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# Ohio School Psychologists' Involvement with Concussion Cases

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# The Ohio School Psychologist



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*Putting Pieces Together for Ohio Students*

## Ohio School Psychologists' Involvement with Concussion Cases

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Concussions can result in a constellation of physical, cognitive, emotional, and sleep-related symptoms that affect students' wellness and performance at school. This study examined the number of concussion cases consulted on by a sample of Ohio school psychologists across two years.

Results indicated very little involvement with students who sustained concussions, with the majority of school psychologist respondents indicating that they consulted on zero cases. Suggestions for increasing school psychologists' involvement with concussion cases are provided, including serving as concussion team leaders, tracking students' symptoms and accommodations, and training others in their school community about concussion recognition and response.

### **Involvement with Concussion Cases: Data from Ohio School Psychologists**

A concussion is caused by a direct blow or jolt to the head, face, neck or body that causes the head and brain to shift rapidly back and forth, resulting in a short-term impairment of neurological function (Centers for Disease Control and Prevention [CDC], 2014).

Considerable media attention over the past several years initially focused on concussions sustained by adult athletes or war veterans, but more recent conversation has turned the spotlight on concussions in youth sports. This shift in attention is important because concussions are more likely to be sustained by children and adolescents than by adults (Buzzini & Guskiewicz, 2006). One beneficial result

*Continued on page 6*

*In this issue...*

Presidential Message .....	3	Fall Conference Preview .....	30
Are School Psychologists at Risk? .....	9	Fall Conference Brochure.....	Center
Strategies for Student Success .....	14	Legislative Lowdown .....	34
OSPA Spring Conference .....	18	Committee Reports.....	42
A Peek Into Our Past.....	24	Regional Affiliate Reports .....	46

## Involvement with Concussion Cases

continued from page cover page



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**Table 1**  
Concussion Symptoms

Category	Symptoms
Physical	Headache, nausea, vomiting, balance problems, visual problems, fatigue, sensitivity to light and/or noise, and a dazed or stunned appearance
Cognitive	Feeling mentally "foggy," feeling slowed down, having difficulty concentrating, having difficulty remembering things, forgetting recently learned information, experiencing confusion about recent events, responding slowly, and repeating questions
Emotional	Irritability, sadness, increased emotionality, and anxiety
Sleep-Related	Drowsiness and changes in sleep patterns such as difficulty falling asleep, increased sleep, and/or decreased sleep

of this youth-centered focus is the creation of return-to-play guidelines to better determine when student athletes can safely return to practice and games (Sady, Vaughan, & Gioia, 2011).

However, we cannot limit attention to just student athletes. While many concussions are sports-related, students also sustain concussion from recreational play, motor vehicle collisions, fights, and abuse (Kozlowski, Leddy, Tomita, Bergen, & Willer, 2007). Youth with concussions from a variety of sources may return to school while still symptomatic, and they typically require adjustments to the school environment while their brains heal. Unfortunately, most school personnel are not trained to understand the signs, symptoms, or effects of concussion, nor do they know how to accommodate these students.

Concussion symptoms are generally categorized as physical, cognitive, emotional, or sleep-related (see Table 1; CDC, 2014). Such symptoms vary depending on the type and severity of the injury, as well as on certain preexisting conditions, such as a history of migraines or mental health

problems. (See Table 1)

While student athletes should have no symptoms and be cleared by a medical professional before returning to play, students can return to school while their symptoms are still mild. However, they should do so only as long as appropriate adjustments are made to the educational environment. Post-concussion students may need academic, behavioral, or mental health support in order to be successful upon their return to school. This might include a shortened school day, extended deadlines for exams and assignments, modifications to exams and assignments, preferential seating, and a copy of class notes or the provision of a note-taker, to name a few. Such supports may be part of a 504 plan or part of a more informal plan of temporary adjustments (i.e., a "medical plan") that are monitored during the recovery period. If concussed students do not receive physical and cognitive rest, symptoms can flare and recovery can take longer. Ideally, these supports are facilitated by a school team that includes the child's parents, the school psychologist, the

Continued on page 6

## Involvement with Concussion Cases

*continued from page 5*

school nurse, teachers, an administrator, and any relevant athletic personnel. Such a team can ensure a consistent response, documentation of progress, clear communication between home and school, and general support for the injured student.

