

Effect of Socio-demographic Status on Knowledge, Attitude and Compliance with COVID 19 Preventive Measures Among Commercial Drivers in Osogbo, Nigeria

Olarewaju SO¹, Oladele AO¹, Lawal FB¹, George DP¹, Ogunwale PA¹, Esomajumi MB¹, Samuel KJ²

¹Department of Community Medicine, Osun State University, Osogbo Campus

²Department of Geography, Osun State University, Osogbo, Okuku Campus, Okuku, Nigeria

*Correspondence: Samuel KJ Email: kayode.samuel@uniosun.edu.ng,

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ABSTRACT

COVID-19 spreads quickly in large gatherings such as motor parks. Commercial drivers' knowledge, attitude, and compliance with COVID 19 preventive measures are critical to effective mitigation measures. It is a cross-sectional descriptive study that assesses knowledge, attitude and compliance towards COVID 19 preventive measures among 348 commercial drivers in Osogbo, Nigeria, selected by multistage sampling technique using an interviewer-administered semi-structured questionnaire and an observation checklist. Data collected were entered in the Statistical package for social sciences (SPSS version 23), and descriptive and inferential statistics were done with the appropriate test statistic. P-value set at 0.05. All respondents were aware of COVID 19, and 57.8% identified radio as the primary source of information. Nearly half (49.4%) of respondents had poor knowledge, 27% had an unsupportive attitude and 74.7% with unsatisfactory compliance measures. Compliance measures were strongly related to knowledge, attitude, marital status and educational status ($P < 0.05$). Those with good knowledge were 1.9 times more unlikely to indulge in unsatisfactory practices than respondents with poor knowledge (CI 0.303-0.04, OR 0.507). In conclusion, the knowledge and attitude of respondents influence their COVID 19 compliance practices. Therefore, continuous health promotion programs are recommended to improve the knowledge and support their attitude towards eliminating the infection.

Keywords: Attitude, Compliance, Coronavirus, Knowledge, Preventive practices,



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INTRODUCTION

The appearance of COVID-19 sparked a global response from all countries, including Nigeria, to confront the common threat¹. The virus has spread around the world and is now considered a pandemic. Since the first confirmed cases of COVID-19 were discovered in Wuhan, China, the disease has caused extraordinary levels of mortality and morbidity, resulting in significant public health disasters around the world.² A novel coronavirus caused the infection with structural similarities to the gene that causes severe acute respiratory syndrome (SARS).³ The Nigeria Centre for Disease Control (NCDC) reported 252,428 confirmed cases across the country on January 26, 2022, with 3,126 deaths and 3,253 confirmed cases in Osun state, with 92 deaths.⁴ Knowledge is essential for altering people's attitudes and behaviour, particularly during epidemics.⁵ This is because most people's degrees of knowledge are linked to their panic levels, influencing their attitudes and behaviours concerning COVID-19.⁶ Although the initial case of Covid-19 arrived in the country via an airport, most intranational transmissions have happened via road travels. In this scenario, commercial bus drivers, who are in charge of most interstate travel, are in danger of contracting the virus and acting as transmission agents if their knowledge and awareness are insufficient to support a healthy covid-19 prevention strategy. Despite their critical role in both the covid-19 transmission chain and preventive measures, little is known about their level of awareness, knowledge, and adherence to covid-19 protocols established by the federal government and enforced by state governments.

To effectively control COVID-19, commercial drivers' levels of knowledge about the virus would require to be measured, taking into account several disease dynamics such as compliance, knowledge, and attitude toward preventative actions. Their comprehension of these challenges, directly or indirectly, impacts their attitudes and practices, especially during this

pandemic.⁷ This research population is a group of persons in our community whose presence cannot be ignored; they move a large section of the community from one site to another and, as a result, build ties with them. Commercial drivers will substantially influence passengers' comprehension, attitude, and compliance with COVID-19 prevention strategies and, in turn, impact the measures' adherence. Therefore, this study was set to determine the amount of awareness and attitude concerning COVID 19 among commercial drivers in Osogbo and the extent to which they follow the disease's preventive measures. This is against the backdrop of earlier discoveries that commercial drivers, their attendants, and commuters, in general, have a higher risk of infection due to overcrowding in public transportation and other activities like handling and exchanging money.

