

Concussion & Return to Learn: Developing a Plan that WORKS

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A Tale of Three Concussions

- Madison - elementary
- Evan - middle
- Tamika – high school


What we will discuss:

- Injury
- Return to Learn plan
- What worked
- What could have gone better
- Outcome



Objectives

- Demonstrate the broad spectrum of symptoms and related educational needs displayed by students with mild TBI
- Give examples of comprehensive, customized Return To Learn plans including potential educational accommodations, services, and supports
- Provide RTL resources for future use and reference



Madison

Madison

- 8 year old girl
 - plays soccer
 - loves to read
 - active in theater outside of school
- A/B student
- Not receiving special education services




Madison

- Fell and hit her head on an icy hill while sledding over the weekend
- No loss of consciousness, felt dazed after
- Told her parents about the fall; she said she felt OK so they did not seek medical attention
- Went to bed early with a headache

Madison

- Returns to school Monday
- Teacher talks to Madison on Wednesday, after noticing her falling asleep in class and not paying attention since Monday
- Teacher discovers Madison had a fall over the weekend
- Teacher sends Madison to the Nurse to assess



Madison

Symptom Checklist

Physical

- ✓ Headache
- ✓ Fatigue
- Nausea
- Dizziness
- ✓ Sensitivity to light
- Sensitivity to sound
- Visual changes
- Sleep changes
- Changes in hearing

Madison

Symptom Checklist

Cognitive


- Attention
- Difficulty concentrating
- Problems with memory
- ✓ Slowed processing speed
- Difficulty with learning
- Problems with organization
- ✓ Easily distracted
- ✓ Difficulty with transitions
- Problems with language
- Initiation challenges

Madison

Symptom Checklist

Emotional/Behavioral

- Irritability
- ✓ Frustration
- Depression
- Anxiety
- Mood swings
- Lack of motivation
- Impulsivity
- Impaired judgment
- ✓ Withdrawn
- Apathy




Madison's Concussion Plan

- Communication between school nurse, teacher, and family
- Madison take breaks during the school day
- Complete testing in a quiet room
- Follow-up as needed

Madison's Outcome

- Did not use all of the classroom accommodations available to her
- School able to make adjustments using few resources
- Able to fully participate in class within 2 weeks



Madison's Plan What Worked?

What Worked?

- Classroom teacher identified something wasn't right and took action
- School nurse assessed symptoms
- Nurse communicated with family and other school staff
- School developed a plan

Madison's Plan What could have been done differently?

What could have been done differently?

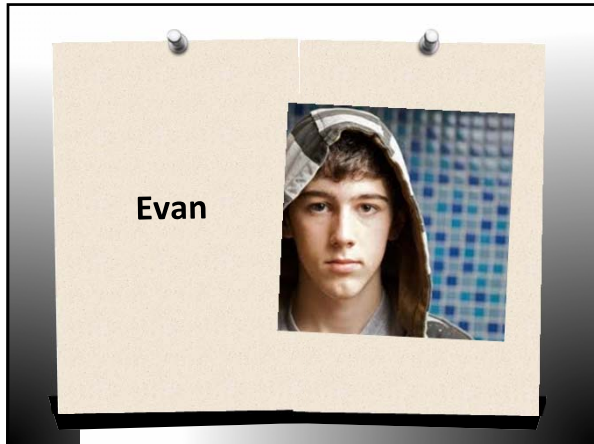
- Family could have notified school
- School didn't restrict Madison from gym
- Nobody provided ongoing documentation
- A plan for checking back in wasn't put in place

Resources

- School nurse CDC fact sheet
<http://www.cdc.gov/headsup/index.html>
- Brain Injury Observation Form
<http://www.mnlowincidenceprojects.org/concussion.html>

Brain Injury Observation Form

	Less positive More Positive				
	1	2	3	4	5
	Significantly Below Average	Slightly Below Average	Average	Slightly Above Average	Significantly Above Average
ATTENTION/STAYING					
SELECTIVE/FOCUSED					
Focuses on teacher lecture					
Attends to detail					
Orients to speaker/staff					
Looks at board appropriately					
Responds to questions with on-topic answers					
Reacts subtly (classroom distractions, noise, lights)					
SUSTAINED					
Focuses for long periods of time					
Completes in-class assignments					
Looses train of thought when talking or writing					
Looses place when working on task or when reading					
SHIFTING/DIVIDED					
Can multitask (note taking while listening)					
Can attend to more than one task at a time appropriately					
Switches from activity to activity appropriately					
Responds when watching audio or video activities					



