Driven by temper: Personality, mental health, and road rage among commercial drivers

Addah Temple Tamuno Opubo[1]*, Damilola B. Lawal[2], Toluwalase Akadri[1], Ali Prince Edisemi[3], Chinemerem David Nwankwo[1]

[1] Department of Psychology, Olabisi Onabanjo University, Ago-Iwoye, Ogun State, Nigeria

[2] Department of Psychology, Columbia University, New York, United of States of America

[3] Department of Educational counselling, Bayelsa State polytechnic, Aleibiri, Nigeria

ABSTRACT

Road rage has become an increasing concern in densely populated urban areas, posing significant risks to road safety and public health. This study examined the influence of personality traits and mental health status on road rage among commercial drivers in Lagos Metropolis, Nigeria. A descriptive survey design was adopted, involving a sample of commercial drivers selected through a multistage sampling technique. Data were collected using standardized instruments that measured driving anger, personality characteristics, and mental health status. The analysis revealed meaningful associations between personality dimensions, mental health conditions, and the propensity for road rage. Findings suggest that drivers exhibiting certain personality patterns and compromised mental health are more susceptible to aggressive driving behaviours. These results underscore the importance of integrating psychological and behavioural considerations into road safety interventions. Promoting emotional regulation and providing accessible mental health support could be crucial strategies for reducing road rage, particularly among commercial drivers operating in high-stress urban environments such as Lagos.

KEY WORDS:

commercial drivers; mental health status; personality; road rage

[1] Corresponding Author: Addah Temple Tamupubo, email: tamuno.addah@oouagoiwoye.edu.ng, Department of Psychology, Olabisi Onabanjo University, Ago-Iwoye, Ogun State, Nigeria.

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Introduction

The prevalence of road rage among commercial drivers in Lagos Metropolis presents a growing threat to public safety, driven by a combination of several stressors. As one of Nigeria's most densely populated and congested cities, Lagos faces significant urban pressures, including overcrowded roads, constant traffic congestion, and inadequate infrastructure (Adenaike et al., 2020). These conditions create stressful driving environments that intensify the already heavy burden on commercial drivers, who often face pressure to meet daily financial targets amidst rising fuel costs and economic challenges (Adenaike et al., 2020; Olaniyi & Emmanuel, 2024). Cocks (2022), in his book titled "Lagos: Supernatural City" posited that, the fiercely competitive nature of the commercial transport industry exacerbates tensions on the roads, with drivers engaging in aggressive behavioural patterns as they rush to secure passengers. Ifediora (2021), during his inaugural lecture mentioned that, in extreme cases, these patterns of behaviour escalate into physical altercations, putting the lives of other road users at risk and contributing to the alarming rates of traffic accidents and fatalities in Lagos. In this situation, this study aims to explore the interplay between personality traits and mental health status as key factors which could influence road rage among commercial drivers. This focus aligns with the United Nations Sustainable Development Goals (SDGs), particularly SDG 3 on promoting well-being and SDG 11 on fostering safe, sustainable cities. Also, it highlights the urgent need for a multifaceted approach to addressing the root causes of road rage.

Road rage refers to the intense frustration experienced by drivers, often resulting in aggressive behavioural patterns such as shouting, gestures, and dangerous driving manoeuvre (Okodudu, 2024). It is defined as hostile behavioural patterns directed toward other road users, including actions such as tailgating or colliding with a lead vehicle, excessive honking, and verbal confrontations (Shinaar, 1999; Bjureberg, 2021). Road rage occurs when a driver experiences extreme aggression or anger, intending to create or cause physical harm (Lipaz, 2022). These reactions pose serious risks to road safety and can lead to accidents and legal consequences, highlighting the need for effective interventions to manage and reduce aggressive driving behaviours (Alkinani et

al., 2020). According to a study by Meyer (2024), in the United States, it was reported that 92% witnessed an act of road rage in the past year, and a total of 12,610 injuries and 218 murders have been attributed to road rage over seven years. The National Highway Traffic Safety Administration (NHTSA) reported that 66% of traffic fatalities are caused by aggressive driving, and road rage has been responsible for 300 deaths since 2013. Thirty (30) murders annually are linked to road rage, and 50% of drivers respond to the careless acts of other drivers with aggressive behaviour themselves (American Psychological Association, 2022).

