



Assessment of law Enforcement in Preventing Pedestrian Fatalities in Limpopo Province (South Africa)

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Abstract

This paper explores law enforcement in preventing pedestrian fatalities in Limpopo Province. The challenges in addressing pedestrian fatalities in Limpopo Province are primarily those of human behaviour. The inability of law enforcement officials to enforce the law consistently is a major problem and it contribute to road users not abiding by the rules of the road. The study utilised quantitative approach. The sample consisted of 195 respondents. Comprises of 15 civil engineering companies, 23 civil society organisations, 52 community members, 51 teachers and 54 traffic police officials. The findings from the study revealed among many others, that 55.4% of the respondents agreed that lack of support from law enforcement agencies in enforcing the law contribute to pedestrian fatalities; 59% of the respondents agreed that lack of resources in enforcing the law contribute to pedestrian fatalities; 75.9% of the respondents agreed that corruption compromises road safety and 75.4% of the respondents agreed that unroadworthy vehicles contribute to pedestrian fatalities in Limpopo Province. Based on the findings of the study the author provided possible recommendations such as; Law enforcement agencies should fortify their relationships to prevent pedestrian fatalities; Resources should be allocated to road safety programmes; Law enforcement agencies should recruit graduates in Traffic Safety and Municipal Police or related diploma to provide knowledge, skills and attitude; Road users should be empowered with the rules of the road.

Keywords: *Enforcement; Prevention; Pedestrians; Fatalities; Limpopo Province; South Africa*

Introduction

Law enforcement is a key component of efforts to ensure safe and secure travel options and it also has a role to play in setting policies, raising awareness about safety issues, influencing behaviour, social norms, reinforcing and supporting educational, engineering programs, and strategies (Pedestrian and Bicycle Information Centre, 2017). Arrive Alive (2017), noted that effective traffic enforcement is the most important requirement for road safety. Law enforcement agencies could have the best rules of

the road, but if these are not enforced effectively, the country will continue to have an increase in fatal accidents on the roads. If there is no respect for the rules of the road, the road will be an unsafe place. Arrive Alive (2017), noted that traffic enforcement is threatened by the crime of corruption, and it is important to understand the nature of such corruptions and the strategies to fight this evil.

Enforcement interventions refer to traffic measures that promote the road user's adherence to traffic regulations, such as regulating driver behaviour and the monitoring of pedestrian behaviour (Arrive Alive, 2017). The existence of policies is not enough; the enforcement makes the difference. Road safety engineering, prevention campaigns and law enforcement measures are usually adopted to deal with road safety issues (Mphela, 2011: 268). Inappropriate or excessive speeds have been identified as one of the most common contributing factors in vehicle crashes (Afukaar, Antwi and Ofosu-Amaah, 2003), and pose a serious threat to the safety of pedestrians. Therefore, the regulation of speed is important in protecting pedestrians. Enforcement operations may also reduce crashes, injuries, and fatalities, although these outcomes are harder to track. In addition to their safety benefits, these operations tend to generate positive feedback from citizens, and may reveal related safety issues; for example, many drivers who fail to yield to pedestrians may also be speeding, distracted, or driving while impaired. Knowledge about traffic rules is necessary, but not enough of a condition for compliance. Sanction as a mechanism for getting people to obey the rules has a much greater effect when that sanction is compatible with the norms, values and the sense of justice held by the citizens themselves. Thus, they are more likely to obey the rules they consider being important (European Survey of Road Users Safety Attitudes, 2016). This article aimed to assess law enforcement in preventing pedestrian fatalities and identify existing challenges in preventing this problem and recommend practical solutions in line with United Nation Decade of Action for Road Safety 2016-2030.

