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PSYCHOLOGY

PREVALENCE RATE OF ALCOHOL USE DISORDER AMONGST LONG-DISTANCE TRUCK DRIVERS

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ABSTRACT

Purpose of the Study: The purpose of this study was to assess the prevalence of Alcohol Use Disorder (AUD) among long-distance truck drivers at Kengas Logistics Limited.

Problem Statement: The workplace has become more stressful post-COVID-19, affecting employees' mental health. Feeling inadequate without solutions can lead to unhealthy coping mechanisms, including alcohol use. Long-distance truck drivers face high stress from long hours and delivery pressures, increasing their reliance on alcohol.

Methodology: The study adopted a case study approach, utilizing a mixed-method approach. Descriptive research design was used. Primary data was collected through questionnaires distributed via Google Forms and analyzed using both quantitative and qualitative methods. Analysis of variance (ANOVA) was done, and chi-square statistics were used to show differences between the independent and dependent variables.

Results: The analysis revealed that 32.7% of the drivers scored higher-risk categories for AUD based on AUDIT scores. The study also demonstrated that AUD had a statistically significant impact on job performance, evidenced by increased accident rates and disciplinary actions ($p = 0.00013$).

Conclusion and policy recommendation: The study concludes that AUD is a major issue among long-distance truck drivers, driven by individual, organizational, and environmental factors. Recommendations were made to implement a comprehensive alcohol prevention program, review work-hour policies, foster a supportive work environment, and collaborate with healthcare providers to improve access to treatment.

Keywords: *Alcohol Use Disorder, Long Distance Truck Drivers, Prevalence, ANOVA*

INTRODUCTION

Long-distance truck drivers, as employees, engage in behaviors such as concealing their vulnerabilities, navigating others' expectations and perceptions, engaging in workplace politics, and keeping personal inadequacies hidden within both their professional and family environments (Kegan & Lahey, 2016). In the United States, long-distance truck drivers face extended working hours, irregularities in work schedules, disparities in pay systems, and a lack of consistent access to affordable, high-quality healthcare services (Hege et al., 2019). These challenges are shared globally, particularly in Kenya. Despite providing financial stability, the nature of their work exposes them to various stressors, prompting some drivers to resort to alcohol and substances as coping mechanisms (Bigelow et al., 2019). This research assessed the impact of the prevalence of Alcohol Use Disorder among long-distance truck drivers, focusing on Kengas Logistics Ltd.

In the 21st century, employees encounter numerous challenges in balancing professional responsibilities and personal aspirations. Employees in modern work environments often face stressors such as increased work assignments, rigid deadlines, and performance expectations (Shimazu et al., 2016). As a result, some individuals turn to maladaptive coping strategies, including substance abuse (McEwen, 2017). Work-life conflict, caused by extended work hours and rigid schedules, often leads individuals to avoid family responsibilities and resort to alcohol as a coping mechanism (Allen et al., 2017).

Long-distance truck drivers face similar challenges as other employees. Rike (2022) highlights their critical role in global trade, as they transport commodities to end users. However, their long hours on the road expose them to health risks such as inadequate physical activity, fatigue, stress, and hypertension (Bragazzi et al., 2018). According to Lancet (2022), approximately 1.78 million people died in 2020 due to alcohol use and related diseases. Alcohol consumption is a leading risk factor for mortality among males aged 15–45 years. Globally, about 1.03 billion males and 312 million females aged 15 years and older reported excessive alcohol consumption (Lancet, 2022). Individuals aged 15–39 account for 59.1% of total alcohol users, with 75.5% of male employees consuming alcohol in harmful amounts, while Australasia reported the highest female consumption rate at 77.7% (Lancet, 2022). In Africa, Ethiopia had 5,860,000 alcohol users, Nigeria 4,350,000, and Kenya 754,000 in 2022 (Lancet, 2022).

Several studies have examined the prevalence and impact of alcohol use among truck drivers. Nehring et al. (2023) state that Alcohol Use Disorder (AUD) is a common psychiatric condition characterized by problematic alcohol consumption patterns. It is the most prevalent mental disorder in the U.S. population (Nehring et al., 2023). The 2022 National Survey on Drug Use and Health, conducted by the U.S. Department of Health and Human Services, reported that 29.5 million Americans aged 12 years and older had AUD. Bragazzi et al. (2018) found that 15% of the workforce is directly affected by alcohol-related impairment, leading to over 22% of workplace injury fatalities in the U.S. Alcohol consumption before driving is a key factor in 21–30% of injuries resulting from car crashes (Bragazzi et al., 2018). Alcohol negatively impacts reaction time, braking, steering control, lane switching, and speeding tendencies, increasing risky driving behaviors (Bragazzi et al., 2018). Kramer et al. (2022) reports that since January 2020, over 72,000 truck drivers have been disqualified for failing mandatory drug tests under the Drug & Alcohol Clearinghouse regulations.

