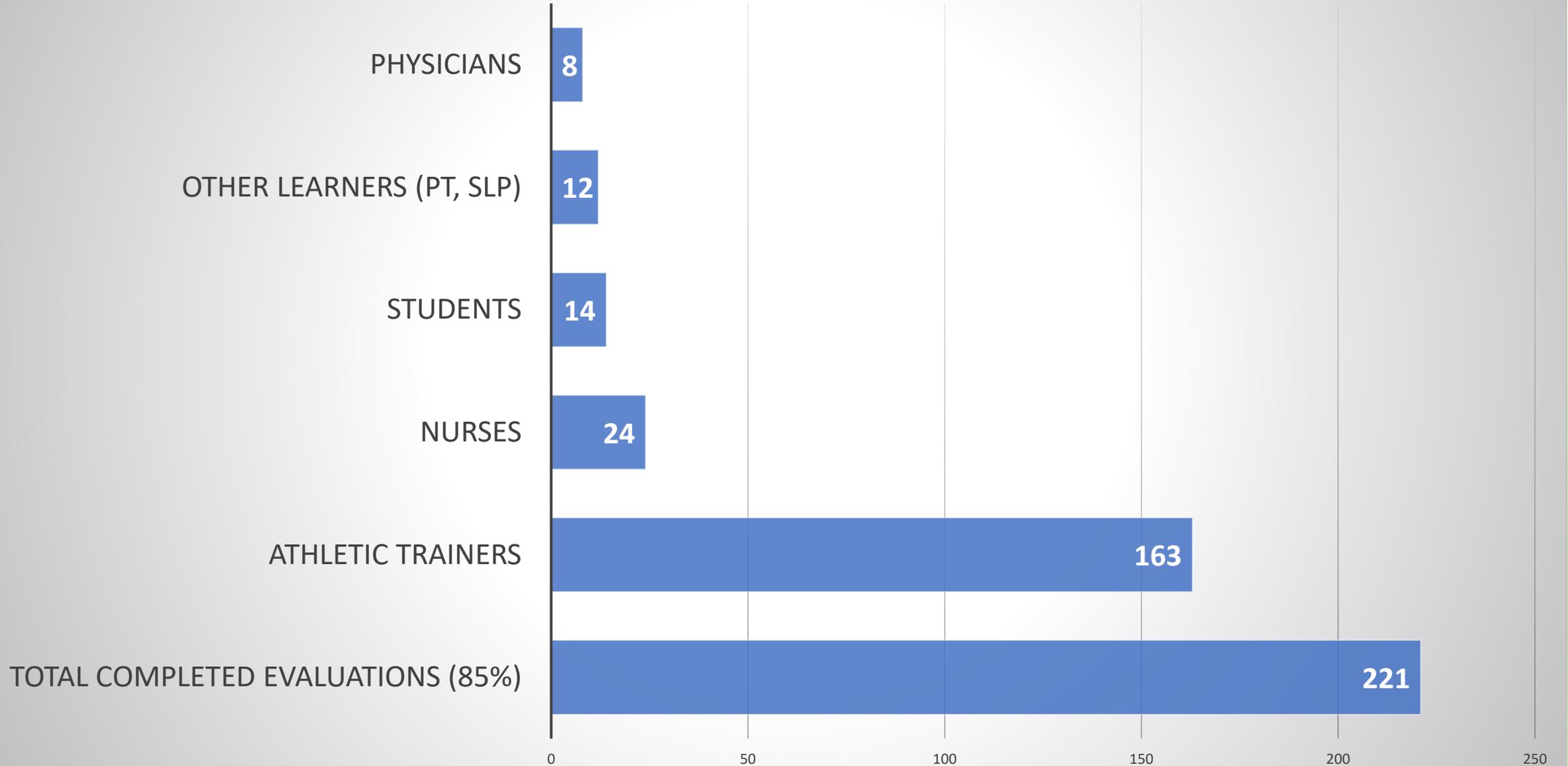
Amy Alexander, PT

Banner Sports Medicine and Concussion Center, Phoenix AZ

