



SOCIO-DEMOGRAPHIC DETERMINANTS OF SAFETY PRACTICES AMONG TAXI DRIVERS IN RIVERS STATE

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ABSTRACT

Road safety is a critical public health issue, particularly in developing countries like Nigeria, where rapid urbanization often outpaces infrastructure development and regulatory frameworks. This study investigates the socio-demographic determinants of safety practices among taxi drivers in Rivers State, Nigeria. The research focuses on how factors such as age, working experience, and educational status influence adherence to safety protocols. A descriptive cross-sectional survey design was utilized, involving 586 taxi drivers selected through multi-stage sampling techniques. Data were collected using a structured questionnaire and analyzed using frequency, percentage, mean scores, and ANOVA. The results indicate that older drivers and those with more years of working experience exhibit better safety practices. Additionally, drivers with higher educational attainment show greater adherence to safety measures. These findings suggest that targeted educational programs and policy interventions tailored to different demographic groups are essential for improving road safety. By addressing the unique needs of younger, less experienced, and less educated drivers, this study aims to contribute to the broader efforts of reducing road traffic accidents and promoting a safer urban transportation environment in Rivers State.

Keywords: Socio-demographic determinants, safety practices, taxi drivers



INTRODUCTION

Background to the Study

Road safety is a critical public health issue, particularly in developing countries where rapid urbanization has often outpaced the development of adequate infrastructure and regulatory frameworks. In Nigeria, road traffic accidents have become a leading cause of morbidity and mortality, with taxi drivers in urban areas such as Rivers State being particularly vulnerable due to their constant exposure to road hazards. This study aims to investigate the socio-demographic determinants of safety practices among taxi drivers in Rivers State, focusing on how factors such as age, working experience, and educational status influence their adherence to safety protocols.

Taxi drivers play a crucial role in the urban transportation system, providing a vital service to millions of commuters daily. However, their role also places them at a heightened risk for road accidents, which can be attributed to a combination of long working hours, high traffic density, and often insufficient safety training. Understanding the safety practices of taxi drivers and the factors that influence these practices is essential for developing targeted interventions to reduce road traffic accidents and enhance overall public safety. Previous research has highlighted that socio-demographic characteristics can significantly impact drivers' behaviors and attitudes towards safety, suggesting a need for a more nuanced approach to driver education and regulation (World Health Organization, 2018).

Age is a significant factor influencing driving behavior and safety practices. Younger drivers, often characterized by higher risk-taking behaviors and lower levels of driving experience, tend to exhibit more dangerous driving practices compared to older drivers. Conversely, older drivers, while generally more cautious, may face age-related declines in cognitive and motor skills, potentially impacting their ability to respond to road hazards promptly. Studies have shown that middle-aged drivers tend to exhibit the safest driving behaviors, balancing experience and physical capability effectively (Evans, 2004). This study seeks to explore whether similar patterns hold true among taxi drivers in Rivers State, thereby contributing to a better understanding of how age influences safety practices in this specific occupational group.

Working experience is another critical determinant of safety practices among drivers. Experienced drivers often develop better hazard perception skills and more effective coping strategies for dealing with road stressors. However, prolonged exposure to the demanding conditions of taxi driving can also lead to fatigue and complacency, potentially reducing adherence to safety protocols over time. Research indicates that while novice drivers are more prone to accidents due to inexperience, very experienced drivers might also exhibit unsafe behaviors due to overconfidence or habitual disregard for regulations (Reason, Manstead, Stradling, Baxter, & Campbell, 1990). This study aims to investigate how the length of time spent in the taxi driving profession impacts safety practices among drivers in Rivers State.

Educational status has been found to correlate with various health-related behaviors, including road safety practices. Higher educational attainment is often associated with better knowledge of traffic laws, higher levels of risk awareness, and a greater likelihood of adopting safety measures. In contrast, drivers with lower educational levels may lack adequate knowledge of safe driving practices or underestimate the risks associated with certain behaviors. Studies have shown that education can play a pivotal role in shaping attitudes towards safety and compliance with road regulations (Peden, Scurfield, Sleet, Mohan, Hyder, Jarawan, & Mathers, 2004). This study will examine the relationship between educational status and safety practices among taxi drivers in



Rivers State, providing insights into how educational interventions can be tailored to improve road safety.

Rivers State, with its bustling urban centers and diverse population, provides a unique context for studying the socio-demographic determinants of safety practices among taxi drivers. The state's rapid urbanization and economic activities have led to increased demand for transportation services, placing significant pressure on taxi drivers. Understanding the socio-demographic factors that influence their safety practices is crucial for developing effective policies and interventions aimed at reducing road traffic accidents. By focusing on age, working experience, and educational status, this study aims to provide a comprehensive analysis of the factors that contribute to safe or unsafe driving behaviors among taxi drivers in this region.

Addressing the socio-demographic determinants of safety practices among taxi drivers is essential for improving road safety in Rivers State. This study's findings are expected to inform the design of targeted educational programs, regulatory policies, and support systems that can enhance the safety of taxi drivers and their passengers. By shedding light on how age, working experience, and educational status influence safety practices, this research aims to contribute to the broader efforts of reducing road traffic accidents and promoting a safer urban transportation environment.

Statement of the Problem

Despite various efforts to enhance road safety in Nigeria, traffic accidents remain a significant public health concern, particularly in urban areas like Rivers State. The high incidence of road traffic accidents involving taxi drivers in this region underscores a critical gap in understanding the factors that influence safety practices among this group. This study aims to address this gap by investigating the socio-demographic determinants of safety practices among taxi drivers in Rivers State, focusing on age, working experience, and educational status. Understanding these factors is essential for developing effective interventions to improve road safety and reduce accident rates.

