



## Exploration of Distracted Road Users in Road Traffic Accidents in South Africa

Modipa Mmakwena

Tshwane University of Technology, 2 Aubrey Matlakala St, Soshanguve, Pretoria, South Africa

E-mail: [modipamv@tut.ac.za](mailto:modipamv@tut.ac.za)

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### **Abstract**

Distracted road users contribute to high rate of road traffic accidents globally and it is also prevalent in South Africa where many road users are killed on the road due to distraction. The inability of road users to adhere to the rules of the road with regard to the use of cell phones, driving while impaired, walking while impaired and all other means of distraction while on the road is a major problem in South Africa. Road users should be focused on the road and follow the rules of the road and avoid other aspects which could derail their journey and lead-up to fatality as it is the case on South African roads. This article focused on distracted road users who contribute to high rate of road traffic accidents in South Africa. The article is based on a qualitatively rooted methodology including a wide range of primary and secondary sources. The article further draws on the findings from the world on road safety and formulate steps to counteract road traffic accidents as a result of being distracted on the road in South Africa. The research based key steps leading to prevention of road traffic accidents due to distraction on the road in South Africa. The first related to the process of road safety promotion to change the behaviour of road users; the processes of road safety education and lastly to enforce the law consistently to ensure adherence to the rules of the road by road users.

**Keywords:** *Distraction; Road Users; Road Traffic Accidents; Enforcement; Road Safety Promotion and South Africa*

### **Introduction**

Almost 3700 people are killed on the roads every day, making road traffic collisions one of the world's leading causes of death and long-term disability (World Health Organisation, 2018). Distracted driving is 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 or anything that takes your attention away from the task of safe driving (United States Department of Transportation, 2019). The emergence of advanced technological devices is viewed as one of the easily identifiable distractions for motor vehicle drivers however; studies conducted by the RTMC

indicated that drivers engage in secondary activities whilst driving (Road Traffic Management Corporation, 2019). Driver distraction is an important risk factor for road traffic injuries or accidents, there are different types of driver distraction, usually divided into those where the source of distraction is internal to the vehicle such as tuning a radio, or using a mobile phone, and those external to the vehicle such as looking at billboards or watching people on the side of the road (World Health Organisation, 2011). A split second is all it takes for an accident to happen, keeping your eyes on the road, your hands on the wheel and your mind on your driving remain the most basic and crucial rules of the road for your safety and that of other drivers, cyclists and pedestrians (Supa Quick, 2019). According to the 2018 International Transport Forum's (ITF) Annual Road Safety Report, South Africa has one of the highest road crash rates in the world, with distraction cited as an increasing problem for road safety. South Africa's Road Traffic Management Corporation (RTMC), in its February 2016 report, had already shown that inattentive and distracted Driving has become a major problem and one of the leading causes of single vehicle road crashes among young people (Supa Quick, 2019). Those aged 18 to 24 are twice as likely to be involved in a singular vehicle crash as those in the 25 to 49-year age group (Supa Quick, 2019). Using a cell phone while driving creates enormous potential for deaths and injuries on U.S. roads, in 2019, 3,142 people were killed in motor vehicle crashes involving distracted drivers (United States Department of Transportation, 2019). When distractions such as phone calls, emails and text messages cause a driver to take their eyes off of the road, it can result in motor vehicle accidents and in South Africa this is a major problem which need urgent attention from road traffic authorities. Road users should refrain from using cell phones while driving as this is not allowed in terms of Road Traffic Act. It is of paramount importance for motorists and pedestrians to adhere to the rules of the road. This article aimed to explore distracted road users in road traffic accidents and identify the existing challenges of combating this problem and suggest key steps leading to prevention of road traffic accidents based on international standards and procedures.