Total Number of Registered Participants & their Location

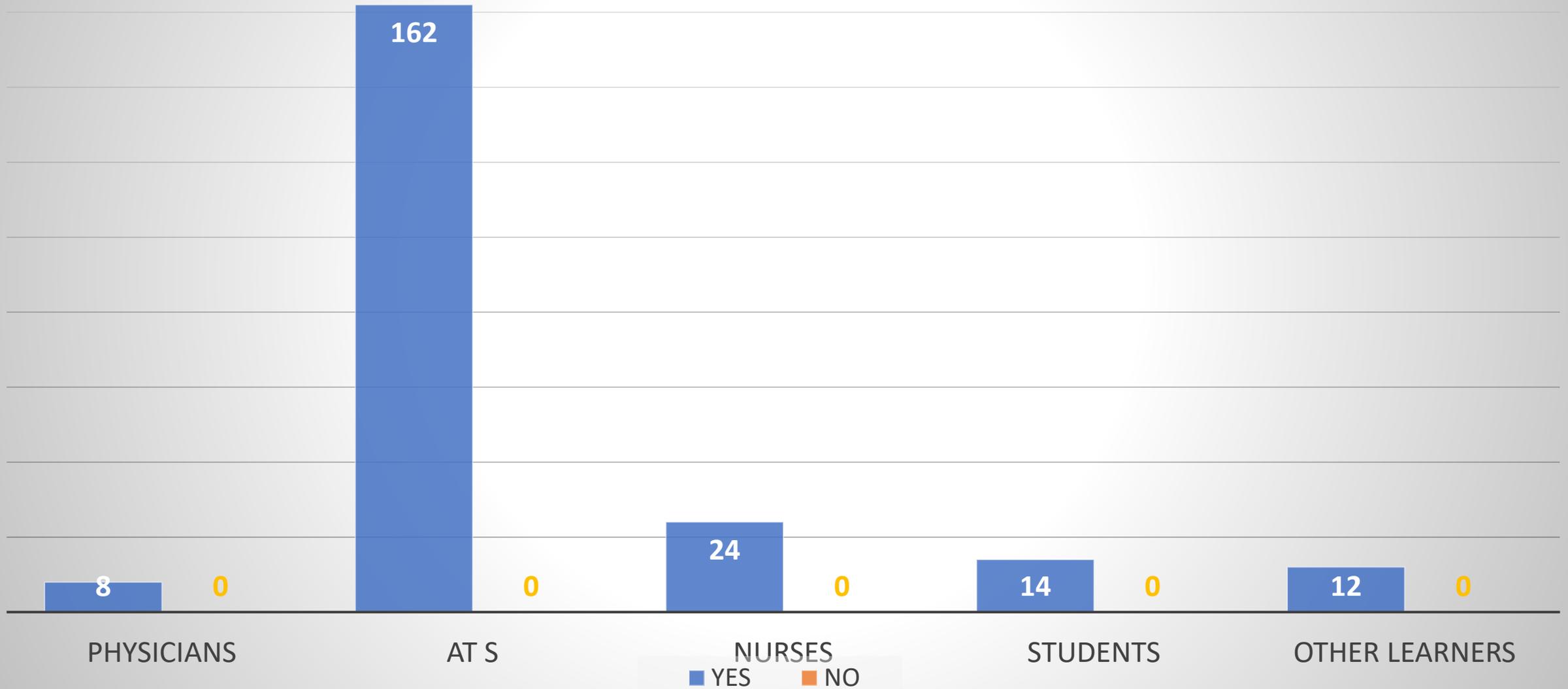


Total Number of Completed Evaluations & their Profession



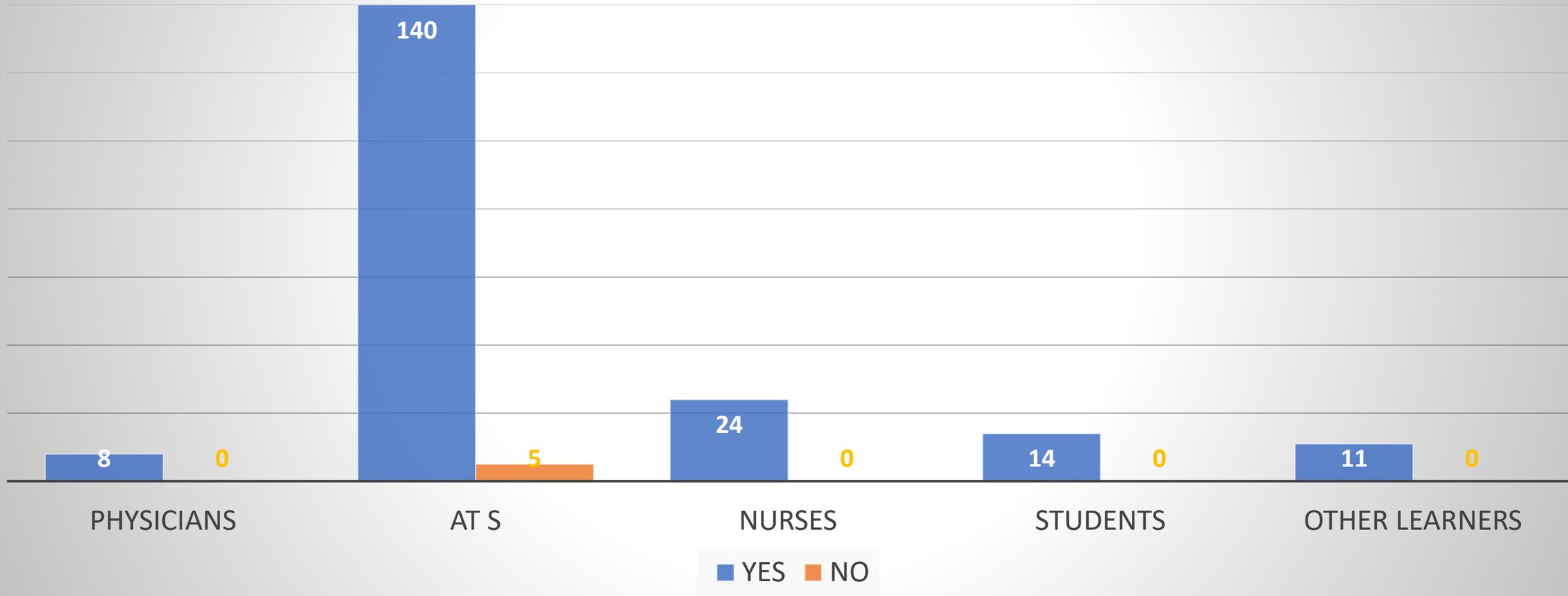
Course Evaluation Data

The Educational objectives were met:



