

VESTIBULO-OCULOMOTOR FUNCTION, COGNITIVE ABILITIES, AND SYMPTOMS OF DEPRESSION IN MALE COLLEGIATE FOOTBALL PLAYERS

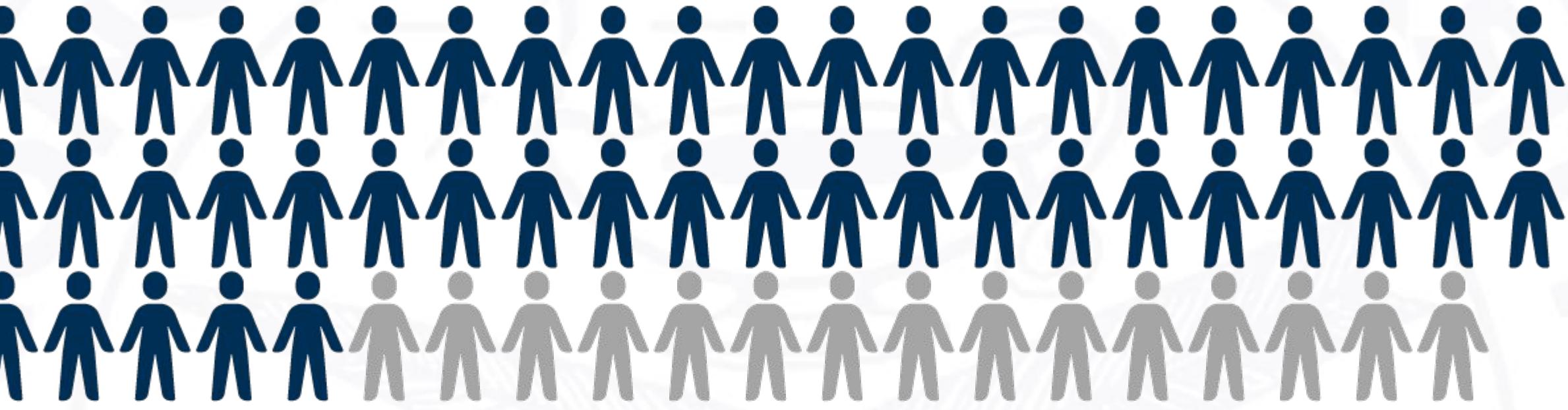
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Introduction

- Background:** Collegiate football players experience increased exposure to repetitive head impacts. These subconcussive head impacts can cause vestibulo-oculomotor (VOM) dysfunction, cognitive impairment, and depressive symptomatology¹⁻⁴
- Purpose:** To determine the prevalence of VOM dysfunction, cognitive impairment, and depressive symptomatology in cleared to play football players