## ***Research Methodology***

This article utilised qualitative, case study based approach. The approach is supported by analysis of primary and secondary sources such as documents from Road Traffic Management Corporation, academic books, articles and reports from non-governmental organisations focusing on road safety. This article draws on the findings from the world on road safety and formulate steps to overcome road traffic accidents caused by distracted road users. Road users should play a vital role in protecting themselves on the road by understanding the rules of the road and be able to interpret them. This article seeks to produce wide range of methods to curb road traffic accidents as many road users are dying on the roads in South Africa and also to check other strategies or measures used in other countries around the world especially on distracted road users as a contributory factor to road traffic accidents. The epistemological grounding of the project is rooted in the interpretative methodology as exemplified by Saunders, Lewis and Thornhill (2007).

## **Distracted Road Users**

The National Highway Traffic Safety Administration in the United States estimates that people are distracted by secondary activities 30% of the time while driving and that's a lot, considering serious consequences can come about from just a few seconds of carelessness on the road while 80% of crashes and 65% of near-crashes involve some form of driver distraction that reduces driving safety (South African Breweries, 2022). According to the International Transport Forum's (ITF) Road Safety Annual Report, South Africa has one of the highest road crash rates in the world, with around 25% of those crashes caused by the use of mobile phones while driving (BusinessTech, 2018). The ITF lists the main causes of distraction, noting that passenger interactions are most prominent, followed by using mobile devices while driving (BusinessTech, 2018).

It is important for road users to focus on the road as every second on the road matters most as anything can happen if you are distracted, as distraction cause accidents. Any activity that redirects the driver's attention away from safely operating a vehicle and towards that competing activity is considered distracted driving (Regan and Strayer, 2014). Using a mobile phone device, eating or drinking, using a navigation system or interacting with children, if done while operating a vehicle, are all examples of distracted driving (Transport Canada, 2011). Distractions can be classified as visual, manual, and/or cognitive, and their compounding effects on driver error have been well established (Young and Salmon, 2012). A driver/ pedestrians is distracted when they pay attention to something else while on the road and in many instances they are distracted by technology which is not allowed while driving as it may impact on their attention. For example, it may cause the road users to become less observant and it could contribute to fatalities on the road. The result is that drivers or pedestrians using a phone to talk, text, or browse the internet are less able to stay in the appropriate lane, detect any changes around them and respond in time and drivers talking on the phone are also more likely to exceed the speed limit and not maintain a consistent speed (Youth for Road Safety, 2022). When texting, people often drive at lower speeds, but their delayed reaction time and inability to maintain appropriate lane positions and assess traffic conditions still makes texting while driving extremely dangerous (Youth for Road Safety, 2022). Sending a text message, talking on a cell phone, using a navigation system, and eating while driving/ walking are a few examples of distracted driving. Drivers and pedestrians are easily distracted on the road by the examples above and as a result it adds to high rate of fatalities on the road. Distracted driving is driving while doing another activity that takes your attention away from driving and it increase the chance of a motor vehicle crash (Centers for disease control and prevention, 2021). International Transport Forum (2014) highlighted that the use of mobile and on-board information and communications technology in vehicles raises serious concerns about their impact on driving performance in relation to road safety and they also impact on the travel behaviour of non-motorised road users (cyclists and pedestrians). Fatigue and sleepiness while driving is also a major concern for road traffic authorities as some of the road users are involved in crashes because of not taking breaks while traveling, it is of paramount importance for road users to prepare their journeys in advance and take breaks especially when taking long distances. Drivers need to stay alert for the entire time they are behind the wheel and this means scanning the road environment, processing information, and making decisions about the primary task of driving (RACQ foundation, 2021). However, keeping road users' minds on the job is easier said than done, all road users engage in some kind of distracting activity while they are driving or walking for example seeing a beautiful lady walking on the road, calming the baby at the backseat, changing music and others are some of the activities that distract road users, and this could be avoided by preparing for the road and put more focus on the road. Doing multiple tasks at the same time, like driving or walking while talking on the phone, can impair the ability to process key information about road safety (Road Safety at Work, 2022). Use of cell phones is common for all road users and it distract most of them and contribute to fatalities and this could be prevented by adhering to the rules of the road.

