PERSONALITY AND SUBSTANCE ABUSE AS PREDICTORS OF ROAD TRAFFIC OFFENCES AMONGST COMMERCIAL DRIVERS IN JOS METROPOLIS

By

Joseph Longshak Kosen¹, John Dokotri², Sochukwuma Okwudili Nwaenyi ³, Regina Mwanti Dokotri⁴, Alfred Habila Daktong⁵, James Ali Ugbo⁶, Bisan Musa⁷ ¹⁻⁷Department of General and Applied Psychology, Faculty of Social Sciences, University of Jos

ABSTRACT

This study examined the influence of personality and substance abuse on road traffic offences amongst commercial drivers in Jos metropolis. One hundred and sixty three male commercial drivers with a mean age of 31.7 years (SD 2.6 years) participated in the study. The Big Five Personality Inventory (Oliver, 1991), the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) (Humeniuk et al., 2010) and the Risky Attitude and Traffic Violation Scale (RATVS) (Celik, 2006) were used to generate data in order to test six hypotheses. The test results revealed that there was no significant relationship between openness personality trait and traffic offences (t = 0.055, p = 0.956); there was a significant relationship between extroversion personality trait and traffic offences (t = 2.475, p = 0.014); there is a significant relationship between agreeableness personality trait and traffic offences (t = 0.430, p = 0.668); there was a significant relationship between neuroticism personality trait and traffic offences (t = 2.383, p = 0.018); and there was no significant relationship between substance to the substance relationship between substance to the substance offences (t = 0.110, p = 0.912). Recommendations were made based on these findings.

Keywords: Personality, substance abuse, road traffic offenses, Jos Metropolis

1.0 INTRODUCTION

Although road transportation has liberated man and makes him more mobile, traffic safety has remained an important social problem because accidents are largely due to non-compliance with traffic regulations (Marti-Belda, Pastor, Montoro, Boso & Roca, 2019). Traffic regulations/laws exist, worldwide, but country-specific to discourage and punish indiscipline and unsafe acts on the road (Federal Road Safety Corps [FRSC], 2007). Road traffic offense refers to a violation, or an intentional departure from road safety rules which are there to protect the person and others from danger (Forward, 2013). In Nigeria, road safety laws violators violates mostly the use of seatbelts, exceeding expected speed limits, reckless driving, use of vehicles with unauthorized plate number, jettisoning the use of fire extinguisher, overtaking at ill points, overloading, phoning while on wheel and failure to comply with traffic lights and signs (Emenike & Akpu, 2017; FRSC, 2016, 2012; Anyanwu, Okoroji & Dike, 2016). Al-Eideh (2016) listed other violations as unsafe lane changes, failure to signal, lane blocking, tailgating, driving against traffic, aggressive use of horns, use of provocative gestures, verbal abuse, creation of multiple lanes that narrows into a junction and on off road space. FRSC (2008) adds assaulting marshal on duty, drivers' license violation, drunk and driving, use of worn-out tyres, excessive smoke emission and road marking violation among others. Theorists have explained road traffic violation behaviours differently. For instance, Rational Choice Theory says that the reasons for the criminal committing the crime can be based on many factors dependent on the personal needs of the offender which may include but not limited to the need for revenge, greed, lust, sensation seeking, and basic needs (Siegel & Welsh, 2005). Trait Theory of Traffic Offence from the perspective of a bio-criminologist claim that chemical and mineral disproportion leads to rational and learning shortage and these elements in turn are related with disruptive or antisocial behaviour (Schechter, 2003). Studies have associated hypoglycaemia, low serotonin, low autonomic arousal, genes and impaired prefrontal cortical functioning to violence and that abnormal levels of male sex hormones produce aggressive behaviour in individuals (Wiebe, 2004; Schechter, 2003). On the other hand, Psychodynamic Trait Theory of Traffic Offence by Freud contend that criminals have id-dominated personalities, that is to say that they do not have control of their ego and so satisfies the id's need for instant gratification while social learning theory argues that criminality is as a result of the socialization of individuals, and the different interactions they have with institutions, organizations and the society at large as individuals model aggressive behaviour by observing others acting aggressively (Barlow & Durand, 2006; Siegel, 2005).