Enforcement

The challenges in addressing road safety in Limpopo Province are primarily those of human behaviour, i.e. a lack of knowledge of the rules of the road, the willingness to abide by those rules, as well as inadequate enforcement and a lack of follow-up of fines and the resulting culture of impunity in respect to the punishment of offenders (Arrive Alive, 2010). South Africa's road death toll for 2017 is one of the worst in years, despite safety campaigns to end the carnage (Arrive Alive, 2010). Current road safety initiatives are simply not working and according to the Automobile Association (2017), as quoted by Times Live, 14 050 people died in road crashes in South Africa in 2017. Many pedestrian accidents are the result of unsafe motor vehicle drivers and pedestrian behaviour (Zegeer, Sandt and Scully, 2009). The ever-growing number of road traffic crashes and related deaths, demonstrate that the current systems for combating traffic offences have proven to be inadequate. Given the fact that no less than 12 700 people die on the roads annually (almost 38 per day), road safety should clearly be a national priority (Arrive Alive, 2018). The level of "un-safety" is related to the degree of lawlessness on the roads, which is too high and can no longer be tolerated. Traffic offences, reckless, negligent, inconsiderate, aggressive, and arrogant driver behaviour, also encourage road rage to a large extent (Arrive Alive, 2018).

The Department of Transport (2012), Arrive Alive Launch Speech, stated that "we must continue to strive to increase respect for human life, and treat road carnage with the seriousness it deserves". More than 90% of deaths on the roads follow a traffic violation. This is real crime, and communities and individuals must take responsibility for their behaviour and the behaviour of their families and friends in order there may be a successful reduction in deaths. This is not a problem for the authorities to solve alone, as together we can turn the tide. That will of course, rely on how we perform, and how we conduct our affairs as a government. Road traffic fatalities in South Africa are a major problem where each year road users are killed on the road and more are injured. It is possible to eliminate road traffic accidents on the road, as long as the road users abide by the rules of the road. 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: 15). 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: 16).

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. Chipu (2016) stated that road users usually only modify their behaviour at the enforcement site or where they perceive the risk of apprehension is the greatest. 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 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 the following measures could strengthen law enforcement:

Speeding laws

- The general speed limits in terms of the South African National Road Traffic Act, 1989 and its regulations are: 60 km/h on a public road within an urban area. 100 km/h on public roads outside an urban area which is not a freeway and 120 km/h on freeways.
- National speed laws in place and local authorities have the power to modify national speed limits.

Hit-and-run

Hit-and-run collisions, in which the driver involved in the collision leaves the scene before the arrival of law enforcement officials, are a unique type of traffic violation. While many traffic violations, such as running a red light, or speeding, increase the risk for, or the damage from a collision, hit-and-run is a post-collision violation. Put in another way, the driver’s decision is a question of damage control rather than damage prevention. To reduce hit-and-run violations, the state must impose legal sanctions to deter drivers from leaving the scene prematurely (Arrive Alive, 2018).

Severity of punishment

The severity of the punishment is estimated using the maximum prison sentences for drivers guilty of a hit-and-run. Arrive Alive, 2020, stated that a comparison of the hit-and-run rates with the

maximum length of prison sentence reveals whether an association exists between the severity of the legal sanctions and hit-and-run rates. Hit-and-run is a post-collision response in which the driver must decide between suffering the consequences of staying, or risking the consequences of fleeing. Therefore, it would also be beneficial to evaluate the association between the additional consequence caused by fleeing, approximated by the difference between being guilty of a fatal collision and being guilty of a hit-and-run. Since there are differences in the punishment level for a hit-and-run by level of injury severity, an additional method to evaluate the impact of the severity of the punishment of a hit-and-run, is to examine whether the level of injury to the victim is a factor in the driver's decision to flee (Arrive Alive, 2020).

Case Study of Reckless and Negligent Driving from Department of Justice

[1] In the case of *Ndlanzi v The State* (318/13) [2014] ZASCA 31, the appellant was charged in the regional court in Johannesburg on multiple charges, including one count of murder, read with the provisions of s51(2) of the Criminal Law Amendment Act, 105 of 1997, reckless or negligent driving of a motor vehicle, failure to stop his vehicle after an accident, failure to ascertain the nature of the injury sustained by any person(s) and failure to render such assistance to the injured person(s), as he was capable of rendering.

[2] The appellant was convicted on all the counts and sentenced as follows:

- (a) Ad Count 1 (murder) – 15 years' imprisonment.
- (b) Ad Count 2 (negligent driving) – 12 months' imprisonment
- (c) Ad Count 3 (failure to stop the vehicle after a collision)
- (d) Ad Count 4 (failure to ascertain the nature and extent of the injuries sustained by a person after the collision); and
- (e) Ad Count 5 (failure to render assistance to an injured person after the collision).

