



Are Externalizing Behaviours Linked To Concussion In Child Athletes?

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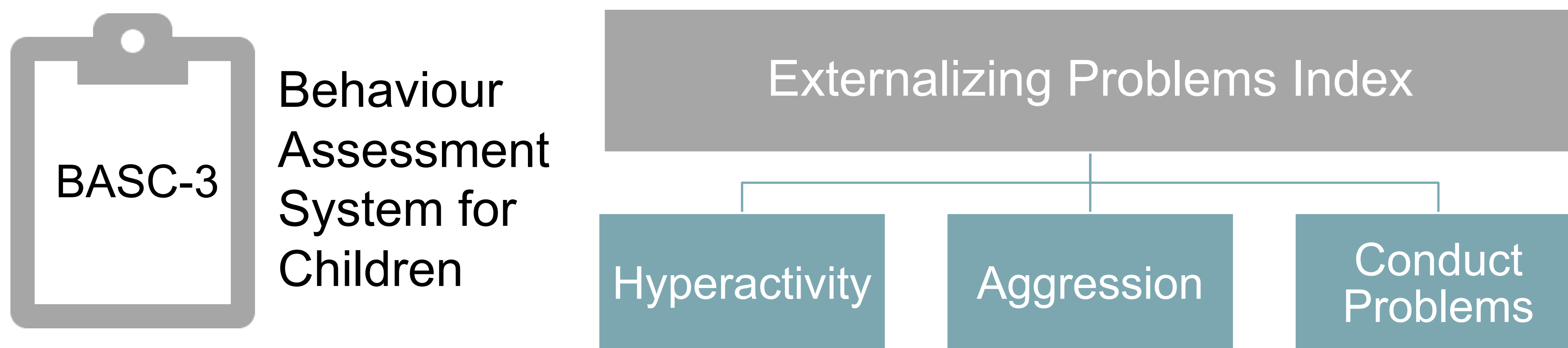
Introduction

- Adult athletes with a history of concussion often report higher rates of externalizing behaviours such as aggression¹⁻³ and impulsivity.⁴
- Few studies conducted with children have found higher rates of impulsivity and aggression in those with a history of concussion.⁵⁻⁶
- Fewer studies have examined this relationship in child athletes, and none has examined several dimensions of externalizing behavior within a single sample.