One of the core issues is that taxi drivers are continuously exposed to a high-risk environment due to the nature of their work. They spend extensive hours on the road, often under stressful conditions, which can exacerbate risky driving behaviors (Almqvist & Hyden, 1999). The literature suggests that younger drivers are more prone to risky driving due to a combination of inexperience and a propensity for risk-taking (Williams, 2003). In contrast, older drivers may face different challenges, such as age-related declines in cognitive and motor functions (Hakamies-Blomqvist, 2004). This variation in age-related driving behaviors necessitates a targeted approach in safety interventions that considers the age-specific needs of taxi drivers.

Another pressing issue is the role of working experience in shaping safety practices. While experienced drivers are expected to exhibit better hazard perception and more cautious driving behaviors, there is evidence to suggest that long-term exposure to driving can lead to complacency and a reduction in adherence to safety protocols (Reason, Manstead, Stradling, Baxter, & Campbell, 1990). Additionally, the physically and mentally demanding nature of taxi driving can lead to fatigue, which is a well-documented risk factor for road accidents (Williamson, Feyer, Friswell, & Finlay-Brown, 2000). This study seeks to understand how varying levels of working experience influence safety practices among taxi drivers in Rivers State, contributing to more nuanced strategies for addressing road safety.

Educational status is another crucial factor influencing safety practices among drivers. Research indicates that individuals with higher educational attainment are more likely to be aware of traffic laws, understand the risks associated with unsafe driving behaviors, and adopt safety



measures (Peden et al., 2004). Conversely, drivers with lower educational levels may lack critical knowledge and skills, leading to higher risks of accidents (Peden et al., 2004). In Rivers State, where educational disparities are prevalent, it is essential to explore how educational status affects the safety practices of taxi drivers and identify ways to bridge knowledge gaps through targeted educational programs.

The problem is further compounded by the socio-economic conditions in Rivers State. The rapid urbanization and economic activities have led to increased demand for transportation services, often pushing taxi drivers to work long hours under stressful conditions to meet economic needs (Adebayo & Oladimeji, 2019). This economic pressure can lead to risky behaviors such as speeding, ignoring traffic rules, and driving under the influence of fatigue. Understanding the socio-economic context and its influence on safety practices is vital for developing comprehensive interventions that address both behavioral and structural factors contributing to road accidents.

The high incidence of road traffic accidents involving taxi drivers in Rivers State highlights the need for a detailed investigation into the socio-demographic determinants of their safety practices. This study aims to fill this gap by examining how age, working experience, and educational status influence safety behaviors among taxi drivers. The findings are expected to provide valuable insights for policymakers, road safety educators, and public health officials, facilitating the development of targeted interventions that can effectively reduce road traffic accidents and enhance the safety of taxi drivers and their passengers.

By addressing these critical issues, this research will contribute to the broader efforts to improve road safety in Rivers State and similar urban areas, ultimately reducing the burden of road traffic accidents on individuals and society. The study's outcomes will inform the design of tailored educational programs, regulatory policies, and support systems that can mitigate the identified risk factors and promote a safer driving environment for taxi drivers.

Aim and Objectives of the Study

The aim of this study was to investigate the socio-demographic determinants of safety practices among taxi drivers in Rivers State. Specifically, the study seeks to:

1. find out safety practices among taxi drivers in Rivers State based on age,
2. to determine safety practices among taxi drivers in Rivers State based on working experience,
3. to identify safety practices among taxi drivers in Rivers State based on educational status.

Research Questions

The following questions were formulated to guide this study;

1. What are the safety practices among taxi drivers in Rivers State based on age?.
2. What are the safety practices among taxi drivers in Rivers State based on working experience?.
3. What are the safety practices among taxi drivers in Rivers State based on educational status?

Research Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

1. There is no significant difference in the safety practices among taxi drivers in Rivers State based on age.
2. There is no significant difference in the occupational hazards among taxi drivers in Rivers State based on working experience.



3. There is no significant difference in the safety practices among taxi drivers in Rivers State based on educational status.

REVIEW OF RELATED LITERATURE

Conceptual Framework

Concept of Occupational Hazard

According to Awoyemi (2002) occupational hazard is any source of potential damage, harm, or adverse health effects on someone under certain conditions at work. In his study, he noted that hazard is referred to as being the actual harm or the health effect caused rather than the hazard. For example, the disease pulmonary tuberculosis (TB) is categorized as a biological hazard. The International Labour Organization (2012) estimates that 160 million people across the world suffer from work-related diseases such as musculoskeletal diseases and mental health problems, whereas 270 million fatal and non fatal work-related accidents result in over 350,000 casualties and over 2 million work-related deaths each year which are all attributable to occupational hazards, hazards. More recently, evidence from Sub-Saharan Africa indicates that workers in informal sector are frequently exposed to chemical, biological, physical, and psychosocial occupational hazards (Aliyu & Saidu, 2011). In these reports, workers are constantly, exposed to hazards in their work environment and thus require adequate protective measures to reduce their risk of acquisition of occupational disease or injury. Occupational health is any danger to health or life that is inherent-in, or is associated with a particular occupation, industry or work environment. Occupational hazards include risk, of accident and of contracting occupational diseases which can be contracted through unsafe act in a workplace.

Concept of Safety Practice

Johannessen (2010) stated that the concept of practice is one of the key concepts in Wittgenstein's later philosophy. It partly replaces his earlier talk about the inexpressible. 'The practice has to speak for itself, as Wittgenstein succinctly puts it. The concept of practice not only points to the ways in which the unity of our concepts are underpinned, as Gordon Baker has it, it also comprises the skills involved in handling the conceptualized phenomena, our pre-reflective familiarity with them, expressed in the sureness in our behaviour towards them, and the judgmental power exercised in applying or withholding a given concept on a particular occasion. These factors are all relevant to the establishment of knowledge, but they cannot themselves be fully and straightforwardly articulated by verbal means. Nevertheless, they represent what we go by when we apply concepts and other types of rules. To follow a rule is what Wittgenstein calls a practice. The sketched analysis of this concept makes us understand better how it is possible to apply a rule without the support of another rule. It also makes us realize in what sense one is justified in talking about tacit knowledge in connection with the application of concepts and rule-following in general. Quite a lot hangs on seeing the world aright at this point.