(Southern African Legal Information Institute, 2014)

Drunken Driving Laws

The National Road Traffic Act, 1996 (Act no. 93 of 1996), provides that anywhere you are driving within the Republic of South Africa, these laws are extremely important to be obeyed. These laws are in place to help protect the community and to make sure that drunk drivers are reprimanded. The legal blood alcohol limit in South Africa is less than 0.05 gram per 100 millilitres and the legal breath alcohol limit in South Africa is less than 0.24 milligram in 1 000 millilitres of breath. The Constitution of South Africa (1996); the legal implication of Road Traffic Act (RTA) has been in effect since March 1998. According to this Act, on a public road no person shall:

- drive a vehicle; or
- occupy the driver's seat of a motor vehicle, the engine of which is running, while under the influence of intoxicating liquor or a drug having a narcotic effect.

If in any prosecution for a contravention of the provisions of subsection (2), it is proved that the concentration of alcohol in any specimen of blood taken from any part of the body of the person concerned was not less than 0.05 grams per 100 millilitres at any time within two hours after the alleged offence, it shall be presumed, until the contrary is proved, that such concentration was not less than 0.05 grams per 100 millilitres of blood at the time of the alleged offence. Walking and Driving While Intoxicated (WWI and DWI), on the road puts pedestrians at risk of being hit by motorists, therefore it is important for pedestrians to ensure that they follow the rules of the road and if not, traffic law enforcement should do their work by giving them penalties. In this case, those who drink in public should

be arrested and if their behaviour does not change, should be sent for rehabilitation. A new law should be passed to make it an offence for pedestrians to be on public roads while under the influence of alcohol. Drunken people walking along the road should be penalised.

Corruption and Traffic Enforcement

The effect of corruption is not only a loss of state revenue. When corrupt officials allow motorists who speed, or who are driving vehicles that are not roadworthy, to proceed with their journey, the consequences for other road users are potentially disastrous. A breakdown in public trust of the integrity of traffic officials is also likely to result in an increase in lawlessness among road users. Arrive Alive (2018) stated that studies on crime in South Africa revealed that corruption was most evident in encounters with traffic officials, followed by the police, and then during interactions with officials over employment opportunities. This supports the perception that corruption is a problem in local government traffic departments, municipal police services and the SAPS, and highlights the discretionary power of some of these officials. For example, the public largely interacts with traffic officials on the road where the actions of corrupt officials are difficult to monitor (Arrive Alive, 2018).

Corruption manifests in the field of traffic enforcement and road safety (Arrive Alive, 2018):

- Bribes are often demanded in situations where road users have committed an offence such as speeding, overloading, or driving unlicensed or unroadworthy vehicles. Bribery in these instances may be used to ensure that the offender escapes a stiffer penalty (i.e. a R100 bribe is requested when the alternative is to pay a legitimate fine of double that amount).
- The most paid bribe was for traffic fines, driver testing and licensing irregularities.
- Certificates of roadworthiness are issued without the said vehicles undergoing the necessary roadworthy tests.
- Money is received in return for assisting applicants for learner's license tests to cheat in their exams.
- Car sellers often attempt to bribe examiners to overlook a certain component or else to push through a marginal case.
- Car sellers often try to buy "paper" certificates. That is, a certificate provided without testing or examining the vehicle at all.
- Car sellers will sometimes put testing stations under pressure if they do not pass their vehicle, then they will take their business elsewhere.
- If a vehicle fails a roadworthy test, the client often takes the vehicle to another testing station where they know that testing is less strict.
- A vehicle might be checked and (correctly) passed, only for some of the components to be switched before the vehicle is sold. The seller shows the prospective buyer the certificate and a deal is made on that evidence. The tyres, for example, may have been swapped with worn tyres after the test.
- Each vehicle examiner has an examiners' code that appears on the examination sheet. Unscrupulous examiners will sometimes use another examiners' code and name when passing non-roadworthy vehicles.

