Protocol for Retrospective Analysis of Baseline Concussion Testing Records

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Background: There are a variety of tests available to determine the severity of sports-related concussion (SRC). As athletes perform numerous cognitive assessments, there is a high likelihood that mental fatigue becomes a factor that impacts neurocognitive performance. Because of the importance of high performance on baseline assessments, it is vital that mental fatigue is not detrimental. By optimizing baseline testing to reduce mental fatigue, there can be greater certainty that when athletes return to sport following an SRC, they are safe.

Methods: With IRB approval, participant records from athletic training services will be reviewed for data utilization consent for research purposes by a certified athletic trainer. Potential participants include adult, female athletes involved in contact sports (tackle football). Records will be de-identified using a numeric identifier for each participant and data will be extracted using a standardized collection form in Excel. The data recorded will include self-reported information related to age, gender, weight, height, medications, past medical/surgical history, and medical diagnoses related to concussion recovery. Data capture will include the physical performance results and test sequencing from baseline testing, including the modified COBALT, VOMS, BlazePod tests, DropStick tests, grip strength, King Devick, Post Concussion Symptom Scale, and SCAT-5.

Future Work: Data will be analyzed descriptively, noting frequencies for reported demographic and health history items and average for age, weight, height, and performance data. Relationships between data and testing sequence will be examined to promote optimal order for baseline testing, as well as test-retest reliability and convergent validity will be determined.