Practice is the act of rehearsing a behavior over and over, or engaging in an activity again and again, for the purpose of improving, mastering or attaining perfection. Guillermo and Go bet (2011) reiterate that practice justifies expert performance which is qualitative and different from a normal performance. However, these differences are immutable, that is, due to innate talent, characteristics and abilities that facilitate expertise, performance and practices. In other words, expert performance reflects a life-long period of deliberate effort to improve practice and performance in a specific domain like refuse disposal method. Mayer (2010) stated that efforts



and modalities for improved practice and subsequent expertise, mastery and performance is hinged on the review of some common ways practice is applied; these include: to learn how to play a musical instrument (musical technique), improve athletic or team performance, prepare for a public performance within the performing arts, improve reading, writing, interpersonal communication, typing, grammar, and spelling, enhance or refine a newly acquired skill, maintain skill, learn martial arts; kata and sparring are common forms of practice and master tasks associated with one's occupation (e.g. a cashier using a POS system).

Theoretical Framework

Trans-theoretical Model (TTM)

This model was propounded by Prochaska and Di-demente in 1979. This theory is also called stages of change model which attend to explain how individual or organization integrates new behaviours or lifestyles, goals, and programme at various levels. According to the theorists, behaviour change is a process and not an event or static states in which the person either engages in a particular behaviour. TTM also outlined different level of stages of individual readiness to change or attempt to change towards healthy behaviour. In regard to the current study, this model examined how workers behaviour or lifestyle reduce the exposure to occupational hazard and inculcate safety practices as means of escaping from risk of danger. The theorists in 1992 (Prochaska and Declemente), identifies five stages of behaviour change.

This theory relates to the present study in that, untrained driver may be unaware of hazards and could not attend to inculcate any safety measures. The cases of accidents and near misses on the road will send a signal to the individual on the way forward to curb the menace of danger. The readiness to key into safety rule and regulation is the major concern of the individual especially while driving on the highway. Launching into safety action is a behaviour change that will minimize the exposure to occupational hazards by accepting PPE (seatbelts) at all times. This stage enhances individual sustainability of action, behaviour and to achieve the degree of protection and maintain a hazard-free workplace.

Empirical Review

Shaheed (2010) carried out a study to assess factors affecting motorcycle fatalities in Kansas. A detailed characteristic analysis was carried out for motorcycle crashes, using Kansas crash data. Analysis using Logistic regression was performed on Kansas motorcycle crash data to identify factor affecting fatal motorcycle crashes. Results from state-level modeling showed statistically significant relationships between motorcycle fatality rates in a given state as well as several other factors. These factors included weather-related conditions, helmet laws, per capita income, highway mileage of rural roads, population density, education, demographic distributions, and motorcycle registrations in the state. The study showed that states with mandatory helmet laws had 5.6% fewer motorcycle fatalities per 10,000 registrations and 7.85% fewer motorcycle fatalities per 100,000 populations. Characteristic analysis of motorcycle crashes in Kansas revealed that motorcycle manoeuvres such as overtaking, motorcyclists being older than 40 years, using motorcycle helmets, using motorcycle helmets and eye protection simultaneously, daytime riding, crashes occurring on roadside shoulders, and influence of alcohol among the riders during crashes had higher risk of ending up as a fatal motorcycle crash in Kansas. Results from the survey conducted among motorcycle riders in Kansas revealed that 71% of respondents thought drivers of other vehicles were the single biggest threat to their own safety. Survey results



also revealed that 64% of respondents opposed a mandatory law requiring motorcycle riders and passengers to wear helmets in Kansas. Result from the ordered probit modeling of motorcycle rider injury severity showed that overturned and fixed-object motorcycle crashes, helmet use, younger motorcycle riders, speeding, presence of alcohol among motorcycle riders, and good weather contributed to increased severity of injury of motorcycle riders involved in crashes in Kansas. Occupational hazards of driving relates this study to the present study.

Abiola et al, (2010) worked on knowledge, attitude and use of seat belt among commercial drivers in Sokoto Metropolis. The study design was cross-sectional and descriptive. Pre-tested, structured, interviewer administered questionnaires were used for data collection. Each correct response to the knowledge questions was scored one mark and wrong response or non-response was scored zero. Results showed that a total of 430 questionnaires were analyzed. The mean knowledge score (%) of the study subjects was high (64.8 ± 17.7). Majority (57.9%) of the respondents had positive attitude towards compulsory use of seat belt. 363 (84.4%) of the respondents reported that they use seat belt when they drive. There were statistically significant associations between age ($p < 0.0001$), ethnicity ($p = 0.02$), education ($p = 0.001$) as well as attendance of driving school ($p = 0.000002$) and the reported use of seat belt. It was deduced that the study identified high level of knowledge, positive attitude and reported use of seat belt. It is recommended that public awareness of the safety benefits of seat belts and strong enforcement are necessary to achieve optimal use of seat belt. Occupational hazards among drivers relates this study to the present study.