In Nigeria annual fatalities on roads reached 6,452 and the number of persons injured was about 34,641 in 2008 with the severity of road crash measured in terms of the number of person killed in every 100 rising from 45 persons in 2003 to 59 persons in 2008 (FRSC, 2010). Fatalities were 5539 (2013), 4430 (2014), 5400 (2015), 5053 (2016), 5049 (2017), 5181 (2018) and 5483 (2019) based on figures release by the FRSC and reported by the Punch Newspaper (August 21, 2021). FRSC (2020) reported 3947 crashes with 1758 deaths in January to March, 2020 while the National Bureau of Statistics (NBS) (2020) reported 2080 crashes for the period April to June 2020 in which 47% were due to speed violation and 10% due to wrongful overtaking resulting in 5535 injuries and 855 deaths. In the developing countries where the number of motor vehicles relating to population is generally much lower than in the developed countries, fatalities from automobile crashes are higher, costing almost one percent of these countries' Annual Gross National Product (Sumaila, 2013).

The relationship between personality and substance use behaviours, and traffic offences involvement is complex, and research findings have been either conflicting or of little importance (Emenike & Akpu, 2017). Studies on the relationship between the five (Big Five Personality Traits) different personality traits - openness, conscientiousness, extraversions, agreeableness, and neuroticism (OCEAN) and non-compliance with traffic rules have yielded mixed results (Feng, Yang, Ma, Jiang, Lei, Huang & Zhou, 2017; Lawton & Nutter, 2002). Lajunen (2001) investigated road traffic fatalities in 34 nations and found a positive relationship between extraversion and number of traffic fatalities (nations with high traffic fatalities had higher scores on extraversion than those with lower fatalities). Clarke and Robertson (2005) identified extraversion as a valid and generalize able predictor of traffic accidents. Oltedal and Rundmo (2006) looked at the relationships between gender, personality traits, risky driving behaviour and accident involvement in a Norwegian sample of 1356 young drivers and found a positive correlation between aggression (facet under neuroticism) and both risky driving and accidents with damages. Anxiety (facet under neuroticism) correlated negatively with accident involvement, and excitement seeking (facet under extraversion) correlated positively with both risky driving and accidents with damages. Vinceti, Bergomi, Vivoli, Rovesti, Bussetti and Vivoli (2007) evaluated the relationships between risky driver behaviour and personality factors in 68 students (32 men and 36 women) and established that the number of violations of Highway Code correlated positively with extroversion and sensation seeking scores. Negative associations of violations with conscientiousness

and cooperativity were observed. In a sample of 204 psychology students, Benfield et al. (2007) found that high scores on extraversion were associated with more self-reported aggressive driving. Also, Jovanovic, Lipovac, Stanojevic and Stanojevic (2011) in a study with 260 Serbian drivers found that neuroticism predicted aggressive behaviour and that this effect was mediated by driver's anger. There was a small and non-significant correlation between extraversion and aggressive behaviour. Thorrisen (2013) in a study of 1196 Norwegian drivers found that extraversion was positively associated with both aggressive and considerate behaviour, while neuroticism was positively correlated with aggressive behaviour and negatively associated with considerate behaviour; effect of neuroticism on both aggressive and considerate behaviour was partially mediated by whether drivers were positive or negative toward sharing the road with bicyclists (attitudes) and extraversion moderated the effect of attitudes on considerate behaviour. Again, Sucha and Cernochova (2016) in a study of 2,471 Czech drivers who underwent psychological assessment of their fitness to drive having been suspended because of their reaching 12 points in the demerit point system or a single serious traffic violation (such as DUI or speeding) and another group of professional drivers with no previous problems in the performance found no differences in personality traits between the groups of risk drivers (licences suspended) and good drivers (professional drivers). Alavi, Mohammadi, Soori and Ghanizadeh (2017) found that neuroticism increased the odds of traffic offenses while Alavi, Mohammadi, Souri, Mohammadi, Kalhori, Jannatifard and Sepahbodi (2017) in a study of 800 Iranian 800 bus and truck drivers established that depression and anxiety could increase the odds ratio of road accidents by 2.4- and 2.7folds, respectively and that neuroticism alone can increase the odds of road accidents by 1.1-fold, but other personality factors did not have a significant effect on the equation. Ole and Aslak (2017) in a survey in China found that personality traits had significant effect on speeding and drink driving. Also in China, Shen, Qu, Ge, Sun and Zhang (2018) found that positive driver behaviour negatively correlated with neuroticism and positively correlated with extraversion, agreeableness, conscientiousness and openness to experience.