Course Evaluation Data

I plan to apply this earning to practice



If yes, how do you plan to apply this learning to your practice

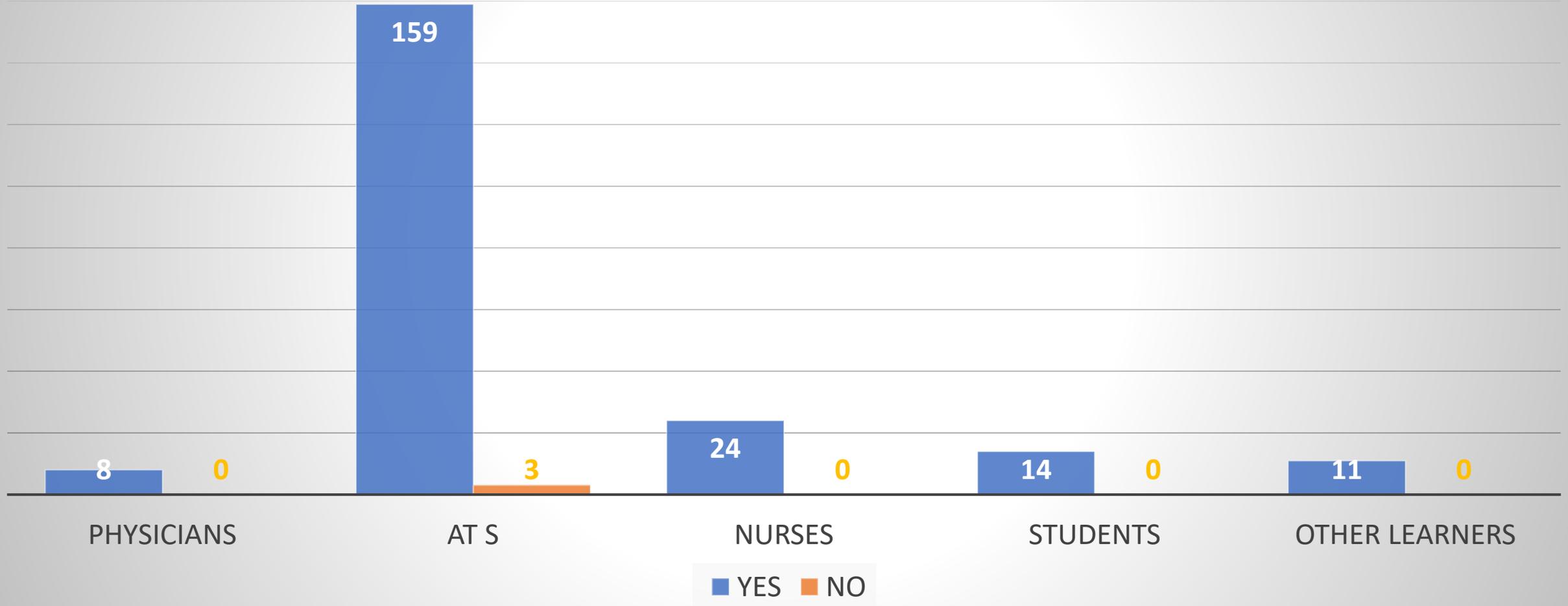
Profession	Comments
Physician	<ul style="list-style-type: none">• I feel more comfortable discussing the current science of biomarkers, the potential and limitations, with patients.• Incorporating a sleep screen such as PSQI in concussion intake. Incorporating neuromuscular eval and training into RTP after symptom free.
Athletic Trainers	<ul style="list-style-type: none">• I would like to introduce rehabilitation after concussion more actively than before.• Change my terminology, also see a concussion as more of a holistic approach instead of symptoms base.• Increase education for EMT's and coaches in my EAP for CSI with an emphasis on equipment removal and neutral spine. Utilizing the COBALT/Modified COBALT instead of the BESS for my baseline as well as post injury evaluation of my athletes.
Nurses	<ul style="list-style-type: none">• The video showing transfer techniques for someone with suspected CSI was very useful in applying it to my patients when we do transfers also, for example, from gurney to bed.• Better understanding of concussion sub types and how to approach accordingly.
Other Learners	<ul style="list-style-type: none">• Incorporate guidelines and emerging and existing evidence to inform clinical decision-making in multidisciplinary management of concussion symptoms.• I see outpatients for vestibular rehab and concussion management on the Big Island. I enjoyed learning about COBALT specifically and will start to use that as an alternative to the BESS when indicated.