Sangowawa et al, (2010) carried out an observational study of seatbelt use among vehicle occupants in Nigeria. An observational study was conducted. A selected petrol station in each of the five local government areas in Ibadan municipality was used as an observation site. Observations were documented by trained research staff between 08:30 and 18:00 hours over a 6-day period. 5757 occupants in 2870 vehicles were observed. Approximately 90% of drivers were men. Driver seatbelts were installed in approximately 90% of vehicles. Overall seatbelt use was 18.7; 31.7% among drivers and 10.3% and 0.4% among front and rear-seated adults, respectively. Only one child (0.7%) was restrained. Significantly more female drivers 47.3% used their seatbelts compared with men, 30.3% ($p < 0.001$). An adult passenger was more likely to be restrained when riding with a female driver ($p = 0.007$) and when the driver was restrained ($p = 0.000$). In conclusion the study showed that seatbelt use among vehicle occupants was low. Further research into reasons for the non-use of restraints needs to be conducted so that these can be incorporated into programmes aimed at improving seatbelt use. Low use of seat belt among vehicle occupants relates this study to the present study.

Bekibele et al, (2007) assessed risk factors for road traffic accidents among drivers of public institutions in Ibadan, Nigeria. The study aimed to examine the prevalence and risk factors for self reported RTA among drivers of educational institutions and make suggestions to promote safer driving. The study was a cross-sectional survey design. A structured questionnaire was used to collect data from a sample of 99 drivers selected using cluster sampling technique and were analyzed using means, standard deviations and odd ratios. The analysis revealed that the prevalence of self reported RTA was 16.2%. The cause of road traffic accidents included, mechanical fault (50%), bad road (12.5%). RTA prevalence was higher among older drivers ($OR = 1.7$, 95% $CI = 0.5-5.9$; $P > 0.05$), drivers who had part time jobs (Odds ratio 2.6, 95% CI 1.1-6.3; $X^2 = 4.5$, $P = 0.03$), and drivers with visual impairment ($OR = 1.6$, 95% $CI = 0-9$, $X^2 = 0.49$, $P > 0.05$). The prevalence of RTA was lower amongst drivers who did not take alcohol, cola nut and



other CNS stimulants while driving (OR 0.9, 95% CI=0.3-2.3, $P > 0.05$). It was deduced that regular maintenance of official vehicles and examination of drivers' eyes are recommended. Drivers should be discouraged from drugs and part jobs so as to ensure that they have enough time to rest and therefore prevent fatigue related RTA. Occupational hazards among drivers relates this study to the present study.

Lerner et al, (2001) studied the influence of demographic factors on seatbelt use by adults injured in motor vehicle crashes. A retrospective chart review was conducted including all patients admitted to a trauma center for injuries from motor vehicle crashes (MVC). E-codes (i.e. ICD-9 external cause of injury codes) were used to identify all patients injured in a MVC between January 1995 and December 1997. Age, sex, race, residence zip code (i.e. a proxy for income based on geographic location of residence), position in the vehicle, and seatbelt use were obtained from the trauma registry. Forward logistic regression was used to identify significant predictors of seatbelt use. Complete data was available for 1366 (82%) patients. Seatbelt use was reported for 45% of patients under age of 25 years, 52% of those 25-60 years, and 68% of those over 60 years. Overall, seatbelt use was reported for 45% of men and 63% of women, as well as for 56% of Caucasians (i.e. Whites) and 34% of African Americans. In addition, seatbelt use was reported for 33% of those earning less than \$20,000 per year and 55% of those earning over \$20,000. Finally, seatbelt use was reported for 57% of drivers and 43% of passengers. Logistic regression revealed that age, female gender, Caucasian race, natural log of income, and driver were all significant predictors of reported seatbelt use. These results show that seatbelt use was more likely to be reported for older persons, women, Caucasians, individuals with greater incomes, and drivers. Seatbelt use should be encouraged for everyone; however, young people, men, African Americans, individuals with lower incomes, and passengers should be targeted specifically. Occupational hazards of this profession relates this study to the present study.

METHODOLOGY

The area of the study is Rivers State. It has 23 local government areas, and one of the 36 states of Nigeria, and the descriptive cross sectional survey design was used for the study as the research design. The population of this study include all taxi drivers in Rivers State. According to Nigeria Union of Road Transport Workers Rivers State Chapter (2020) there are about 12,450 taxi drivers in Rivers State amidst the unregistered ones. The sample size for the study consisted of 600 taxi drivers which was determined using Taro Yamene's formula which yielded a sample size of 400 and then increased to 600 by the researcher in order to have representative of the total population through multi-stage sampling procedures. A multi-stage sampling procedure was adopted for the study comprising cluster sampling technique, simple random sampling technique, stratified sample technique and purposive sampling technique.

Stage one: At stage one, the cluster sampling procedure was used to divide Rivers state into three (3) clusters based on the senatorial districts in the State.

Stage two: the second stage simple random sampling technique was used to select two (2) local government areas each from the selected senatorial districts which gave rise to 6 (six) LGAs. At the final stage purposive sampling technique was used to select 100 taxi drivers from each of the selected LGAs making a total of 600 respondents.

Stage three: the third stage used stratified sampling technique to stratify the population into formal and non formal education. This is for better representation of each strata and purposive

sampling techniques was used to ensure that only LGA's that are appropriate for the study were selected.

The instrument used for data collection was a structured questionnaire tagged "Socio-Demographic Determinants of Safety Practices Questionnaire (SDDSPQ)". The questionnaire was made up of three (3) sections A, B and C. Section A was designed for socio-demographic data, section B contained items on occupational hazards while section C contained items on safety practices. To ensure the validity of the instrument, the instruments were reviewed by the researcher's supervisor, and two other experts from the department of Human Kinetics, Health and Safety Studies. Suggestions made were used to make some modifications and used to produce the final version of the instrument that were used for data collection. The validated questionnaire titled "Socio-Demographic Determinants of Safety Practices Questionnaire (SDDSPQ)" was administered on 30 taxi drivers in Bayelsa State that is homogeneous to the study area. After an interval of two weeks, the same instrument were re-administered to the same respondents, at a later date agreed upon, the two responses were correlated using the Pearson Product Moment Correlation (r). The values of 0.82 was obtained for physical hazards, 0.76 for chemical hazards, 0.78 for biological hazards and 0.79 for safety practices which indicated that the instrument was reliable.