## **Pedestrian and Driver Risks**

Driver distraction is an important risk factor for road traffic injuries/accidents. There are different types of driver distraction, usually divided into those where the source of distraction is internal to the vehicle, such as tuning a radio or using a mobile phone, and those external to the vehicle such as looking at billboards or watching people on the side of the road (World Health Organisation, 2011). The increasing use of mobile phones is part of the broader integration of information and communications technology worldwide, allowing an instant and continuous flow of information and social networking. Increasingly pervasive hand-held devices, such as mobile and smart phones, MP3 players, I-Pods and applications such as Facebook and Twitter, are, in many societies, drawing users into ever-deeper engagement (World Health Organisation, 2011). This trend is particularly prevalent among young people,

but the distraction associated with continual use of such devices has led to discussion about whether this excessive use is an addiction (World Health Organisation, 2011).

Distracted driving can cause crashes, injuries, and even death; it is a prevalent public issue in South Africa. But what about distracted walking? What are the consequences of pedestrians talking on the phone, texting, listening to music, or engaging deeply in conversation with the person next to them? Arrive Alive (2017), stated that road Safety authorities often create awareness of the dangers of distractions to drivers and neglect to focus on the distractions facing pedestrians as well. They are now finding more and more accidents because of pedestrian inattentiveness. These are not merely resulting from pedestrians who were not paying attention as they climbed up or down stairs, but also from motor vehicle accidents. Most such accidents occur when the pedestrian crosses the street, and many seem to result from pedestrian inattentiveness. Thus, when pedestrians are using mobile phones, distracted attention may increase their risk of accidents (Arrive Alive, 2017). For pedestrians, as with drivers, cognitive distraction from mobile phone use reduces situation awareness, increases unsafe behaviour, putting pedestrians at greater risk for accidents, and crime victimization.

Doctors and safety experts are increasingly concerned about the risk associated with distraction while walking (Arrive Alive, 2017). People are captivated by responding to or sending text messages, talking on cell phones, or using some type of mobile device with headphones to listen to music while walking. Preoccupied and distracted pedestrians have become common on busy city streets. This loss of situational awareness is like that of a distracted driver (Office of Compliance, 2010). Pedestrians texting while walking increases the risk of traffic accidents, since they are often not paying attention to their surrounding environments and fail to notice approaching vehicles (Shinmura, Kawanishi, Degushi, Ide, Murase and Fujiyosi, 2015). Take the classic example of the act of walking and chewing gum. There is a common misconception that because people appear to simultaneously do both, that they can just as easily talk on their cell phones and drive safely at the same time. Pedestrians' carelessness is also an important issue (Shinmura, Kawanishi, Degushi, Ide, Murase and Fujiyosi, 2015). Pedestrians who are not paying attention to their surrounding environments often fail to notice approaching vehicles. Such pedestrians can be considered as a higher risk of running out into the road (Shinmura, Kawanishi, Degushi, Ide, Murase and Fujiyosi, 2015).

Sign: No Pedestrian Crossing with MP3 player



**Source:** Office of Compliance (2010)

The recognition of a pedestrians' texting-while-walking behaviour, should contribute to the risk prediction of the pedestrian to be involved in an accident. For instance, individuals who type text while crossing the street in a virtual pedestrian environment experience more hits by motor vehicles, and look away from the street environment more frequently than those who are not distracted (Office of Compliance, 2010). It is of utmost importance for pedestrians to switch off their MP3 players or music while crossing the road as this could distract them or not hear the vehicles until it is too late. Pedestrians and drivers should refrain from using cell phones or any equipments that could distract them while on the road as this could prove disastrous and have a negative impact on families, next of kin and loved ones.