If NO, identify barriers you perceive for applying the learning to practice

Profession	Comments
Athletic Trainers	<ul style="list-style-type: none">• It is difficult to give the one-on-one care that is needed sometimes with concussed athletes when there is only 1 athletic trainer to 400+ athletes.• Player/coach/parent compliance. Admin/coach buy-in.• I will have to overcome the barrier of working with coworkers who have to get accustomed to new practices.• Changing established norms.• Education level and confidence level of SCI protocol with EMT's and Coaches.
Student	I am not able to practice 100% of these studies in my practice currently as a student but hopes fill in the future.

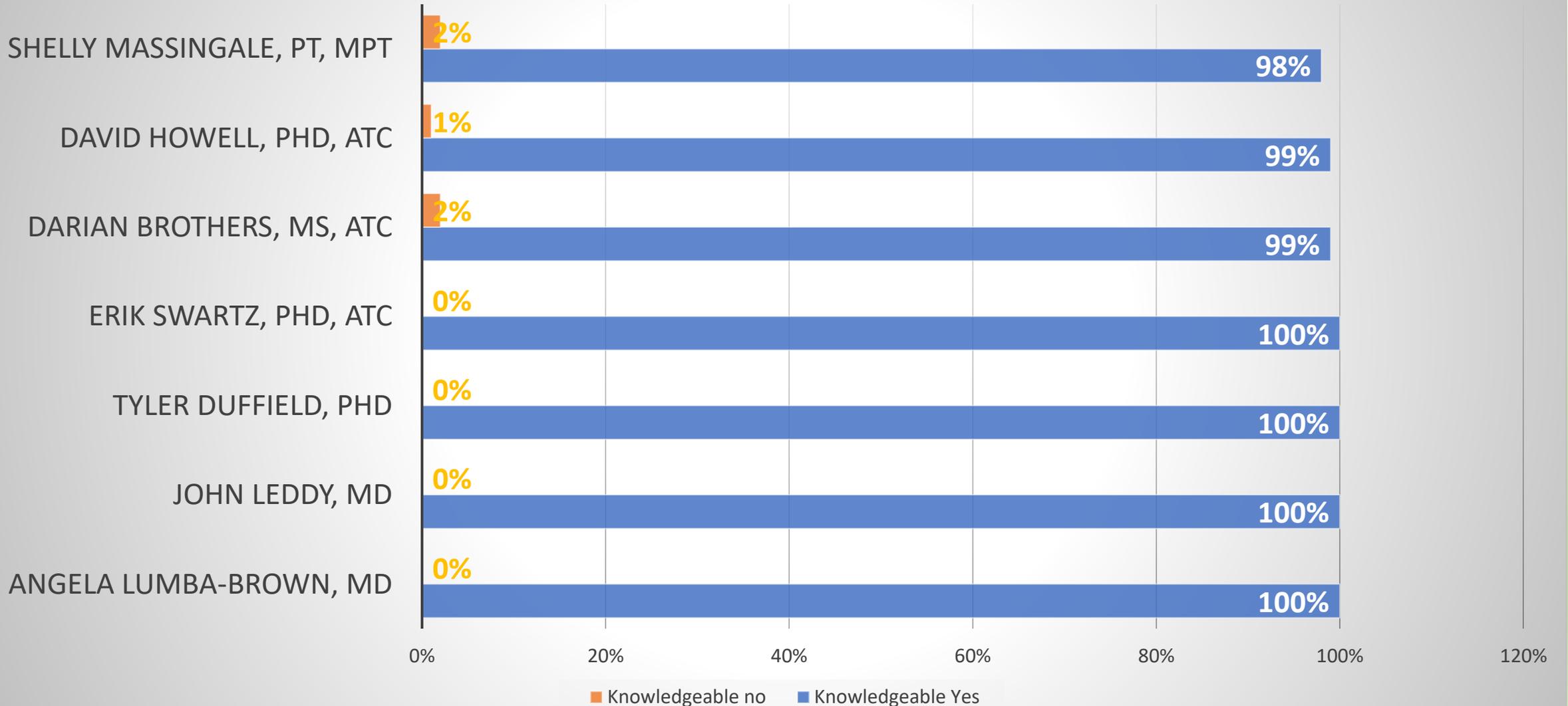
Course Evaluation Data

The overall activity was presented free from commercial bias?



