

The Effect of Gender and Class of Driving on Psychological Well-Being of Nigerian Drivers: A Case Study of Plateau State

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ABSTRACT

The aim of the study is to reveal any predisposing factors that are related to Road Traffic Accident due to gender and psychological health. The effect on class of driving was also discussed and the need to psycho-educate all the stakeholders in line with driving on Nigerian roads. The results may also be useful in understanding various sources of distress for Drivers. Two hundred drivers both males and females were interviewed using the general health questionnaire (GHQ 12) to evaluate their psychological well-being in line with class of driving, (Long and short distances). The results revealed that there was no significant influence of gender on the psychological well-being of Nigerian drivers, 161 were males representing 80.5% and 39 were females representing 19.5%. The males are having a mean of 10.003 and females having a mean of 8.892. This implies that there was a slight difference in mean; this was not statistically significant to determine an influence. Therefore, gender does not influence psychological well-being. Male long distance drivers had a mean of 10.776 and male township shuttle drivers had a mean score of 9.230 on psychological well-being. While female long distance drivers had a mean of 11.118 on psychological well-being.

Keywords: Gender, driving, psychological well-being, Road Traffic

INTRODUCTION

The psychological well-being of Nigerian drivers has been a very vital key in the determination of healthy and safe driving skills. In Nigeria long before now the rate of mortality resulting from Road Traffic Accidents (RTA) has been on a tremendous increase. Various studies have been conducted and numerous reasons have been forwarded as causal factors for some of the crashes. For example, young drivers under the age of 25 years create more hazardous driving environment than older drivers (Sivak, 1983; Jonah, 1996). (Dagona and Best 1996); Sivak (1987) outlines skills that are very necessary for driving. These include:

- (a) Attention/scanning skills
- (b) Perceptual/sensory skills and
- (c) Cognitive/decision/information processing skills and motor skills.

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A deterioration of any of these skills at any level is dangerous to the act of driving. Onakomaiya (1990) argues that the extremely anxious drivers accept the normative system and generally are law-abiding citizen in all fields, including traffic laws. This anxious driver is pertinent to mix emotion in situations where he should decide quickly. These conflicting pressures may produce in this driver an approach - avoidance conflict resulting in confusion and loss of control, increasing his or her accident prunes. Elander, West and French (1993) observed that some psychological states have been implicated in RTA. These include expression of hostile impulses, suicidal productivity and depression, tension, tolerance and paranoid thinking.

Some factors that have been found to interfere with driving skills include insomnia. Insomnia contributes to deterioration of driver's performance. Sivak (1993) also listed sub optimal psychological states due to stress, inattention, sleep deprivation, or fatigue as some of the human factors implicated in road traffic accidents, it is also of interest the role of gender in RTA. In the light of these problems, there is a need for more studies in order to bring to the notice of the general public and drivers in particular the issues that are related to the causal factors of accidents on Nigerian roads as well as improving the psychological well-being of Nigerian drivers as related to gender. Following from the above this study is set to examine the following hypothesis:

1. Gender has significant effect on the psychological well- being of Nigerian Drivers.
2. Class of driving has significant effect on the health of Nigerian Drivers.
3. Gender and class of driving have significant effect on psychological well-being of Nigerian Drivers.

PARTICIPANTS AND PROCEDURE

This survey was conducted to ascertain the Effect of gender and class of driving on psychological well-being of drivers in Plateau State, Nigeria. The participants for this research comprised of 200 hundred drivers from Jos Township, Bukuru, Gada-Biu, Rukuba Road and Dadin Kowa. Among the drivers sampled for the study, 161 were males while 39 were females. The participants were randomly selected for the purpose of this study. The design for the study is a 2 x 2 factor design (gender and class of driving) 2 = Gender (Male Vs female) x 2 class of driving (Long distance Vs short distance).

