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

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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. 1.5

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

<table>
<thead>
<tr>
<th>Athletic Status</th>
<th>Patient Report</th>
<th>Caregiver Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction Effects</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

### Anxiety

<table>
<thead>
<tr>
<th>Athletic Status</th>
<th>Patient Report</th>
<th>Caregiver Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interaction Effects</td>
<td>Athletic status by race (B=-2.78, n.s.)</td>
<td>None</td>
</tr>
</tbody>
</table>

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

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

Acknowledgements

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References