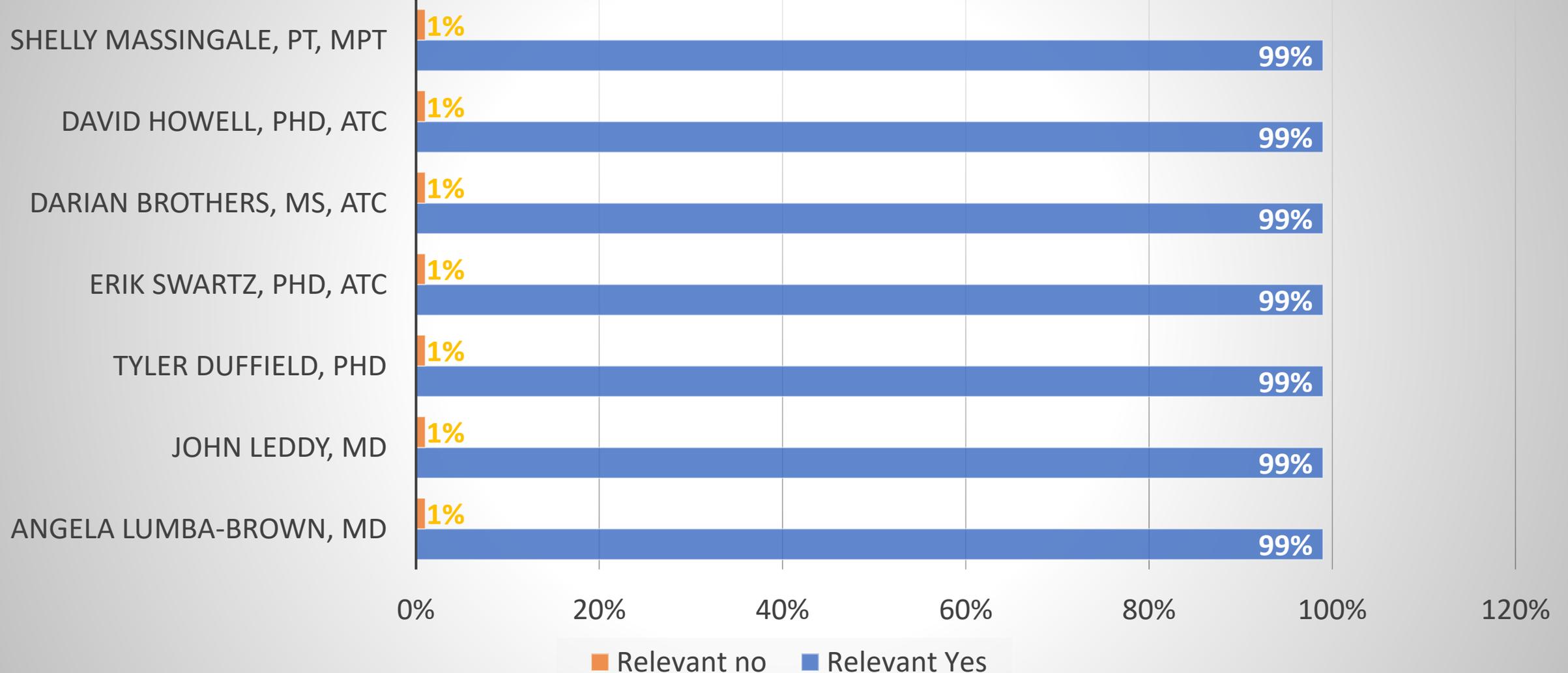
Course Evaluation Data

Were the speakers Knowledgeable?