MATERIALS AND METHODS

This study investigated the effects of knowledge on the compliance, attitude, and understanding of COVID-19 preventive and mitigation measures among commercial drivers in Osogbo, Southwest Nigeria. Osogbo is a rapidly urbanising medium-sized city of about 700,000 inhabitants, whose growth is mainly due to administrative reclassification and the resultant influx of migrants^{8,9}.

This study was conducted using a descriptive cross-sectional design. The quantitative instrument was a questionnaire, and the qualitative tool was an observational checklist. For the sample size calculation, we used Leslie Fisher's formula for a population of fewer than 10,000¹⁰ and a sample size of 293, with a 10% non-response factor.

However, to ensure that the data was representative, we gathered 348 responses for the study. The 348 respondents were picked using a multi-stage sampling technique. At the same time, the Osogbo local

government area was carefully chosen using a multi-stage sampling technique from the two local governments in Osogbo. In stage one, respondents were selected through systematic selection from a pre-selected park using a register-based on proportional allocation from the sample size. In stage two, respondents were chosen through systematic selection from a pre-selected park using a register based on a proportionate share of the sample size.

A pre-tested semi-structured, interviewer-administered questionnaire was used to collect data from drivers aged 18 to 59. It was divided into four sections: respondents' socioeconomic characteristics, respondents' knowledge of COVID-19 preventative measures, respondents' attitudes toward COVID-19 preventive measures, and respondents' compliance with COVID-19 preventive measures. The cleanliness of the parks and how well COVID-19 preventive measures are being followed were assessed using an observational checklist.

After data collection, questionnaires and checklists were sorted to check for mistakes and omissions. The survey data were then analysed using univariate analysis, with categorical variables expressed as frequency and percentages and continuous variables as mean Standard. Deviation. In bivariate analysis, the chi-square test was used to investigate the association between the following category of variables: knowledge of COVID-19 preventive measures, attitude toward COVID-19 preventive measures, and compliance with the preventive measures among commercial drivers in Osogbo. In addition, the link between these variables and socio-demographic aspects was investigated. Finally, a binary regression analysis was utilised to discover the factors influencing the respondents' compliance. The statistically significant p-value was set to 0.05. (95 per cent confidence limits).

This study was approved by the Osun State University ethical review committee and the Association of Transport Workers, Osun State Branch. In addition,

respondents were told that participation is entirely voluntary and that all information provided during the data collection process is kept confidential.

RESULTS

Respondents' Socio-demographic Profiles

The socio-demographic characteristics of the respondents (n=348) are shown in Table 1 below. More than half (71.8%) of the respondents were between 25- and 44 years, and 42.1 ± 8.25 was the mean age. Yoruba was the most common tribe among the respondents (96.6 %). More than half of the commercial drivers practised Islam (61.5%); most (71.8%) of them were married; almost half attained secondary education (45.7%), while close to two-thirds (60.1%) of the respondents have been driving for the past 1-15 years.

Table 1: Socio-demographic characteristics (N= 348)

Variable	Frequency	Percentage
18 – 24	2	0.6
25 – 44	201	57.7
45- 59	145	41.7
Mean	42.1 ± 8.25	
Tribe		
Yoruba	336	96.6
Other tribes	12	3.4
Religion		
Christianity	128	36.8
Islam	214	61.5
Traditional	6	1.7
Marital Status		
Single	32	9.2
Married	250	71.8
Divorced/Separated	43	12.4
Widow/Widower	23	6.6
Education level		
No formal education	41	11.8
Primary education	134	38.5
Secondary education	159	45.7
Tertiary education	14	4.0
Years spent driving		
1 - 15	209	60.1
16 - 30	126	36.2
31- 45	13	3.7

COVID 19 infection awareness and information sources

Table 2 shows that all the respondents (N= 348) were aware of COVID 19, and radio was the primary source of information for more than half of the respondents (57.8%).