It is important for law enforcement agencies to review some of their policies on recruitment to professionalise these institutions, for example to be a member of the municipal police you need to have a driver's license and matric certificate. As a result, more and more people apply for those posts without the knowledge of municipal/Traffic police. The disadvantage of this style of recruitment is that some of the applicants apply because they want to make money and not for the love of the profession, but being inspired by corrupt activities happening in those institutions. Remember, most of the traffic police

officials are the role models in their communities and whatever they do, wrong or right have a positive impact on those who look up to them. Most of the testing stations for driver's licenses were under the spotlight for doing wrong things: with taking bribes from candidates, issuing fraudulent drivers' licenses and other corrupt activities, have a major impact on those who look up to them. As a result, the institutions will be full of people who are not there to serve the people of South Africa, but to enrich themselves through corrupt activities.

It is important for the Department of Transport as well as municipalities, to work together with Universities offering courses in relation to law enforcement, in order to professionalise these institutions, because for people who did those courses, it is possible to conduct themselves more efficiently compared to those who entered these institutions with a matric certificate. Based on the above-mentioned statements it is about the passion and love for their profession and many corrupt activities could be prevented if they serve road users at their utmost best and therefore ensure road safety to all road users. For example, in Australia one of the minimum requirements is a Diploma in Public Safety (Policing), or an equivalent and the results show that there is a significant reduction in road traffic accidents. One of the reasons behind the success is the kind of employees they have in their institution (Australian Federal Police, 2018).

Selective Enforcement Programs

In 2014/2015, Limpopo Province recorded 186 fatalities, while in 2015/2016 there was increase of 22 fatalities making a total of 208 fatalities (Politics Web, 2016). It is important for the Department of Transport, as well as its agencies to identify locations with high road traffic accidents, because the department does not have the capacity to cover all the roads in South Africa with traffic officials. More resources should be allocated to high accident zones to prevent pedestrian fatalities. For example, during Easter and the festive season in Limpopo Province, many law enforcement officials work in joint operations to ensure the safety of road users, which is very good, as it helps road users to obey the rules of the road. The worrying factor is that during normal weekends, where the visibility of law enforcement officials is very poor, especially at night. In most cases road traffic accidents occur between Fridays and Sundays and the contributory factor to these accidents is alcohol and if the law enforcement officials where there, some of the accidents could be prevented, as they use breathalyser testing equipment to detect if a person is driving under the influence of alcohol.

Information collected by the Department of Transport during annual traffic offence surveys show that on a daily basis, an average in the order of 6% of drivers are driving under the influence of alcohol between the hours of 18:00 and 21:00 (Arrive Alive, 2018). Increasing the visibility of road traffic officials could make a difference in terms of preventing road traffic accidents during joint operations with other law enforcement agencies, but the organisation should follow management principles to be successful in implementing their operations. Arrive Alive (2018), noted that about one-third of the daily shift hours of each team should be dedicated to enforcing selective moving violations, amongst others, as follows:

- At selected locations, unsafe and illegal overtaking maneuvers and reckless, negligent and inconsiderate driver behaviour, particularly at identified hazardous pedestrian locations, should be controlled.
- During certain times speed control should be undertaken at hazardous locations with handheld devices, as well as speed cameras. Speed cameras should be used for vehicles allowed to travel at 120 km/h (depending on the type of road), and handheld devices should simultaneously be used for speed control of buses and minibus taxis (100 km/h limit vehicles) and trucks (80 km/h limit vehicles).
- At specially provided areas overload control should be undertaken.

- All drivers of vehicles stopped for speed, overloading and other moving offences should also be checked for carrying and the validity of driving licenses and PrDP's (Professional Driving Permit), as well as the wearing of seatbelts by drivers and passengers. During such stops, selected vehicle fitness aspects (license disc, license plate, lights, brakes, etc.), should also be checked.
- Although certain authorities may prefer special teams for each of the above functions, all traffic enforcement teams should be multi-skilled and should be able to undertake all the above functions during a daily 8-hour shift.
- Routes to be patrolled should be determined by management and supervisory personnel and should be based on the following criteria:
 - Number of fatal crashes per route;
 - Number of total crashes per route;
 - Crash rates in terms of crashes per vehicle kilometres travel;
 - Traffic offence rates.