Driving under the influence of drugs or substances and substance abuse puts not only the driver at risk but also passengers and others who use the road. Research has shown that overall, marijuana is the most prevalent illegal substance detected in impaired drivers, fatally injured drivers, and motor vehicle crash victims (National Institute on Drug Abuse, 2012). Driving under the influence of any drug or substance that acts on the brain could impair one's motor skills, reaction time, judgment, perception, cognition, attention, balance, coordination and other faculties required f or safe driving. Gruenewald and Johnson (2010) examined the influence of on-premise alcohol-outlet densities and of drinking-driver densities on rates of alcohol-related motor vehicle crashes revealed that effects relating on-premise densities to alcohol-related crashes were moderated by highway traffic flow. Depending on levels of highway traffic flow, 10% greater densities were related to 0% to 150% greater rates of single-vehicle night (SVN) crashes. Time-series cross-sectional analyses showed that changes in the population pool of drinking drivers and on-premise densities interacted to increase SVN crash rates. Li, Brady and Chen (2013) assessed the association between drug use and fatal crash risk in the United States and found that overall, 31.9% of the cases and 13.7% of the controls tested positive for at least one non-alcohol drug. The estimated odds ratios of fatal crash involvement associated with specific drug categories were 1.83 [95% confidence interval (CI): 1.39, 2.39] for marijuana, 3.03 (95% CI: 2.00, 4.48) for narcotics, 3.57 (95% CI: 2.63, 4.76) for stimulants, and 4.83 (95% CI: 3.18, 7.21) for depressants. Drivers who

tested positive for both alcohol and drugs were at substantially heightened risk relative to those using neither alcohol nor drugs (Odds Ratio = 23.24; 95% CI: 17.79, 30.28). Also, Zhao, Zhang, and Rong (2014) examined the effects of alcohol on drivers and driving performance in which 25 drivers' subjective feelings and driving performance data in different blood-alcohol concentration (BAC) levels were collected with simulated driving experiment. The results revealed that alcohol affected drivers in many aspects, including attitude, judgment, vigilance, perception, reaction, and controlling. The analysis of accident rate showed that higher BAC level would lead to higher accident rates. .Martin, Gadegbeku, Wu, Viallon and Laumon (2017) examined the relative risks of responsibility for a fatal accident linked to driving under the influence of cannabis or alcohol in France. Results showed that the proportion of persons driving under the influence of alcohol is estimated at 2.1% (95% CI: 1.4-2.8) and under the influence of cannabis at 3.4% (2.9%-3.9%). Drivers under the influence of alcohol are 17.8 times (12.1–26.1) more likely to be responsible for a fatal accident, and the proportion of fatal accidents which would be prevented if no drivers ever exceeded the legal limit for alcohol is estimated at 27.7% (26.0%-29.4%). Drivers under the influence of cannabis multiply their risk of being responsible for causing a fatal accident by 1.65 (1.16–2.34), and the proportion of fatal accidents which would be prevented if no drivers ever drove under the influence of cannabis is estimated at 4.2% (3.7%-4.8%). The relationship between personality and substance use behaviours, and traffic offences involvement is complex, and research findings have been either conflicting or of little importance (Emenike & Akpu, 2017) and the fact that there appears to be a dearth of empirical literature on the problem Nigeria motivated the researchers to look at the influence of personality and substance abuse on road traffic violations in Jos Metropolis.