Table 2: COVID 19 infection awareness and information sources (N=348)

Variable	Frequency	Percentage
Awareness of COVID 19	348	100.0
Source of information		
Radio	201	57.8
Television	61	17.5
Friends	41	11.8
Online	27	7.8
Newspaper	11	3.2
Hospital	7	1.9

Knowledge, Attitude and Compliance with COVID-19 Preventive Measures

Figure 1 represents the categorised knowledge, attitude, and compliance of the respondents, and it shows that half (50.6%) of the respondents had poor knowledge, 73% attitude was a supportive attitude, while 74% had non-satisfactory compliance respectively. Association between socio-demographic characteristics, Categorised knowledge and categorised attitude on compliance with COVID 19 preventive measures Table 3 shows that compliance is linked to marital status ($x^2 = 8.550, p = 0.036$), educational level ($x^2 - 42.514, p = 0.001$), knowledge ($x^2 - 10.292, p = 0.001$), and attitude ($x^2 = 14.628, p = 0.001$).

Table 3: Association between socio-demographic characteristics, Categorised knowledge, and categorised attitude on compliance with COVID 19 preventive measures. (N= 348)

Variable	Sub Variable	Overall Compliance		Df	Statistics (X^2), (P)
		Satisfactory Compliance	Not Satisfactory Compliance		
Age	18-24	0(0%)	2 (100.0%)	2	$x^2=1.392$ $p = 0.499\#$
	25-44	53(26.4%)	148(73.6%)		
	45 -59	35(24.1%)	110(75.9%)		
Tribe	Yoruba	87 (25.9%)	249 (74.1%)	1	$x^2=1.076$ $p= 0.300!$
	Ibo	1 (8.3%)	11 (91.7%)		
Religion	Christianity	31 (24.2%)	97 (75.8%)	2	$x^2= 0.424$ $p=0.809\#$
	Islam	56 (26.2%)	158 (73.8%)		
	Traditional	1(16.7%)	5(83.3%)		
Marital status	Single	6(18.8%)	26(81.2%)	3	$x^2= 8.550$ $p= 0.036\#$
	Married	73 (29.2%)	177(70.8%)		
	Divorced/separated	5(11.6%)	38 (88.4%)		
Educational level	Widow/widower	4 (17.4%)	19 (82.6%)	3	$x^2=42.514$ $p < 0.001\#$
	No formal education	4(9.8%)	37 (90.2%)		
	Primary education	23(17.2%)	111(82.8%)		
	Secondary education	48(30.2%)	111(69.8%)		
Years spent driving	Tertiary education	13(92.9%)	1(7.1%)	2	$x^2= 5.410$ $p = 0.067\#$
	1-15	57(27.3%)	152 (72.7%)		
	16-30	25 (19.8%)	101(80.2%)		
Categorised Knowledge	31- 45	6(46.2%)	7 (53.8%)	1	$x^2= 10.292$ $p= 0.001$
	Good knowledge	57 (33.1%)	115 (66.9%)		
	Bad knowledge	31 (17.6%)	145 (82.4%)		
Categorized Attitude	Supportive attitude	78 (30.7%)	176 (69.3%)	1	$x^2= 14.628$ $p < 0.001$
	Unsupportive attitude	10 (10.6%)	84 (89.4%)		

! Continuity Correction

#Likelihood ratio

As shown in Table 4. respondents with good knowledge are twice (1.9) as unlikely to indulge in unsatisfactory compliance compared to respondents with poor knowledge (CI 0.303- 0.04, OR 0.507). In terms of attitude, respondents with supportive attitudes are three times less likely to indulge in unsatisfactory compliance compared to respondents with

unsupportive attitudes (CI 0.16-0.68, OR 0.31). Educated drivers are three times less likely to indulge in unsatisfactory compliance than uneducated ones though not statistically significant (CI 0.13-1.67, OR 0.33, P- 0.092).

Table 4: Predictors of Unsatisfactory Compliance among respondents

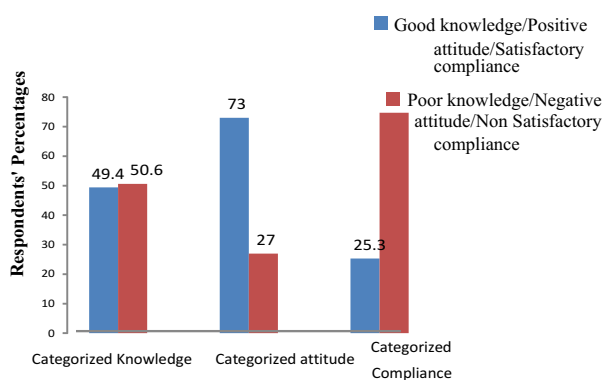
Variables	OR	C.I	P-value
Ref-Poor Knowledge			
Good knowledge	0.507	0.32- 0.89	0.01
Ref – Unsupportive attitude			
Supportive attitude	0.31	0.16-0.68	0.001
Ref- not educated individuals			
Educated	0.33	0.13- 1.67	0.092