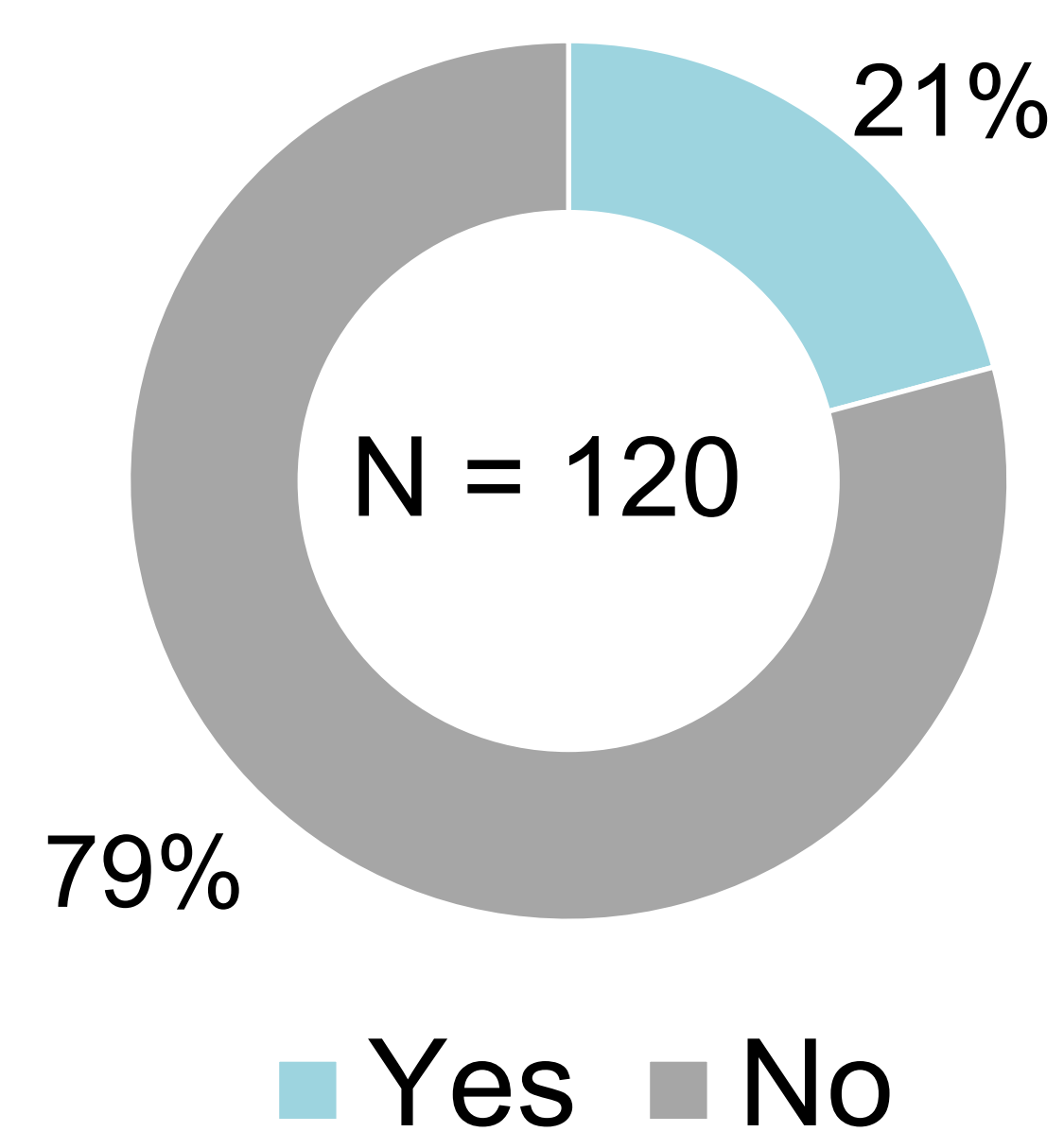
Objective

To examine multiple types of externalizing behaviour among child athletes with and without a history of concussion.

