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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Evaluating the Prevalence of Low Factor Scores on the ImPACT™ Quick Test in Adolescents and Adults using Multivariate Base Rates
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Purpose: The ImPACT™ Quick Test (QT) is a brief iPad-based battery of neurocognitive tests that has been standardized on a sample of children, adolescents, and adults (ages 12-70). We sought to provide information regarding the prevalence of low ImPACT™ QT scores in the normative sample to improve clinical interpretation and reduce the risk of over-interpreting, or misinterpreting, a single low score. Methods: Participants included 616 individuals ranging in age from 12 to 70, who were assessed individually. The ImPACT QT includes five subtests, contributing to three factor scores: Motor Speed, Memory, and Attention Tracker. The prevalence of low factor scores, stratified by age and gender, were calculated using multivariate base rates. Results: In the total sample, obtaining 1 score below the 25th percentile was common (base rate, BR=31.8%), but obtaining 2 or more scores in this range was uncommon (BR=13.3%). Similarly, obtaining 1 score below the 16th percentile was common (BR=22.3%), but obtaining two or more scores in this range was very uncommon (BR=5.4%). There were small differences in base rate between genders and the number of low scores were fairly similar across the age groups. Conclusion: Results from this study parallel previous work illustrating that a substantial percentage of healthy individuals will obtain one or more low test score when administered a battery of multiple cognitive test measures. Given that some healthy, non-concussed individuals will obtain a single score below expected cut-offs, clinicians should caution against overinterpreting a single low test score.