- ### Evan
- 14 years old, 8th grade
 - Loves skateboarding, snowboarding, hanging with friends
 - Was diagnosed with ADHD in 3rd grade; being treated with medication
 - History of low average academic performance
 - No previous documented head injuries

- ### Evan
- Snowboard injury at local ski hill
 - Briefly lost consciousness
 - Immediate symptoms noted
 - Received first aid, driven to ER
 - Medical treatment/evaluation, documentation of current symptoms, recommended monitoring

CDC Concussion Signs & Symptoms Checklist

Student's Name: _____ Student's Grade: _____ Date/Time of Injury: _____

Where and How Injury Occurred: _____

Duration of Injury: _____

INSTRUCTIONS:

Read the checklist carefully. Students who return to your office with a concussion should be monitored for a minimum of 30 minutes. Check for signs or symptoms when the student first awakes and at 15, 30, and 45 minutes. Note and document all symptoms.

Students who experience one or more of the signs or symptoms of concussion after leaving school should be monitored for a minimum of 30 minutes by a health care professional with appropriate monitoring for symptoms.

Students who are not monitored should be monitored for a minimum of 30 minutes by a health care professional, or a parent/guardian, who is instructed to monitor for symptoms.

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<http://stacks.cdc.gov/view/cdc/12353/>

SIGN/SYMPTOM	OBSERVED DATES			
	0	15	30	45
Headache				
Nausea				
Vomiting				
Blurred vision				
Double vision				
Loss of consciousness				
Slowed processing speed				
Difficulty concentrating				
Problems with memory				
Problems with organization				
Problems with language				
Initiation challenges				

- ### Evan
- Symptom Checklist
- Physical**
- ✓ Headache
 - ✓ Fatigue
 - ✓ Nausea
 - Dizziness
 - Sensitivity to light
 - Sensitivity to sound
 - Visual changes
 - ✓ Sleep changes
 - Changes in hearing

- ### Evan
- Symptom Checklist
- Cognitive**
- ✓ Attention
 - ✓ Difficulty concentrating
 - ✓ Problems with memory
 - Slowed processing speed
 - ✓ Difficulty with learning
 - ✓ Problems with organization
 - ✓ Easily distracted
 - ✓ Difficulty with transitions
 - Problems with language
 - Initiation challenges

Evan

Symptom Checklist

Emotional/Behavioral

- Irritability
- Frustration
- Depression
- Anxiety
- Mood swings
- Lack of motivation
- Impulsivity
- Impaired judgment
- Withdrawn
- Apathy

Evan: Following Days

- Parent calls school nurse to report injury on Monday morning
- Evan stays home 2 days
- Evan returns to school Wednesday...goes home at lunch due to headache
- Returns to school next day
- Homeroom teacher (HRT) asks Evan about absences



Evan: Following Days

- Evan continues to display symptoms; HRT calls parent & finds out about concussion
- HRT, nurse meet with Evan to discuss symptoms; calls parent
- Mother takes Evan to pediatrician; referred to concussion clinic 2 weeks later
- Protocol reviewed, accommodations suggested; follow-up appointment scheduled

Evan's Concussion Plan: Close Monitoring & Documentation

School Checklist: Return to School Following a Mild TBI/Concussion

Student Name: Evan School/Grade: MS

Parent/Guardian Name: Barbara Date of Injury: 1/15/16

Immediately Following Injury

Upon hearing of the injury, the school representative will:

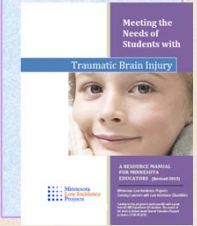
- 1) Obtain release of information between the school, parent, and medical provider
- 2) Obtain copies of pertinent information (including the documentation of the medical diagnosis) from medical provider(s) and parent/guardian for school file
- 3) Contact the student's classroom teacher(s) to:
 - Inform them of the student's condition
 - Discuss potential or recommended educational accommodations
 - Request that they monitor student's status following return to school, and report any concerns or additional accommodations

