Epidemiology

Up to date epidemiological data related to concussion/mTBI and persistent post-concussive symptoms in the general population are unclear due to discrepancies in reporting. For example the American Medical Society for Sports Medicine states “as many as 50% of concussions may go unreported.”1 In 2014 the CDC estimated 2.5 million TBI’s reported annually in the United States but this is likely an underestimate because the data only takes into account individuals who sought clinical care.2 Approximately 75% (1.88 million) of the reported TBI’s were classified as mild in nature.3 Falls are the most common external cause of TBI in the general population in the United States (35.2%) followed by motor vehicle accidents (17.3%), unknown/other (21%), blunt trauma (struck by/against) (16.5%), and assault (10%).2 In 2006, Langlois et al. reported an estimated 5.3 million Americans living with TBI-related disability preventing their return to a full and productive life.13

In 2013 the American Medical Society for Sports Medicine estimated that 3.8 million sport related concussions occur annually in the United States.1 This data creates a discrepancy when compared to the 2.5 million estimated TBI’s in the general population.5 This discrepancy may be attributed to errors in reporting and athletes not seeking emergency department care.5 There is also a large discrepancy between the American Medical Society for Sports Medicine report and the 2011 CDC report that estimated 135,000 patients reported to the emergency department annually due to sport and recreation related concussion.8 At the high school and college level approximately 75% of sport related concussions were attributed to football, however soccer accounted for nearly 50% of sport related concussions in female athletes.6 In 2015, the Department of Defense (DoD) reported 22,672 active duty service members were diagnosed with TBI, 18,686 of those were reported as mTBI.7 Soldiers are at increased risk of sustaining head injuries due to blast and blunt trauma exposure in theater and in training exercises.

The majority of mTBI and concussion symptoms resolve in 7-10 days, however symptom persistence lasting months to years has been reported in about 10-30% of cases.9,10 Persistent post-concussive symptoms are multivariate. Individuals who suffer from persistent symptoms following a concussive event may present with musculoskeletal, dual tasking, and visual impairments that can be appropriately managed through physical therapy intervention.9,11 Evidence suggests that a multimodal approach that is individually designed based on the findings of a thorough examination will optimize results in individuals with persistent post-concussion symptoms.12 Therefore the Clinical Practice Guidelines will include discussion in regards to the utilization of common screening measures for individuals with undiagnosed concussion and recommendations for appropriate referral.

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