Nigeria has repeatedly been ranked among the countries with the highest rate of road accidents globally (Agbonkhese et al., 2013; Ojiakor et al., 2019). In Nigeria, according to the Federal Road Safety Corps (FRSC), in 2023, 10,617 road traffic crashes were recorded, showing a decrease of 20% from 2022, which recorded 13,656 road traffic crashes. Recently, Ali-Biu (2024) confirmed that the Federal Road Safety Corps (FRSC) reported that 5081 people were killed in road traffic crashes nationwide in 2023, as against 6,456 deaths reported in 2022, showing a 21% decrease. Some studies have consistently found that about 80-90% of traffic accidents worldwide are caused by human factors or drivers' behaviour (Ismail et al., 2016; Sabir & Nizam, 2017; Ilevbare et al., 2019). This is because road accidents are usually dependent on the driver's characteristics, feelings, attitudes and driving styles while driving on the road (Ilevbare et al., 2019). Road rage is generally associated with external factors, such as stress, noise pollution, and busy roads. However, it has an association with other internal factors, such as personality and mental health status, all of which may contribute to the escalation of road rage.

Interestingly, personality could play a significant role on how individuals view and interact with the world (Alzeer & Benmerabet, 2023). Personality is an enduring characteristics and behaviour that comprise a person's unique adjustment to life, including major traits, interests, drives, values, self-concept, abilities and emotional patterns (American Psychological Association, 2018). Studies have found that drivers with higher levels of trait driving anger were more likely to perform risky and aggressive driving behaviours such as speeding, running red traffic lights, and tailgating (Dahlen et al., 2012; Li et al., 2014; Love et al., 2022). Baran et al., (2021), observed that personality traits could influence or moderate the attitude of road users, especially commercial drivers. Personality traits such as openness to experience, conscientiousness, extraversion, agreeableness and neuroticism could influence road rage among commercial drivers in Lagos state.

A study by Ilevbare et al. (2021) reported that personality, especially extraversion traits, predicts anger-driving behaviour among commercial drivers. This implies that drivers' personality characteristics interfere with their judgement decisions when driving on the road. Considering that aggressive driving tends to be impulsive, individuals with high levels of extraversion are expected to be more inclined towards exhibiting aggressive driving behaviour and, consequently, more susceptible to being involved in road accidents (Baptiste, 2018; Kassim et al., 2019). Neuroticism was negatively related to aggressive driving behaviour and the driver's trait of anger (Dahlen & White, 2006; Zhai et al., 2023). Meanwhile, Jovanovi'c et al. (2011) found that the trait of driving anger mediated the relationship between neuroticism and aggressive driving, and agreeableness and conscientiousness significantly predicted driving anger.

The mental health status of individuals could play a significant role in their susceptibility to road rage. The World Health Organisation (WHO) defined mental health as "a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (World Health Organisation, 2004, p. 12). An individual with poor mental health may have difficulty regulating their emotions and may be prone to reacting aggressively to driving stressors, factors such as stress, insomnia, anger management issues, impulsivity, and underlying psychological conditions like anxiety or depression can contribute to lightened emotions and aggressive behavioural patterns on the road (Abdoli et al., 2015; Bowen et al., 2020). Drivers who are suffering from a psychological state like depression or trauma may be classified as more susceptible to road traffic accidents. Abdoli et al. (2015) reported that general health status concerns are associated with reckless driving behaviour. Road rage has been classified as a medical condition of mental health variety called intermittent explosive disorder (Sean et al., 2013; Lyle, 2019; Ohajinwa et al., 2023). Mental health problem in driving (intermittent explosive disorder) refers to violent incidents resulting from stress or incidents on the roadways (Lyle, 2019; Ohajinwa et al., 2023). It is a natural extension of aggressive driving and a learned cultural habit of retaliation. When an individual is frustrated in heavy traffic, the individual has a choice of how he or she responds. (Lyle, 2019; Ohajinwa et al., 2023).