To guarantee the return of the questionnaire from the respondents, the researcher used the direct delivery method to administer the instrument. A letter of introduction was collected from the head, Department of Human Kinetics, Health and safety studies, Ignatius Ajuru University of Education, Port Harcourt which was delivered to the chairman of drivers association within the selected local government area in Rivers State to solicit and facilitate cooperation of respondents. With the help of three research assistants 600 copies of the validated questionnaire was administered to the respondents (taxi drivers) in the various clusters and ensure that the field copies were collected on the spot. At the end of the exercise, only 586 copies were returned respectively. The return rate of 97.6% was finally use for the study. The completed copies of the questionnaire were collected, coded and analysed using frequency and simple percentage for questions 1, 3 and 5. While mean scores were employed in answering questions 2, 4 and 6 and analysis of variance (ANOVA) were used to test the hypotheses at 0.05 level of significance.

RESULTS AND DISCUSSION

4.1 Results

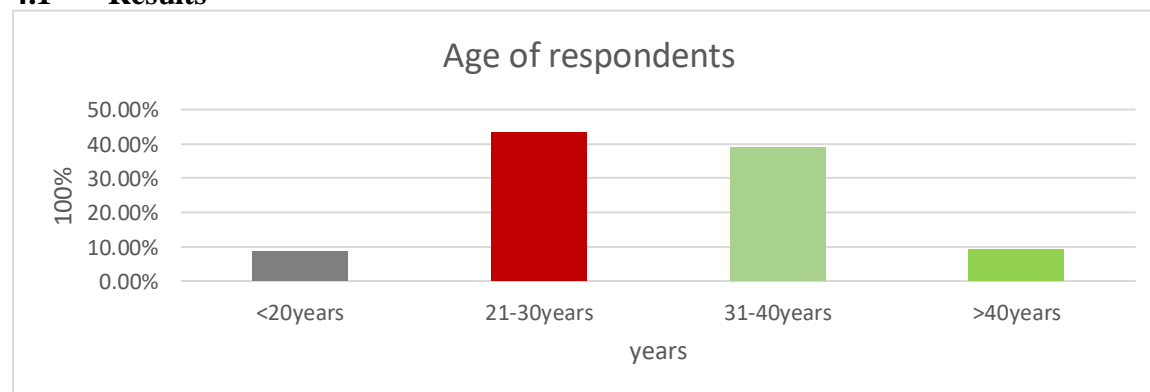


Fig 4.1: Age distribution of respondents



Fig 4.1 showed that 40(8.7%) of the respondents were less than 20 years, 198(43.2%) were within the age range of 21-30 years, 178(38.9%) were aged 31-40 years while 42(9.2%) were aged more than 40 years.

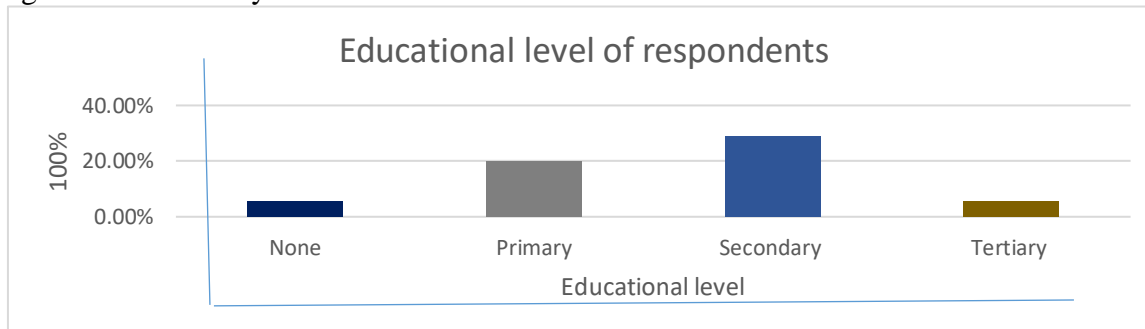


Fig 4.2: Bar Chart showing Percentage distribution of the educational level of respondents

Fig 4.2 showed that 26(5.7%) had no formal education, 92(20.1%) had primary education, 208(45.4%) had secondary education while 26(28.8%) had tertiary education.

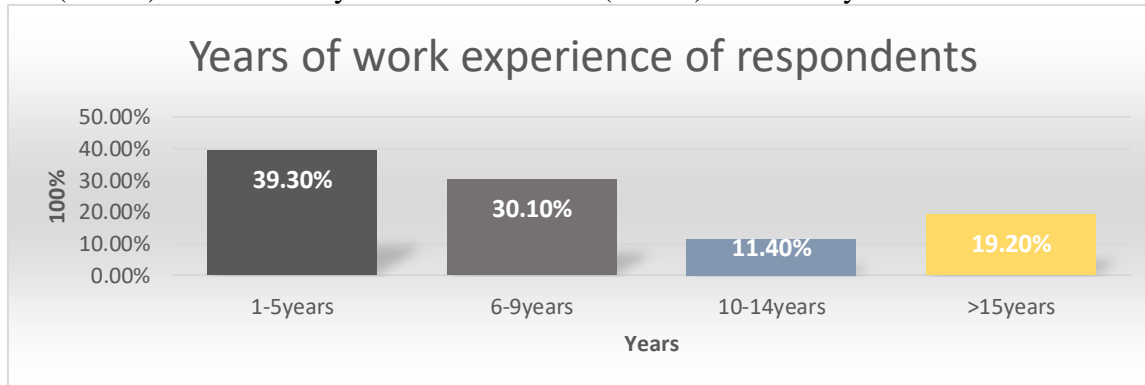


Fig 4.3: Bar chart showing the percentage distribution of the years of work experience of respondents

Fig 4.3 showed that 180(39.3%) had 1-5 years of work experience, 138(30.1%) had 6-9 years, 52(11.4%) had 10-14 years while 88(19.2%) had more than 15 years work experience.