Arrive Alive (2018), stated that traffic teams should be allocated different routes on a daily or weekly basis to break the monotony of traffic control operations, as well as to curb fraud and corruption to a certain extent. Road safety is a collective responsibility. Therefore, it is important for road users to assist law enforcement officials by obeying the rules of the road. Stabilising the fatality rate at just over 14 000 deaths per annum was unacceptable and should be a national crisis (Automobile Association, 2017) as quoted by Times Live, which suggested a safety focus on pedestrians that included:

- Creating a safer environment for pedestrians to commute, especially on busy roads,
- Extensive nationwide pedestrian education campaigns,
- An increase in reliable, safe public transport,
- A swifter introduction of crash avoidance technology in vehicles, and
- Encouraging employers to make their staff more visible while walking, and to offer road safety education.

Methodology

Study Population

Bless, Higson-Smith and Sithole (2013: 164), noted that a study population is the set of elements that the research focuses on. In the case of quantitative research, the results obtained by testing the sample should be able to be generalised to the entire population. According to Statistics South Africa (2016), it was noted that Limpopo Province's population had an increase in terms of the people living in the province, from 5,4 million people in 2011 to 5,8 million in 2016, making it the fifth largest province in the country in terms of population size. It trails behind Gauteng (13,4 million), KwaZulu-Natal (11,1 million), Eastern Cape (7 million), and Western Cape (6,3 million). The number of households in the province has also increased to 1,6 million in 2016, from 1,4 million in 2011. This study was conducted in the Capricorn district. Only participants who were above the age of 18 years formed part of the research study, since most of them understand the issue of pedestrian fatalities. In this research, the sample consisted of Community members, Municipal/Traffic police officials, Civil Society Organisations (members), road construction companies and educators.

Sample Size

Bless *et al.*, (2013: 165), noted that a sample is a subset of the population, and to be useful in research it must have all the properties of the population to be representative of the whole. The research

sample consisted of 54 Municipal/Traffic police officials, 51 Teachers, 23 Civil Society Organisations, 15 Road construction companies and 52 Community members. The total size of the sample was 195.

Method of Data Collection

Survey/Questionnaire

De Vos *et al.*, (2011: 171), noted that quantitative data collection often employs measuring instruments. In the social and human sciences, measuring instruments refer to questionnaires, among others. Quantitative research aims to explain phenomena by collecting numerical data that are analysed using mathematically based methods (statistics). Therefore, as quantitative research is essentially about collecting numerical data to explain a phenomenon, questions seem immediately suited to being answered using quantitative methods. Data can be collected on a wide number of phenomena and made quantitative through data collection instruments such as questionnaires. The researcher constructed a questionnaire, which was distributed to all respondents.

Data Analysis

Bless *et al.*, (2013: 21), noted that once data are collected, the data must be organised and checked for accuracy and completeness. When this process was completed, the researcher used a range of arithmetical and statistical tests to describe the sample data and to generalise from this data set to the population from which the sample was drawn. Data were collected by means of questionnaires from the following: community members, Civil Society Organisations, Teachers, municipal/traffic police members, and road construction companies. The data from these participants were collected, reviewed, and then analysed to form findings or conclusions. The data was received in questionnaire format; all these analyses were conducted using STATA version 12 statistical software. Preliminary analysis and inferential statistics were used to analyse data. When the database was developed, it was made of rules with respect to the questionnaire and that set boundaries for different variables and the Likert scale was used.

Preliminary Analysis

A Uni-variate descriptive analysis was performed on all the original variables; displaying frequencies, percentages, these descriptive statistics are shown in Table 1. The reliability of the statements in the questionnaire posed to the respondents of the survey was measured by using the Cronbach Alpha tests.

Inferential Statistics

Inferential statistics used are:

➤ **Cronbach Alpha test:** Cronbach's Alpha is an index of reliability associated with the variation accounted for by the true score of the "underlying construct". Construct is the hypothetical variables that are being measured (Schindler and Cooper, 2001: 216–217). Another way to put it would be that Cronbach's alpha measures how well a set of items (or variables) measures a single uni-dimensional latent construct. When data has a multidimensional structure, Cronbach's Alpha will usually be low.

➤ **Fischer's exact tests for ordinal data:** This was conducted to test for significant group differences. Chi-square was not conducted because some of the cells had less than five responses. Significance level was set at $p < 0.05$.

