

Concussions in soccer players essay sample



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Although often overlooked, concussions can be one of the most serious injuries a soccer player can face in their sports career. Many athletes in contact sports focus on getting playing time and showing others their skills and ignore what their bodies are telling them. Often times, athletes will brush off injuries because they feel it is normal, especially in popular sports such as soccer. Soccer has become the second most popular sport among children and every child will at least kick a soccer ball around at some point in their lives. When it comes to injuries that involve vital organs like the brain, any signs of injury should not be ignored. About one out of ten contact sports players this season will receive a concussion. Many soccer players pride themselves on being strong and can handle anything and always want to show the scouts their foot skills, but a lot of times that thinking gets them in trouble. When left undiagnosed and untreated concussions can cause many more problems down the line that could end an athlete's career forever. All of this and more is discussed in an article released in Public Health Reports. Concussions most commonly occur when extreme force is placed on the cranial cavity.

The force can either directly affect the brain, or the brain can be thrown forward and hit the skull. This can cause damage to the brain and neurons. If left unrecognized or untreated a concussion can cause further damage to the brain and its function. Since a concussion cannot be physically seen, many players and coaches do not take seriously the severity of its harm to the body. Many times there are no obvious signs of a concussion other than common pains such as a headache or nausea. Usually when brain or head injuries occur, a scan is taken of the cranial cavity to assess the damage.

However, scans such as an MRI, CT, or EEG will not identify a concussion. Most concussions do not present physical signs of damage on the brain, but instead show cognitive and coordination setbacks. They can cause a decrease in brain function which can cause the player to show signs such as nausea, lack of coordination of the eyes or body movement, problems sleeping, drowsiness, dizziness, headaches, mood swings, and blurry vision. Symptoms can be more or less severe depending on the amount of impact placed on the brain.

It is important to understand key signs of concussions such as problems walking, talking, seeing, or experiencing nausea and headaches. If common signs can be recognized in an athlete steps can then be taken to diagnose and treat the concussion. To diagnose and treat a concussion, cognitive tests from trained doctors and specialists can allow proper treatment of the injury. To diagnose a concussion often athletes will go through a series of test from a doctor. Many times the best way to diagnose a concussion is by going through a cognitive test. If the brain has been concussed often times the athlete will not be able to walk straight lines, follow fingers with an eye, become dizzy easily, or focus on objects or conversations. A specialist can put the athlete through tests such as walking, focusing on objects, or gripping objects to see how their body reacts. Depending on how the athlete reacts, a specialist will usually be able to diagnose them. If the concussion is very serious it can also lead to a brain bleed which is usually diagnosed by scans such as an MRI or EGG. Once a player is diagnosed with a concussion, the healing process must start which takes a lot of patience and relaxation

from the victim. Since the only way to heal from a concussion is relaxation to allow time for the brain to heal, many athletes return to sports too early.

All concussions are different, and depending on the force exerted when the concussion occurred, the severity will affect recovery time. For some it may only take days to recover. However, for others the recovery process may take weeks or months. If a concussed brain is strained too early in its recovery process it can cause a slower healing process and can lead to brain damage. The importance with concussions is recognizing the symptoms and allowing enough recovery time to properly heal from injury. As coaches and doctors learn more about concussions and their possible lasting affects, they have taken many steps to help prevent players from injury. In a sport like soccer, where much agility and focus is vital to a athletes playing ability, any slight throw-off of their coordination will naturally increase the risk of concussion so prevention is the best way to keep players safe. Although it cannot be completely prevented, safety equipment is the best way to prevent brain injury. Sport programs are making sure their athletes always have proper equipment whenever contact will be made and all equipment is functional and will prevent injury. Studies have also shown that players are less likely to receive a head related injury if they have a mouth guard. Because of this many referees and coaches are enforcing all players to wear mouth guards.

Also coaches are teaching their players how to protect themselves. In practices coaches will teach ways to protect the head and neck area and use proper form with each motion. Doctors are also starting to note how to prevent athletes from returning to physical activity too soon. Many high

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school and college sports programs are starting to educate all athletes and coaches on concussion signs and recovery. Most athletes must now get cleared to play from a doctor before returning to physical activity. Doctors are informing schools of the athletes needs as well. Many schools will now allow time off for recently concussed athletes to take time in rest and not focus on strenuous work like reading or staring at computer screens. Also, many teams are taking note of previous concussions suffered by an athlete. If an athlete has already experienced a concussion that can be noted and kept in mind while the player is on the field. Often if an athlete receives a hit that applies force to the brain the coach will have that player checked to make sure a second concussion has not occurred. Prevention is very important when it comes to protecting the brain and its vital function in the human life.