## Visual Distractions

Visual driving distractions could be anything that takes your visual field away from the direction you are driving and this could be an interesting billboard, street sign, car, person on the street, map, passenger, or a radio broadcasts and it could be your GPS or cell phones (Singleton, 2018). Previous research suggests the presence of advertising increases mental workload and changes the profile of eye fixations, taking attention away from the driving task (Hudak and Madlenak, 2017). The amount of visual information is increasing on the roads, due to higher traffic density, more complex traffic management systems, increased commercial roadside development and increasing pressure on road authorities to permit advertising next to major roads (Madlenakova, Matuskova and Hrudkay, 2016; Kolarovszki and Majercakova, 2016). The things they see on the road easily distract road users, and such could be detrimental to their safety on the road. Advertisement next to the road, in fact, could be bigger and inevitable distractions to road users and affect their concentration level on the road. The reason is, one can switch off his mobile phone and avoid food and drinks, but only hardly can ignore colourful and attractive billboards, especially when they are giving a strong message or exhibit teaser and since they are now in abundance on important roads and highways, traffic safety has become a challenge (Lam, 2002). **Frankenmuth Insurance (2022) stated that** chances are, when you think about distracted driving, you are thinking about visual distracted driving and it's what most people associate with distracted driving because it's what makes the most sense. When a driver takes their eyes off the road, even if it's just for a split second, they take their focus off the road as well. It makes these distractions especially dangerous because drivers cannot consistently assess their surroundings (Frankenmuth Insurance, 2022).

## Drunken Pedestrians

Drink walking, that is walking in a public place while intoxicated, is associated with increased risk of injury and fatality (Gannon, Rosta, Reeve, Hyde, and Lewis, 2013). Young people, especially males, are prone to engaging in this behaviour, yet little is known about the factors associated with individuals' decisions to drink walk (Gannon, Rosta, Reeve, Hyde, and Lewis, 2013). The negative impact of alcohol use on driver behaviour has been widely acknowledged. However, pedestrians' use of alcohol and the resulting impact on their safety has received relatively less attention (Haque, *et al.*, 2012). It is generally accepted and commonplace for patrons in bars and nightclubs, having consumed alcohol, to choose to walk to their next destination or to start drinking at home and walk to a licensed venue or party, to continue drinking (O'Connor *et al.*, 2004). The risks associated with these behaviours, known as drink walking, are perceived by the public and young people particularly, to be less dangerous than drink-driving (Lang, Tay, Watson, Edmonston and O'Connor, 2003).

According to the South African National Injury Mortality Surveillance System (2001), there were 25 361 fatal injuries registered at 32 of the state mortuaries in 2001. This represents approximately 35% of all non-natural mortality cases in South Africa in that year. Transport related deaths accounted for 27% of all the fatal injuries. Pedestrians were the group of road users most frequently killed (37.3%), followed by passengers of vehicles (17.4%), drivers (14.0%) and cyclists (3.1%). Alcohol is a major risk factor for all types of fatal road traffic injury in South Africa. Tests for Blood Alcohol Concentration (BAC) level, was conducted on 2 372 (or 34.6%) of the 6 859 transport-related deaths. More than half (51.9%) of all transport-related deaths had elevated levels of BAC, and of these positive cases, 91% recorded BAC levels of 0.05 g/100 ml or higher (South African National Mortality Surveillance System, 2001).

The Automobile Association Foundation (2013), stated that drunken pedestrians may be as much of a danger on South African roads as drunken drivers. Every drunken pedestrian who is a danger to him/herself, is as much of a danger to vehicular traffic. When motorists hit drunken pedestrians, there are no statistics to show how many vehicles have already managed to avoid the same person. When a

motorist is unable to avoid a drunken pedestrian, the lives of everyone in his vehicle and in surrounding vehicles are put at risk. It is realistic to suggest that a single drunken pedestrian on the road could ultimately be liable for the death of an entire minibus taxi or bus full of passengers (Automobile Association Foundation, 2013). It is unlikely that the evidence proving the presence of a drunken pedestrian would surface.

