



## Point of View: The Athletic Story

October 2019

### **Statement from UNC-Chapel Hill Interim Chancellor Kevin Guskiewicz:**

“I stand by our concussion research 100 percent. The allegations about our research are baseless, without scientific merit and completely false.

Our research protocols go through a robust internal review process, and in most cases an additional external grant review process. We have always followed scientific rigor for controlling for study populations. Our research has been peer reviewed by hundreds of respected neuroscientists and sports medicine researchers before being published. I am proud of the work my colleagues at the Gfeller Center and other scholars who contributed to this work have done to help improve concussion prevention and care for athletes and service members. Every journal has its own disclosure policies; we have always fully complied with those guidelines.”

### **Key Points**

- **The research conducted by the Matthew Gfeller Sport-Related Traumatic Brain Injury Research Center has followed all research protocols and is highly regarded in its field.**
    - The concussion research conducted by Guskiewicz and his colleagues at the Gfeller Center has been peer reviewed by hundreds of respected neuroscientists and sports medicine researchers before being published in top journals around the world.
    - The research protocols go through a robust internal review process, and in most cases an additional external grant review process.
    - Guskiewicz and the Gfeller Center’s work has impacted sports safety for athletes at all levels. For example, the Gfeller Center at UNC-Chapel Hill was behind the Gfeller-Waller Concussion Awareness Act in North Carolina. This statewide legislation aimed at improving high school athlete safety has ranked North Carolina as the only state among the top three for athlete safety in each of the past three years for the *High School Sports Safety Policy Rankings* as independently evaluated by the [Korey Stringer Institute at the University of Connecticut](#).
  - **The story relies on discredited data and unsubstantiated claims.**
    - No recognized scientific journal has published Tatos and Comrie’s “study,” and the authors have not disclosed who peer reviewed it.
    - The [Journal of Scientific Practice and Integrity](#) is a website created six months ago that has yet to be validated by the industry.
    - JOSPI has only one “original peer-reviewed study” – that of Tatos and Comrie – and it only has seven articles published, the last one in July 2019.
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- The editor-in-chief (Dr. David Egilman, Brown University) has no peer-reviewed publications to his name indexed in PubMed. Of the 49 articles he lists on his Brown University professional website, none include terms related to brain injury or concussion.
- Guskiewicz and the researchers at the Gfeller Center have dedicated their work to understanding traumatic brain injury, working to prevent its occurrence in athletes by making sports safer, and improving care for retired athletes and military service members.
  - Guskiewicz is a change agent. His groundbreaking work has helped change guidelines recommended by the National Collegiate Athletic Association (NCAA), the National Football League (NFL), the National Athletic Trainers' Association (NATA), the American Medical Society for Sports Medicine (AMSSM), and many of the states across the nation – all of which now have a concussion education/management law for youth sports. These changes have made sports safer for athletes, and his dedication has been acknowledged nationwide.
  - He was one of the first researchers to identify the potential long-term effects of multiple concussions published in *Neurosurgery* (2005) and *Medicine & Science in Sports & Exercise* (2007). Guskiewicz was highly critical of the NFL during this period, highlighting the lack of a standardized concussion assessment protocol to care for their athletes. These papers helped emphasize the need for the concussion protocol in both the NFL and NCAA.
  - His research team's work encouraged the NFL to move kickoffs from the 30-yard line to the 35-yard line in 2011, resulting in a 33 percent reduction in returned kickoffs and a 50 percent reduction in concussions sustained on kickoffs. The NCAA followed with a similar rule change in 2012.

### Additional Information

#### *Gfeller Center Research*

- The Gfeller Center follows standard operating procedures and best practices for disclosing and controlling the study populations.
  - The studies highlighted by The Athletic were not related to injury incidence and in most cases did not test outcomes that would be influenced by athletes with ADHD. For example, testing head impact biomechanics from hits on a football field does not look at cognitive functioning and, therefore, the prevalence of LD/ADHD in the population is irrelevant.
  - In cases where ADHD may negatively influence outcomes such as cognitive testing, our studies (and those cited by The Athletic) employ within-subjects repeated measures designs that explicitly control for the within-participant variability one might expect due to ADHD. All of these studies have undergone rigorous peer review rounds and have been published in respected journals.

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- The University and researchers at the Gfeller Center have received funding from a variety of sources, including the Centers for Disease Control, National Institute for Health, Department of Defense and US Army Special Operations Command, National Operating Committee on Standards for Athletic Equipment, NCAA, NFL, and Congressionally Directed Medical Research Programs.

### *Issues with The Athletic Story*

- The Athletic presents a misinterpretation of the publicly available data without any mention of the broader context and details the sources were not privy to and that most respected peer reviewers should have questioned.
- The Athletic failed to disclose the background and clear bias of its key sources.
- Three independent experts have openly refuted [Mary Willingham's research](#) and the claims based on it.
- The percentages of ADHD reported in the story are much higher than that in the study populations used in the Gfeller Center research. The prevalence of ADHD in our study populations falls within expected rates.
  - The data set used to make claims about ADHD and LD levels among students was not representative of our Gfeller Center overall study population. The **182** student-athletes in the data set cited in the article represented a small fraction of **1,800** total student-athletes who attended UNC between 2004 and 2012.
- The article erroneously implies that any studies including participants with ADHD are flawed. Scientific research design is a complex undertaking, and our UNC scientists are experts in controlling for these factors when they design and execute their studies. This approach is validated by several peer review processes, from the granting agencies that fund our work to the journals that publish our innovative and impactful findings.
  - All of our studies control and account for pre-existing conditions when reasonable to do so. The studies highlighted by The Athletic do not address injury incidence nor do they address test outcomes that would reasonably be influenced by athletes with ADHD (e.g., head impact biomechanics). In cases where ADHD may negatively impact outcomes such as cognitive testing, our studies (and those cited by the article) employ within-subjects repeated measures design that explicitly control for the within-participant variability one might expect due to ADHD. All of these studies have undergone rigorous peer review rounds and have been published in respected journals.

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#### *Guskiewicz's Expertise, Research Impact*

- Guskiewicz has extensive clinical and research experience in the field of kinesiology and sports medicine, and has been recognized by leading scientists as a Fellow of the National Academy of Kinesiology, NATA, and American College of Sports Medicine.
- Guskiewicz is a nationally recognized expert on sport-related concussions. He and his research team have secured research funding totaling more than \$23 million.
- His groundbreaking work has changed guidelines recommended by the NCAA, NFL, NATA and the AMSSM.
- In 2011, Guskiewicz received the prestigious MacArthur Fellowship (often called a genius grant) for his innovative work on the diagnosis, treatment and prevention of sport-related concussions. According to the MacArthur Foundation:
  - Guskiewicz “has made major advances in the diagnosis, treatment, and prevention of sports-related concussions.”
  - “He was among the first to identify the long-term effects of multiple concussions, including cognitive impairment and depression in later life, through large-scale epidemiological studies of retired professional football players.”
  - “Through a combination of laboratory and on-the-field research, Guskiewicz has played an important role in raising awareness about the prevalence and dangers of sports-related brain injuries in both professional and youth athletics.”
  - “Guskiewicz is contributing significantly to state and federal policy discussions concerning development of more stringent return-to-play guidelines and head-gear investigations that will improve the safety of athletes of all ages.”

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