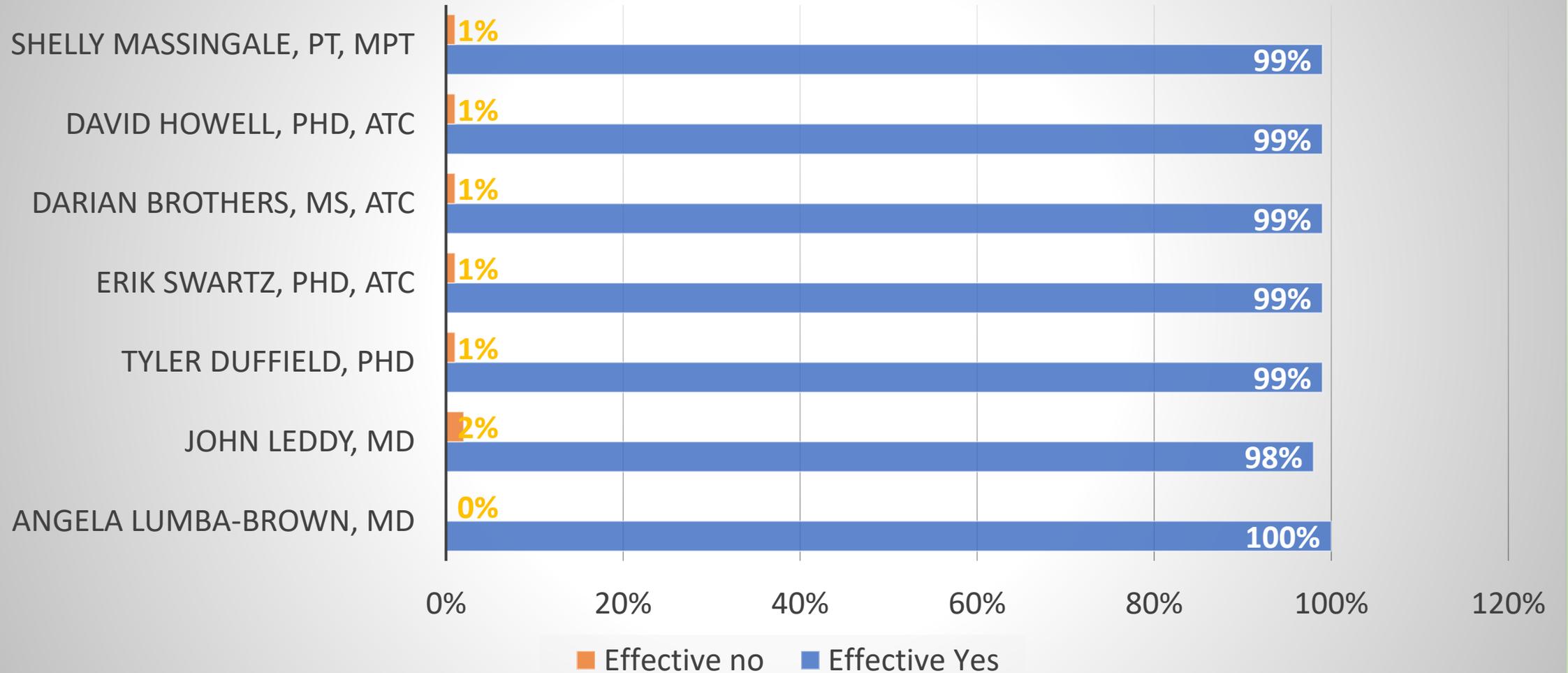
Course Evaluation Data

Were the speakers Relevant?



Course Evaluation Data

Were the speakers Effective?



General Comments

Physicians

As always, a very experienced/qualified group of expert speakers in the field - very helpful to be able to hear from them and the cutting edge of concussion science. The virtual meeting was well executed! A very good educational conference experience - thanks!

Shorter lectures may be easier to absorb. Have some 20 min talks.

