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Traumatic Brain Injuries and the Long Term Effects

 Traumatic Brain Injuries (TBI) come in all different forms, from mild (mTBI) to severe traumatic injuries. Though there are many causes to TBI, some of the most prevalent causes include sports injuries and blast trauma from military personnel. Though it was once believed that boxing was the main sport related to repeated cases of TBI, studies are beginning to show that many more sports have brain injuries on the same impact level as boxing. Some of these sports include, but are not limited to rugby, American football, hockey, wrestling, lacrosse and soccer. Most brain injuries related with sports are considered mTBIs, or concussions, which result from a force to the head that leads to collision between the brain and the skull or a strain on the vascular tissue of the brain. Symptoms tend to include fatigue, dizziness, light headedness, headache, depression, light sensitivity and many more (Robert S460). Sports-related TBIs account for 1.6 to 3.8 million head injuries annually in the United States alone (Jean, 376). Most concussions are temporary, Because a concussion and its symptoms result from temporary, reversible cytoskeletal and metabolic derangements that involve shifts in ion channels and energy imbalance, the majority of deficits associated with a concussive injury resolve within a matter of days, weeks, or months with only 15% of recorded mTBI individuals showing signs of symptoms a year after injury (Robert S461)

 Most isolated incidents or concussions tend to resolve themselves; the issue of lasting brain injury is more common among those who suffer repeated concussive blows to the head. As once thought to be mainly a problem in the boxing community, mTBI is, in fact, prevalent in a broad range of contact sports. In sports like American Football, high school aged kids who play lineman can receive up to 1400 impacts in a single season, and up to 2000 per season if the kid plays on both offense and defense (Robert S460). Repeated trauma to the head has been linked to many serious long-term effects and mental disabilities, such as Chronic Traumatic Encephalopathy (CTE), which is a progressive neurodegenerative disease (Robert S461). These repeated blows have been linked to excessive binge drinking one to three years post injury as well (Jean 376).

 The greatest problem with mTBI is that the condition is very unpredictable and it is hard to measure the severity of concussions. Concussion severity has a large range, but when diagnosed via side-line evaluations of cognitive impairment, physical signs of consciousness and spatial awareness, many concussions may look very similar in severity (McCrory 37). Many return-to-play protocols involve a one week period in which the athlete will go from no physical activity during the first stage to full contact play by stage six, where the length of each stage varies (McCrory 39). Although great in theory, many athletes still tend to return to play before the duration of the return-to-play protocol deems it safe to do so, which results in strained vascular tissue in the brain resulting back into the scare of CTE later on in life. CTE not only affects memory ability, but also has strong correlations with depression and loss of motor function (McCrory 40). An important objective of sports medicine physicians and medical professionals worldwide is to understand the effects of athletes returning to play too quickly, and how to judge when they are fully deemed ready, since one protocol doesn’t seem to fit all.

Works Cited

Jean A. Langlois, Wesley Rutland-Brown, and Marlena M. Wald, “The Epidemiology and Impact of Traumatic Brain Injury: A Brief Overview”, *JOURNAL OF HEAD TRAUMA REHABILITATION/SEPTEMBER–OCTOBER 2006,* Vol. 21, No. 5, pp. 375–378

McCrory P, Meeuwisse W, Johnston, Dvorak J, Aubry M, Molloy M, and Cantu R. “Consensus Statement on Concussion in Sport – the 3rd International Conference on Concussion in Sport held in Zurich, November 2008” *SAJSM* Volume 21, November 2009, pp. 36-46

Robert A. Stern, PhD, David O. Riley, BS, Daniel H. Daneshvar, MA, Christopher J. Nowinski, BA, Robert C. Cantu, MD, Ann C. McKee, MD, “Long-term Consequences of Repetitive Brain Trauma: Chronic Traumatic Encephalopathy” *PM&R,* Vol. 3, S460-S467, October 2011

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|  | Outstanding | Strong | Good | Acceptable | Inadequate |
| The rhetorical choices you make are appropriate for your intended audience, which should scholars in a specific academic discipline |  | X—your tone and word choice and sources are all excellent for your chosen audience and genre. The only the issue is that this feels more like the actual paper than a proposal, so it doesn’t quite work with the genre conventions at hand. |  |  |  |
| You do a good job of summarizing the research you’ve already read and include only information relevant to your project to prove that it is a worthwhile and rich issue to pursue. You use MLA citation and formatting correctly. | X—You incorporate your sources into your own writing well and cite them frequently as part of your work. Really well done!  |  |  |  |  |
| Your proposed topic is clear, complex, and specific as are your research questions, working thesis, and road map.  |  |  | X—while the writing you did here is scholarly and full of great sources, it isn’t quite clear what you are proposing to argue in your paper. You give a lot of great information about concussions and the difficulty of diagnosing them, etc., but the nature of your specific argument with regard to the return to play protocol isn’t quite clear and is only referenced toward the very end of your proposal. Similarly: what questions do you hope to further answer through your research?  |  |  |
| Your writing is concise and precise and it flows well from sentence to sentence, paragraph to paragraph. There are few mechanical or grammatical errors | X—this is the best writing you’ve done so far this quarter, Nate! Great work.  |  |  |  |  |