Findings from observational checklist done by internal inspection of the motor parks

As indicated in Table 5, only 1 (12.5%) of the parks have adequate water supply, washing hand basins at strategic places within the motor park, leaflets and posters on COVID 19 preventive measures and sanitiser are not available in designated locations within all parks (0%). Social distancing is not well observed in any (0%) motor parks. The level of environmental hygiene was adjudged poor in all (100%) of the motor parks.

Table 5: Findings from observational checklist done by internal inspection of 8 motor parks

Variable	Sub Variable	Frequency	Percentage
Presence of adequate water supply within the premises	Yes	1	12.5
Availability of wash hand basins within strategic places in the park	Yes	0	0
Availability of leaflets and posters on COVID 19 preventive measures	Yes	0	0
Availability of sanitiser in designated places	Yes	0	0
Observance of social/physical distancing	Yes	0	0
Level of environmental hygiene within the park?	Poor	8	100



Patients' Responses

Figure 1: Knowledge, Attitude and Compliance with COVID-19 Preventive Measures

DISCUSSION

The study discovered that all respondents were aware of COVID-19, with more than half of them getting their information via radio. This shows that the radio is an essential source of information for drivers. Despite their complete awareness, most respondents were unaware of the disease's actual definition, mode of transmission, signs and symptoms, risk of transmission, prevention methods, and treatment options. Only half of the respondents had an overall good understanding of the disease. In contrast, a study of health workers found that around two-thirds of

respondents had an excellent comprehension of the topic¹¹ Despite the respondents' lack of information about COVID 19, most of them supported preventative measures, and most of them agreed that COVID-19 exists and that continual handwashing, preserving social distance, and regular handwashing are effective strategies to avoid the disease. As a result, more than two-thirds of the respondents (73%) had a positive attitude toward COVID 19 prevention measures, which is close to another study by Hager et al., 2020¹², which found that 68.9% of respondents had a positive attitude toward COVID 19 prevention measures. This is in contrast to a prior study conducted among nursing students, in which favourable attitudes were found to be 54.7 per cent (5), and in absolute contrast to a study conducted among Chinese residents, in which supportive attitudes were found to be 99.6 per cent¹³. The respondents' positive attitudes can be attributed to their knowledge of the virus and belief in its existence. In their study, Paul et al.¹⁴ found that some people's opinions that the disease isn't genuine relate significantly to a negative attitude towards preventive measures. Compliance with Covid 19 preventive measures was unsatisfactory in about one quarter (25.3%) of the respondents. The finding of satisfactory compliance in this study differs from prior studies among health workers when compliance was 68 per cent¹⁵. Health workers' high degree of compliance could be since they must follow preventive practices in their places of employment, which may differ from the motor park environment where the drivers operate. The respondent's knowledge and attitude influence compliance with COVID 19 preventive measures. Respondents with a positive attitude and more knowledge had better compliance than those with a negative attitude and less knowledge. Because the study demonstrated a substantial link between knowledge and attitude (p-value = 0.001), it is necessary to improve the respondents' overall understanding of the disease and its preventive measures to boost their compliance level. An increase

in knowledge will result in a more supportive attitude, reflecting an increase in compliance with the COVID 19's preventive measures.

Furthermore, the observational checklists revealed that the parks lacked adequate water supply and that all motor parks had poor environmental hygiene. Again, no COVID-19 prevention signs were provided, masks were worn inappropriately, the social distance was not maintained, and hand washbasins and sanitiser were not available at designated spots within the parks.

In conclusion, every respondent was aware of the COVID-19 illness, and radio was the primary source of information. About half of the respondents had little understanding of risk factors, transmission mechanisms, preventative methods, and management and treatment options. Moreover, two-thirds of respondents had a positive attitude, whereas more than two-thirds reported unsatisfactory compliance with COVID-19 preventive measures. On the other hand, respondents with poor knowledge and an unsupportive attitude were much less likely to follow Covid 19 preventative measures. As a result, ongoing health promotion activities, particularly among drivers, are recommended to improve their understanding and attitude toward eradicating the virus.

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