2.0 OBJECTIVES OF THE STUDY

The main aim of this study was to examine the roles of personality and substance abuse on road traffic offences among commercial motorists in Jos Metropolis. The specific objectives are:

- i. To determine the relationship that the various dimensions of the big five personality traits have on road traffic violations among motorists in Jos metropolis
- ii. To ascertain the relationship of substance abuse with road traffic violations among motorists in Jos metropolis

3.0 RESEARCH HYPOTHESES

The following hypotheses were tested:

- H1: There will be a significant relationship between openness personality trait and traffic offenses among motorists in Jos metropolis
- H2: Conscientiousness personality trait will significantly correlate with traffic offenses among motorists in Jos metropolis
- H3: Extroversion personality trait will significantly correlate with the traffic offenses among motorists in Jos metropolis
- H4: Agreeableness personality trait will significantly correlate with traffic offenses among motorists in Jos metropolis

- H5: Neuroticism personality trait will significantly correlate with the traffic offenses among motorists in Jos metropolis
- H6: There will be a significant relationship between substance abuse and traffic offenses among motorists in Jos metropolis

4.0 METHOD

4.1 Design

The study was a survey. It had two independent variables and one dependent variable. The two independent variables were personality and substance abuse. Personality had five levels (Traits), namely: extroversion, agreeableness, conscientiousness, neuroticism, and openness; while substance abuse had two levels – non-abuse and abuse.

4.2 Participants

Participants in the study were male commercial vehicle drivers in Jos metropolis. 163 volunteered for the study and they included those with at least one year of driving experience as a commercial driver and having valid Driver's Licence. Mean years of driving experience was 7.3 with a standard deviation of 2.6 years. The mean age of the participants was 31.7 years (SD 2.6 years). Most of them (73%) were married and 69.9% were Muslims. 35.1% had Primary Education.

4.3 Instruments

The Big Five Personality Inventory, the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), and the Risky Attitude and Traffic Violation Scale (RATVS) were used for data collection.

Big Five Personality Inventory (BFI): Developed by John, Donahue and Kentle (1991) and validated in Nigeria by Umeh (2004), the Big Five Inventory is a 44-item inventory using five point Likert scale with responses of 1 = disagree strongly, 2 = disagree a little, 3 = neither disagree nor agree, 4 = agree a little, and 5 = agree strongly, that assesses five personality traits; namely: Extraversion or Surgency (talkative, assertive, energetic); Agreeableness (good-natured, cooperative, trustful); Conscientiousness (orderly, responsible, dependable); Emotional Stability versus Neuroticism (calm, not neurotic, not easily upset); Culture (intellectual, polished, independent-minded). In scoring, items 2, 6, 8, 9, 12, 18, 21, 23, 24 27, 31, 34, 35, 37, 41, and 43 are reverse scored. The reliability of the BFI scale typically range from .75 to .90 and average above .80; three-month test-retest reliability range from .80 to .90, with a mean of .85. Validity evidence includes substantial convergent and divergent relations with other Big Five instruments as well as with peer ratings (Li, Xu, Chen & Fan, 2015; Hee, 2014).

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): Developed by an international group of researchers and clinicians (Newcombe, Humeniuk & Ali, 2005, WHO ASSIST Working Group, 2002) for the World Health Organization (WHO) as a technical tool to help with early identification of substance use related health risks in primary health care, general medical care and other settings the scale is a 20 -item screening tool. The first 10 items on ASSIST assess the substances (alcohol, cannabis, amphetamines, narcotics and six other drugs) people have used while the other 10 measure frequency/problematic substance use on a Likert scale of responses ranging from never (0) through once/twice (2), monthly (3), weekly (4) to daily (6). High scores are indicative of problematic scores. Reliability of the scale is good to excellent, 0.58 to 0.90 (WHO ASSIST Working Group, 2002). ASSIST provides a valid measure

of substance related risk both for individual substances and total substance involvement as scores on the ASSIST were significantly correlated with other measures of problematic substance use including the MINI-Plus (r=0.76, p<0.01) and the Addiction Severity Index (r=0.84, p<0.01)(Newcombe, Humeniuk & Ali, 2005).