76%

OF ATHLETES HAD AT LEAST ONE POSITIVE TEST

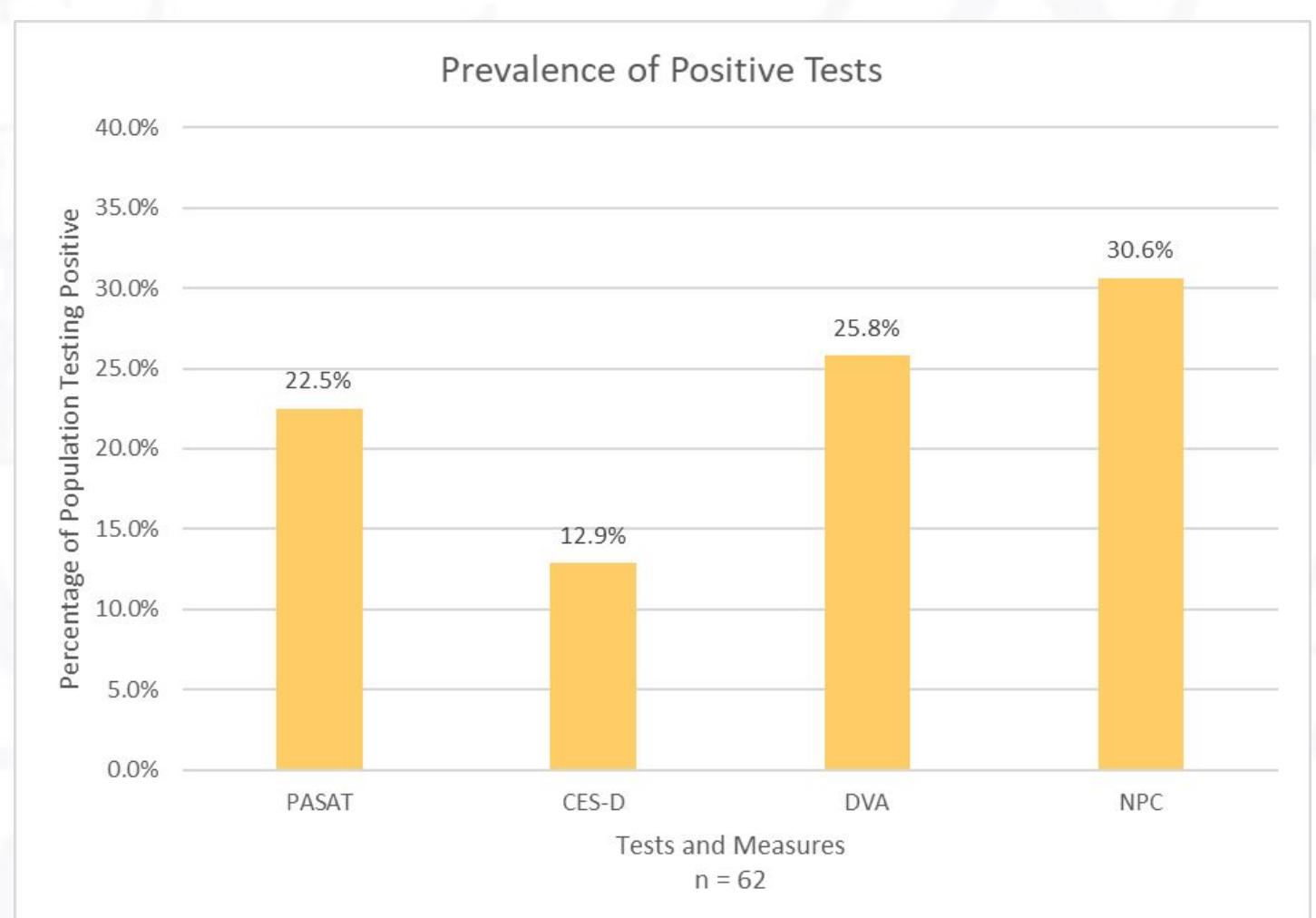
Methods

- Participants:** 62 male Division II Football players from Concordia University, Saint Paul
- Tests and Measures:**
 - Dynamic Visual Acuity (DVA)
 - Paced Auditory Serial Addition Test (PASAT)
 - Near Point Convergence (NPC)
 - Centers for Epidemiologic Studies Depression Scale (CES-D)

CSP

Results

- Over half (51.6%) of cleared-to-play athletes presented with at least one positive VOM test
- Eight participants (12.9%) scored >16 points on the CES-D indicating clinically significant symptoms of depression
- Twenty participants (22.5%) scored one or two standard deviations below the group-mean PASAT score suggesting impaired cognitive functioning



Conclusion

- Testing revealed a high number of abnormal results in cleared-to-play football players suggesting referral to health services may be appropriate
- Results are especially informative given the reduced-contact season due to COVID-19 protocols

Clinical Relevance

- Many cleared to play athletes may be playing in the presence of V-O dysfunction
- Cognitive impairment and depression symptomatology should be monitored for long term health and wellness
- A more holistic approach is necessary to objectively assess athletes exposed to frequent subconcussive head impacts

References

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