

ALCOHOL INTAKE AND PHYSICAL WELLBEING AMONG COMMERCIAL DRIVERS IN IBADAN METROPOLIS, NIGERIA

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ABSTRACT

Alcohol use and cardiovascular risk among commercial drivers require closer study in Ibadan. The objective of the study is to examine the association between alcohol intake and physical wellbeing in an original driver survey and compare it with independently re-analysed published cardiovascular counts. The study employed a cross-sectional survey of 200 drivers in selected motor parks supplied a Pearson correlation between questionnaire measures; only its aggregate statistical output was available for this manuscript. Separately, published Ibadan alcohol-by-hypertension counts were reconstructed for 1,707 complete cases. Results: In the 200-driver survey, higher alcohol-intake scores were weakly associated with higher scores for physical wellbeing problems, $r(198) = .236$, $p < .001$. In the independent published sample, hypertension classifications occurred in 134/760 alcohol users (17.6%) and 92/947 nonusers (9.7%); the crude odds ratio was 1.99 (95% CI [1.50, 2.64]). The two samples cannot be pooled. Conclusion: These findings support confidential alcohol assessment and cardiovascular screening, while questionnaire validity, missing demographic data, sampling limits and cross-sectional confounding restrict causal and population claims.

Keywords: Alcohol Intake, Commercial Drivers, Physical Wellbeing, Road Safety, Occupational Health, Ibadan

INTRODUCTION

Commercial road transport sustains daily mobility across Ibadan, while long shifts, prolonged sitting, irregular meals and financial pressure may affect drivers' health. Alcohol adds acute safety concerns and potential chronic physical effects. The World Health Organization (WHO, 2024) estimated 2.6 million alcohol-attributable deaths worldwide in 2019; this global estimate is not an Ibadan prevalence figure. Local evidence is therefore needed to identify the scale and meaning of alcohol-related health concerns in this workforce. Ibadan studies report substantial, though differently measured, alcohol use. In four parks, Showande and Odukoya (2020) found that 78 of 152 drivers (51.3%) currently took alcohol and 55 (36.2%) had hypertension. Adediran and Abiodun (2026) reported 44.4% point prevalence of alcohol use among 1,713 surveyed drivers and identified a gap in recent blood pressure checking. Neither prevalence represents every driver in the metropolis: recruitment and exposure definitions differ.

The focal 200-driver questionnaire analysis reports an association between excessive alcohol-intake scores and physical wellbeing problems, but its archived output contains no demographic frequency table, item-level observations, reliability coefficient or detailed sampling frame. This revision reports only verifiable survey results and uses a separately published Ibadan dataset as context. It does not merge participant records across studies or infer individual outcomes from published marginal percentages. Physical wellbeing denotes sleep-related recovery, fatigue, bodily functioning and health problems as represented by the original questionnaire. The exact item wording, scoring range and direction require confirmation against the original instrument. Hypertension is a distinct measured cardiovascular outcome in the published comparison. Treating the two as interchangeable would overstate the evidence.

The present study addresses this gap by focusing specifically on the biological dimension of wellbeing among commercial drivers in selected motor parks in Ibadan Metropolis. Rather than assuming that alcohol causes every physical problem experienced by drivers, the study examines whether the level of excessive alcohol intake is statistically associated with reported biological wellbeing. This distinction is important because the cross-sectional design can establish association but cannot demonstrate temporal or causal direction. The study is also relevant to road-safety policy. Commercial drivers have a direct duty of care to passengers and other road users. Policies that focus only on alcohol testing immediately before driving may overlook the effects of cumulative drinking patterns, poor sleep and hangover-related fatigue. A broader occupational-health approach can incorporate education, early identification, counselling, referral and fatigue management alongside enforcement.

The article asks whether alcohol-intake scores are associated with reported physical wellbeing problems in the 200-driver survey and whether a comparable direction of association appears in published Ibadan cardiovascular counts. It also identifies measurement and design gaps that should be resolved before the survey can support stronger occupational-health claims.