Patek and Thoma (2013), stated that there are several measures available for specifically preventing intoxicated pedestrian accidents. None of them, however, would be likely to have a large effect on the total number of pedestrian casualties. (A possible exception is a statutory limit on the blood alcohol level in public places, accompanied by enforcement.) Instead, in most respects, the improved safety of intoxicated pedestrians will come about by making the environment safer for all pedestrians, drunk or sober. Patek and Thoma (2013), stated that many factors play a role in pedestrian fatalities. Several of the most significant factors include substantial alcohol use by drivers and pedestrians alike, the time of day of the incident, pedestrian age, and sex. Perhaps, and probably likely, time of day and alcohol use are not independent and often play an interactive role because most people who drive or walk intoxicated are more likely to do so at certain times of the day and days of the week.

The measure that would be expected to have the greatest effect quickest is a reduced speed limit, especially in locations where traffic is busy and there are many pedestrians (Hutchinson, Kloeden and Lindsay, 2009). Patek and Thoma (2013), stated that alcohol use among individuals out on the weekend evenings is presumably higher than at any other time of day or day of the week. It is a well-established fact that alcohol use impairs judgment, predisposes to risk-taking behaviour, slows reaction time, impairs coordination, and impairs visual capabilities. Alcohol use, particularly among pedestrians, plays a substantial role in pedestrian fatalities. Not surprisingly, many pedestrian fatalities (39%), occur on weekend evenings between 8 pm and midnight (Patek and Thoma, 2013). Impaired road users contribute to high rate of fatalities on the road as they are distracted in terms of conducting themselves and it is an infringement to operate a vehicle while impaired. Pedestrians should also refrain from using the road while impaired as their vision is impaired by consumption of alcohol even their reaction time is compromised by such, it is of paramount importance for road users to refrain from being on the road while intoxicated because it distracts them while on the road.

## **Texting While Driving**

Texting while driving is on the rise globally as many cars come-up with highly technologized vehicle and as a result it impacts on drivers to use such technology while driving. Approximately **660,000 drivers** are attempting to use their phones while behind the wheel of an automobile, smartphones have made it easy for people to stay connected at all times but that can pose serious safety risks if someone decides to check his or her text messages, emails, phone calls, or any other mobile applications while driving (Edgar Snider and Associates, 2021). Texting while driving and walking is prevalent in teenagers and it contributes to a high accident rate among this group. They should learn to always concentrate while they are on the road and be vigilant while applying themselves to behave in line with the rules of the road. Behaviour or attitude of teenagers also contribute to road traffic accidents as the Road Traffic Management Corporation always emphasises that human behaviour is the main contributory factor to road traffic accidents. If teenagers could behave in a good manner, many lives could be saved on the road. They should be committed to work hard and be good leaders for the future by applying themselves in a respectable manner in schools and in their communities. They should also act as role models to the younger ones who are still in primary school and the community itself. Motivation to comply with rules, to avoid risks, to act safely and socially responsible and will benefit the whole country, and everyone will follow suit because most road users lack motivation to do better. With more information on road safety, much could be done to have positive results towards preventing road traffic accidents. Texting while

driving is not allowed according to road traffic act but most of the road users use mobile phones while on the road and more should be done to counteract this problem as it distract them while on the road. According to Edgar Sniders and Associates, 2021 stated that mobile phones contribute to the following:

- The National Safety Council reports that cell phone use while driving leads to 1.6 million crashes each year.
- Nearly 390,000 injuries occur each year from accidents caused by texting while driving.
- 1 out of every 4 car accidents in the United States is caused by texting and driving.
- Texting while driving is 6x more likely to cause an accident than driving drunk.
- Answering a text takes away your attention for about five seconds. Traveling at 55 mph, that's enough time to travel the length of a football field.
- Texting while driving causes a 400 percent increase in time spent with eyes off the road.
- Of all cell phone related tasks, texting is by far the most dangerous activity.
- 94 percent of drivers support a ban on texting while driving.
- 74 percent of drivers support a ban on hand-held cell phone use