This article really showed the importance of understand what a concussion is and how it needs to be handled. The most important thing with recovery is make sure an athlete does not return too early. In the article it talked of the amount of soccer players that use protective gear. Only four percent of soccer players wore headgear and only seven percent wore mouth guards. This article is good for players and coaches to take note of. The need for better protective gear rules is immense in soccer association and will help prevent head related injuries like concussions. Another big issue with coaches and athletes is that they do not understand exactly what a concussion is, the signs it has occurred, the severity of it, and proper recovery. A way to fix this issue is to educate coaches and athletes on concussions. Another way to ensure better concussion treatment is to make

sure the trainers that work with the athlete are able to properly diagnose and treat the players with concussions.

The article was very good at describing how popular soccer is and how that could lead to under-diagnosis of concussions. Since soccer is so important players feel the need to push themselves and stand out from the crowd. If they feel pain they will often try to push through and play through it, but if that happens with a concussion it can increase damage and increase recovery time. It also was very good at explaining why so many coaches and athletes underestimate the severity of a concussion. Since it does not show any physical damage to the body many players will overlook it as just a headache or nausea. Articles, such as the one printed in Public Health Reports, are very important for educating the general public. The cranial cavity contains one of the most vital organs to human function and therefore requires much protection. When the public becomes aware of what a concussion really is, its symptoms, effects, and proper diagnosis and recovery it can insure better treatment for those athletes that do receive concussions and can help prevent further damage.

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Use of mouthguards and headgear in organized sports by school-aged children.; Nowjack-Raymer, Ruth E.; Gift, Helen C. Public Health Reports 01-11-1996

Injuries are a leading cause of morbidity and mortality in children and youth in the United States[1]. Of growing concern are injuries that occur during participation in organized sports[2]. One type of injury, orofacial trauma, can result in broken and avulsed teeth, facial bone fractures, concussion, permanent brain injury, TMJ dysfunction, blinding eye injuries, and even death[3, 4]. The concern about orofacial injury is addressed in a Healthy People 2000 Objective that calls for extending requirements for the use of orofacial protective devices to all organizations, agencies, and institutions sponsoring sporting and recreation events that pose risks of injury[1].

While no systematic monitoring for orofacial injuries exists, it is estimated that as many as one-third of all dental injuries are sports-related[5, 6]. A particularly high prevalence of all baseball injuries, 41%, occur to the head, face, mouth, or eyes[7]. Prior to the institution of rules by the National Alliance Football Rules Committee in 1962 that required the use of orofacial protective devices for high school football players, an estimated 50% of all football injuries were to the mouth and face. Current estimates are that 1.4% of football injuries are to orofacial regions[8]. Similarly, data from the mid-1970s indicate that 45% of hockey injuries in children ages 10 to 16

occurred above the shoulders, with 13% being dental injuries. Following the establishment of standards specifying the use of head and face guards in hockey by combined associations and federations in 1977 and the subsequent requirements in the rules for amateur leagues as well as collegiate and high school competition, injury rates dropped dramatically[9].

Equipment that prevents orofacial injuries and, concussion has been available for decades, yet little is known about the extent to which it is used. This study aimed to estimate current participation of school age children in organized sports and assess their use of protective headgear and mouthguards. These national data will provide baseline information for the development and evaluation of targeted strategies designed to reduce the occurrence of sports-related injuries in children.

Methods

We analyzed household survey data obtained for the 1991 National Health Interview Survey (NHIS) of Child Health focusing on responses given by the 9, 630 interviewed parents (or guardians of children ages 7 through 17. The National Center for Health Statistics (NCHS) followed established NHIS standards for sampling of participants, conduct of interviews, and data quality control procedures[10].

In the 1991 survey, parents were asked whether the sampled child had played any of the listed organized sports (football, baseball or softball, soccer, field or ice hockey, wrestling, lacrosse, rugby, boxing, karate or judo) during the previous twelve months and, if yes, how frequently the child wore protective headgear or a mouthguard. For the present study, we looked at <https://assignbuster.com/concussions-in-soccer-players-essay-sample/>

selected demographic and socioeconomic variables as follows: geographic region of residence, gender, school grade level (elementary, grades 1 through 5; middle, grades 6 through 8; high school, grades 9 through 12), "race" (black, white), ethnicity' (Hispanic, non-Hispanic), education of parent (high school or less, more than high school), poverty status (below, at/above Federal poverty level). Race" and ethnicity' were defined by the respondent's self-perception and are separate variables, for example, a child could be both black and Hispanic.