Research Questions

1. What relationship exists between excessive alcohol intake and the biological wellbeing of commercial drivers in selected motor parks in Ibadan Metropolis?
2. What are the occupational-health implications of the observed relationship for commercial drivers and road-safety practice?

Research Objectives

1. Examine the relationship between excessive alcohol intake and the biological wellbeing of commercial drivers in selected motor parks in Ibadan Metropolis.

2. Interpret the implications of the observed relationship for occupational fitness, fatigue management and road-safety practice among commercial drivers.

Research Hypothesis

H₀: There is no significant relationship between excessive alcohol intake and the biological wellbeing of commercial drivers in selected motor parks in Ibadan Metropolis.

H₁: There is a significant relationship between excessive alcohol intake and the biological wellbeing of commercial drivers in selected motor parks in Ibadan Metropolis.

THEORETICAL FRAMEWORK

The study is anchored primarily on coping theory and social learning theory. The two perspectives provide complementary explanations for alcohol use among commercial drivers. Coping theory explains why a driver may turn to alcohol in response to occupational pressure, while social learning theory explains how drinking behaviour may be acquired and sustained through observation, imitation and reinforcement within the motor-park environment.

Coping Theory

Lazarus and Folkman (1984) conceptualised coping as the cognitive and behavioural effort used to manage demands that are appraised as taxing or exceeding available resources. Commercial driving contains several potential stressors, including traffic congestion, long working hours, fatigue, unstable income, vehicle faults, passenger complaints and family obligations. When drivers perceive these demands

as difficult to manage, some may adopt emotion-focused strategies intended to produce temporary relief. Alcohol can serve this function because its immediate subjective effects may be experienced as relaxation or escape from tension.

The difficulty is that an apparently useful short-term coping response may become maladaptive. Repeated alcohol use can interfere with sleep, physical recovery and bodily functioning, while heavy consumption can create additional financial, health and occupational pressures. The driver may therefore enter a cycle in which occupational stress encourages drinking, drinking affects physical recovery, poor recovery increases fatigue and fatigue makes occupational demands more difficult to manage. Coping theory is therefore useful for interpreting the observed association without assuming that every driver consumes alcohol for the same reason.

Social Learning Theory

Bandura's (1977, 1986) social learning perspective proposes that behaviour can be learned through observation, imitation and reinforcement. Behaviour becomes more likely when individuals observe others performing it and receiving social approval or other rewards. Motor parks are socially dense occupational settings in which drivers interact frequently with peers and more experienced colleagues. If drinking is presented as normal, enjoyable or useful for managing the demands of driving, new or younger drivers may gradually adopt similar practices.

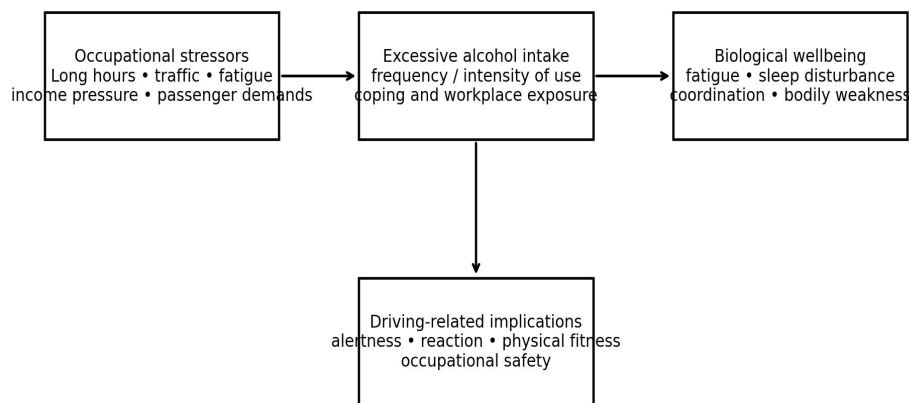
The theory also helps explain why alcohol-related behaviour may persist even when physical consequences become apparent. Social approval can compete with health concerns. A driver who is praised for being able to drink heavily without appearing affected may perceive drinking as part of occupational identity. Conversely, peer

groups can also support healthier behaviour if sobriety, rest and responsible driving are positively reinforced. This makes the social environment an important intervention point.

