Why Professional Football Players Chose Not to Reveal Their Concussion Symptoms During a Practice or Game

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Abstract
Objective: To determine why professional football players in Canada decided not to seek medical attention during a game or practice when they believed they had suffered a concussion. Design: Retrospective survey. Setting: Preseason Canadian Football League training camps. Participants: Four hundred fifty-four male professional football players. Main Outcome Measures: Reasons athletes did not seek medical attention for a presumed concussion during the previous season, how often this occurred and how important these reasons were in the decision process. Results: One hundred six of the 454 respondents (23.4%) believed they had suffered a concussion during their previous football season and 87 of the 106 (82.1%) did not seek medical attention for a concussion at least once during that season. The response "Did not feel the concussion was serious/severe and felt you could still continue to play with little danger to yourself" was the most commonly listed reason (49/106) for not seeking medical attention for a presumed concussion. Many players answered that they did not seek medical attention because they did not want to be removed from a game (42/106) and/or they did not want to risk missing future games (41/106) by being diagnosed with a concussion. Conclusions: Some professional football players who believed they had suffered a concussion chose not to seek medical attention at the time of injury. Players seemed educated about the concussion evaluation process and possible treatment guidelines, but this knowledge did not necessarily translate into safe and appropriate behavior at the time of injury. Key Words: concussion, symptoms, professional, football, reasons

INTRODUCTION
Concussions are a constant concern for health professionals who provide care for athletes. Although some have estimated that millions of sport-related and recreation-related concussions occur each year in Canada and the United States, it is believed that a significant percentage of these concussions go unrecognized, undiagnosed, and untreated.1–4 Making the diagnosis of concussion as soon as possible is vital to managing concussions properly and preventing further injury. Athletes who continue to play when symptomatic from a concussion are believed to be at risk for more severe injury, and repeated concussions may also result in progressive and cumulative neurologic and neuropsychological impairment.5–11

There is no loss of consciousness and no obvious external signs in the vast majority of sport-related concussions.2,12 Any obvious signs exhibited by an athlete may be very transient and not observed by medical personnel.11,13 Several professional leagues now employ “spotters” whose sole responsibility is to watch a competition and its visual media coverage to alert appropriate medical staff if they visualize behavior suggestive of a concussion in any of the athletes competing.14,15 Although this may help identify some athletes who may have suffered a concussion, physicians, therapists, and trainers are often dependent on athletes coming forward with their symptoms to make the diagnosis of a concussion.

It has been documented that many athletes do not volunteer their symptoms once they have sustained a concussion.11,16–18 There are several reasons why athletes may not volunteer possible concussion symptoms. Some athletes do not understand that they may have suffered a concussion, some deliberately choose not to reveal their symptoms for fear of being prevented from playing their sport, whereas others fear being ostracized by teammates by coming forward with symptoms, or by having their standing on the team (or league) affected by a concussion diagnosis.16–26 The present study was undertaken in an effort to better understand why professional football players playing in Canada who believed they had suffered a concussion while playing professional football “hid,” or decided not to volunteer, their symptoms to medical staff. This study used an almost identical questionnaire to a recently published study addressing university athletes.18 The primary objective was to identify specific reasons why athletes who believed they had suffered a concussion during a game or practice decided not to seek attention from medical staff at that time, how often these reasons occurred, and how important these reasons were in the decision process. The secondary objective was to determine if there were individual variables that made athletes more likely to not volunteer their...