Assessment of academic and behavioral needs, development of accommodations, monitoring the progress of interventions, leading a school-based team, and consulting with families and medical professionals are all part of a school psychologist's repertoire of skills. Clearly, students with concussions would benefit from all of these services upon return to school. Lewandowski and Rieger (2009) estimated that in a high school of 1,000 students anywhere from 5-10 students likely experience concussions each year. While the National Association of School Psychologist (NASP) recommends a ratio of one school psychologist for every 1,000 students, the national median ratio is 1:1500 (Thomas, 2000); therefore, we might expect typical school psychologists to have perhaps 8-15 students in their buildings sustain concussions each year. However, there is currently a lack of research on the actual numbers of concussion cases consulted on by school psychologists each year. This study involved a brief survey to collect such data in Ohio.

## Method

### Participants

A survey inquiring about involvement with concussion cases was sent to a random sample of 100 school psychologists in southwestern Ohio. Data from respondents who did not answer all questions were excluded. Forty-seven usable responses were submitted, yielding a response rate of 47%.

Respondents represented a fairly even

**Table 2**

Years Practicing as a School Psychologist (Excluding Internship)

Number of Years	N	Percentage
1-3 Years	11	23%
4-6 Years	11	23%
7-10 Years	6	13%
10-20 Years	11	23%
More than 20 Years	7	15%
More than 20 Years	1	2%

**Table 3**

District Demographics

Category	N	Percentage
Rural	8	17%
Urban	10	21%
Suburban	26	55%
Not Working as a School Psychologist	2	4%

**Table 4**

Number of Students Served in All Buildings

Number of Students	N	Percentage
Less than 500 Students	4	9%
500-1000 Students	10	21%
1001-1500 Students	13	28%
1501-2000 Students	11	23%
More than 2000 Students	7	15%
Not Working as a School Psychologist	2	4%

**Table 5**

Number of Concussion Cases Consulted on During the 2013-14 School Year

Number of Cases	N	Percentage
0	30	64%
1	7	15%
2	6	13%
3	1	2%
Not Working as a School Psychologist	2	4%
Did Not Respond	1	2%

**Table 6**

Number of Concussion Cases Consulted on During the 2012-13 School Year

Number of Cases	N	Percentage
0	27	57%
1	8	17%
2	2	4%
3	1	2%
Not Working as a School Psychologist	6	13%
Did Not Respond	3	6%

distribution of experience, ranging from 1-3 years to more than 20 years (see Table 2). The majority (55%) worked in suburban districts, 21% worked in urban districts, and 17% worked in rural districts (see Table 3). The number of students served in each respondent's buildings varied (see Table 4).

### Survey

The survey in this study was distributed to the sample of potential participants via email, using Google Forms. The first three questions asked the participants' number of years in practice, district demographics, and number of students served. The next questions asked about how many concussion cases they consulted on during the previous two school years. If they did provide consultation on students with concussions, respondents were asked to provide a brief open-ended response of what the consultation entailed.

### Results

Results indicated that the majority of respondents (64%) consulted on zero concussion cases last school year (2013-14); 15% consulted on one case, 13% consulted on two cases, and only one respondent consulted on three cases. Of the 47 respondents, 4% were not working as school psychologists last year. During the previous school year (2012-13), the numbers were similar; 57% of respondents consulted on zero cases, 17% consulted on one case, 4% consulted on two cases,

and again, only one respondent consulted on three cases. Nineteen percent were either not working as school psychologists during the previous year or did not work in the same building both years. No respondents indicated they consulted on more than three cases either year.

Participants who provided consultation on concussion cases were asked to briefly describe what they did. The majority of respondents described consulting with parents, teachers, nurses, and administrators to implement accommodations per physician recommendations. Such accommodations included a shortened school day, reduced expectations without grade penalty, extended time for work, postponement of tests, provision of a quiet setting with dim lights for completion of work, and so forth. Several of the answers indicated the school psychologist's involvement included reviewing medical documentation to determine 504 eligibility. Participants also described discussing the effects of concussions with school staff and setting up team meetings to share information. Two participants completed an evaluation for special education eligibility. Another administered an IQ test to look for changes from previous testing, particularly in the area of short-term memory and processing speed.

### Discussion

The purpose of this brief survey was to determine the average number of concus-

sion cases school psychologists in Ohio consult on during the school year. School psychologists who responded to the survey worked in districts of varying sizes and demographics. Results indicated that school psychologists have very little—if any—involvement with students who have sustained concussions.

While firm conclusions cannot be drawn from this study—the participant pool was limited to school psychologists in the southwestern quadrant of Ohio, and the total number of respondents was relatively small—it appears that school psychologists are not being called upon to help students who have sustained concussions.

