

Concussions: Who's the Tough Guy?

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Problem Statement

The dangers of concussions and the long term side effects they present are evident, yet high school athletes ignore or play down the symptoms of a concussion which can lead to serious concern in the future.

Introduction

- Concussion: "bodily injury especially of the brain resulting from a sudden sharp jar"₁
- 1.6-3.8 million concussions occur annually in the US₁₄
- Young athletes have a higher risk for concussions and prolonged recovery time₁₂
- Testing and legislation exists for concussion protocol in all fifty U.S. states_{10,4}

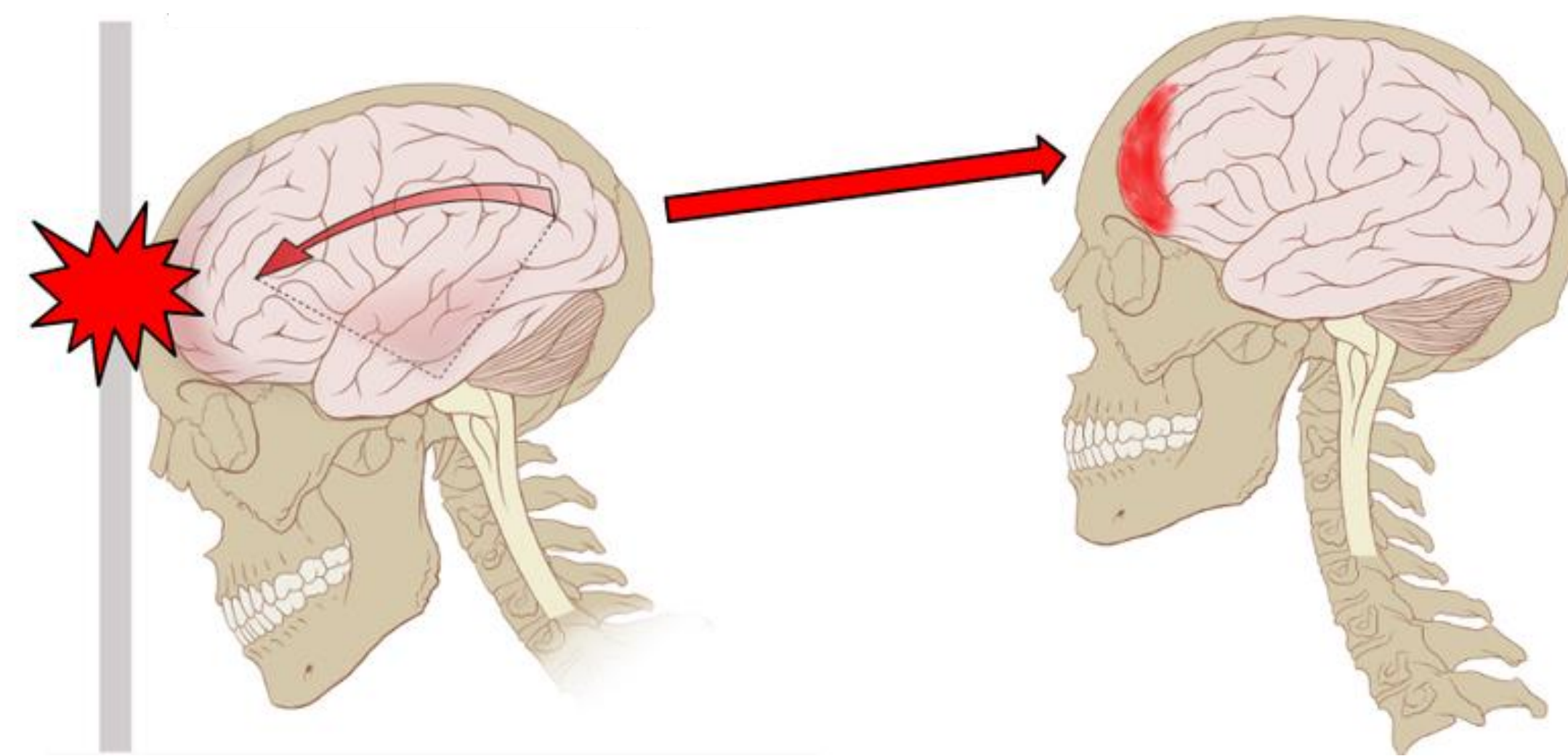


Figure 1₃

Survey Results

- About 45% of high school athletes have been diagnosed with at least one concussion₁₃
- Some experienced up to four concussions₁₃
- 46% of athletes played through a concussion or concussion symptoms (Figure 2)

