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Identifying the Relationship Between Post-Concussion Mental Health and Athletic Status: Is It the Same for All Demographics?

Mary Lorraine Zsolway
Rowan University

Jamie Shoop
Children's Hospital of Philadelphia

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Identifying the Relationship Between Post-Concussion Mental Health and Athletic Status: Is it the Same for All Demographics?

Mary Zsolway¹, Jamie Shoop, PhD²

¹Rowan-Virtua School of Osteopathic Medicine, ²Children's Hospital of Philadelphia

Background

- Roughly 1 in 3 individuals will have mental health concerns post-concussion.²
- Generally, youth who participate in sports, boys, younger children, White individuals and those with private insurance tend to report fewer mental health symptoms.^{1,5}

Significance

- Investigate whether athletic status was linked to fewer symptoms of anxiety and depression, and explore whether the impact of athletic status on mental health varied by demographics (i.e., age, race, sex, insurance status)
- Identifying at-risk individuals early helps to prioritize those who may benefit from early access to mental health resources

Methods

Sample: 204 patients seen for specialized behavioral health care through the CHOP Minds Matter Concussion Program

- 69.5% White; 30.5% Non-White
- 33.3% Male; 66.7% Female
- 67.8% Private Insurance; 32.2% Public Insurance
- 75.5% Athletes; 24.5% Non-Athletes
- 44.1% injured through sport; 25% through trauma; 30.9% through other mechanisms
- Median patient age at time of consult – 14.97
- Median time since injury – 85.5

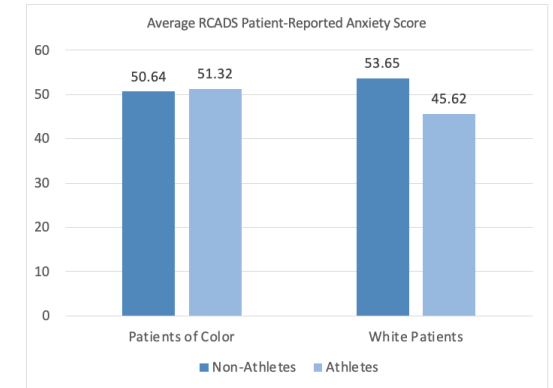
Procedure and Measures: Caregivers and patients completed the RCADS (Revised Childhood Anxiety and Depression) at their initial visit with CHOP Concussion Psychology.¹²

Analysis: A multivariate analysis was run utilizing athletic status and demographics (age, sex, race, public vs private insurance status) as independent variables predicting RCADS Anxiety and Depression.

Results

Depression		
	Patient Report	Caregiver Report
Athletic Status	$B = -5.11^*$	$B = -6.10^{**}$
Interaction Effects	None	None
Anxiety		
	Patient Report	Caregiver Report
Athletic Status	$B = -4.35^*$	$B = -2.78, n.s.$
Interaction Effects	Athletic status by race ($B = -8.71^*$) See Figure	None

Note: **= $p < .01$, *= $p < .05$



Discussion

- In most instances, athletic status was linked to lower mental health symptoms.
- The impact of athletic status on mental health largely did not vary by demographic variables. One exception was the impact on patient-reported anxiety, which suggests that playing a sport is linked to lower anxiety only for White patients. This same relationship was not seen for patients of color.
- The relationship not staying consistent across race begs the question of what about sports may be protective for White youth but not youth of color.

Future Directions

Future research should:

- investigate the mechanism through which playing sports may be protective
- investigate the unique needs of patients of color to best support them

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References