Risky Attitude and Traffic Violation Scale (RATVS): The Risky Attitude and Traffic Violation Scale (RATVS) developed by Celik (2006) measures drivers' attitude towards traffic offenses. The scale is an 18-item instrument and covers five aspects of traffic guides (that is, obedience to speed rules 4-items; caring about traffic accidents 3-items; taking tendency in traffic 3-items; violations of basic traffic rules 5-items; risky driver attitude 3-items. RATVS is Likert scale with responses ranging from 1 "strongly agree" to 5 "strongly disagree". Maximum score is 90 and the minimum score is 18 which high scores reflecting dangerous behaviours and vice versa. RATVS has internal consistency of 0.90 and good validity (Celik 2006).

4.4 Procedure

The researchers approached the officials of the National Union of Road Transport Workers (NURTW) at the Parks and Loading Points within Jos Metropolis to enlist their cooperation and the drivers' participation. Drivers that were willing to participate in the study were administered the questionnaires after a briefing on the objective of the study, the likely benefits and right of withdrawal at any stage of the study. The researchers collected the data from Bauchi Road Motor Park, Terminus, Jos University Teaching Hospital Loading Point, Ahmadu Bello Way Loading Point and Bukuru Mini Park in a day having divided selves to cover the different places already mentioned. Duly completed questionnaires were then retrieved and subjected to analysis using the Statistical Package for the Social Sciences (SPSS) version 23.

4.5 Method of Data Analysis

Both inferential and descriptive statistics were used for data analysis. The mean, range, standard deviation and frequency tables, all being descriptive statistics were used. The multiple linear regression analysis was used to test the hypotheses. Linear regression analysis enables analysing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables in order to predict the value of a dependent variable (also known as an outcome variable) based on the value of the independent variable(s) (also known as predictor variables) while adjusting for (or accounting for) potentially confounding variables that have been included in the model.

5.0 RESULTS

5.1 Descriptive statistics

Table 1: Socio-demographic Characteristics of Study Participants

	Frequency	Percent	
		%	
Age years (Mean±SD)	31.7±8.8		
Driving Experience (Mean±SD)	7.3±2.6		
Gender			
Male	163	100.0	
Marital Status			
Single	44	27.0	

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	Frequency	Percent
		%
Married	119	73.0
Religion		
Christianity	49	30.1
Islam	114	69.9
Highest Educational Attainment		
Non-formal	34	21.0
Primary	57	35.1
Secondary	50	30.9
Tertiary	21	13.0

Table 1 above reveals that the mean age of the study participants was 31.7 years with a standard deviation of 8.8 years. The mean years of driving was 7.3 years with a standard deviation of 2.6 years. All the participants were male commercial drivers and majority 119 (73%) of the participants were married while 69.9%) were of the Islamic religion. and 35.1% had primary school education.

5.2 Inferential Results

Six hypotheses were tested with the multiple regression models at the 0.05 significance level. The results are presented below.

Table 2: Model Summary of Regression Model 1							
\mathbb{R}^2	F Change	df1	df2	Sig.	Durbin-		
				F Change 🖌	Watson		
.082	2.313	6	156	0.036	1.268		

The results of the regression model 1 revealed that the coefficient of determination $R^2 = 0.082$, $F_{(6, 156)} = 2.313$, DW = 1.268, implying that the model can be held for 8.2% change in traffic offenses. The F-statistic (ANOVA) of the model had a closeness of fit which means that the model is statistically significant at 5% (p ≤ 0.05) level of significance. The Durbin-Watson value of 1.268 shows that autocorrelation between the variables under consideration are statistically significant without multicollinearity.