According to the above, the mobile phones are very dangerous while on the road as it distracts the road users and it could lead to more fatalities and more should be done to empower road users about the dangers of texting while driving/ walking. Not only do you pose a threat to yourself and those around you if you text and drive, but because of those actions and consequences, your insurance will increase even if you do not get into an accident and are pulled over for texting and driving, you can get a ticket which will then increase your insurance (Wilson Kehoe Winingham, 2021). The research found that drivers who sent or read text messages were more prone to drift out of their lane, with steering control by texting drivers 91% poorer than that of drivers devoting their full concentration to the road (TimesLive, 2021). The brain handles tasks sequentially, but when you multitask by using your phone while driving it is impossible for your brain to adequately refocus on driving quickly enough and therefore safely respond to road hazards (TimesLive, 2021). Cell phone use also affects how drivers scan and process information from the roadway and drivers generally take their eyes off the roadway to dial or manipulate a hand-held phone (In contrast, drivers engaged in cell phone conversations and other forms of cognitive distraction tend to concentrate their gaze toward the centre of the roadway), but their attention still may be diverted from driving and this may make it difficult for drivers to process what they are looking at (Insurance Institute for Highway Safety, 2021). The popularity of wireless devices has had some unintended and sometimes deadly consequences and an alarming number of road traffic accidents are linked to driving while distracted, including the use of cell phones while driving, resulting in injury and loss of life (Federal Communications Commission, 2021). Texting and other cell phone use while driving has emerged as a major contribution to teenage and young adult injury and death in motor vehicle collisions over the past several years (Bergmark, Gliklich, Guo and Gliklich, 2016). This is caused by teenagers who are not adhering to the rules of the road as well as vehicle technology which they are familiar with and are able to use it while on the road and their actions put other road users at risk of being involved in fatalities and more should be done to educate road users especially young drivers.

## **Fatigue**

Fatigue while driving is another problem that can endanger the safety of road users. It can result in both cognitive and motor function impairment, which, while driving, can lead to increased reaction times, reduce attention, poorer psychometric coordination, and less efficient information processing (Trigoso, Areal and Pires, 2016). This condition can compromise the drivers' ability to control their vehicle and the amount of time spent carrying out a particular task for example driving for long hours without interruption is one of the most important causes of fatigue. Other causes are the lack of sleep, biorhythm, the monotony of the task, and individual characteristics like age, medical condition, or the use

of medicines, alcohol, or drugs (SWOV, 2012). Fatigue can impair every aspect of human performance, overwhelming scientific data clearly shows that sleep loss and circadian disruption can affect cognitive and motor skills, degrade health and disturb mood and studies have shown that, for most people, losing 2 hours of sleep can cause impairment equivalent to about a .05% blood alcohol concentration (Hart, 2014). The most general factors that cause fatigue are lack of sleep, bad quality sleep and sleep demands induced by the internal body clock besides these general factors, prolonged driving (time-on-task) can increase driver fatigue, especially when drivers do not take sufficient breaks (Arrive Alive, 2008). It is of utmost importance for drivers to take breaks whenever they are taking long trips to avoid fatigue which could cause accident on the road. Drivers who are likely to be at risks are the truck drivers, it is important for them to rest and when they are fit or ready to travel, do so while they widely awake. Commercial vehicle drivers are often responsible for dozens of lives, and their companies are often responsible for dozens of their own drivers who must be well-rested to operate safely even if their companies do not employ or deal with commercial vehicle operators, all safety professionals should consider the impact of fatigue on their own workforce (Hart, 2014). Even other drivers are at risk if they do not take breaks when travelling long distances, it is better to have two drivers in the car, when the other one is tired, the other driver can drive so that everyone in the car can arrive safely and also ensuring the safety of other road users. Behaviours associated with fatigued driving that can increase crash risk include inconsistent speed, frequent lane changes or weaving, not respecting road signs and other traffic control devices, sudden braking, and speeding (Robertson et al. 2009). Other aspects related to fatigue are as follows (Arrive Alive, 2008):