➤ **Factor analysis:** Factor analysis is used to reduce measurable and observable variables to fewer latent variables that share a common variance and are unobservable, which is known as reducing

dimensionality (Bartholomew, Knott, and Moustaki, 2011). Factor loading in factor analysis is the relationship of each variable to the underlying factor. In this study, factor analysis was conducted to generate latent variables for the main variables.

► **Kruskal Wallis or Wilcoxon Rank-sum tests:** are non-parametric tests. Kruskal Wallis tests for more than 2 independent samples while Wilcoxon Rank-Sum (Mann-Whitney U) tests for two independent samples to compare the groups (Age groups, Gender, Marital status and membership of traffic police/education departments). In this study, the tests were used to test the hypotheses and p-value was set at $p\text{-value} < 0.05$.

Descriptive Statistics

Table 1
Descriptive Statistics for All the variables

| Variables | Categories | Frequency | Percentage out of total (%) |
|---|-----------------------------|-----------|-----------------------------|
| Section A: Biographic variables | | | |
| Categories of the study respondents | Civil Engineering companies | 15 | 7.69 |
| | Civil Society Organization | 23 | 11.79 |
| | Community Member | 52 | 26.67 |
| | Teachers | 51 | 26.15 |
| | Traffic Police | 54 | 27.69 |
| 1.Age group | 18–24 Years | 33 | 16.92 |
| | 25–30 Years | 45 | 23.08 |
| | 31–35 Years | 33 | 16.92 |
| | 36 Years and above | 81 | 41.54 |
| | Missing | 3 | 1.54 |
| 2.Gender | Male | 90 | 46.15 |
| | Female | 101 | 51.79 |
| | Missing | 4 | 2.05 |
| 3.Marital status | Married | 78 | 40.00 |
| | Single | 103 | 52.82 |
| | Divorced | 3 | 1.54 |
| | Missing | 11 | 5.64 |
| 4.Member of the Traffic Police/Education Department | Yes | 100 | 51.28 |
| | No | 90 | 46.15 |
| | Missing | 5 | 2.56 |
| 5.Years of service | Less than 5 | 31 | 29.25 |
| | 6–10 | 27 | 25.47 |
| | 11–15 | 12 | 11.32 |
| | 16–20 | 15 | 14.15 |
| | More than 20 | 21 | 19.81 |
| Section B : Enforcement | | | |
| 6.Lack of support from law enforcement | Strongly Agree | 40 | 20.51 |

| Variables | Categories | Frequency | Percentage out of total (%) |
|---|-------------------|-----------|-----------------------------|
| agencies in enforcing law | Agree | 68 | 34.87 |
| | Don't know | 31 | 15.90 |
| | Disagree | 27 | 13.85 |
| | Strongly Disagree | 19 | 9.74 |
| | Missing | 10 | 5.13 |
| 7.Lack of resources in enforcing the law | Strongly Agree | 56 | 28.72 |
| | Agree | 59 | 30.26 |
| | Don't know | 32 | 16.41 |
| | Disagree | 22 | 11.28 |
| | Strongly Disagree | 15 | 7.69 |
| 8.Corruption is compromising road safety | Strongly Agree | 90 | 46.15 |
| | Agree | 58 | 29.74 |
| | Don't know | 15 | 7.69 |
| | Disagree | 14 | 7.18 |
| | Strongly Disagree | 7 | 3.59 |
| 9.Unroadworthy vehicles contribute to pedestrian fatalities | Strongly Agree | 86 | 44.10 |
| | Agree | 61 | 31.28 |
| | Don't know | 15 | 7.69 |
| | Disagree | 15 | 7.69 |
| | Strongly Disagree | 10 | 5.13 |
| | Missing | 8 | 4.10 |

Reliability Test

Cronbach's alpha is a measure of assessing the reliability, or internal consistency, of a set of scale or test items. The reliability of a given measurement is the extent to which it is a consistent measure of a concept, and Cronbach's alpha is one way of measuring the strength of that consistency. A score below .70 suggests that the items within the tool may not be measuring the same underlying construct.