Research in Colombia, Mexico, Brazil, Europe, and Asia highlights the widespread nature of alcohol use among truck drivers and its effects on job performance and safety. Calvache-Dorado et al. (2022) found that 18.8% of Colombian long-distance truck drivers engaged in dangerous alcohol consumption, with 27% admitting to drinking on duty. Calderón and Castaño (2019) reported that 16.7% of drivers consumed alcohol biweekly, while 33.3% drank weekly. In Mexico, Berrones et al. (2018) found that 14% of cargo drivers admitted to drinking alcohol during work hours. Similarly, García-Perales et al. (2023) reported that heavy truck drivers in Nuevo Laredo, Mexico, drank more while on duty due to fatigue. Most studied drivers were male, aged 41.2 years on average, married, and high school graduates. They drove 16-hour shifts, exacerbating dependence on alcohol and other substances to manage fatigue and concentration difficulties, increasing accident risks (García-Perales et al., 2023).

In Brazil, long-distance truck drivers use alcohol and substances as an economic survival strategy (Silva et al., 2019). This maladaptive coping mechanism endangers their lives and the safety of other road users. Among 260 Brazilian truck drivers, 2.9% worked shifts, while 43.2% drove more than 16 hours per day, averaging just 5.97 hours of sleep. Thirteen percent had been involved in accidents in the past five years, leading to injuries and fatalities (Silva et al., 2019). Brazil's 2012 "Truckers' Law" mandates drug testing, rest periods, and defensive driving training for truck

drivers. However, weak enforcement has led to increased risky behaviors and declining job performance (Silva et al., 2019). Businesses could mitigate these risks by improving working conditions and providing emotional support rather than enforcing regulations (Silva et al., 2019).

A meta-analysis by Debarbieri and Durando (2021) revealed that European truck drivers had a high incidence of binge drinking, comprising 19% of total alcohol consumption, while 9.4% drank daily. The AUDIT-CAGE instrument identified that 22.7% of respondents engaged in problematic alcohol use (Debarbieri & Durando, 2021). These high alcohol use rates negatively impact job performance and road safety, leading to increased workplace injuries, absenteeism, and accidents (Debarbieri & Durando, 2021). Pérez et al. (2021) found that alcohol consumption among Spanish truck drivers increased accident risks and reduced job performance, emphasizing the need for stringent regulations to promote safer driving behaviors.

Research in Asia highlights the impact of Alcohol Use Disorder (AUD) among long-haul truck drivers on job performance and road safety. Kumar and Singh (2019) found that truck drivers in India who abused alcohol exhibited increased intoxication, impaired judgment, and a higher accident risk. These findings stress the need for targeted interventions and stricter laws to improve road safety. In China, Zhang, Wang and Li (2020) examined the link between alcohol consumption and risky driving behaviors among professional drivers. Their findings established a strong correlation between alcohol use and impaired driving ability, underscoring the necessity of comprehensive laws and public education campaigns to reduce alcohol-related accidents in the transportation industry.

STATEMENT OF THE PROBLEM

After the disruptions caused by the COVID-19 pandemic, the workplace has notably grown more taxing, significantly impacting the mental health of employees (Amponsah-Tawiah et al., 2023). When an employee is unable to get solutions for the challenges they face, they begin feeling inadequate (Kegan & Lahey, 2016). Ultimately when people hide their inadequacies, they have no way of overcoming them (Kegan & Lahey, 2016). In response to the challenges encountered and heightened stress levels, employees may resort to various coping mechanisms, including the unfortunate reliance on substance use such as alcohol. Long-distance truck drivers are not exempted from feeling inadequate to address the challenges they face in their profession in the current times. According to Yosef et al. (2021), long working hours, stressful working conditions,

and the pressure of delivery timelines are some of the factors that heighten stress levels among long-distance truck drivers, resulting in reliance on alcohol as a coping mechanism.