It is possible that students with concussions are primarily cared for by parents, who may simply send an email notifying teachers about the incident, together with instructions to “keep an eye on her” or “have him sit out of gym class today.” However, if other school staff members (i.e., school psychologist, nurse, administrator) are not notified, then a formal record of injury is not made. Such records are crucial pieces of information if a student experiences significant problems post-injury or sustains a second concussion at a later date. Further, tracking of specific accommodations is unlikely, which can lead to an inconsistent, ineffective response.

Responses to the open-ended question regarding what school psychologists did for the concussion cases indicated that school psychologists were able to apply their existing skill sets to this population of students. Specifically, they addressed consultation, assessment, creation of accommodation plans, and writing of 504 plans, when appropriate. Two of the respondents indicated that their involvement with concussion cases entailed completing evaluations for special education. Rarely are concussions so severe that special educa-

*Continued on page 8*

## Involvement with Concussion Cases

*continued from page 7*

tion is required, so these two cases likely involved more significant brain injuries.

This study suggests that school psychologists have little involvement with a population of students who could greatly benefit from our work. More training is necessary in order to increase school psychologists' knowledge about the signs, symptoms, and appropriate accommodations for students who have sustained concussions. However, practitioners do not need to develop an entirely new skill set in order to assist students who have sustained concussions. Rather, they can apply existing skills, including facilitating meetings; following the problem-solving process; tracking interventions; and collaborating with families, athletic staff, and medical personnel.

School psychologists can also conduct trainings for their school staff and community members about concussion recognition and response, advertising in the process that they are the individuals in the schools who can serve as point persons on a concussion management team, who can consult on a student's progressive return to academics, and who can track the accommodations that are put in place. This can be a novel and welcome population of students on the school psychologist's caseload; since 80% of students with concussions return to baseline levels of performance within just a few weeks (Collins, Lovell, Iverson, Ide, & Maroon, 2006), it can be particularly gratifying for a school psychologist to see students improve so significantly over a short period of time. In contrast, failing to put appropriate supports into place can put injured students at serious risk for prolonged symptoms. Further, sustaining a second concussion before the first has resolved itself can lead to permanent disability or, in very rare cases, death (Byard & Vink, 2009).

Future research might examine the student outcome when the school psychologist is designated as the point person on a school-based concussion management team. More information is also needed about the efficacy of return-to-academics programs intended to support students who have sustained concussions. Finally, it would be helpful to collect classroom data (e.g., time on-task, work completion) on students with concussions to evaluate efficacy of specific accommodations across time.

## References

- Buzzini, S. R., & Guskiewicz, K. M. (2006). Sport-related concussion in the young athlete. *Current Opinion in Pediatrics, 18*, 376-382. doi: 10.1097/01.mop.0000236385.26284.ec
- Byard, R. W., & Vink, R. (2009). The second impact syndrome. *Forensic Science, Medicine, and Pathology, 5*, 36-38.
- Centers for Disease Control and Prevention. (2013). Concussion and mild TBI. Retrieved from <http://www.cdc.gov/concussion/index.html>
- Collins, M. W., Lovell, M. R., Iverson, G. L., Ide, T., & Maroon, J. (2006). Examining concussion rates and return to play in high school football players wearing new helmet technology: A three-year prospective cohort study. *Neurosurgery, 58*(2), 275-286.
- Frollo, J. (2014). See where your state stands on concussion law. Retrieved from: <http://usafootball.com/news/featured-articles/see-where-your-state-stands-concussion-law>
- Kozlowski, K. F., Leddy, J. J., Tomita, M., Bergen, A., & Willer, B. S. (2007). Use of the ICECI and ICD-10 E-coding structures to evaluate causes of head injury and concussion from sport and recreation participation in a school population. *NeuroRehabilitation, 22*, 191-198.
- Lewandowski, L. J., & Rieger, B. (2009). The role of a school psychologist in concussion. *Journal of Applied School Psychology, 25*, 95-110. doi: 10.1080/15377900802484547
- Sady, M. D., Vaughan, C. G., & Gioia, G. (2011). School and the concussed youth: Recommendations for concussion education and management. *Physical Medicine & Rehabilitation Clinics of North America, 22*, 701-719.
- Thomas, A. (2000). School psychology 2000: What is average? *NASP Communique, 28*(8). Retrieved from: <http://www.nasponline.org/publications/cq/cq288sp201.aspx>

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