Statistical Analysis. For our analyses, sampling weights were used in order to generalize to the 1991 non-institutionalized U. S. child population aged 7 to 17 years. SUDAAN statistical software, which was created for use with complex, multistage sample designs, was used to calculate standard errors for estimates. All comparisons that are reported as statistically significant are at p [less than or equal to]. 05 after accounting for multiple comparisons. Log linear chi-square was used to test for independence, p -values are based on the F -statistic using the Wald chi-square with denominator degrees of freedom equal to the number of Primary Sampling Units (PSU) minus the number of strata.

Results

Who Is at Risk for Orofacial Injury? In 1991, over 14 million school-aged children in the United States participated in at least one of the listed sports, with over one-fourth of this group involved in two or more sports. (See table 1 for estimated population of children playing each sport.) Males played an organized sport more than females (23% females played, 54% male played).

Playing an organized sport varied by region of the country: in the south 33% played, compared to 43% in the Northeast, 43% in the Northwest, and 41% in the West. Playing an organized sport varied by socioeconomic status: 28% of children below poverty played while 43% at or above poverty played; 33% of children whose parent had less than high school education played in contrast to 45% of those whose parent had more than high school). White children (42%) were more likely to play organized sports than black children (27%). Also, non-Hispanic children (40%) more often played organized sports than Hispanic children (34%).

A greater proportion of high school children (12%) than elementary school children (6%) wore mouthguards. Also, more black (17%) than white (6%) children wore mouthguards (table 2). No differences were found for gender, and the cell sizes were too small to permit interpretation of the data by other sociodemographic variables.

Since the aforementioned standards for baseball encourage batters' helmets and catchers' masks, there is more possibility time" to the headgear questions. To assess this, the responses to the 1991 questions on baseball or softball headgear were analyzed by always (35%), sometimes (43%) and never (22%). The same differences as reported above are observed for gender and race. In addition, white children were reported as "sometimes" using headgear more often than blacks (46% vs. 19%); children whose parents were better educated were more likely to have occasional use of headgear than ones with less-educated parents (45% vs. 38%); and non-Hispanics had occasional use more than Hispanics (43% vs. 30%). Lower

socioeconomic children (using any of the SES indicators) and girls were more likely never to use headgear in baseball or softball.

Soccer. Soccer was the second most popular sport among school-aged children in 1991 (table 1). As might be expected given the absence of US Soccer Federation rules for protection from orofacial injury and no mention of such devices in texts for coaches and athletes, our analyses found that only 4% of soccer players wore headgear and 7% wore mouthguards. The use of headgear did not vary by grade level; however, the use of mouthguards among high school students (14%) was greater than among elementary school children (40%). Cell sizes were not sufficient for interpretation of other demographic or socioeconomic factors.

Football. Ten percent of US. school-aged children played organized football in 1991 (table 1). While rules mandating the use of headgear and mouthguards have existed for over three decades, our analysis indicated that only 72% of children who played football wore headgear and mouthguards all or most of the time (table 2). Statistically significant differences existed in the use of headgear by gender (77% males, 15% females), grade level (88% high school, 52% elementary), ethnicity (77% non-Hispanics, 46% Hispanics), poverty level (77% at or above, 54% below), and parental education (78%, more than high school, 68% high school or less).

We found statistically significant differences in the use of mouthguards by gender (77% males, 15% females), grade level (88% high school, 52% grade school), ethnicity (75% non-Hispanic, 52% Hispanic), and poverty level (75% at or above poverty, 54% below poverty).

Other Organized Sports. Overall population estimates for child or youth participation in wrestling, karate/judo, field/ ice hockey, lacrosse, rugby, and boxing are presented in table 1. Due to insufficient cell size, the use of orofacial devices cannot be analyzed by sociodemographic variables.

Discussion

Differences exist in use of headgear and mouthguards but are not consistent across all sports. Considerably more information is needed on injuries in youth sports and the use of headgear and mouthguards.

The actual risk to injury in childhood sporting activities may be greater than is represented here since only selected organized sports were included in this survey, e. g. organized basketball and less official forms of other sports were not listed. Other methodological artifacts potentially affecting the responses included the lack of distinction among types of sports, e. g., contact, tag, or flag football, and the dependence on parent's knowledge of a child's behaviors.