Table 3: Coefficients of Regression Model 1

	Unstandardized Coefficients ß Std. Error		Standardized				
Model			Coefficients	t	Sig.		
			Beta				
(Constant)	49.066	13.551		3.621	.000		
Extraversion	.644	.262	.195	2.454	.015		
Agreeableness	.105	.244	.034	.430	.668		
Conscientiousness	.585	.236	.199	2.475	.014		
Neuroticism	.660	.277	.191	2.383	.018		
Openness	.012	.214	.004	.055	.956		
Substance abuse	.028	.255	.009	.110	.912		

Hypothesis 1: There will be a significant relationship between openness personality trait and traffic offenses among motorists in Jos metropolis. Result of hypothesis one reveals that the regression coefficient of openness personality trait in the estimated regression line is 0.004 which indicates that 0.4% of change in traffic offences was accounted for by openness personality trait. The value of the calculated statistic of openness personality trait was not significant, (p > .05). The hypothesis is not supported (seeTable 3 above). This means openness personality had no relationship with traffic offences by commercial drivers in Jos.

Hypothesis 2: Conscientiousness personality trait will significantly correlate with traffic offenses among motorists in Jos metropolis. The result of hypothesis two reveals that the regression coefficient of conscientiousness personality trait in the estimated regression line is 0.199 which indicates that 19.9% of change in traffic offences was accounted for by conscientiousness personality trait. The value of the calculated statistic of conscientiousness personality trait was significant ($_{\beta} = .585$, t = 2.475, p <.05). The hypothesis is supported per Table 3 above. This implies that conscientiousness personality was associated traffic offences amongst commercial drivers in Jos.

Hypothesis 3: Extroversion personality trait will significantly correlate with traffic offenses among motorists in Jos metropolis. The result of hypothesis three shows that the regression coefficient of extroversion personality trait in the estimated regression line is 0.195, implying that 19.5% of change in traffic offences was accounted for by extroversion personality trait. The value of the calculated statistic of extroversion personality trait was significant ($_{\beta}$ =.644, t = 2.454, *p* <.05). The hypothesis is supported (see Table 3 supra, implying that extroversion personality predicted traffic offences amongst commercial drivers in Jos.

Hypothesis 4: Agreeableness personality trait will significantly correlate with traffic offenses among motorists in Jos metropolis. The result of hypothesis four reveals that the regression coefficient of agreeableness personality trait in the estimated regression line is 0.034, meaning that 3.4% of change in traffic offences was accounted for by agreeableness personality trait. The value of the calculated statistic of agreeableness personality trait was not significant ($_{\beta} = .105$, t = 0.430, p > .05). The hypothesis is not supported, implying that agreeableness personality did not predict traffic offences amongst commercial drivers in Jos.

Hypothesis 5: Neuroticism personality trait will significantly correlate with the traffic offenses among motorists in Jos metropolis. The result of the regression coefficient of neuroticism personality trait in the estimated regression line is 0.191 indicates that 19.1% of change in traffic offences was accounted for by neuroticism personality trait. The value of the calculated statistic of neuroticism personality trait was significant (β =.660, t = 2.383, *p* = 0.018 (*p* <.05). The hypothesis is supported per Table 3 above.

Hypothesis 6: There will be significant relationship between substance abuse and traffic offenses among motorists in Jos metropolis. The result of the regression coefficient of substance abuse in the estimated regression line is 0.009, implying that 0.9% of change in traffic offences was accounted for by substance abuse trait. The value of the calculated statistic of substance abuse was not significant ($_{\beta} = .028$, t = 0.110, p >.05). The hypothesis is not supported per Table 3 supra.