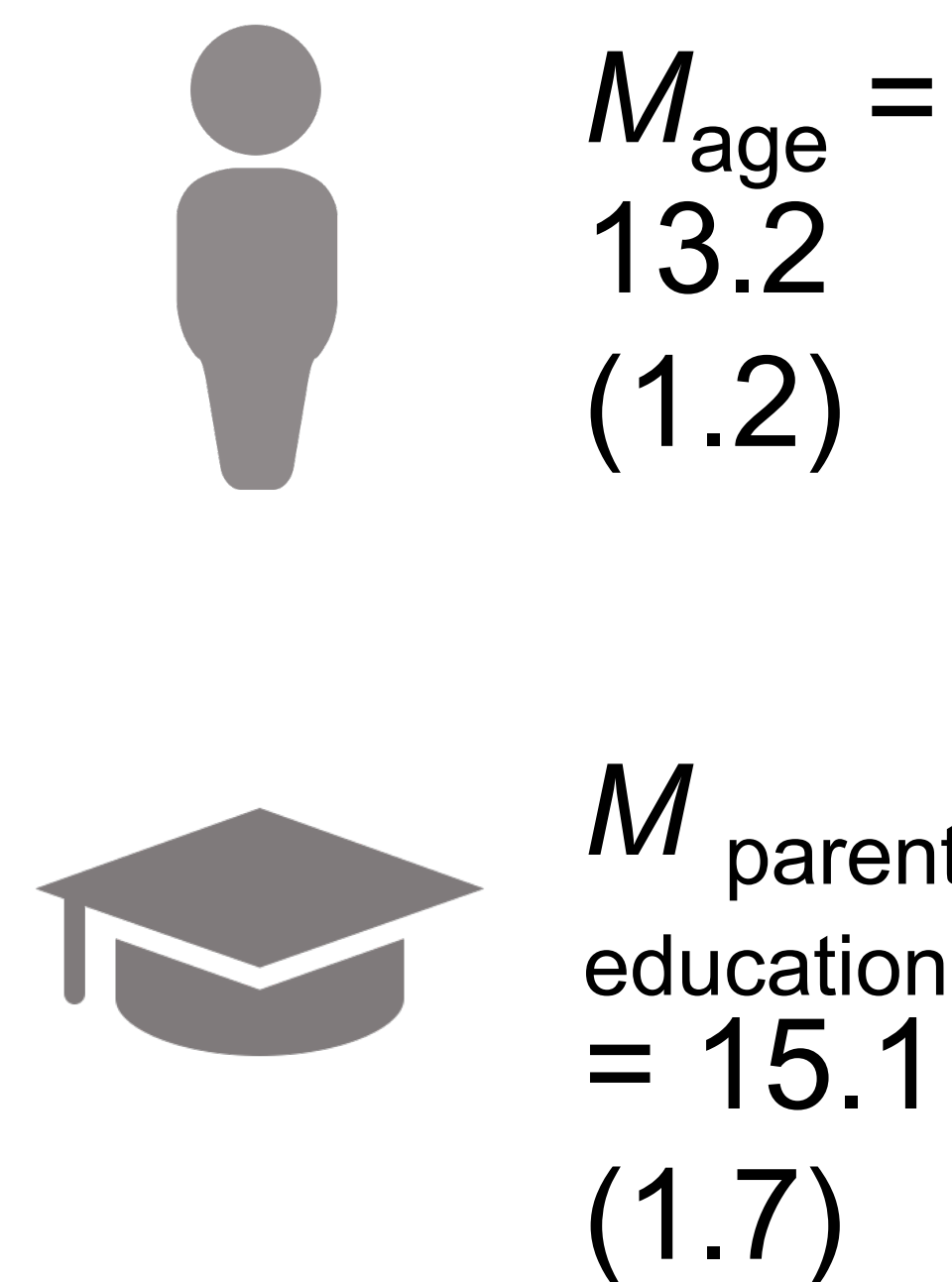
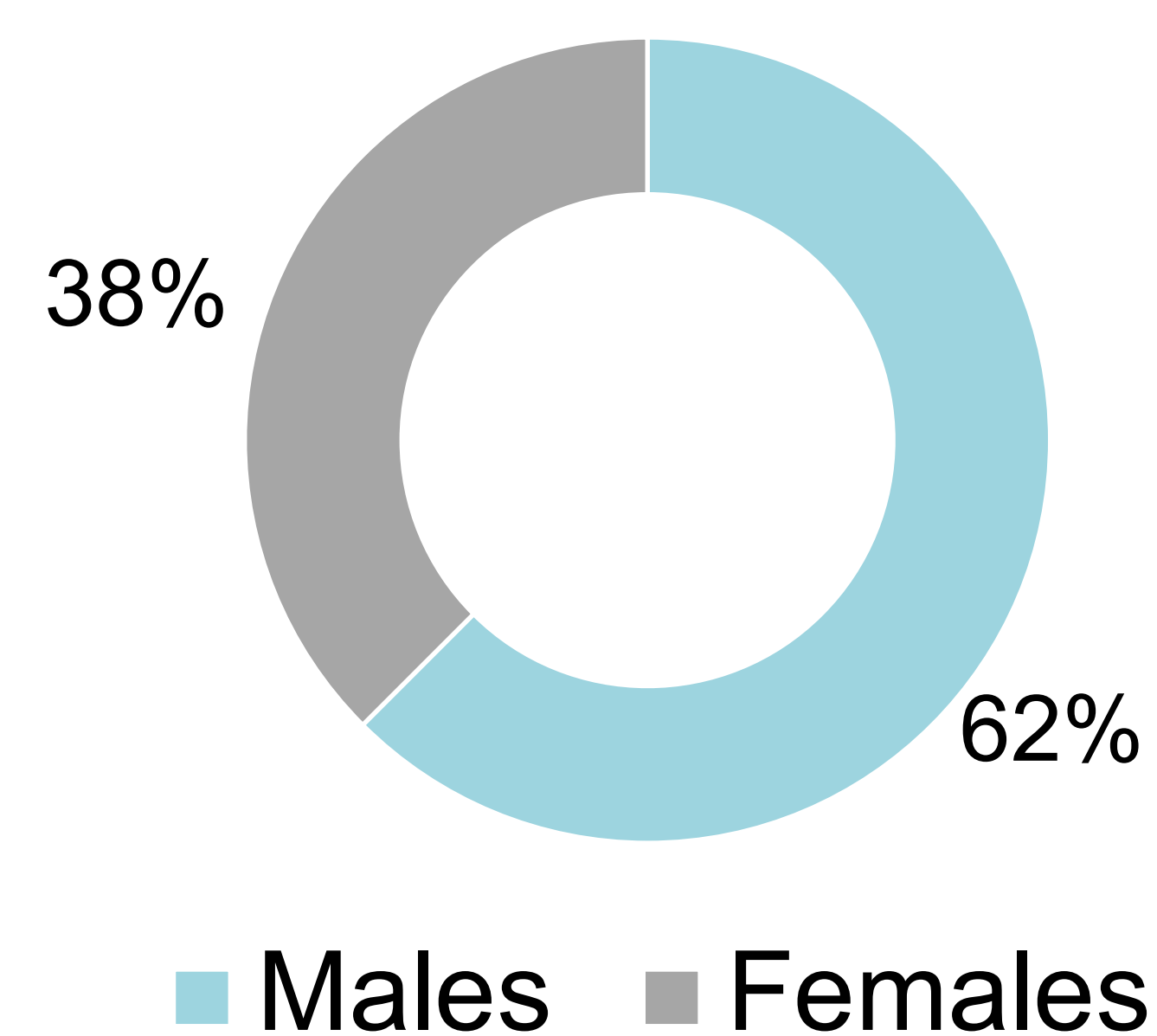
Methods