Research Question 1: What are the safety practices among taxi drivers in Rivers State based on age, working experience, educational status?

Table 4.1a: Analysis of Safety practices among taxi drivers in Rivers State based on age

Safety practices	<20 years (N = 40)		21-30 years (N =198)		31-40years (N = 178)		>40years (N = 42)	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Droved lose to the car in front as a signal to its driver to go faster or get out of the way	2.00	.64	2.33	.90	2.31	.94	3.05	1.05
Crossed a junction knowing that the traffic lights have already turned red	2.10	.84	2.83	.98	2.52	.87	2.90	.98
Disregarded the speed limits late at night or early in the morning	2.50	.75	2.97	.88	2.82	.88	2.95	1.14
Disregarded the speed limit on a motorway	2.84	1.05	2.96	.88	2.64	.95	3.19	1.06
Got involved with unofficial races with other drivers	3.20	.94	2.75	.70	2.69	.97	3.14	.95
Sounded the horn to indicate annoyance to another	2.35	.86	2.20	.76	2.60	.93	2.76	.98



driver								
Violated give way signs and narrowly avoid colliding with traffic having right of way	2.26	.79	2.46	.70	2.60	.91	3.10	1.07
Failed to notice that pedestrians are crossing when turning into a side street from main road	2.55	.87	2.78	.91	2.56	.98	3.00	1.21
Applied sudden breaks on a slippery road, or steer wrong way in a skid	2.95	1.08	2.52	.83	2.64	.94	3.24	.93
Got into the wrong lane when approaching a round-about or a junction	2.40	1.08	2.76	.83	2.78	.99	3.33	.90
Misread the signs and exit from the round-about on the wrong way	2.27	1.16	2.90	.95	2.78	1.00	3.38	.73
Drove in to beat traffic lights	2.35	.92	2.76	.87	2.73	1.04	2.57	.91
Obedied traffic lights	2.45	.98	2.95	.80	2.71	1.01	3.14	.89
Became patient with a slow driver	3.36	.67	3.01	.78	2.97	.97	2.90	.75
Did not disregard the speed limit on a motor way	3.35	.73	2.92	.98	3.07	.84	3.23	.53
Took necessary precaution when driving	2.84	1.00	2.93	.91	3.12	.86	3.38	.58
Did not got into wrong lane when approaching a roundabout	2.75	1.14	2.96	.86	3.01	.86	3.25	.71
Changed brake pads regularly	2.94	.95	3.18	.87	3.22	.72	3.42	.73
Changed car fluids regularly	3.40	.74	3.00	.86	3.18	.83	3.57	.59
Did not misread road signs	3.26	.86	2.95	.94	3.22	.87	3.76	.43
Maintained reasonable distance from a car ahead of me	3.05	.81	3.20	.89	3.07	.91	3.00	.69
Attended regular training on safe driving	2.65	1.33	2.94	.81	3.20	.95	2.95	.58
Grand mean/S.D.	2.72	0.92	2.83	0.85	2.84	.92	3.14	.83

Criterion mean = 2.50

Table 4.1a showed the safety practices among taxi drivers in Rivers State based on age. The result showed that, good safety practices were observed more by those aged >40 years (3.14±.83) followed by those aged 31-40 years (2.84±.92), 21-30 years (2.83±.85) and those aged < 20 years (2.72±.92). Thus based on age, safety was practiced more by the older drivers than their younger colleagues.

Table 4.1b: analysis of safety practices among taxi drivers in Rivers State based on years of work experience

Safety practices	1-5 years (N = 180)		6-9 years (N =138)		10-14 years (N = 52)		≥15years (N = 42)	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Droved lose to the car in front as a signal to its driver to go faster or get out of the way	2.50	.96	2.12	.77	2.42	.97	2.41	1.05
Crossed a junction knowing that the traffic lights have already turned red	2.62	1.04	2.71	.83	2.69	1.07	2.59	.89
Disregarded the speed limits late at night or early in the morning	2.73	.80	3.06	.96	2.73	1.17	2.93	.78
Disregarded the speed limit on a motorway	2.81	.95	2.82	.97	2.96	.81	2.89	1.03
Got involved with unofficial races with other drivers	2.86	.78	2.63	1.02	2.85	.77	2.93	.84
Sounded the horn to indicate annoyance to another driver	2.52	.88	2.31	.96	2.35	.55	2.43	.92
Violated give way signs and narrowly avoid colliding with traffic having right of way	2.54	.75	2.66	.95	2.42	.84	2.50	.89
Failed to notice that pedestrians are crossing	2.69	.95	2.77	.98	2.88	1.09	2.48	.92