4) Symptom Report To Be Done

The school will:

- 1) Review academic record prior to injury, and concerns shared by classroom teacher(s), parent/guardian, or other staff
- 2) Contact student's family to provide information and resources about mild TBI and potential educational accommodations

Forms available at:
www.mtnewsandscienceprojects.org
Click on Technical Training Materials/
State TBI Manual



Evan's Concussion Plan: Comparing Pre- & Post-Injury Performance

Pre-Injury Performance & Current Needs: Evan	
Reentry to School (needs & concerns):	
Given Evan's recent concussion, ongoing symptoms, school attendance issues & ADHD diagnosis, family and school staff are concerned that Evan may need increased supports and accommodations during his recovery or longer.	
Safety Plan Needed?	NO
Mobility Plan Needed?	NO
Pre-Injury Performance: Diagnosed with ADHD in 3 rd grade; symptoms treated with medication and accommodations in the classroom setting.	
Evan has typically performed in the low average academic range. Primary educational needs have included inattention, poor concentration and organization difficulties, such as materials & time management. He has responded well to teacher cues, monitoring, organizational aids, alternative study and test environments, and outside tutoring.	
Current (Post-Injury) Functioning:	
Evan's physical needs include recurring headaches, fatigue, and sleep difficulties. Cognitive/learning issues include problems with concentration, completing work, some memory issues (forgets assignments, poor quiz/test performance), and organizational difficulties (losing things, late to classes).	

Taken from <https://youthbraininjury.obaverse.net/welcome/>

Measuring Pre-Injury Performance

- Parent Interviews
- Teacher Interviews
- Early Medical Records
- Current Medical Information
- School Records
- Previous Assessments
- Outside of School

Measuring Pre-Injury Performance: Parent Interview Sample www.cbirt.org

Measuring Pre-Injury Performance

A single measure is usually not sufficient to determine pre-injury performance. Gathering information from multiple sources can improve the likelihood of accurately understanding a student's abilities before the new injury.

There are a variety of sources for gathering information on pre-injury performance, including:

Parent Interviews

- Local educational agency, transportation, occupational, athletic, developmental, or health professionals, etc.
- Ability to learn new information.
- Appropriate use of language in social settings, etc.
- Developmental milestones, especially in areas of language development, attention, and in areas of social interaction, including independent activities, participation in family activities, etc.
- Ability to learn new information.
- Appropriate use of language in social settings, etc.
- Developmental milestones, especially in areas of language development, attention, and memory.

Teacher Interviews

- Behavior and social-emotional issues in school.
- Effective interaction in social situations, appropriate interaction during class, etc.
- Appropriate use of language in school.
- Attention, persistence and mental flexibility.
- Ability to learn new information.

Program Assigning

[Organization]

Evan's Concussion Plan: Accommodations

Headaches, Fatigue

- Late start time
- Modified schedule
- Adjusted hall pass
- Schedule rest periods in quiet area
- Pain management/medication

Irritability, Frustration

- Minimize changes in routine
- Provide choices and flexibility
- Opportunities for daily self-reflection

Taken from: [General Considerations: Return to School Following a Concussion](#) (rev. 2016)

Accommodations, continued

Attention & Concentration

- Shortened assignments
- Minimize distractions
- Altered seating
- quiet study/test area
- Redirection


Memory, Organization & Processing Speed

- Develop organizational system, homework log
- Reduce missed work
- Eliminate non-essential info & assignments
- Utilize assistive tech


Taken from: [General Considerations: Return to School Following a Concussion](#) (rev. 2016)

Evan's Concussion Plan: Further Evaluation?

If symptoms don't resolve within the following weeks/months, consider evaluation to determine eligibility for 504 Plan or special education services




Evan's Plan What Worked?



What Worked?

- Parent called school nurse to report injury
- Evan rested for 3 days following concussion (but likely needed more time)
- Parent took Evan to doctor, then specialty clinic




What Worked?