- Fatigue has a physical and a mental aspect.
- Fatigue is associated with both reduced capacity to perform and motivation to perform.
- Although sleepiness and fatigue may have different causes, their effects on performance and motivation are similar, a decrease in mental and physical functioning.
- When fatigued, persons may alternate normal functioning with short lapses in performance (i.e. not noticing or responding to signals). The long term result of fatigue is an increasing variability of performance.

## **Steps Leading to Prevention of Road Traffic Accidents Due to Distraction on the Road in South Africa**

### Road safety promotion

Human factor contribute to high rate of road traffic accidents all over the world even in South Africa is the case where many road users lose their lives on the road. Without a change of attitude among road users and, more importantly, a respect for the law, efforts to prevent fatalities and crashes will fail and this is according to the Automobile Association (2018), as quoted by Business Day. Road users should refrain from texting while driving/walking, speeding, fatigue and other aspects which contribute to distracted road usage. Law enforcement agencies responsible for road safety should ensure that they empower road users with in-depth knowledge, skills and attitude to maneuver safely on the road. Distracted road users should not use the road for their safety as well as the safety of other road users. When people are informed about road safety, it is where they will be able to maneuver safely in traffic, but if not, they could be compromised as a result thereof. The promotion of road safety in South Africa should be used to empower more road users about the rules of the road and how to conduct themselves whenever they are on the road. The aim of the empowerment is to cover as many road users as possible, to ensure that they are aware of road safety using all relevant platforms such as Radio, Television, Newspapers, Social networks, etc., to provide messages to the masses on the ground. When communities are educated about their surroundings, especially when it comes to their safety, they are more likely to be vigilant and alert and therefore adhere to the rules of the road. It is only through campaigns or the use of the media that road users can be made aware of the dangers of the road such as distraction. For example, in the USA a campaign which combined education and enforcement techniques yielded results in terms of



the reduction in road traffic fatalities (Boonton New Jersey, 2007). New data shows that efforts to increase public awareness paid off. Street Smart campaign successfully changed behaviours with results showing a 39 percent reduction in pedestrians crossing midblock (jaywalking), and an 11 percent reduction in pedestrians crossing against traffic signals (Boonton New Jersey, 2007). Public awareness of the Boonton Police Department's enforcement of pedestrian safety laws increased by 56 percent, awareness of pedestrian safety-related advertising messages rose to 50 percent, and awareness of the Street-Smart campaign's presence in Boonton during the month of October 2017, increased to 63 percent (Boonton New Jersey, 2017). It is important for South Africa to increase their awareness campaigns to ensure that road users are aware of the dangers of not following the rules of the road. To increase public awareness of road safety laws and persuade the public to abide by them, governments complement legislation and enforcement with the broadcasting of mass media campaigns (World Health Organisation, 2018). Road traffic crashes are often covered in the media simply as events and not as a leading killer of people which causes an enormous drain on a country's human, health, and financial resources. By framing road safety as a health and development story, with data and in-depth information, journalists could affect the way these stories are told and potentially to help shift public behaviour and attitudes, influence policy and therefore contribute towards saving lives on the road (World Health Organisation, 2013).