Table 1: Design and value label of gender and class of driving

Gender	Class of Driving			
	Long distance		Short distance	
Male	B ₁	A ₁	B ₂	B ₁
Female	B ₁	B ₂	B ₂	A ₂

A = Independent variable gender B = Class of driving (long Vs short)

Source: Computer SPSS

This research adopts questionnaire as instrument for data collection. The General Health Questionnaire (GHQ 12) designed by David Goldberg in 1978 forms part of the measures for assessment; a mental health portfolio, edited by Derek Mine, and demographic questions were added to describe the study population.

The General Health Questionnaire: The GHQ is a measure of current mental health and since its development by Goldberg in the 1970s, has been extensively used in different settings and different cultures. This questionnaire was originally developed as a 60 - item instrument but at present a range of shortened versions of the questionnaire include the GHQ 30, the GHQ - 20 and the GHQ 12 is available. The scale asks whether the respondent has experienced particular symptom or behavior recently. Each item is rated on a four-point scale (less than usual, not more than usual, rather more than usual or much more than usual and for example using GHQ - 12 it gives a total score of 36 or 12 based on the selected scoring methods. The most common scoring methods are bi-modal (0-0-1-1) and Likert scoring styles (0-1-2-3) since the GHQ - 12 is brief and simple, easy to complete and its application in research settings as a screening tool is well documented. There is the evidence that the GHQ 12 is a consistent and reliable instrument used in general population samples.

PSYCHOMETRIC PROPERTIES

Reliability: To test the reliability the internal consistency of questionnaire was measured using Cronbach's alpha coefficient. The alpha for the whole sample was found to be 0.87 and was the same for both males and females indicating satisfactory results.

Validity: Validity of the instrument was performed using convergent-divergent validity. When the correlation between GHQ - 12 and psychological well-being of gender on class of driving scores was investigated, as expected a significant negative correlation emerged ($r = -0.56, P < 0.0001$) indicating that there was divergence between them. The forward - backward "procedure was applied to translate the questionnaire from English into Hausa language. The translation was done by professionals in Hausa/English, the translated questionnaires, was read to those that could not understand English language. The translated Hausa and English questionnaires were administered to a sample of healthy young men and women. The sample was recruited randomly and the questionnaires were administered in Motor parks, Offices, and Schools. Three assessors were engaged (a female and two males) to help in administering the questionnaires and also in collecting them from the various participants.

RESULTS AND DISCUSSION

The table 2 indicates that males had a mean psychological well-being of 10.003 and females had a mean score of 8.892. While long distance drivers had a mean psychological well-being score of 8.721 and township shuttle drivers had a mean

psychological well-being score of 10.174. Table 3 indicates that male long distance drivers had a mean of 10.776 on psychological well-being and male township shuttle drivers had a mean score of 9.230 on psychological well-being. While female long distance drivers had a mean of 6.667 on psychological well-being and female township shuttle drivers with a mean score of 11.118 on psychological well-being. The result from 4 table shows that there was no significant influence of gender on the psychological well-being of Nigerian Drivers, $F(1,161) = 0.471$; $p < 0.05$; with males having a mean of 10.003 and females having a mean of 8.898. This implies that of the slight differences in mean this was not statistically significant to determine an influence. Therefore, being a male or female driver did not influence the psychological well-being of the participants.

Results also indicate that there was no significant influence of class of driving on the psychological health of Nigerian drivers $F(1,161) = 0.804$; $p < 0.05$; with long distance drivers having a mean score of 8.721 and township shuttle drivers having mean of 10.174. This means that though there was some degree of difference in mean, this was not statistically significant, implying that being a long distance or short distance driver did not influence the psychological well-being of Nigerian drivers. Results further indicate that there was no significant interaction of gender and class of driving on the psychological health or well-being of Nigerian drivers, $F(1,161) = 3.430$, $p = 0.05$ with male long distance drivers having a mean of 10.776 and male township shuttle drivers having a mean of 9.230; while female long distance drivers had a mean score of 6.667 and female township shuttle drivers having a mean of 11.118. Despite the mean differences of psychological well-being of class drivers across gender, this mean difference was not statistically significant to cause a significant interaction of gender and class of driving on psychological well-being.