Played Through a Concussion or Concussion Symptoms

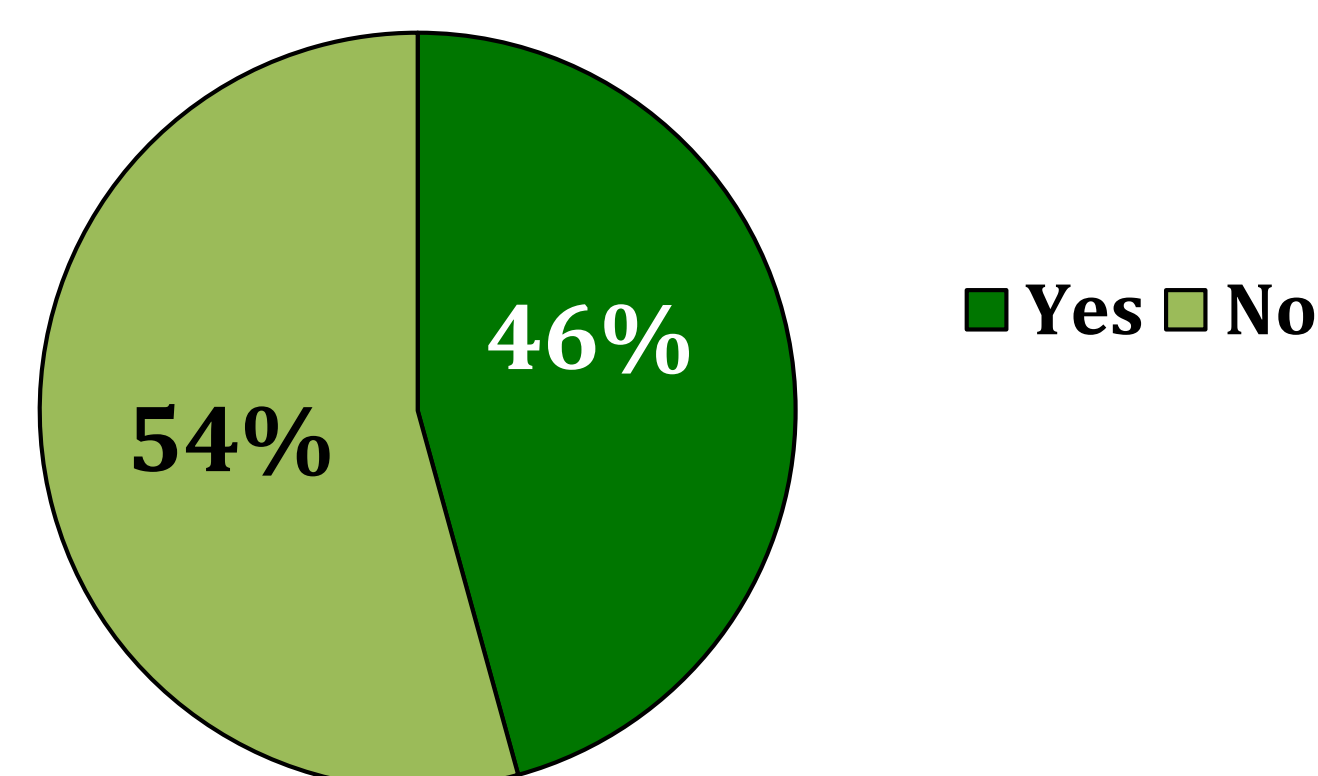
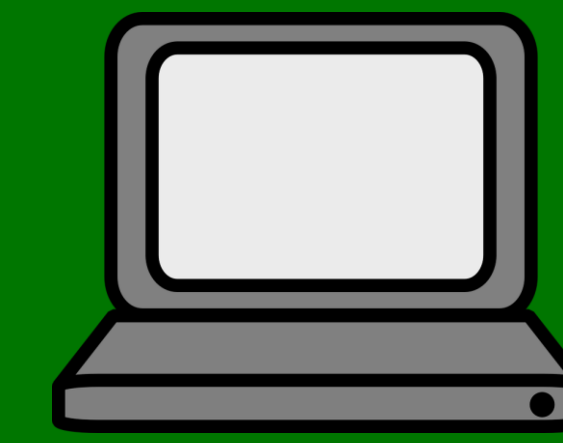