Rules and regulations. Healthy People 2000 calls for the development of rules and regulations by all sponsors of organized sports that pose a risk of injury. The data reported suggest that such regulations are positive health promotion strategies: football, with rules, had the greatest use of equipment. The moderate use of headgear among baseball and softball players appears to be related to rules that require use for selected players. In contrast, the very low use of safety equipment in soccer may be associated with an absence of regulations on their use. Barriers to development and acceptance of rules appear to include lack of awareness of the potential for injury, <https://assignbuster.com/concussions-in-soccer-players-essay-sample/>

inappropriate or unavailable equipment, and expense. Unlike other countries, the United States has no overarching authority to require the use of orofacial protective devices by players or for the appropriate education of youth sports officials. The efforts of advocacy groups are thwarted by the fragmented nature of youth sports in the United States[1].

Behavior change. Parental perceptions of children's risks to injury, expenses associated with protective gear, and peer pressure may influence use of mouthguards and headgear. Interestingly, lower socioeconomic parents are reported to be more aware of threats to their children's safety than are affluent parents". One of the major sources of harassment among children is orofacial features[16], thus, comments by peers or the anticipation of comments about devices may be sufficient to deter gear usage.

The observed wearing patterns of males and females may represent perceptual and cultural differences, peer pressure, and/or the nature of sports played: 1) Perceptions that females are less aggressive and thus at reduced risk of injury may exist. 2) Perceptions regarding the absence of long-term commitment to a sport may result in a differential willingness to devote resources to females. 3) Aesthetic appeal may differentially influence protective orofacial gear usage. 4) Females may play in non-league-based sports with fewer or less stringent rules or may play less combative sports than males. Since injury rates for females playing specific sports are similar to those for males[17-19], the differential use of protection must be changed.

Product design. Problems associated with protective mouthguards include speech impairment, discomfort, limited durability and poor fit[20]. However, custom-made mouthguards, while more costly and time consuming to have made by a dentist, reduce such complaints and provide the best protection from injury[20-22]. In a study of high school Lacrosse players, both male and female preferred custom-made mouthguards, however, males reported that they would wear the less comfortable “boil and bite” mouthguards to avoid multiple dental office appointments. Few females actually wore either the standard or custom mouthguards[21].

While sports officials and dentists are encouraged by professional organizations and others to initiate mouthguard programs[5, 23, 18], a review of the literature indicates that few programs exist²⁰. Innovative strategies must be developed to increase the use of custom-made mouthguards which are effective, readily available, and affordable for children of all ages. Since mouthguards must adapt to the rapidly changing dentition and to orthodontic appliances, numerous challenges exist in bioengineering, health professional consultation and marketing.

Health education and health promotion campaigns. In our study, high school athletes wore orofacial protection more than elementary-aged children. The differences in use could be in part attributed to resources, regulations, and perception of commitment to the sport in school versus community programs.

Some high schools have the advantage of formally educated coaches, certified athletic trainers and team physicians to develop sports safety

programs. Yet, an estimated 80% of all those who coach organized sports in the U. S. have never taken classes designed to enhance their knowledge of the sport they are coaching[24] or the basics of injury prevention and emergency procedures[1]. Several organizations have developed educational materials and training sessions for coaches[1, 14, 24] but the use of these is discretionary.

The literature indicates that behaviors of athletes are most influenced by coaches[25]. Coaches report that most information about mouthguards comes from sales representatives (72%), educational materials (33%), and dentists (11%)[21]. Targeted education and health promotion could be directed toward each of these groups, as well as the general public, parents and athletes themselves.

Unfortunately, some youth sports organizers are refusing to participate in educational programs because they believe that they can be held liable for injuries only after receiving education. Recent legal suits have determined that coaches can indeed be held liable with or without formal education²⁶. One national organization, in response to growing concerns about volunteers, provides liability insurance as an incentive to coaches who complete a three-year certification program which includes first aid and safety training[24].

In conclusion, it appears that a set of complex issues surround the use of orofacial protective devices for youth sports in the United States. Under the umbrella of Healthy People 2000, the public health sector, working with the private sector, must strengthen programs, program guidelines, methods for

dissemination of information about successful approaches and surveillance systems. Clearly, if orofacial injuries are to be prevented in sports, demonstration research projects and innovative programs using multifaceted approaches at all levels, across many sports, and in many environments must be tested and, if effective, implemented.

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