Lagos, Nigeria's commercial capital, is a bustling metropolis with high population density and intense traffic conditions, where commercial drivers must navigate congested roads, interact with diverse road users, and cope with

unique stressors that can impact their driving behaviour and mental well-being. Studying these drivers in this urban setting offers valuable insights into the specific dynamics they encounter daily, providing actionable data to improve road safety, driver well-being, and overall transportation efficiency in the city. However, the prevalence of road rage among commercial drivers in Lagos has become a critical public safety concern, as aggressive driving behaviours increasingly contribute to accidents and fatalities. Despite the well-established impact of stressful driving conditions, there is limited understanding of how underlying psychological factors—such as personality traits and mental health status—exacerbate these behaviours. This research gap hampers the development of effective interventions to mitigate road rage and enhance road safety. In order to address this, the study draws on the General Aggression Model (GAM), propounded by Anderson and Bushman (2002), which explains how the interaction between individual personality traits (for instance, irritability and impulsivity) and situational stressors (such as challenging driving conditions) influences aggressive behaviour. The GAM provides a theoretical framework for understanding the role of personality and mental health in road rage, aligning with the study's aim to explore these underlying factors and their contributions to aggressive driving among commercial drivers in Lagos. The hypothesis if this research is personality traits will significantly predict road rage among commercial drivers.

Method

This four-month cross-sectional study was conducted at Lagos State, Nigeria, May and August, 2024. The study explored personality, mental health status and road rage among commercial drivers in Lagos metropolis, Nigeria. Data were collected through administration of a structured questionnaire. The independent variables are personality and mental health status, while the dependent variable is road rage in this study.

Population and Sample

The population consisted of commercial drivers in Lagos, Metropolis, with 200 participants. The sample was selected using a multistage sampling technique. The sample size was determined using Araoye's (2004) sample size calculator:

$$n = \frac{Z^2 - P(1 - P)}{d^2}$$

From the formula given;

n = sample size

Z = standard normal deviate corresponding of confidence = 1.96

P = The Road Rage prevalence is 88.2% as used by Udonna-ogbue et al, (2023) in Imo State, Nigeria

d = Degree of accuracy = 0.05

Hence, calculated thus:

$$n = \frac{1.96^2 \times 88.2\%(1-88.2\%)}{0.05^2} = \frac{0.399818361}{0.0025} = 159.92734 \sim 159$$

Attrition rate: (calculate 20% of 159) and add to 159

20% of 159 = 31.8~ 32

Sample size = 159 + 32 = 191

However, 200 respondents were selected for this study.

Demographic characteristics of participants showed that their age ranges from 18 to 65 years (M = 37.65 years; SD =10.35). Their gender distribution comprised 129 males (64.5%) and 71 females (35.5%). Regarding ethnicity, 96 (48%) of the respondents were Yoruba, 34 (17%) were Igbo, 29 (14.5%) were Hausa, 22 (11%) were Ijaw, 15 (7.5%) were Edo, and 4 (2%) were from other ethic groups. In terms of religion, 102 (51%) were Christians, 76 (38%) were Muslims, 18 (9%) practiced traditional beliefs, and 4 (2%) followed other religions. Education levels varied, with 66 (33%) having tertiary education, 54 (27%) with secondary education, 38 (19%) with primary education, and 42 (21%) with no formal education. Years of driving experience revealed that 83 (41.5%) had 1-2 years of driving experience, 57 (28.5%) had 3-4 years of driving experience, 23 (11.5%) had 3-4 years of driving experience, 37 (18.5%) had 7 years above driving experience.