#### Road safety education

Road safety education plays an important role in shaping the attitudes and behaviour of road users and it will be relevant if it could start at an early age, where children can learn about road safety in order for them to conduct themselves in a responsible manner. Children could also influence their parents about road safety if they learn it at school. For example, if children are being taught about speeding and other contributory factors to road traffic accidents, they could simply say "no" to unlawful conduct or advise them to follow the rules of the road. Former President Nelson Mandela said, "Education is the most powerful weapon which you could use to change the world". It is important for all road users to learn about road safety to make the roads safer and more accommodating in terms of bringing ideas to the relevant authorities in terms of improving road safety in the country. Former president Nelson Mandela also said that "no country can really develop unless its citizens are educated". By this statement it is important for us all, as a nation to be more encouraged to learn, as it will assist in terms of how road users conduct themselves on the road. Many road traffic accidents are caused by the human factor and this factor should be addressed swiftly by educating the people about road safety. It is important for all stakeholders to come together and address this problem, as it affects everyone and then come up with ways on education people to curb this problem. The only way to address human behaviour as the contributory factor, is by ensuring that road users are educated to make informed decisions.

Road safety education should focus on three key areas which are knowledge, skills, and attitude. The Department of Transport, as well as the Department of Education in the Province, should work together in drafting a road safety curriculum. It is also important to ensure that road users learn about the rules of the road, because in most cases they learn about them when applying for a learner's license and this is the only knowledge available to them. The question is: "Is what they have learned by studying for a learner's license enough to be a good participant on the road?" And the answer is "no", as many of the road users are always on the wrong side of law enforcement officers and much more should be done to come up with more information on road safety, so that they would be able to conduct themselves in a better way. Road users need to know about the consequences of not following the rules of the road. The impact of road traffic accidents on families and the country, because economically it puts pressure on the Road Accident Fund and courts to have a greater expenditure for the victims of road traffic accidents, whereas this money could be used to improve the road infrastructure.

## Law enforcement

Enforcement plays a critical role in terms of how road users conduct themselves whenever they are on the road, especially if laws are implemented consistently. In France, 1 823 fixed speed cameras and 933 mobile cameras were installed throughout the whole road network between 2003 and 2010 (Price Waterhouse Coopers, 2017). Within these 7 years, the fatality rate per 100 000 people decreased by 21% and non-fatal traffic injuries witnessed a dramatic reduction from 26.2% in 2002 to 12.1% in 2003, 3.5% in 2008 and just 0.8% in 2010 (Price Waterhouse Coopers, 2017).

Visibility of traffic police officials on the road play a major role as most of the road users obey the rules of the road when they see officials on the road and the inconsistency in terms of how traffic police officials enforce the law is questionable, because you will see some drivers not getting fined for violating the rules of the road due to bribing officials. Once the road user believes that the enforcement threat is no longer present, their behaviour soon reverts to pre-enforcement levels. The problem is that there are not enough policing resources to cover the entire road network and road users understand that the risk of apprehension at any time is very low. Law enforcement agencies should play their role and ensure that corrupt officials are out of their agencies as they compromise the safety of road users and ensure that they play their role in terms of changing the behaviour of road users. To win the battle of road traffic accidents, agencies should clean their departments, so that when they encounter the problem of pedestrian fatalities, they do not have members who are corrupt on their side.

Road traffic accidents need collective responsibility in the law enforcement fraternity, because even the ruling political party in South Africa, the African National Congress (ANC) slogan says, “working together we can do more”. It means that all agencies, as well as communities and other agencies, should work together to achieve road safety to all road users in South Africa. Enforcement should be done consistently without bias, so that people would obey the rules of the road, even if the law enforcement officials are not on the road, because in most cases, when law enforcement officials are not on the road, road users bend the rules of the road and as a result they end-up putting other road users at the risk of being involved in road traffic accidents. World Health Organisation (s.a), stated that there are five main behaviours most likely to result in road traffic injuries. These are drinking and driving, not using a helmet, a seatbelt or child restraint, distracted and speeding. Although many countries have laws that address these risky behaviours, they may not be fully enforced and as a result it endangers all road users, especially those that are vulnerable. Therefore, it is of paramount importance to adhere to the rules of the road at all times to ensure safety of all road users and work with law enforcement agencies in curbing fatalities on the road.

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