Motor Vehicle Crashes: Causes And Prevention

Traffic accidents are the eighth major cause of death globally, according to WHO (Thomas, 2018). In 2016, motor vehicle crashes peaked at 1.35 million. In fact, “traffic deaths are now the leading global cause of deaths for children and young adults between 5 and 29 years old” (Thomas, 2018, para. 4). Just in South Dakota, fatal car crashes in 2017 increased to 111 from 103 from the previous year and deaths rose by 13 percent. Because this widespread issue is continuing to spiral, it is important to understand the main causes for motor vehicle accidents, the ways to prevent motor vehicle accidents, and the impact wearing a seatbelt has during a motor vehicle accident.

The causes of car accidents vary but the most prevalent causes are due to human error. Behaviors such as distracted driving, speeding, drunk driving, and avoiding safety precautions may all result in an accident. Distracted driving is defined as “any activity that diverts attention from driving, including talking or texting on your phone, eating and drinking, talking to people in your vehicle, fiddling with the stereo, entertainment or navigation system—anything that takes your attention away from the task of safe driving” (Distracted driving, n.d.-a, para. 2). Distracted driving is the number one cause of car accidents. It claimed 3,450 lives in 2016 in the United States (Distracted driving, n.d.-a, para.1).

Speeding is against the law as it puts everyone’s life in danger. “In 2017, speeding killed 9,717 people, accounting for more than a quarter of all traffic fatalities that year” (Speeding, n.d.-c, para.1). It takes vehicles going at a higher speed longer to break; therefore, the higher the speed, the greater the risk. Speeding creates a “greater potential for loss of vehicle control, reduced effectiveness of occupant protection equipment, increased stopping distance after the driver perceives a danger, and an increased degree of crash severity leading to more severe injuries” (Speeding, n.d.-c, para. 5).

Drunk driving is very dangerous as it diminishes the reaction time of the human body and reduces concentration. Drunk driving “reduces the function of the brain, impairing thinking, reasoning, and muscle coordination. Approximately one-third of all traffic crash fatales in the United States involve drunk drivers (with BACs of .08 g.dL or higher)” (Drunk driving, n.d.-b, para. 6). Additionally, drugs can also negatively affect one’s driving.

The best way to improve road safety is by taking preventative measures, including the implementation of rules and regulation, increasing awareness, and making engineering modifications. A course of action to prevent MVA was set in action by Pine Ridge Indian Reservation. According to Amiotte (2016), “motor vehicle crashes (MVC) are the leading cause of death from severe injures on the Pine Ridge Indian Reservation (PRIR), averaging 16 MVC deaths per year from 2002 to 2011” (pp. 46). This alarming problem inspired the reservation to create a local coalition to address the issue. The coalition took the initiative to implement intervention strategies in hopes of reducing deaths and increasing the use of seat belts. Amiotte (2016) described how the safety coalition implemented these intervention strategies as they “were based on CDC’s Guide to Community Preventive Services (2013), and included developing a distribution program for child safety seats, enhancing the enforcement of seat belt laws by the OST DPS through increasing citations in 2009, developing a traffic court system in

2009 within the OST court to enforce seat belt citations, and conducting an education campaign on the importance of seat belt use in reducing severe injuries from MVC by the OST DPS and the Sacred Cargo Coalition in local school and media starting 2007" (pp. 48). These implementations produced positive results as the number of people using seat belts increased by 34 percent from 2007 to 2012. MVC deaths and injuries in PRIR also showed a decline during the five year intervention from 105 fatalities to 56 fatalities. In summary, the best ways to prevent MVAs are by avoiding the factors that cause MVAs. Following traffic rules and regulations, avoiding distractions, such as cell phones, avoiding alcohol and drugs, slowing down, adjusting to the road conditions, and wearing ones seatbelt will all promote defensive driving.

Wearing the proper protection on the road plays a major impact on the severity of an injury. Causes of road accidents (n.d., para. 6) contends that "wearing seat belts and helmets has been brought under law after proven studies that these two things reduce the severity of injury during accidents. Wearing seat belts and helmets doubles the chances of survival in a serious accident". Seatbelts provide security to everyone in the vehicle; they keep one in place during impact, reduce the risks of injures, and affect auto insurance rates. Wearing a seatbelt significantly decreases your chance of being thrown from the vehicle (Causes of road accidents, n.d., para. 6). Overall, wearing a seat belt is the law to keep everyone on the road safe.

Nursing implications should be mindful of treating the whole individual-mind, body, and spirit. First and foremost, the nurse should assess the patient by addressing airway, breathing, circulation, disability, neurological assessment, and exposure and environmental control (ABCDEs) (Callahan, 2019, p. 888). When caring for the patient, the nurse should be mindful of the prevalence of infections as they are a dangerous complication of injuries. The nurse can implement this by teaching and using good hygiene. In addition, mobility is a major factor in injuries; it can be the difference in a prolonged hospital stay. The nurse should perform ROM exercises on patients and teach those patients how to adapt to any physical limitations. It is important for the nurse to identify high risk situations and modes of coping for the patient. Lastly, because accidents are so common, it is important to continue to educate the population about injury prevention. All of these concepts emphasize health promotion to improve the health of individuals suffering from an injury (Callahan, 2019, p. 886).

Healthy People 2020 noted the twelve types of health indicators. Among those twelve, lay injury and violence. Motor vehicle crashes (MVCs) are the second outstanding cause of injury related deaths (Callahan, 2019, p. 436). The text noted that "for Americans age 1-44, injuries are the leading cause of death. Annually, more than 29 million individuals seek emergency department treatment for injures" (Callahan, 2019, p. 436). Just over a quarter of deaths in middle-aged adults are from motor vehicle traffic and falls. Lifestyle choices play a major factor in health promotion. Examples of leading a healthy lifestyle include using seatbelts, using bike helmets, and avoiding risky behavior (Callahan, 2019, p. 436).

In regard to the PRIR intervention strategies, health promotion has played a role in relation to building community awareness and engagement as well as assembling coalitions to decrease MVA accidents. It is important to know the main causes of MVAs, ways to prevent MVAS, and the significance of seatbelts. Some accidents are uncontrollable while others can be prevented. The problem of MVAs will never fully disappear so it is essential to drive safely to promote the health and wellness of oneself and others.