Instrumentation

Road Rage: Road Rage was measured using The Driving Anger Scale (DAS). The Driving Anger Scale (DAS) is a 14-item questionnaire developed by Deffenbacher and his colleagues in (1994). The Driving Anger Scale (DAS) assesses anger propensities across six (6) traffic situations which are, hostile gesture, illegal driving, police presence, slow driving, discourtesy and traffic obstructions other drivers (Deffenbacher et al, 1994). Sample of the items includes "Someone make an obscene gesture toward you about your driving" and "Some honks at you about your driving". The response options are on a five-point

Likert-type scale ranging from 1 = "not at all" to 5 = "very much". In this study, the authors reported a Cronbach alpha of 0.79. The Driving Anger Scale (DAS) has been used in Nigeria (Ilevbare et al, 2019). The current study found a reliability coefficient of 0.70 among commercial drivers in Lagos metropolis, Nigeria.

Personality: Personality was measured using the Big-Five Personality Inventory (BFI-10) which consist 10 items only. It was developed by Rammstedt & John (2007). The Big Five Inventory (BFI) is a psychological test which measure the big five personality traits, which are, Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness to experience. Sample of the questions include "I see myself as someone who is reserved", "I see myself as someone who tend to be lazy". The item were scored using a 5-point rating scale, ranging from Disagree strongly, Disagree a little, Neither agree nor disagree, Agree a little, and to Agree strongly. Extraversion: was assessed with items 1R, 6 (R denotes reverse-section); Agreeableness: 2, 7R; Conscientiousness: 3R, 8; Neuroticism: 4R, 9; Openness: 5R; 10 (R-item is reversed-scored). The big- five inventory which consist of 10 items was constructed and comparison was made in United State of America and Germany. The authors reported a cronbach of 0.75. The BFI–10 has been used in Nigeria by Tamuno-opubo and Aloba (2019); Alatishe et al (2024). The current study found a reliability coefficient of 0.73 among commercial drivers in Lagos metropolis, Nigeria.

Mental Health Status: Mental Health Status was measured using General Health Questionnaire. (GHQ-12). The 12-item General Health Questionnaire (GHQ-12) was developed by Goldberg in (1988). The GHQ-12 was designed to assess the general perception of health on a four option scale. The 12-item General Health Questionnaire contains three factors namely: Anxiety and Depression, Social Dysfunction, and Loss of Confidence. Sample of the items includes " Have you recently been able to face up to your problems" and " Have you recently felt you couldn't overcome your difficulties". The General Health Questionnaire (GHQ-12) consists of 12 items, each assessing the severity of a mental problem over the past few weeks using a 4-pont scale (from 0 to 3). The scale was scored on a 4-point scale ranging from 1-not at all, 2-no more than usual, 3-rather more than usual, 4-much more than usual. The score was used to generate a total score ranging from 0 to 36, with higher scores indicating worse condition. The Cronbach alpha of the GHQ-12 is 0.90. The General Health Questionnaire has been used in Nigeria by Aloha et al (2019). The current study found a reliability coefficient of 0.68 among commercial drivers in Lagos metropolis, Nigeria.

Procedure

In conducting research on "Personality, Mental Health Status, and Road Rage among Commercial Drivers in Lagos Metropolis, Nigeria," a systematic approach to distributing questionnaires is essential. The first step involves obtaining the necessary approvals, including ethical clearance from the university and authorisation from local transport unions, such as the National Union of Road Transport Workers (NURTW). This ensures compliance with ethical guidelines and facilitates access to drivers. Next, the researcher identifies high-traffic motor parks across Lagos, such as those in Oshodi, Ikeja, Yaba, and Surulere, to access a diverse pool of commercial drivers. These locations are selected based on their heavy use by drivers covering various routes, which enriches the data collected. Preparing the questionnaires is crucial; they were user-friendly and structured into sections covering demographic information, personality assessment, mental health status, and road rage behaviour. The questionnaires were concise and, if necessary, translated into local languages or Pidgin English to ensure comprehension among all participants. Recruiting and training research assistants was the next step. Assistants was briefed on the study's objectives, confidentiality measures, and effective communication with drivers. When approaching drivers, the assistants was introducing the study respectfully and obtain verbal consent before distributing the questionnaires. During distribution, assistants provided individual questionnaires to willing participants, offer assistance for understanding questions, and allow approximately 15-20 minutes for completion. After collecting the completed questionnaires, it was essential to review them for completeness, thanking each driver for their participation. Finally, securely storing and organising the collected data is vital for subsequent analysis. This structured approach ensures a comprehensive understanding of the relationship between personality, mental health, and road rage among commercial drivers in Lagos.

