# Management of Youth Sport-Related Concussions: A Survey of Parents

Western University
OF HEALTH SCIENCES

College of Health Sciences
CHS-Northwest

Kristoffer De Leon, SPT, Christian Phillips, SPT, Mariann Caballero, SPT, Armin Webb, SPT, Anthony Albarran, SPT, Bradley Davis, SPT, Christian Velez, SPT, Christian Velez, SPT, Christian Velez, SPT, & Nicole Biltz, DPT

# Background

- An estimated 1.1 to 1.9 million sport and recreation-related concussions are reported among youth (age <18 years) in the United States annually.
- Concussion education programs are available across the United States, educating both parents and coaches on the signs and symptoms of concussions.
- Coaches receive annual concussion courses, but there are no requirements for the athlete or their families to undergo training.
- Young athletes in rural areas tend to have lower rates of reported concussions and decreased understanding of concussions but are at greater risk of more severe traumatic brain injuries compared to their urban counterparts.
- Parents often feel there is limited guidance on managing their child's concussion in rural communities, especially in rural communities where sports and recreation concussion treatment is not always readily available to rural communities when compared to urban areas.

# <u>Purpose</u>

#### This study aims to:

Determine parents' understanding of youth sport-related concussions in Linn and Benton counties of Oregon, which are mostly rural areas.

| Survey Items Captured                  |   |  |
|--|---|--|
| Demographics                           | Concussion Knowledge and Resources                          |  |
| <ul> <li>Number of children</li> </ul> | Child sport participation                                   |  |
| <ul> <li>Participant's age</li> </ul>  | Sports types  |  |
| <ul> <li>Gender identity</li> </ul>    | Number of sport-related concussions                         |  |
| <ul> <li>Race/ethnicity</li> </ul>     | Total number of concussions                                 |  |
| <ul> <li>Residence zip code</li> </ul> | Medical providers utilized                                  |  |
| <ul> <li>Level of education</li> </ul> | <ul> <li>Confidence rating on locating resources</li> </ul> |  |
| <ul> <li>Occupation</li> </ul>         | Delivery methods preferred                                  |  |
|  | Language preferred  |  |
|  |   |  |

#### Methods

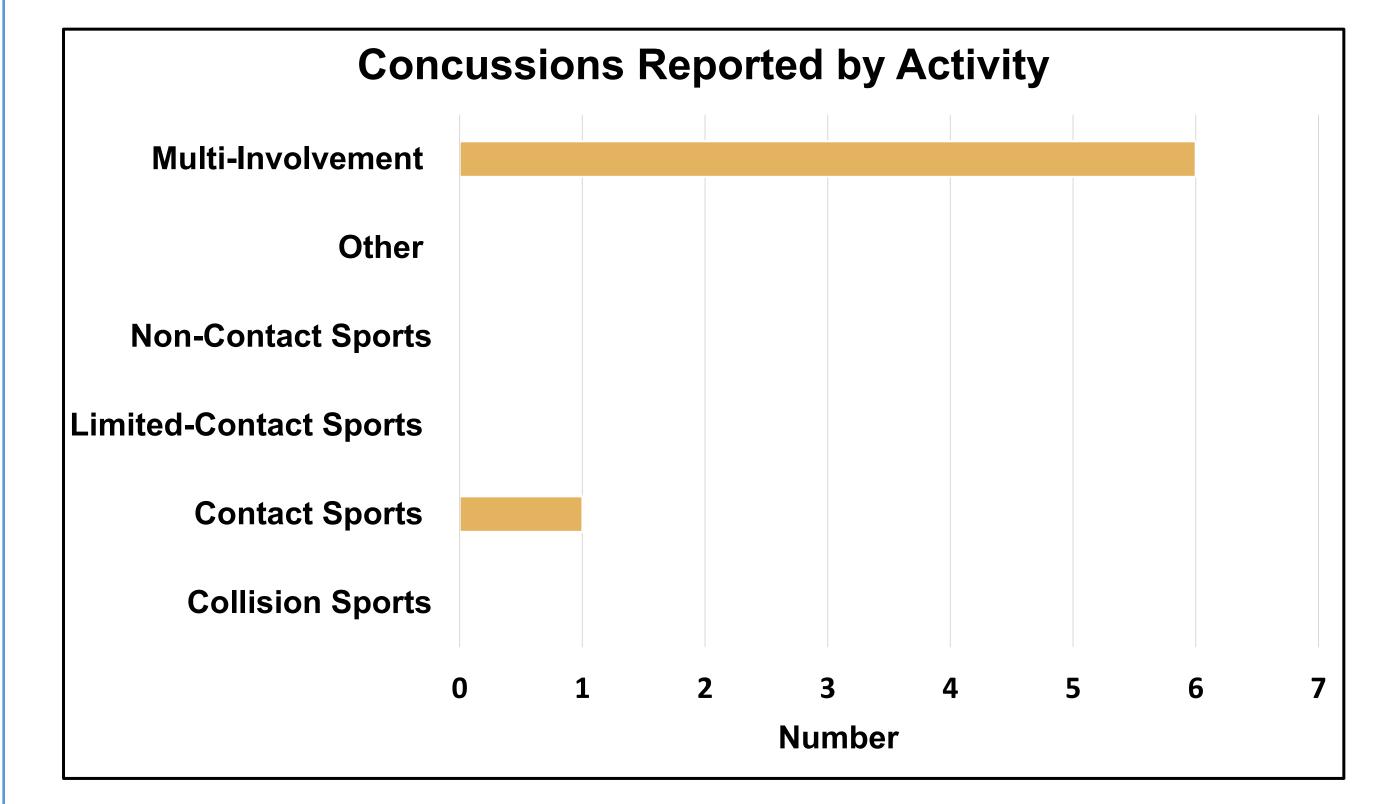
- 1. A survey was created to evaluate the current understanding of youth sport concussions.
- 2. Investigators used a sample of convenience to recruit participants. Survey was disseminated to parents residing in Linn and Benton County.
- 3. The survey evaluated current concussion management procedures from the parent perspective.