Conceptual Linkage

Taken together, the theories suggest that occupational stressors and social exposure may increase the likelihood of alcohol use, while repeated alcohol use may be associated with poorer biological functioning. The physical consequences of drinking may include fatigue, sleep disturbance, weakness and impaired coordination. For commercial drivers, these outcomes are relevant because the job requires sustained physical and sensory readiness.

Figure 1. Conceptual framework linking occupational stressors, alcohol intake, biological wellbeing and driving implications.



Source: Author's conceptualisation based on Bandura (1977, 1986) and Lazarus and Folkman (1984).

METHODS

Research Design

The focal analysis used a cross-sectional descriptive survey in selected Ibadan motor parks. It tests an association at one time point. A supplementary secondary

analysis uses published aggregate data from a different cross-sectional Ibadan survey (Adediran & Abiodun, 2026). The two analyses have distinct samples, measures and denominators.

Study Area

The study was conducted in selected motor parks in Ibadan Metropolis, Oyo State, Nigeria. Ibadan is a major urban centre in South-West Nigeria with substantial intra-city and inter-state passenger transport activity. Motor parks provide occupational and social settings in which commercial drivers wait for passengers, interact with colleagues, prepare vehicles and organise trips. These characteristics make them relevant locations for studying alcohol use and occupational wellbeing.

Population, Sample and Sampling Technique

The original study reports 200 commercial drivers. Parks were purposively selected and drivers reportedly selected at random within them. The list of parks, selection frame, eligibility rules, number approached and response rate were not included in the supplied record. Accordingly, the claimed within-park random selection cannot be independently verified and generalisation to the Ibadan driver population is unwarranted.

Research Instrument

The original structured questionnaire addressed demographic characteristics, alcohol intake and physical wellbeing. The supplied statistical summary reports alcohol intake $M = 87.33$ ($SD = 8.602$) and biological wellbeing $M = 36.58$ ($SD = 9.550$). Item counts, response anchors, possible score ranges and original coding are unavailable. The positive direction is interpreted provisionally as greater reported wellbeing problems, consistent with the source narrative; it must be verified against the questionnaire codebook before submission.

Validity, Reliability and Ethical Considerations

Expert face and content review is stated in the supplied manuscript, but reviewer identities, procedures and item revisions were not supplied. The reliability coefficient and item-level data are also unavailable. These omissions prevent an independent assessment of internal consistency or measurement validity; no coefficient is imputed. The supplied manuscript states that participation was voluntary and confidential but does not document the consent script, collection dates or an institutional ethics approval number. Authors should verify these records and provide the approval or documented exemption required by the target journal before submission. The separate published-data reanalysis uses aggregate public counts without recruiting participants.

Method of Data Analysis

The survey used Pearson correlation, $n = 200$, $df = 198$, with a two-sided α of .05. The reported $r = .236$ corresponds to approximately 5.6% shared variance ($r^2 = .056$); p is below .001. No adjusted regression or subgroup analysis can be conducted from the supplied summary. Separately, the published alcohol-by-hypertension cells (134, 626, 92, 855) were used to compute group proportions, a crude odds ratio and log-scale Wald 95% confidence interval; six of 1,713 source respondents are absent from that cross-tabulation. No participant-level records were generated.

RESULTS

Table 1 reports the only verifiable inferential output from the original 200-driver survey. The source materials contain no demographic frequencies or objective-specific item distributions for this sample. Table 3 records these reporting gaps without fabricating participants or questionnaire responses.