Data Analysis

Data analysis was conducted with the IBM's Statistical Product for Service Solutions (SPSS) version 25. Descriptive statistics, such as mean, standard deviation, frequency and percentage counts, was used to describe the respondents and aggregate the data. Depending on the normality of data distribution, the appropriate bivariate (Pearson's or Spearman's rho correlations) statistical technique was used to examine the strength and direction of associations between road rage and the other study measures. Statistical significance was set at $p < 0.05$ for all tests.

Result

Results of the correlation analysis presented in Table [ii] reveal a significant positive relationship between personality and mental health (r = .342, p < 0.05), indicating that individuals with certain personality traits may experience better mental health outcomes. This finding implies that personality characteristics are associated with mental health, suggesting that positive personality traits might contribute to improved mental health among the sample. Additionally, there is a significant positive correlation between personality and road rage (r = .601, p < 0.05), indicating that individuals with certain personality traits are more likely to exhibit road rage behaviours. This suggests that aspects of personality may influence the likelihood of road rage, with specific personality characteristics potentially contributing to an increase in aggressive driving behaviours. Lastly, the analysis also shows a significant positive relationship between mental health and road rage (r = .334, p < 0.05). This result suggests that poorer mental health is associated with higher levels of road rage, indicating that mental health may play a role in aggressive driving behaviour.

The results presented in Table [iii] provide insight into the prevalence and severity of road rage among the study participants. The data reveal that a majority of individuals experience some level of road rage, with 41.9% reporting moderate road rage and 33% experiencing mild road rage. This indicates that nearly three-quarters of the sample (74.9%) engage in mild to moderate road rage behaviours, suggesting that these levels of road rage are relatively common. In contrast, 17.7% of participants report severe road rage, reflecting a smaller but significant portion of the sample who experience high levels of aggressive driving behaviours that could have more serious consequences. Additionally, only 7.4% of individuals report no road rage at all, indicating that a minority of participants drive without displaying any road rage behaviours. These findings highlight the prevalence of road rage across varying levels of severity, with moderate road rage being the most common. This distribution suggests that interventions aimed at reducing aggressive driving should address not only the most severe cases but also consider the widespread occurrence of mild and moderate road rage to promote safer driving behaviours across the board.

Test of Hypotheses

Hypothesis 1: There is no significant relationship between personality and road rage among commercial drivers

Results of the correlation analysis presented in Table [iv] reveal a significant positive relationship between extraversion and road rage (r = 0.25, p < 0.05),

suggesting that drivers with higher extraversion levels tend to experience more road rage. This finding implies that more outgoing and sociable individuals may be more prone to reactive behaviors in stressful driving situations. Conversely, a negative but non-significant correlation was observed between agreeableness and road rage (r = -0.15, p > 0.05), indicating that higher agreeableness may be associated with slightly lower levels of road rage, though this effect is not statistically significant. This pattern aligns with the tendency of agreeable individuals to avoid conflict. Additionally, the analysis shows a significant negative correlation between conscientiousness and road rage (r = -0.28, p < 0.05), suggesting that drivers who score higher in conscientiousness are likely to experience lower levels of road rage. This may indicate that conscientious individuals, who tend to be organized and self-disciplined, manage frustrations on the road more effectively. A strong positive correlation was also found between neuroticism and road rage (r = 0.45, p < 0.05), showing that drivers with higher neuroticism levels are more prone to road rage. This relationship suggests that emotionally unstable individuals are more likely to react with anger or frustration in challenging driving situations. Lastly, a weak, non-significant negative correlation was found between openness to experience and road rage (r = -0.10, p > 0.05). This implies that drivers with higher openness may experience slightly lower levels of road rage, though this effect is minimal. This could reflect a tendency for more open individuals to be somewhat adaptable and less reactive to frustration on the road. In summary, the results indicate significant positive relationships between road rage and both extraversion and neuroticism, and a significant negative relationship with conscientiousness. These findings suggest that personality traits, particularly neuroticism and conscientiousness, are notable factors influencing road rage behaviors among commercial drivers in Lagos metropolis.

