Abstract
Poster Session A

Thursday, October 18, 2018 12:00 pm – 1:30 pm

ABSTRACTS FROM THE 7TH ANNUAL CONFERENCE OF THE SPORTS NEUROPSYCHOLOGY SOCIETY, MAY 2 – 4, 2019

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Variability in ImPACT Baseline Scores in Adolescent Athletes
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Purpose: The purpose of this study was to observe the test-retest-reliability of adolescent athlete Baseline ImPACT scores over a one and two-year interval. Methods: Participants were selected from an archival de-identified sports medicine ImPACT database in Florida. The sample (N=4,044) consisted of primarily male (62.2%), adolescent athletes aged (Mage= 15.45, SD=1.291). Athletes were included in the study if they completed an initial and follow-up baseline ImPACT between 2016 and 2019, and if they had no history of concussion. One-Way ANOVA was conducted to determine the relationship between overall mean composite and total symptom scores between baseline tests. Results: One-Way ANOVA revealed Verbal Memory (F[2,4041]=16.231, p<.001), Visual Memory (F[2,4041]=23.528, p<.001), and Visual Motor (F[2,4041]=46.111, p<.001) composite scores significantly differed over time. While these results yielded statistical significance over time, further descriptive statistics showed that the mean differences for these composite scores did not fall outside of the ImPACT Reliable Change Index (RCI) criteria. Conclusion: Assuming no significant physical or cognitive changes between baseline administrations, ImPACT composite and total symptom scores are expected to be consistent over time. Results indicate that ImPACT composite and total symptom scores are reliable in an adolescent sample across one and two-year time periods. Previous literature regarding test-retest reliability of composite and total symptom scores on ImPACT in youth and adolescent athletes has been inconsistent, which has caused researchers and clinicians to question the clinical utility of this assessment. Future research is needed to highlight the utilization of clinical judgement and clarify the psychometric properties of this measure.