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Exploring Occupational Therapy's Role in Sports-related Concussions

Rajvi Patel, OTS; Karen Park, OTD, OTR/L, BCP

BACKGROUND

Concussions or mild traumatic brain injuries (TBI) are caused by a bump, blow or jolt to the head or body causing the head and brain to move rapidly back and forth (CDC, 2019). Following a concussion, children can experience cognitive, emotional, and behavioral deficits that impact daily functioning include school, physical activity, work, and socialization (Wilmoth et al., 2019). Occupational therapy (OT) is rarely recognized as a part of the rehabilitation team for post-concussion recovery.

PROBLEM

Currently, school districts do not require school staff to complete concussion management training (Hildenbrand et al., 2018). Occupational therapy may add value to the post-concussion management team for high school athletes through education and advocacy.

PURPOSE

Better understand occupational therapy's (OT) role in sports-related concussions in child athletes ages 12-17 years old.

Learning objectives:

- Observe athletes recovering from a concussion in medical clinic and high school setting.
- Identify and describe the role of the post-concussion interprofessional team members at a high school and medical clinic.
- Learn more about survey development and interviewing styles.

Acknowledgement:
Special thank you to my mentor Dr. Madison Harris.

PROGRAM OVERVIEW

The purpose of this program was to identify a potential role for OT within the sports concussion management team at middle and high schools. Through this program, staff members including teachers, coaches, athletic trainers, and a family medicine physician at Cerritos High School (CHS) were educated on the most up to date concussion protocols, concussion sign/symptoms, and typical concussion recovery.

Participants:

- Recruited from CHS in Cerritos, CA and Active Kid MD a pediatrics and sports medicine clinic in Anaheim Hills, CA.
- Participants: teachers, coaches, athletic trainers, school nurse, school psychologist, and family and sports medicine doctors that worked with 12–17 year-old students that have or had a sports-related concussion injury

Measures:

- **Needs assessment at CHS and Active Kid MD**
 - a. Open ended interview questions
- **Concussion staff survey**
 - a. 26 participants
 - b. 7 questions
 - c. Collected data on current concussion management knowledge of all staff members that participated.
- **Post-evaluation survey**
 - a. 1 participant
 - b. 5 questions
 - c. Feedback from staff at CHS on the usefulness and distribution of the educational handouts.

References:



PROGRAM IMPLEMENTATION



General Program Overview:

1. Conducted needs assessment at CHS and Active Kid MD.
2. Educated staff at CHS and Active Kid MD on importance of addressing activities of daily living as well as other occupations that are meaningful to client during concussion recovery.
3. Described to staff at CHS and Active Kid MD how OT will benefit this population to address post-concussion management.
4. Created concussion handout to educate CHS staff on definition of concussion, typical signs and symptoms, typical recovery, and concussion protocol for returning to school and sport.

Concussion Packet includes:

- General concussion definition, signs, and symptoms
- Typical concussion recovery
- Return to learn step-by-step table
- Return to sport step-by-step table



Theoretical Frameworks:

1. The Model of Human Occupation (MOHO)
2. Person Environment Occupation (PEO) Model

RESULTS

Results of Needs Assessment/ Concussion Staff Survey:

- Staff was not confident in their knowledge of concussions including, concussion protocol related to return to school and sport.
- Teachers, coaches, and all staff at CHS were given a concussion educational packet consisting of four pages of information to increase their knowledge and confidence when working with concussion students.

Evaluation:

Feedback was requested from staff members at CHS to determine how the educational handouts benefited the students as well as the staff.

Results of Post-Evaluation Survey:

Concussion educational handouts were useful, increased knowledge, confidence, and were easily accessible to all staff, students, and parents at CHS.

DISCUSSION/IMPLICATIONS FOR OT

- Occupational therapists may expand their current role in schools by educating school staff members on the impacts that a concussion may have on school occupations.
 - OTs educate school staff on return to learn protocol
 - Set up their classroom safely to accommodate
- OTs can also educate staff to support re-integration back into school and day to day activities, cognitive deficits, sleep difficulties, and mental and physical fatigue in school (CAOT, n.d.).