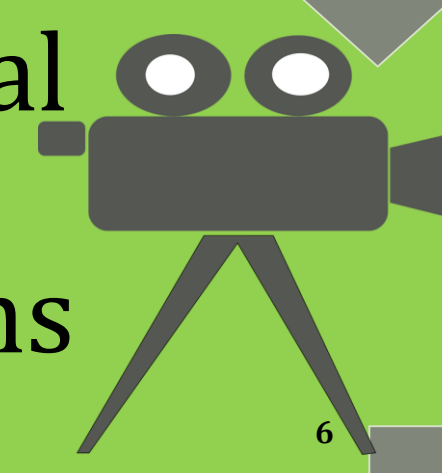
Figure 2₁₃

Approach

Survey to WPI Students to Prove Stigma Exists



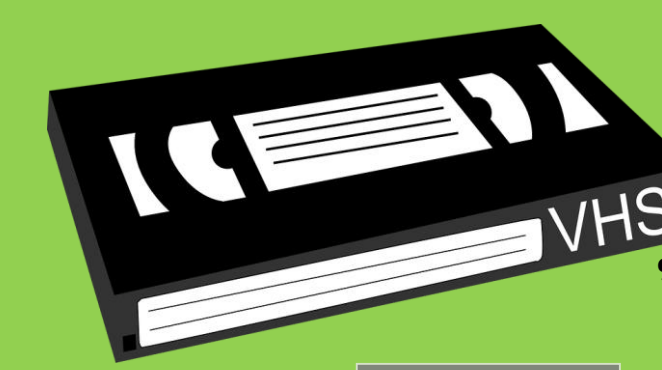
Create Educational Media: Video About Concussions



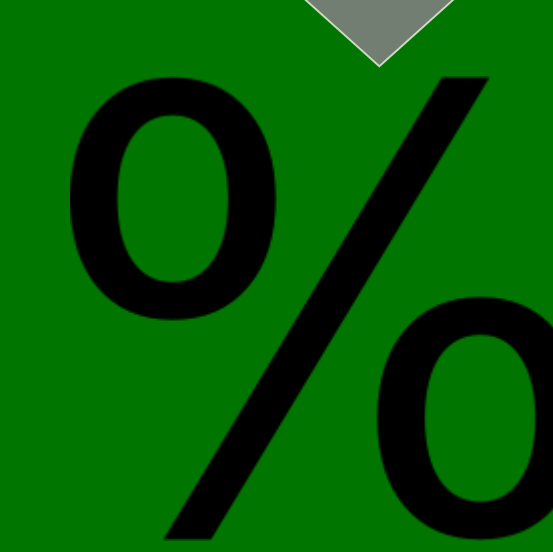
Pre-Assessment for High School Athletes During Preseason



Distribute Videos to Massachusetts High Schools



Post-Assessment for High School Athletes When Season Ends



Results

- Compare pre and post-assessments to analyze effectiveness
- Increase awareness of concussion symptoms and side effects
- Expect 60% decrease of athletes playing through concussions
 - Compared to outcomes of similar education strategies used for sex education₁₁



Figure 3

Looking Ahead

- Expand the brand!
- Reach out to other communities
- Partner with local hospitals for support and credibility
- Properly informed athletes = safer sports and brighter futures!

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