Interesting research presented enjoyed video re cobalt testing, much better than listening to a description of the test.

The update on the new research was fascinating!

Great conference! Thank you!

Course Comments

Athletic Trainers. What I liked MOST about the program

Broad base of subjects within the category of concussions.

I loved that it was information that is current and applicable to my content area. It was the most up to date research which helps tremendously.

The range of the topics presented still relating to concussion but different than what we've seen the past 4 years. I also really liked all the evidence based information. Well done.

The Cobalt presentation was one of the best that I have heard in my 30+ years as an athletic trainer

Examples given from each presenter and breaking down their research/evidence to better understand.

It was virtual and made it possible for me to attend. I loved that pre-hospital care was part of the program before going into pre-season.

Course Comments

Athletic Trainers. What I liked the LEAST about this program

Access to some of the charts ahead of time would generate more questions.

I think there are some topics that were more clinical in the sense (Dr.Leddy's lecture for example), therefore they might not be as relevant to an ATC. However, obviously AT's are not the only ones attending this summit.

Some of the information was not as relevant to my level of practice as I would have liked, so I may not be able to utilize everything that I saw and learned during the conference for my own practice.

Asynchronous video was poor quality-hard to see slides during her presentation. Many interesting topics, but too much content that is not applicable to the secondary school AT. The unfortunate inability to network with folks after presentations due to virtual vs in person but understandable during the pandemic. Perhaps in the future there can be a virtual chat.

I would have liked the content to be more interactive.

It would have been nice to meet in person and get to practice the COBALT with others, or get to chat with other professionals between presentations to get their perspectives in real time versus later on if/when we see them.

Course Comments

Nurses:

Great conference!

Had IT issues on the first day.

Enjoyed the virtual experience. I was able to learn from the comfort of my own home but still get all the information. I think this platform also makes it more comfortable for participants to ask questions anonymously.

As I am part of the RN team assisting concussed students in their return to school and then return to sports, I am always interested in what is appropriate accommodations for computer work, screen time, reading, testing etc.

Loved the live demonstrations. It was very detailed and informative.

Please continue virtual conferences! It is also easier to ask a question virtually when we can type it.

Course Comments

Other Learners:

Provides good information on research being done with brain injury. Nice to see the advancement in this area from year to year. Miss the collaboration and networking portion of the conference, but virtual is good given the circumstances. Perhaps working in small working /collaboration groups into the conference?

I enjoyed being able to participate virtually. I had no issues with logging on and the process for asking questions was easy. I wished the topics were geared more towards treatment vs diagnosis.

Overall, a good virtual experience. Perhaps not having one person cover so many topics for the day. Maybe dividing those topics among other providers if possible.

Well planned, well prepared. Appreciated the relevance of SCI and TBI shared at an mTBI Conference.

Course Comments

Improvement Suggestions for Future Summits

More specifics on vestibular and oculomotor rehabilitation, vision therapy.

Sway Testing

Maybe a panel on implementation of testing protocols; schools that have done it successfully and how they implemented and covered costs.

Mental health counseling in conjunction with brain rehab

Psychiatric intervention education post concussion

Assessment and intervention approaches and strategies for prolonged post-concussion cognitive symptoms that impact participation in daily activities including school and work.

Multiple presenters discussed screening cspine and addressing that for treatments maybe going through cervical screen evaluation and treatment post concussion. Going through a case of someone post concussion with poor vestibular poor aerobic tolerance and neck pain how were they evaluated and what was their treatment progression. I think going through some oculomotor testing and treatment could also be interesting in future sessions.

Conclusion & Questions

- Webinar has more positives benefits than the negatives
 - With potential to run webinar with a live event as well
- Increase and or continue our marketing to other professional organization
 - National Athletic Trainers Association
 - Hawaii Chapter of Physical Therapy Association
 - American Medical Society for Sports Medicine
 - Hawaii Psychology Association

Questions