Hypothesis 2: There is no significant relationship between mental health status and road rage among commercial drivers in Lagos metropolis, Nigeria.

From Table [v] the result indicated that there is a significant relationship between mental health status and road rage among commercial drivers in Lagos metropolis, Nigeria. The analysis recorded a correlation coefficient of r = -.334, with a p-value less than 0.05, suggesting a moderate negative relationship between mental health status and road rage among the drivers. The negative correlation indicates that as mental health status improves, the tendency for road rage decreases. Therefore, the null hypothesis, which states that there is no significant relationship between mental health status and road rage among commercial drivers in Lagos metropolis, Nigeria, is rejected, and the alternate

hypothesis is accepted.

Hypothesis 3: There is no significant relationship between personality, mental health status and road rage among commercial drivers in Lagos metropolis, Nigeria.

Table [vi] indicates a significant relationship between personality, mental health status, and road rage among commercial drivers in Lagos metropolis. The analysis shows that personality has a significant effect, with a beta coefficient (β) of 0.551 and a t-value of 9.220, and mental health status also shows a significant effect with a beta coefficient (β) of -0.146 and a t-value of 2.449. Both results have p-values less than 0.05, indicating that these variables significantly predict road rage. The overall model has an R value of 0.616 and an R² value of 0.379, with an F-value of 60.242 and a p-value less than 0.05, suggesting that personality and mental health status together explain about 38% of the variance in road rage among these drivers. Given these results, the null hypothesis, which states that there is no significant relationship between personality, mental health status, and road rage, is rejected. The data supports the alternate hypothesis, indicating that both personality and mental health status significantly influence road rage among commercial drivers.

Discussion

The aim of the study is to examine the influence of personality and mental health status on road rage among commercial drivers in Lagos metropolis, Nigeria. The study seeks to understand how these factors interact and influence road rage. The results reveal that among respondents, 7.4% exhibit no road rage, while 33% show mild road rage, 41.9% display moderate road rage, and 17.7% experience severe road rage. This indicates an overall prevalence rate of mild to severe road rage at 92.6% within the study population.

The study's findings suggest that certain personality traits, such as extraversion and neuroticism, increase susceptibility to road rage, while conscientiousness appears to reduce it. Extraverted individuals, who are more sociable and energetic, and neurotic individuals, who exhibit emotional instability, may respond more aggressively in stressful driving situations. Conversely, conscientious drivers, who are organised and disciplined, tend to manage their emotions better, reducing aggressive driving tendencies. Supporting this view, Dahlen and White (2019) found that neuroticism is a strong predictor of aggressive driving due to its link with emotional reactivity. Similarly, Terrill,and Kowalski (2020) observed that extraverted individuals, who often seek stimulation, are more likely to react aggressively in challenging traffic

situations, consistent with Lajunen and Parker's (2018) findings in high-density urban settings. Contrasting perspectives come from Mesken et al. (2021), who argued that situational factors, such as traffic congestion and environmental stressors, play a more substantial role than personality traits alone in driving aggression. Adeniran and Ola (2017) also suggested that socioeconomic stressors might overshadow personality as a cause of road rage, indicating that external pressures are considerable influences on driver behaviour. These findings are plausible, as personality traits directly impact emotional regulation under stress. For extraverted and neurotic individuals, the high-stress environment of Lagos traffic may intensify their need for stimulation or heighten their emotional reactivity, increasing the likelihood of road rage. Conversely, conscientious drivers, characterised by their cautiousness and control, are better equipped to manage emotional responses, reducing road rage tendencies.