Table 1. Pearson correlation between excessive alcohol intake and biological wellbeing

Variable	N	Mean	SD	df	r	p	Decision
Excessive alcohol intake	200	87.33	8.602	198	.236	< .001	Significant
Biological wellbeing	200	36.58	9.550	198	.236	< .001	Ho rejected

Higher alcohol-intake scores were weakly associated with higher reported physical wellbeing problem scores, $r(198) = .236$, $p < .001$, assuming the outcome was coded in the direction described by the original manuscript. The null hypothesis is rejected for this sample. Because the scale items and codebook were not available, this directional interpretation remains conditional.

The survey correlation accounts for approximately 5.6% of shared variation and is unadjusted. Age, smoking, working hours, diet, sleep, pre-existing illness and other factors could account for part of the observed association. A significant p value does not validate the questionnaire or establish that drinking caused physical impairment.

Table 2. Reporting availability for the original 200-driver survey

Requested result	Available evidence	Reporting status
Age, sex, education, driving tenure	No frequency distributions supplied	Cannot report counts or percentages
Alcohol exposure and wellbeing by questionnaire item	Only composite means, SDs and correlation supplied	Cannot reconstruct responses or prevalence
Primary hypothesis	$r(198) = .236$, $p < .001$	Reported aggregate result

Supplementary published-data analysis

The independently published Ibadan survey classified 134 of 760 alcohol users (17.6%) and 92 of 947 nonusers (9.7%) as hypertensive (Adediran & Abiodun,

2026). Its four cells total 1,707, six fewer than the reported study sample of 1,713. The unadjusted odds ratio calculated from these cells is 1.99 (95% CI [1.50, 2.64]); Pearson $\chi^2(1, N = 1,707) = 23.00, p < .001$. These estimates describe an association in that separate published sample, not a reanalysis of the 200 survey participants.

Table 3. Alcohol consumption and hypertension in a separate published Ibadan sample

Alcohol consumption	Hypertension yes	Hypertension no	Total
Yes	134	626	760
No	92	855	947
Total	226	1,481	1,707

Note. Reconstructed from Adediran and Abiodun (2026), Table 6. Six of 1,713 reported respondents have no classification in this cross-tabulation. Crude association; no adjustment for confounding.

DISCUSSION

The principal original result is a small positive survey association ($r = .236$). The separate published Ibadan count analysis also shows a crude association between reported drinking and hypertension, although the latter is a distinct physical outcome. Agreement in direction across two samples is suggestive, but it does not provide a pooled effect or establish that the questionnaire result reflects clinical illness (Adediran & Abiodun, 2026).

Showande and Odukoya (2020) found several concurrent cardiovascular risks in their Ibadan sample, including physical inactivity (52.6%) and hypertension (36.2%). Their published marginal totals cannot show which drinkers had hypertension. WHO (2024) describes both injury and chronic disease pathways associated with alcohol, but those global effects cannot be read directly from the present questionnaire correlation.

The result also accords with Bragazzi et al. (2018), whose systematic review of harmful alcohol consumption among truck drivers linked alcohol use to occupational health and work-safety concerns. Long-distance and commercial driving frequently involves irregular schedules, long periods of wakefulness and pressure to complete journeys. Under such conditions, alcohol-related fatigue or impaired recovery may interact with existing occupational strain. The present finding therefore fits an occupational-health perspective in which alcohol use and work demands may reinforce one another.

The finding can also be understood through coping theory. Commercial drivers may encounter occupational demands that are difficult to control, including congestion, long working hours, fatigue and unstable income. If alcohol is used to obtain temporary relief, the behaviour may initially be perceived as functional. However, repeated use can undermine the same physical recovery needed to cope effectively with work. Poor sleep may increase daytime fatigue, while fatigue may increase the perceived need for additional coping strategies. This creates a potentially self-reinforcing pattern.

Several limitations determine the strength of inference. The original dataset and instrument codebook were unavailable for recalculation; demographics, response rates and reliability were not reported; the park selection was purposive; and exposure and symptoms were self-reported at one time point. The published comparison has a different outcome, an incomplete cross-tabulation and no covariate adjustment. Neither source supports claims about causation, dose response or citywide prevalence.