- Clinic information was shared with school
- Evaluation conducted for 504/IEP
- Evan kept in the loop and involved with his education plan and accommodations
- Ongoing monitoring of needs by school staff

Evan's Plan

What could have been done differently?



What could have been done differently?

- School nurse did not initially share info with Evan's teachers
- Teachers had little experience or knowledge about concussions/TBI

More Resources & Forms can be found at:
www.mnlowincidenceprojects.org/tbiConcussion.html



What could have been done differently?

- HRT & nurse not sure how long to wait for symptoms to resolve, how to initiate a 504 plan, or whether to make referral for a special education evaluation
- School should have immediately developed a plan for ongoing communication with parent/clinic

Evan's Long Term Outcomes

- Evan continues to struggle with symptoms
- Special education evaluation conducted and Evan was eligible for special education services
- IEP is developed
- Evan shows some resistance to receiving special education services
- Case manager works with Evan & parent as they begin to plan for the transition to high school in the spring


Resources

General Considerations: Return to School Following a Concussion (rev. 2016)
www.mnlowincidenceprojects.org/tbiConcussion.html


School Checklist: Return to School Following a Mild TBI/Concussion (& other resources)
<http://www.mnlowincidenceprojects.org/tbiConcussion.html>

Pre- and Post-Injury Performance Documents
<https://youthbraininjury.obaverse.net/welcome/>

CDC Concussion Signs & Symptoms Checklist and Concussion Fact Sheets
for Nurses, Teachers/School Professionals, Parents, Coaches




<http://www.cdc.gov/headsup/index.html>



Tamika

Tamika

- o 16 years old (11th grade)
- o Involved with school and friends
- o Captain of the girl's basketball team
- o Highly motivated student with a strong academic record
- o History of multiple previous concussions



Tamika

- o History of anxiety
- o Receives new concussion playing basketball
- o Athletic trainer immediately identifies injury during game and Tamika is removed from play



[National Athletic Trainers Association \(NATA\) Return to Play Guidelines](#)

Tamika

Symptom Checklist

Physical

- ✓ Headache
- ✓ Fatigue
- Nausea
- Dizziness
- Sensitivity to light
- Sensitivity to sound
- ✓ Visual changes
- ✓ Sleep changes
- Changes in hearing

Tamika

Symptom Checklist

Cognitive

- ✓ Attention
- ✓ Difficulty concentrating
- Problems with memory
- Slowed processing speed
- ✓ Difficulty with learning
- ✓ Problems with organization
- Easily distracted
- Difficulty with transitions
- Problems with language
- Initiation challenges

Tamika

Symptom Checklist

Emotional/Behavioral	
<input type="checkbox"/>	Irritability
<input checked="" type="checkbox"/>	Frustration
<input checked="" type="checkbox"/>	Depression
<input checked="" type="checkbox"/>	Anxiety
<input checked="" type="checkbox"/>	Mood swings
<input type="checkbox"/>	Lack of motivation
<input type="checkbox"/>	Impulsivity
<input type="checkbox"/>	Impaired judgment
<input type="checkbox"/>	Withdrawn
<input type="checkbox"/>	Apathy

Tamika's Concussion Plan

- Teachers, coaches, family, and medical professionals follow appropriate protocols
 - Athletic trainer notifies parent, Tamika, and school about the concussion
 - Athletic trainer follows return-to-play protocol
 - 2 full-rest days before returning to school
 - Transitions to back to school for half days

Daily Routine Change

Student name: Tamicka S. Date effective: October 28, 2014

Meeting Date/Time: Tuesday October 30th Team Leader: Erin Walker – 504 Coordinator

Morning/Afternoon Check-in/Out: Bill Bailly – academic advisor

Classroom Check-in/Out: YES NO

Student Symptoms:
Headache, fatigue, sleep disturbances, attention difficulties, problems concentrating, difficulty retaining/learning new information, organization problems, increased anxiety, frustration with new tasks, depressive symptoms, noticeable mood swings

Reported by: Tamicka, mom, school nurse, academic advisor

Rest Schedule? YES NO **Out of Physical Activity?** YES NO

Notes: breaks within and between classes as requested If yes, see nurse for instructions.