The scores of above 0.90 for all the items forming the measuring instrument in this study, show that these measurements were consistent measures of factors responsible to prevent pedestrian fatalities in Limpopo Province (**Table 1**). These items (statements), also proved to be reliable and consistent for all the items in the scale measuring enforcement factors (**Table 1**).

Table 2
Cronbach’s Alpha Coefficient for All the Items Forming the Measuring Instrument in This Survey.

| | Enforcement | | | |
|---|---|------|--------|--------|
| 1 | Traffic police officials are not enforcing the law consistently | qe25 | 0.3022 | 0.9104 |
| 2 | Lack of support from law enforcement agencies in enforcing law | qe26 | 0.5690 | 0.9056 |
| 3 | Lack of resources in enforcing the law | qe27 | 0.5488 | 0.9059 |
| 4 | Corruption is compromising road safety | qe28 | 0.4914 | 0.9069 |
| 5 | Lack of skills in terms of enforcing the law | qe29 | 0.4806 | 0.9071 |
| 6 | Unroadworthy vehicles contribute to pedestrian fatalities | qe30 | 0.5518 | 0.9059 |

Hypothesis: Enforcement is not emphasized at provincial level in preventing pedestrian fatalities in Limpopo Province.

Age Group Compared with Respect to Enforcement Factor

There was no statistically significant difference between age group for the latent variable “*Enforcement*”. There is no difference in the response to the questions that make up this factor between the age groups (Kruskal-Wallis test statistic chi-square=5.147, Degrees of freedom=3, P-value=0.161). This means that no age group agrees more than the other that enforcement is not emphasized at provincial level in preventing pedestrian fatalities in Limpopo Province.

Gender Compared with Respect to Enforcement Factor

There was no statistically significant difference between genders for the latent variable “*Enforcement*”. There is no difference in the response to the questions that make up this factor between gender (Wilcoxon Rank-Sum (Mann-Whitney U) p=0.736). This means that both male and female agree the same way that enforcement is not emphasized at provincial level in preventing pedestrian fatalities in Limpopo Province.

Marital Status Compared with Respect to Enforcement Factor

There was no statistical significant difference between the marital status groups (Kruskal-Wallis test statistic chi-square=1.358, Degrees of freedom=2, P-value=0.507) and the items in factor “*Enforcement*”. No group agreed more than the others that enforcement is not emphasized at provincial level in preventing pedestrian fatalities in Limpopo Province.

Membership of Traffic Police/Education Departments with Respect to Enforcement Factor

There was no statistical significant difference between the responses from the two groups (p-value= 0.782). Being a member of the traffic police/education department or not, did not affect the responses of the participant to the items in factor “*Enforcement*”. No group agreed more than the other that enforcement is not emphasized at provincial level in preventing pedestrian fatalities in Limpopo Province.

With respect to the distribution of the respondents in this survey the following analogies can be drawn from this research:

- Most of the respondents were Traffic police officers.
- Most of them were female
- Most of the respondents were 36 years above.
- There were more respondents from the traffic police/education department than those who were not.
- Most of the respondents were single at the time of this study.

With respect to enforcement factors not being emphasised at provincial level in preventing pedestrian fatalities, the following conclusions were drawn from the study:

- A whole lot of male respondents either strongly agreed or agreed that lack of support from law enforcement agencies in enforcing law than female participants.
- However, more members of the traffic police/education department than non-members either strongly agreed or agreed that there was lack of support from the law enforcement agencies in enforcing the law.
- Also, more members of the traffic police/education department than non-members either strongly agreed or agreed that there was lack of resources in enforcing the law.
- More members of the traffic police/education department strongly agreed or agreed that unroadworthy vehicles contributed to pedestrian fatalities.

Based on the Hypothesis of the Study, the Following Results Came Out of the Analysis:

Lack of Support from Law Enforcement Agencies

Most of the respondents 55.4% agreed to strongly agree that there is lack of support from law enforcement agencies in enforcing the law irrespective of age, gender, marital status, and being a member of traffic police/education department while 15.9% indicated “don’t know” response to the statement. 23.6% of the respondents disagreed with this statement that there is lack of support from law enforcement agencies in enforcing the law. Therefore, based on the responses, lack of support from law enforcement agencies in enforcing the law contribute to pedestrian fatalities in Limpopo Province.