The male drivers for this study constitute 80.5% while the female drivers constitute 19.5% the age range was from 18 to 55 years. 131 participants were self employed while 69 were employees, which is representing 65.5% and 34.5% respectively. Research to date on sex differences in driving is deficient on methodological and theoretical grounds. When comparing men and women, it is important to keep in mind that sex as a variable is inevitably confounded with many processes that potentially impact on the outcome interest Connell, (1987). Between 1976 and 1995 fatality rate for female car drivers has decreased approximately 3.9% per year compared with a decreased of 4.9% per year of female car drivers; this slight variation is in line with the result of this research which indicates that there was no significant influence of gender on psychological well-being of Nigerian drivers.

In other words, being male or female did not influence psychological well-being. Result further indicates that there was no significant influence of class of driving on the health of Nigerian drivers. This means that being a long distance or short distance driver, did not impact on the Psychological health of Nigerian drivers, this support the results obtained by Sivak (1983) and Onakomaiya (1990). Considerable progress has been made in recent years in improving health and safety

at work. For many people work does not take place in a fixed location but involves a large number of tasks associated with the control of vehicle and exposure to all the hazard of a heavily trafficked environment for those who drive Lorries and buses. The deterioration is largely the result of traffic congestion; it is associated with air and noise pollution but also with the pressure of maintaining a demanding schedule in circumstances that make that task almost impossible.

Table 2: Mean score for gender and class of driving

	Mean score on psychological well being
Male	10.003
Female	8.892
Long distance	8.721
Township shuttle	10.174

Source: Computer SPSS

Table: 3 Mean score of interaction effect of gender and class of driving

Gender Class of driving on psychological well-Being

Male	Long distance	10.776
	Township shuttle	9.230
Female	Long distance	6.667
	Township shuttle	11.118

Source: Computer SPSS

Table: 4: ANOVA Source table of gender, class of driving and their interaction effect

Source	Type III sum of square	df	Mean square	F	Sig.
Corrected model	145.775	3	48.592	1.826	.145
Intercept	3623.980	1	3623.980	136.175	.000
Gender	12.521	1	12.521	.471	.494
CD	21.406	1	21.406	.804	.371
Gen CD	91.282	1	91.282	3.430	.037
Error	4284.625	161	26.613		
Total	21597.000	165			
Corrected total	4430.40	164			

Source: Computer SPSS

CONCLUSION AND RECOMMENDATIONS

Despite the long and short distances that are covered on daily basis by men and women drivers in Nigeria, dangers of long hours of driving, often under tedious and uncomfortable conditions, have long been recognized. The effect of gender and class of driving on psychological well-being of Nigerians drivers have not been significant, Psychological changes during long distance driving may be associated with driving fatigue. Other factors may include morbidity, measures of stress and arousal, including heart rate, blood pressure, and anxiety and self rating of stress are found to be responsible for Road Traffic Accident in Nigeria. Today in Nigeria public transportation in parts of the country is receiving investment at a rate many times than expected. The measure to protect and improve the health of drivers

should be pursued in a way that maximizes gain to all sectors. Lorries/Buses are perceived as noises and dangerous and are certainly unwelcome in many centers and residential areas. It is in the interest of the drivers as members of the public that Lorries, Buses are made much quieter, much less polluting and much less instructive. Eating and drinking while driving is a distraction so drivers should avoid it in traffic. The same goes to changing tapes and finding radio stations. Talking on cell phones requires qualitatively more attention, and so shouldn't be done while driving. Long distance drivers should always break and get themselves refreshed after every two or three hours of driving in order to reduce the unset of boredom and fatigue that may hinder the driving skills. Drivers should be given educational programmes by all relevant authorities especially on how to reduce fatigue and constraints to their success of driving. Another vital factor to be noted is the issues relating to bad roads all over the country. The relevant authorities have to do something urgently as the menace of bad crashes is on the increase especially during festivities. Advance planning of trips and schedules rest break should be advocated as measures which can be taken by car drivers to minimize the development of driver fatigue and reduce the risks of crashing as a result of falling asleep at the wheels. And finally vehicles should be kept in a very sound condition,

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