when turning into a side street from main road									
Applied sudden breaks on a slippery road, or steer wrong way in a skid	2.70	.90	2.61	.97	2.85	1.03	2.59	.86	
Got into the wrong lane when approaching a round-about or a junction	2.80	.84	2.71	1.05	2.92	.83	2.80	1.01	
Misread the signs and exit from the round-about on the wrong way	2.94	.97	2.84	.99	2.96	.90	2.77	1.03	
Drove in to beat traffic lights	2.85	.85	2.59	1.03	2.54	.93	2.61	.98	
Obedied traffic lights	2.89	.90	3.01	.81	2.92	1.08	2.38	.93	
Became patient with a slow driver	2.93	.91	3.14	.83	3.03	.65	2.97	.87	
Did not disregard the speed limit on a motor way	2.95	1.01	3.20	.75	3.30	.54	2.85	.89	
Took necessary precaution when driving	2.82	.93	3.29	.71	3.46	.64	2.84	.98	
Did not got into wrong lane when approaching a roundabout	2.86	.94	3.01	.78	3.52	.57	2.90	.93	
Changed brake pads regularly	3.21	.83	3.23	.73	3.30	.67	3.06	.96	
Changed car fluids regularly	3.17	.84	3.16	.76	3.37	.70	3.00	.95	
Did not misread road signs	2.96	.97	3.22	.82	3.34	.73	3.36	.88	
Maintained reasonable distance from a car ahead of me	3.06	.89	3.23	.85	3.26	.66	2.97	.97	
Attended regular training on safe driving	2.89	.87	3.05	.98	3.23	.70	2.72	.91	
Grand mean/S.D.	2.83	.89	2.88	.88	2.96	.81	2.99	.93	

Criterion mean = 2.5

Table 4.2b showed the safety practices among taxi drivers in Rivers State based on years of work experience. The result showed that, good safety practices were observed more by those 14 and above of work experience (2.99±.81), followed by 10-14 years of work experience (2.96±.81), followed by those with 6-9 years experience (2.88±.88) and those of 1-5 years work experience (2.83±.89). Thus based on years of work experience, safety was practiced more by the drivers with more years of work experience.

Table 4.1c: Analysis of Safety practices among taxi drivers in Rivers State based on educational status

Safety practices	Primary (N = 92)		Secondary (N =208)		Tertiary (N = 132)		None (N = 26)	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Droved lose to the car in front as a signal to its driver to go faster or get out of the way	2.54	.94	2.07	.45	2.77	1.06	2.20	.93
Crossed a junction knowing that the traffic lights have already turned red	2.54	.85	2.59	.97	2.73	1.08	2.64	.87
Disregarded the speed limits late at night or early in the morning	3.00	.69	2.96	.86	2.88	.99	2.81	.89
Disregarded the speed limit on a motorway	2.62	1.02	3.22	.88	2.89	1.01	2.68	.90
Got involved with unofficial races with other drivers	2.62	.85	2.87	.68	2.83	1.04	2.77	.84
Sounded the horn to indicate annoyance to another driver	2.38	.75	2.44	.75	2.76	.98	2.20	.82
Violated give way signs and narrowly avoid colliding with traffic having right of way	2.38	.94	2.28	.68	2.92	1.03	2.47	.70
Failed to notice that pedestrians are crossing when turning into a side street from main road	2.54	1.10	2.89	.87	2.76	1.09	2.59	.91
Applied sudden breaks on a slippery road, or steer wrong way in a skid	2.62	1.02	2.48	.88	2.98	1.04	2.56	.82



Got into the wrong lane when approaching a round-about or a junction	3.08	1.09	2.91	.80	2.95	.99	2.59	.91
Misread the signs and exit from the round-about on the wrong way	2.85	.96	2.96	1.05	3.22	.87	2.64	.96
Drove in to beat traffic lights	2.31	.92	2.76	.86	2.77	.95	2.67	.98
Obedied traffic lights	3.23	.99	2.76	.76	2.59	1.00	2.96	.92
Became patient with a slow driver	3.46	.51	3.30	.72	2.67	.99	3.04	.77
Did not disregard the speed limit on a motor way	3.15	.36	3.32	.59	2.92	1.05	3.00	.89
Took necessary precaution when driving	3.30	.47	3.10	.84	3.07	.92	2.96	.91
Did not got into wrong lane when approaching a roundabout	3.25	.44	3.02	.82	3.09	.96	2.88	.87
Changed brake pads regularly	3.07	.84	3.15	.72	3.41	.72	3.10	.88
Changed car fluids regularly	3.30	.73	3.06	.65	3.38	.78	3.04	.92
Did not misread road signs	3.38	.75	3.17	.67	3.36	.83	3.00	1.01
Maintained reasonable distance from a car ahead of me	3.00	.80	3.06	.67	3.01	.93	3.23	.92
Attended regular training on safe driving	2.69	.92	2.91	.81	2.80	.95	3.09	.90
Grand mean/S.D.	2.87	.81	2.88	.77	2.94	.96	2.77	.88

Criterion mean = 2.5

Table 4.1c showed the safety practices among taxi drivers in Rivers State based on educational status. The result showed that, good safety practices were observed more by those with tertiary education ($2.94 \pm .96$) followed by those with secondary education ($2.88 \pm .77$), those with primary education ($2.87 \pm .81$) and those with without formal education ($2.77 \pm .88$). That based on educational status, safety was practiced more by taxi drivers with tertiary education.

Testing of Hypotheses

Hypothesis 1: There is no significant difference in the safety practices among taxi drivers in Rivers State based on age.

Table 4.2: ANOVA test showing difference in the safety practices among taxi drivers in Rivers State based on age

Source of variance	Sum of Squares	df	Mean Square	F-value	p-value	Decision
Between Groups	6.483	3	2.161	9.125	.288	Accepted
Within Groups	107.525	454	.237			
Total	114.009	457				

***Not Significant. (P > 0.05)**

Table 4.10 showed the One-way analysis of variance of difference in the safety practices among taxi drivers in Rivers state based on age. The result showed that there was no significant difference [$F(3,454) = 9.125$; $P > 0.05$] in safety practices based on age. Thus, the null hypothesis which stated that there was no significant difference in the safety practices among taxi drivers in Rivers State based on age was accepted. The post hoc test of multiple comparism shows that there was a significant difference in all the groups except for between primary and tertiary.



Hypothesis 2: There is no significant difference in the safety practices among taxi drivers in Rivers State based on years of work experience.