- **4.** Prior to each survey, participants were provided with and acknowledged informed consent.
- **5.** The surveys were disseminated to parents by word of mouth, person-toperson solicitation, and flyers posted in community places.
- 6. Data was analyzed via SPSS and Microsoft Excel.

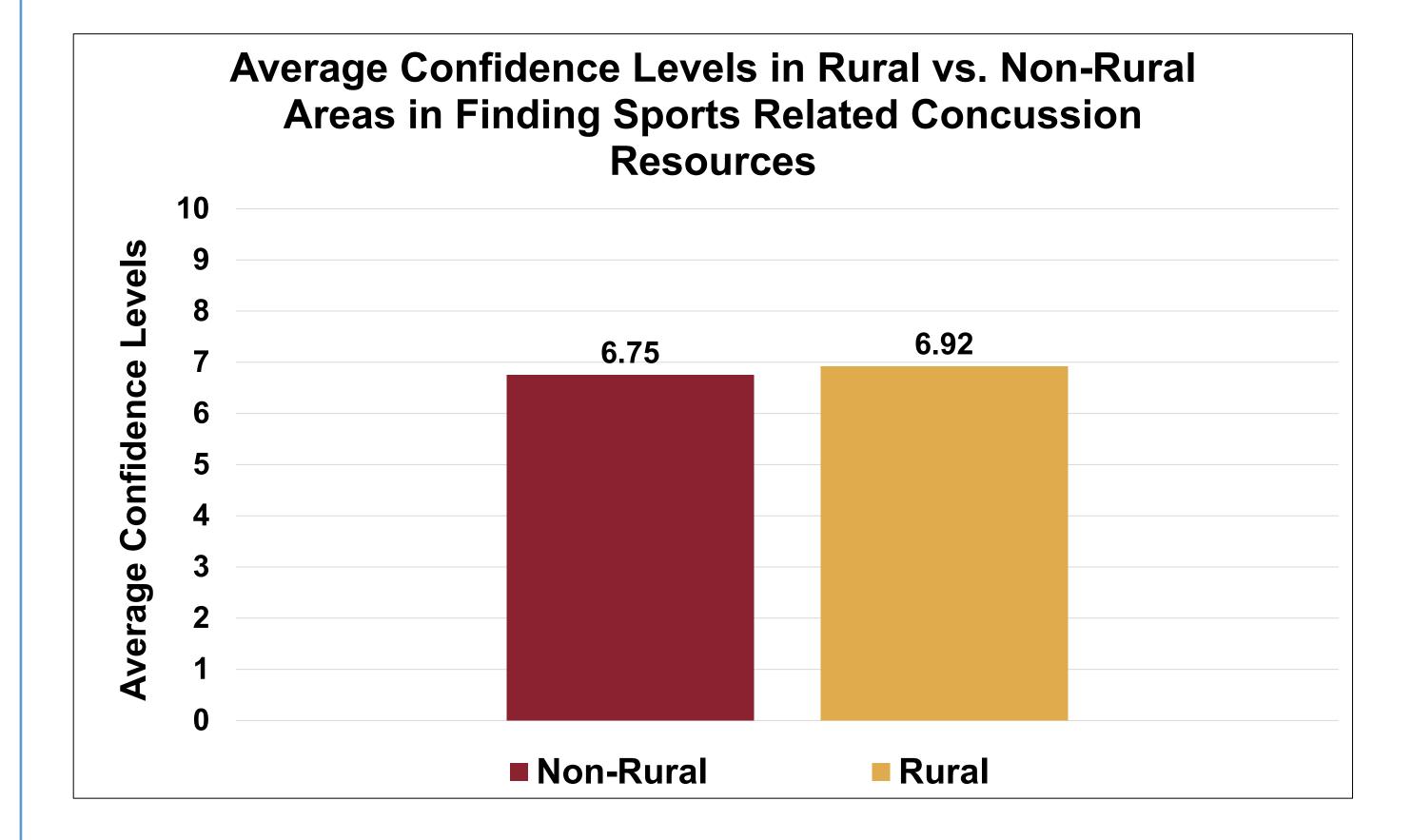
|    | Inclusion Criteria              | Exclusion Criteria                 |
|----|---------------------------------|------------------------------------|
| 1. | Resided in Linn and Benton      | 1. Resided outside of Linn or      |
|    | County                          | Benton County                      |
| 2. | Had at least one child 18 years | 2. Only had children older than 18 |
|    | or younger                      | 3. Had no children                 |
|    |                                 |                                    |

# Results

- There was a total of 28 responses; 7 responses were removed due to incomplete submissions, leaving 21 responses for data analysis.
- 7/21 responses were from parents who reported having at least one child who sustained a sport-related concussion.
- The average confidence of the parents' ability to find concussion resources was 6.86/10 (where 10 is the most confident).



#### Results Continued



# Conclusions

- Data analysis revealed parents have a moderate level of confidence to find resources for their children about sport-related concussions; however, the need to create additional resources for rural regions is inconclusive.
- Due to the limited responses, more research is needed.

# Future Directions

- 1. Survey adolescent athletes about their knowledge on sport-related concussions.
- 2. Identification of the methods used by primary care physicians in a rural setting to evaluate and treat youth athletes post-concussion.
- 3. Determination of the need for resources specific to the rural setting for concussion care in this population.

# References