Shortened School Schedule? YES NO **Tests?** YES NO

Tamika's Concussion Plan

- Seeks medical help and begins receiving services at an outpatient facility
- Receives accommodations and a 504 plan is implemented temporarily
- Tamika will self-report when:
 - She is no longer experiencing symptoms
 - She feels she does not need assistance
 - Accommodations are (or are not) needed


Accommodations:

<input type="checkbox"/>	Paraprofessional Support	<input checked="" type="checkbox"/>	Extended time to complete assignments
<input checked="" type="checkbox"/>	Work in quiet location/separate room	<input checked="" type="checkbox"/>	Seating accommodations
<input checked="" type="checkbox"/>	Frequent breaks (Length: 10 minutes)		Visual supports for instructions
	Guided notes		Daily Planner checks
	Peer notes or paraprofessional notes	<input checked="" type="checkbox"/>	Option to re-do assignments if necessary
	Graphic Organizers/Visual Aids		Shortened Assignments

Daily Schedule: Include information about scheduled breaks/rest, lunch, work in a quiet room, medications, etc.


TASK	TIME
• Check in with academic advisor	7:30am
• Report to first class	7:45am
• Report to second class	8:35am
• 15 minute rest period in nurses office	9:20am
• Report to third class	9:35am
• Report to fourth class	10:10am
• Lunch/rest	11:00am
• Report to fifth class	11:50pm
• Report to sixth class	12:35pm
• Sit out of gym – rest in nurse's office	1:20pm
• Report to eighth class	2:00pm
• Check out with academic advisor	2:45pm

Tamika's Plan What Worked?



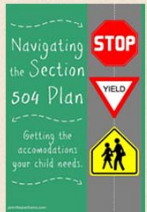
What Worked?

- o Athletic trainers immediately identified the injury and removed her from play
- o Coaches and athletic trainers discussed the injury with the family and school
- o A "Return to Learn" plan was immediately put into place, resulting in full rest days and half-time transition back to school



What Worked?


- o Given her previous concussion history, Tamika sought counseling and assistance from an outpatient clinic
- o The clinic provided testing and suggestions to create a school plan
- o The school identified potential accommodations and brought together a team for 504 plan creation



<http://www.jenniferpwilliams.com/2013/09/section-504-plan.html>

Tamika's Plan

What could have been done differently?



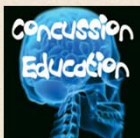
What could have been done differently?

- o The coaches, family, and educators could have been more involved in implementing accommodations and making return to play/learn decisions




What could have been done differently?

- o Given the long-term concussion history, training and education for Tamika regarding the effects of multiple concussions on physiological, cognitive, and psychological symptoms was warranted



What could have been done differently?

transition?!?!?!?



Tamika's Long-Term Outcomes

- Tamika expressed an interest in returning to full sports play and school approximately 5 weeks after her concussion
- Unfortunately, results of her assessment from the clinic suggested otherwise...
- However, the plan relied on Tamika's self-advocacy and report of symptoms/needs
- Services were discontinued



Tamika's Long-Term Outcomes

- Struggles soon after with standardized assessments necessary for college acceptance
- Anxiety issues spiral
- Tamika's performance declines; however, she does not seek assistance or ask for accommodations
- Tamika arrives at college unsure how to help herself

Resources

- Return to Play guidelines
 - <http://www.nata.org/>
 - <http://www.ncaa.org/health-and-safety/concussion-guidelines>
- Transition services for high school students with disabilities
 - <http://www2.ed.gov/about/offices/list/ocr/transitionguide.html>
- Navigating the 504 plan
 - <http://www2.ed.gov/about/offices/list/ocr/504faq.html>
 - <http://kidshealth.org/en/parents/504-plans.html>

Objectives

- Demonstrate the broad spectrum of symptoms and related educational needs displayed by students with mild TBI
- Give examples of comprehensive, customized Return To Learn plans including potential educational accommodations, services, and supports
- Provide RTL resources for future use and reference

Contact Information

Thank you!

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General Resources

- MN Low Incidence Projects
www.mnlowincidenceprojects.org
- HCMC Return to Learn Brochure
http://www.hcmc.org/cs/groups/public/documents/webcontent/hcmc_p_073701.pdf
- CDC <http://www.cdc.gov/headsup/>