Table 4.3: ANOVA test showing difference in the safety practices among taxi drivers in Rivers State based on years of work experience

Source of variance	Sum of Squares	df	Mean Square	F-value	p-value	Decision
Between Groups	5.885	3	1.962	3.373	.018	Rejected
Within Groups	264.014	454	.582			
Total	269.899	457				

***Significant. (P < 0.05)**

Table 4.3 showed the One-way analysis of variance of difference in the safety practices among taxi drivers in Rivers state based on years of experience. The result showed that there was a significant difference [$F(3,454) = 3.373$; $P < 0.05$] in the safety practices based on years of experience. Thus, the null hypothesis which stated that there was no significant difference in safety practices among taxi drivers in Rivers state based on years of experience was rejected. The post hoc test of multiple comparison showed that there was a significant difference in all the groups except for between 1-5 years and >15 years.

Hypothesis 3: There is no significant difference in the safety practices among taxi drivers in Rivers State based on educational status.

Table 4.4: ANOVA test showing difference in the safety practices among taxi drivers in Rivers State based on educational status

Source of variance	Sum of Squares	df	Mean Square	F-value	p-value	Decision
Between Groups	.211	3	.070	.118	.949	Accepted
Within Groups	269.688	454	.594			
Total	269.899	457				

***Not Significant. (P > 0.05)**

Table 4.4 showed the One-way analysis of variance of difference in the safety practices among taxi drivers in Rivers state based on educational status. The result showed that there was no significant difference [$F(3,454) = 0.118$; $P > 0.05$] in the safety practices based on educational status. Thus, the null hypothesis which stated that there was no significant difference in the safety practices among taxi drivers in Rivers state based on educational status was accepted.

Discussion of findings

Safety practices among taxi drivers in Rivers State based on age.

Safety practices among taxi drivers in Rivers State based on age. The result showed that, good safety practices were observed more by those aged >40 years ($3.14 \pm .83$) followed by those aged 31-40 years ($2.84 \pm .92$), 21-30 years ($2.83 \pm .85$) and those aged < 20 years ($2.72 \pm .92$). Thus based on age, safety was practiced more by the older drivers than their younger colleagues. The findings are in consonance with that of Oladepo and Onyema (2011) which reported a statistical significant association between safety practice and age of drivers. Also corroboration with the findings is the study by Mohammadi, et al (2015) where a significant association was found between safety practice and drivers' age. The findings are also in keeping with that of Ranjan, et al., (2018) which reported statistically significant association with age and safety practiced. The findings of Similarly, Abiola, et al (2010) also confirms the result by reporting significant



associations between age ($p < 0.0001$) and safety practices among commercial drivers. The similarity in results may be attributed to the fact that younger taxi driver exhibit more reckless driving practice than the older ones.

Safety practices among taxi drivers in Rivers State based on years of work experience.

Table 4.6b showed the safety practices based on work experience among taxi drivers in Rivers State based on years of work experience. The result showed that, good safety practices were observed more by those of 15 years and above ($2.99 \pm .93$), followed by 10-14 years work experience ($2.96 \pm .81$) followed by those with 6-9 years experience ($2.96 \pm .81$) and 1-5 years work experience ($2.83 \pm .89$). Thus based on years of work experience, safety was practiced more by the taxi drivers with more years of work experience. The findings are in consonance with that of Oladepo and Onyema (2011) which recorded a significant association between safety practice and years of working experience among commercial drivers. The findings also correspond with that of Jazari, et al (2018) where working experience was associated with safety practice among commercial drivers. Similarly, Abdellah and Morsy (2013) reported a statistically significant association was found between duration of employment among commercial drivers.

Safety practices among taxi drivers in Rivers State based on educational status.

Table 4.6c showed the safety practices among taxi drivers in Rivers State based on educational status. The result showed that, good safety practices were observed more by those with tertiary education ($2.94 \pm .96$) followed by those with secondary education ($2.88 \pm .77$), those with primary education ($2.87 \pm .81$) and those without formal education ($2.77 \pm .88$). Thus based on educational status, safety was practiced more by drivers with tertiary education. The findings are in keeping with that of Oladepo and Onyema (2011) which disclosed a statistical significant association between education and safety practice of drivers. Similarly Mohammadi, et al (2015) also recorded a significant association between safety practice and drivers' level of education. The findings also corresponds with that of Abiola, et al (2010) where a significant associations between education ($p = 0.001$) and safety practice among commercial drivers. However, the results are at variance with that of Han, et al (2019) where educational level of the drivers does not influence safety practice ($P > 0.0001$).

Conclusions

In conclusion, the socio-demographic determinants of safety practices among taxi drivers in Rivers State reveal significant insights into how age, working experience, and educational status influence adherence to safety protocols. This study underscores that older drivers tend to practice safer driving habits, likely due to their accumulated experience and maturity. Similarly, drivers with extensive working experience demonstrate better safety practices, suggesting that time on the job enhances hazard perception and risk management skills. Furthermore, educational attainment plays a critical role, with higher-educated drivers exhibiting a better understanding of traffic laws and a greater propensity to adopt safety measures. These findings highlight the need for targeted educational programs and policy interventions tailored to different demographic groups to enhance road safety. Addressing the unique needs of younger, less experienced, and less educated drivers can significantly reduce the incidence of road traffic accidents, thereby improving the overall safety of the urban transportation system in Rivers State.

Recommendations

Based on the findings, the following recommendations are made:

1. The FRSC and other law enforcement authorities need to put measures in place to ensure that vehicle drivers' are licensed to drive. There should be strict procedures for obtaining these dr



ivers' licenses; periodic spot checks of ownership of drivers licenses should be intensified on the roads.

2. The FRSC needs to continually sensitize drivers and passengers on the need and benefits of use of seat belts. Regulations on compulsory use of seat belts should be enforced.

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