The study's findings suggest that drivers with better mental health are less likely to experience road rage, as stable mental health may enhance emotional regulation, even in high-stress settings like urban traffic. Deffenbacher et al. (2019) found that individuals with high stress and poor mental health are more prone to road rage due to a diminished tolerance for frustration. Eze and Adebisi (2020) observed a similar trend among Nigerian commercial drivers, finding that mental health challenges increased the likelihood of aggressive driving. Grant and Raine (2018) further linked issues like depression with aggressive behaviour, reinforcing the link between mental health and road rage. Conversely, Mesken et al. (2021) argued that external stressors like high traffic density are more influential than mental health in triggering road rage, indicating that situational pressures may overpower drivers' emotional resilience. Tijani and Ojo (2017) also proposed that personality traits might have a stronger predictive value for road rage than mental health alone, suggesting a complex interplay between internal and external influences. The relationship between mental health and road rage is plausible, given that individuals with better mental health are likely more resilient to external stressors, making them less prone to aggressive responses. In a high-stress driving environment like Lagos, mental health may act as a buffer, reducing frustration-induced road rage incidents.

The study found that both personality traits and mental health status are significant predictors of road rage. Extraverted, neurotic, and mentally unstable drivers appear more prone to road rage, whereas conscientious individuals with better mental health experience it less often. Together, these variables explained 38% of the variance in road rage, underscoring their combined impact on aggressive driving behaviours. Oduola et al. (2019) observed that personality

traits like high neuroticism and low agreeableness were associated with aggressive driving, supporting the link between personality and road rage. Adebayo and Oseni (2020) also reported that mental health challenges, including stress and anxiety, amplify aggressive responses in congested urban areas.

On the contrary, Eze and Ayodele (2018) highlighted the role of situational factors, such as limited road infrastructure, as primary causes of road rage, suggesting personality and mental health may not fully account for aggressive driving behaviours. This aligns with Mesken et al. (2021), who proposed that environmental and socioeconomic factors often exacerbate road rage independently of individual psychological factors. The combined influence of personality and mental health on road rage behaviour is plausible in that these internal factors collectively impact emotional responses under stress. In environments with frequent congestion and stress, such as Lagos, the interaction between personality traits and mental health plays a key role in determining road rage behaviour. These findings suggest that addressing both personality-related factors and mental health could effectively reduce aggressive driving tendencies.

This study highlights the significant roles of personality traits and mental health in influencing road rage among commercial drivers in Lagos, Nigeria. Personality traits such as extraversion and neuroticism were associated with higher susceptibility to road rage, while conscientiousness and stable mental health appeared to reduce these tendencies. These findings suggest that individual psychological factors and the pressures of a high-density, stressful urban driving environment can influence road rage behaviour. The study underscores the value of targeted interventions addressing personality-related factors and mental health to effectively curb aggressive driving behaviours, recommending a comprehensive approach that also considers environmental stressors. This integrated perspective may better support initiatives to reduce road rage and enhance road safety in busy urban centres.

Conclusion

To improve road safety and reduce aggressive driving behaviors, a comprehensive approach can be developed that includes personality-aware interventions, mental health support services, emotional resilience training, and conscientiousness-enhancing programs. Driver management programs should be designed to account for personality traits linked to road rage, such as neuroticism and extraversion, incorporating techniques for emotional regulation and reducing impulsivity. Mental health screenings and counseling services for commercial drivers can address underlying issues like stress, anxiety, and other

mental health concerns that contribute to aggressive driving. Road safety education campaigns should focus on emotional resilience, teaching drivers stress management and conflict resolution techniques for high-pressure situations. Additionally, programs to promote conscientiousness can encourage organized, disciplined driving habits through regular assessments and reinforcement of positive behaviors. A multidisciplinary strategy that combines these elements—personality-focused counseling, mental health resources, and stress management—would significantly reduce road rage and improve safety, particularly in urban environments.

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