History of Previous Concussion



Gender

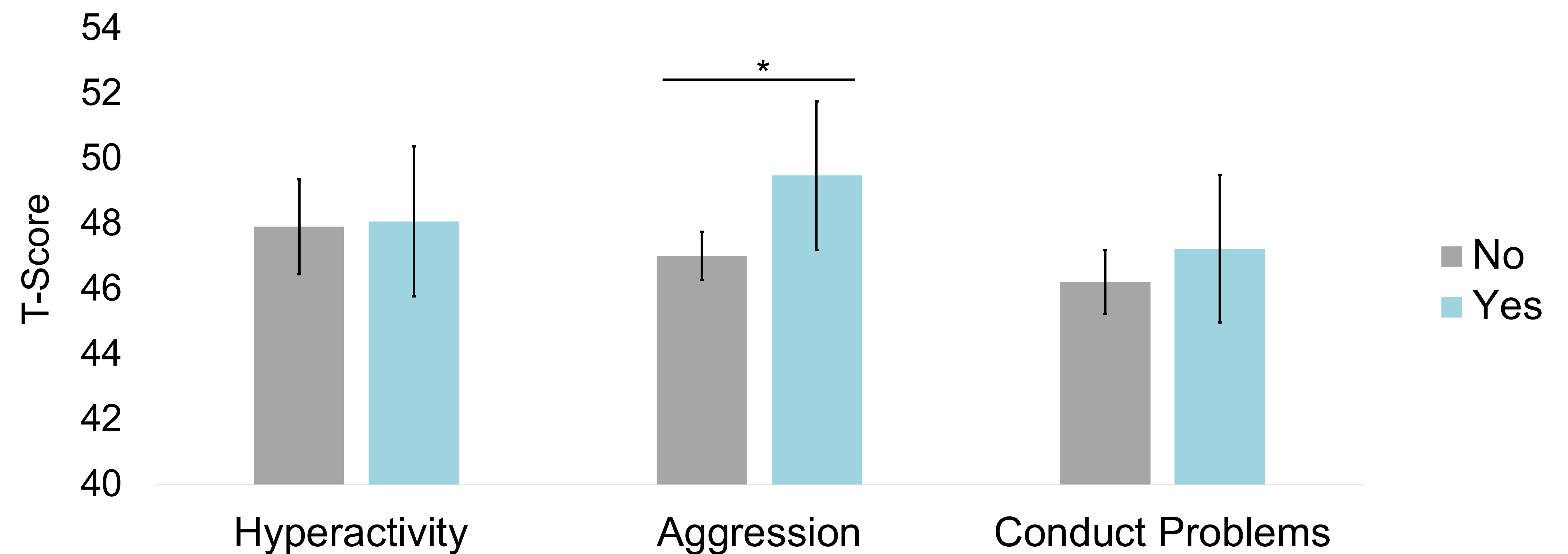


Results

MANOVA of BASC-3 Externalizing Subscales

Effect	Pillai's Trace	F	df	p	η^2_p
Intercept	.998	210170.37	3, 116	< .001	.998
Concussion History	.069	2.86	3, 116	0.04	.069

BASC-3 Subscale Score by History of Previous Concussion



Hyperactivity: $F(1, 118) = 0.06, p = .801, \eta^2_p = .001$; Aggression: Welch's $F(1, 29.65) = 4.45, p = .043, \eta^2_p = .057$; Conduct Problems: $F(1, 118) = 0.83, p = .363, \eta^2_p = .007$

Discussion

- History of concussion in child athletes was associated with higher levels of externalizing behaviours.
- This association was driven largely by the observed link between concussion history and aggressive behavior.
- Although the causal direction is unclear, researchers increasingly postulate that higher levels of trait aggression put athletes at greater risk for concussion.
- These findings should be taken into consideration when determining potential risk factors for concussion among child athletes.

References

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