The finding has direct implications for road-safety practice. Commercial drivers need adequate physical readiness before and during work. A transport-safety system that concentrates exclusively on detecting alcohol at the moment of

departure may miss patterns of repeated consumption, inadequate recovery and hangover-related impairment. Health education should therefore explain the connection between alcohol, sleep, fatigue and functional performance. Screening and referral can complement enforcement by helping drivers with problematic use to access appropriate support. The result also supports the integration of fatigue management into commercial-driver training. Drivers should be encouraged to plan adequate rest periods and avoid using alcohol as a strategy for managing stress or ending a difficult workday. Transport unions and park managers can create environments where rest and sober behaviour are treated as professional responsibilities. Such measures are particularly relevant in busy urban centres where drivers face frequent congestion and unpredictable journey times.

Another implication concerns policy coordination. Alcohol-related road safety cannot be managed effectively by one institution. Transport unions can influence workplace norms; public-health agencies can provide screening, education and referral; road-safety agencies can strengthen enforcement and training; and park authorities can regulate alcohol-related activities around loading and departure points. Coordinated action is more likely to address both the individual and environmental dimensions of the problem.

Finally, the present study contributes to the literature by isolating the biological dimension of wellbeing from the broader concept of driver wellbeing. This focus helps clarify why alcohol use should be considered an occupational-health issue. The significant association does not imply that all drivers who drink experience poor health, nor does it establish a threshold at which impairment occurs. Instead, it identifies a measurable relationship that justifies further investigation using longitudinal designs, objective health indicators and alcohol-screening measures.

CONCLUSION

Among 200 sampled drivers, the supplied aggregate survey output reports a weak positive association between alcohol intake and physical wellbeing problem scores, $r(198) = .236$, $p < .001$. An independent reanalysis of published Ibadan counts found higher crude odds of hypertension in reported alcohol users (OR = 1.99, 95% CI [1.50, 2.64]). These results concern distinct samples and outcomes and should be interpreted separately.

The study concludes that alcohol-related risks among commercial drivers should be addressed within a broader occupational-health and road-safety framework. Interventions should recognise the interaction between alcohol use, fatigue, sleep, occupational stress and the social environment of motor parks. Because the study was correlational, the result should not be interpreted as proof of causation. Future studies should combine questionnaire data with objective alcohol screening, medical indicators and longitudinal follow-up.

RECOMMENDATIONS

- i. Transport unions and motor-park authorities should establish regular alcohol-risk education programmes that explain the effects of alcohol on sleep, coordination, fatigue, physical health and driving performance. Commercial-driver training and licence-renewal programmes should include practical education on alcohol, fatigue management, recovery and the dangers of driving after drinking or while experiencing residual effects.
- ii. Motor parks should develop accessible referral pathways linking drivers who report problematic alcohol use with appropriate health and counselling services. Park managers and transport unions should discourage alcohol consumption around loading and departure points and reinforce the expectation that drivers begin journeys sober and physically fit.

- iii. Public-health agencies should conduct periodic occupational-health outreach in motor parks, including blood-pressure checks, general health screening, health education and referral where indicated.
- iv. Peer-education programmes should be introduced so that respected and experienced drivers can model sober, well-rested and safety-conscious occupational behaviour.
- v. Road-safety authorities should strengthen collaboration with transport unions and park managers so that enforcement is combined with prevention, education and rehabilitation rather than relying exclusively on punitive measures.
- vi. A prospective multi-centre study should document a motor-park sampling frame and response rate; measure alcohol quantity, frequency, herbal preparations and timing before shifts; validate physical functioning and sleep measures; record age, sex, tobacco, body size and work schedules; and repeat standardized blood-pressure measurements. Prespecified adjusted analyses and secure, nonpunitive referral pathways would strengthen occupational-health evidence.

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