Corruption Is Compromising Road Safety

Most of the respondents 75.9% agreed to strongly agree that corruption is compromising road safety in Limpopo Province while 7.7% of the respondents indicated “don’t know” response to the statement. 10.8% of the respondents disagreed with this statement that corruption is compromising road safety in Limpopo Province. Therefore, based on the responses, corruption is compromising road safety in Limpopo Province.

Lack of Resources in Enforcing the Law

Most of the respondents 59% agreed to strongly agree that lack of resources in enforcing the law contribute to pedestrian fatalities while 16.4% indicated “don’t know” response to the statement. 19% of the respondents disagreed with this statement that lack of resources in enforcing the law contribute to pedestrian fatalities in Limpopo Province.

Unroadworthy Vehicles Contribute to Pedestrian Fatalities

Most of the respondents 75.4% agreed to strongly agree that unroadworthy vehicles contribute to pedestrian fatalities while 7.7% indicated “don’t know” response to this statement. 12.8% of the respondents disagreed with this statement that unroadworthy vehicles contribute to pedestrian fatalities in

Limpopo Province. Therefore, based on the responses, unroadworthy vehicles contribute to pedestrian fatalities in Limpopo Province.

Conclusion and recommendations

In conclusion the study made significant impact in terms of closing gaps on law enforcement in Limpopo Province. The road safety establishment often forgets to provide for pedestrians, cyclists, motor cyclists and wheel-chair users, which include all the road users who still should get solid road safety promotion programmes from the government and collaborating agencies so that they could adhere to the laws of the road. Pedestrian fatalities are a major problem in Limpopo Province and the inability of both motorists and pedestrians to understand and interpret the rules of the road have a significant impact on road traffic accidents. One of the leading interventions in road safety is enforcement and it must be enforced by officials who have in-depth knowledge, and skills about road safety. Enforcement interventions through visibility of law enforcement officials should be of utmost importance to road traffic authorities in Limpopo Province as well as ensuring that they are not corrupt as this compromise road safety. This article assessed law enforcement in preventing pedestrian fatalities in Limpopo Province and based on the findings of the study enforcement is not emphasised at provincial level, the following recommendations are of the great importance:

Establish and Enforce Laws at National, Provincial, and Local Level

To achieve this, the primary focus should be on increasing the visibility of law enforcement officials on the road especially on weekends where many people are dying on the road as a result of not following the rules of the road and to ensure efficient administration of punishment which could further enhance a deterrent effect because, in most cases, corrupt officials cancel infringements in the system. The corrupt officials in the law enforcement agencies should be removed to ensure that road users are served by officials who are ethical and law abiding. Law enforcement agencies should work together and prioritise safety of pedestrians on the road as this has been neglected for far too long.

Fortify Anti-Corruption Unit

Anti-corruption strategies should be developed to address the problem of corruption within law enforcement agencies. The first step should review recruitment policy and recruit candidates who have post matric qualifications in Traffic and related. The current recruitment policy attracts people who are not interested in serving the road users and more should be done to prioritise the review. Anti-corruption unit should be capacitated with excellent investigators who can arrest criminals within the law enforcement agencies as well as the road users, as most of the corrupt activities occur on the road, and at the testing stations.

Capacitate Law Enforcement Agencies with Resources

Law enforcement agencies should be well resourced to counteract pedestrian fatalities in Limpopo Province. Department of Transport and local municipalities should increase the number of law enforcement officials on the road to ensure visibility. More should be done in terms of partnering with private sector to provide stability in terms of resources and implementation of road safety awareness programs in Limpopo Province. Focus should also be on changing behaviour of road users through empowerment and road safety education to ensure that road users are adhering to the rules of the road and their safety be of utmost importance to road traffic authorities in Limpopo Province.

Enforce the Law Consistently

Unroadworthy vehicles contribute to high rate of traffic accidents and law enforcement officials should enforce the law consistently and apprehend those who are not adhering to the rules of the road. Law enforcement officials who are compromising the rule of law should be dismissed from the law enforcement agencies as part of accountability. Road users should ensure that their vehicles are roadworthy and they comply with the rules of the road as road traffic accidents is a collective responsibility, one death is too many.

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