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6.0 **DISCUSSION**

The result of hypothesis one revealed that there is no significant relationship between openness personality trait and traffic offences. This is in contrast with findings of Ole and Aslak (2017) which indicated that openness personality trait had significant effect on speeding and drink driving. Jovanovic, Lipovac, Stanojevic, and Stanojevic (2009) and Dahlen and White (2006) found that openness personality trait was negatively associated with aggressive driving behaviour. Individuals with high scores on the openness are often characterized by aesthetic appreciation, values, idea acceptance, self-actualization, personal growth and development (McCrae & Costa, 2006). The test results of hypothesis two revealed a significant relationship between conscientiousness personality trait and traffic offences. This result is in line with the findings of Akinniyi, Akinnawo, Akpunne and Oyeleke (2019) that conscientiousness was positively related to exaggerated safety cautious behaviour. Jovanovic et al. (2011) and Benfield, Szlemko and Bell (2006) showed that manifestation of physical aggression and verbal aggression while driving relate negatively with conscientiousness, while those with high scores on conscientiousness manifested reduced physical and verbal aggressive behaviour when driving. Furthermore, high score in conscientiousness is characterized by order, selfdiscipline, organization, intention to do and resolve things and problems (John & Srivastrava, 1999). Thirdly, this study in respect of hypothesis three revealed a significant relationship between extroversion personality trait and traffic offences. This agrees with the findings of John et al. (2008), Benfield et al. (2007), Clarke and Robertson (2005) and Lajunen (2001). The trait sensation seeking, which is similar to the extraversion facet excitement seeking, has been extensively connected to driving behaviour; this is in line with Jonah's (1997) conclusion that a positive association between sensation seeking and risky driving.

Furthermore, the result of hypothesis four revealed that there was no significant relationship between agreeableness personality trait and traffic offences. This agrees with the findings of Akinniyi, et al. (2019), and Warren (2011) which revealed that agreeableness was not found to significantly predict risk driving behavior. However, the result contrast with Gadbois and Dugan's (2015) finding that agreeableness was associated with decreased likelihood of driving. Individuals who score high on agreeableness are inclined to trust others, are altruistic, tolerant and empathic and are likely to forgive, generous and gentle (John & Srivastava, 1999). Such people practice careful driving style while those with a low score in agreeableness drive in an angry, reckless, anxious and desolate way, they behave more hostile and more furious (Taubman-Ben-Ari & Yehiel, 2011). Again this study found in respect of hypothesis five, a significant relationship between neuroticism personality trait and traffic offences. This is in line with the findings of Alavi, et al. (2017), and Jovanovic, Lipovac, Stanojevic and Stanojevic (2011). Thorrisen (2013) also found that neuroticism had effect on both aggressive and considerate behaviour of drivers. First individuals that are high in neuroticism are generally predisposed to psychological distress and particularly vulnerable to stress (Pappas, 2017). Neuroticism is a strong predictor of driver stress and is associated with ineffective coping strategies (Dorn & Matthews, 1992). Neurotics report more frequent use of aggressive and confrontational approaches to coping than others (Galovski & Blanchard, 2004). Finally, the result of hypothesis six indicated that there is no significant relationship between substance abuse and traffic offences. This contrasts with Martin (2017), Guohua, Brady and Chen (2013) findings which showed that drug use is associated with a significantly increased risk of fatal crash involvement.

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7.0 CONCLUSION

This study looked the influence of personality factors and substance abuse on traffic offences amongst commercial drivers in Jos Metropolis. The specific objectives included to determine the relationship that the various dimensions of the big five personality traits have on road traffic violations among motorists in Jos metropolis, and ascertain the relationship of substance abuse with road traffic violations among motorists in Jos metropolis. The test results revealed that there is no significant relationship between openness personality trait and traffic offences; there was a significant relationship between conscientiousness personality trait and traffic offences and there was a significant relationship between extroversion personality trait and traffic offences. Also, there was no significant relationship between agreeableness personality trait and traffic offences but there was a significant relationship between neuroticism personality trait and traffic offences and there was no significant relationship between substance abuse and traffic offences. We conclude that the results of the present study confirm the key role of personality toward traffic safety in predicting violations, lapses and errors suggesting focusing interventions upon drivers' attitudes, and that addressing attitudes can produce long-term changes in drivers and therefore directly affecting risky driving behaviours.

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