Without carrying out this research, the prevalence rate of AUD and the impact on job performance at Kengas Logistics Ltd would remain undocumented and may result in continued driver impairment, increased accident rates, and long-term negative health outcomes for long-distance truck drivers. In addition, without empirical data, unsafe driving practices might persist, leading to higher accident rates and potential injuries or fatalities for both drivers and other road users. This may in turn result in increased operational costs for the organization concerning insurance and litigation.

RESEARCH OBJECTIVE

To determine the prevalence rate of alcohol use disorder amongst long-distance truck drivers.

RESEARCH QUESTION

What is the prevalence rate of alcohol use disorder amongst the long-distance truck drivers working within the organization?

THEORETICAL FRAMEWORK

This study utilized Disease Theory by Yang, et al. (2022) and the social learning theory by Albert Bandura (1977). The disease theory of addiction conceptualizes AUD as a persistent, recurrent condition characterized by uncontrollable alcohol use, an inability to regulate intake,and a negative emotional state in the absence of alcohol. The theory submits that inborn, neurobiological, and environmental elements contribute to the creation and advancement of AUD, similar to how these factors influence other chronic diseases like diabetes or heart disease (Yang et al., 2022).

The social learning theory proposes that we learn through observations and gives emphasis to reciprocal interactions between the behavior and primary environment of an individual. Bandura posited that individuals possess visions about their future, behavioral rewards or penalties, and goals. The visions generate a reaction and impact the individual's present behavior. (Bandura, 1977). When individuals integrate their thoughts, behavioral consequences, and goals with observational learning, they acquire the ability to navigate situations without direct exposure to positive or negative reinforcement. The theory recognizes that AUD is not just a biological issue

but also learned through the interactions that an individual has with the environment they are exposed to.

Individuals base their decisions solely on observing the experiences of others whom they perceive as competent decision-makers, without experiencing any consequences themselves (Sommers-Flanagan & Sommers-Flanagan, 2015). Self-efficacy, a pivotal cognitive concept in Albert Bandura's theory, refers to an individual's belief in their capability to positively accomplish a behavior to attain a preferred result. Factors such as incentives, skills, positive feedback, knowledge, and successful task completion can enhance self-efficacy (Sommers-Flanagan & Sommers-Flanagan, 2015).

EMPIRICAL REVIEW

Over the years various researchers have examined the effectiveness of diverse screening and assessment tools in identifying AUD amongst long-distance truck drivers. Instruments such as the Alcohol Use Disorders Identification Test (AUDIT), and the CAGE questionnaire have been adjusted and validated for application within this specific population (Cook et al., 2018; Subramanian et al., 2021). These screening tools assist in the detection of problematic patterns of alcohol use and facilitate early intervention (Cook et al., 2018).

In Okafor's (2023) study utilizing the AUDIT tool, it was noted that 19.2% of the participants exhibited positive indications of unsafe alcohol use. This suggests a pattern of alcohol usage linked to a high threat of future health-related, physical, or mental impairment, along with potential social results such as conflicts within the family unit, economic hardships, and discord within marriages. Additionally, 12.3% of the participants showed positive signs of alcohol dependence, indicative of a physiological withdrawal state.

The CAGE questionnaire is a widely used screening tool consisting of four brief questions aimed at identifying alcohol dependence. These questions focus on four key areas: cutting down on drinking, feeling annoyed by criticism, experiencing guilt related to drinking, and the need for an eye-opener (having a drink first thing in the morning to steady nerves or ease a hangover). The questions are designed to assess various behaviors associated with alcohol use, offering valuable insights into potential alcohol dependence. In a study conducted in the Khuzistan province of Iran, Assadollahi et al. (2023) utilized the CAGE questionnaire and confirmed its effectiveness and

reliability in detecting alcohol use disorder (AUD). The findings demonstrated that the CAGE questionnaire is a dependable tool for studies focusing on AUD.

Several researchers have also investigated the prevalence of AUD among long-distance truck drivers, revealing that this group experiences significantly higher levels of alcohol consumption and misuse compared to the general population. Job-related stress, extended working hours, and social isolation are among the key factors contributing to this increased alcohol use (Bigelow et al., 2019; Robertson et al., 2017). Studies have further highlighted that the prevalence of AUD varies by region in Africa, with regional disparities attributed to cultural practices, socioeconomic conditions, and access to healthcare.

In Lagos, Nigeria, Adewunmi and Agwo (2023) found that 85.5% of long-distance drivers consumed alcohol, with 45.5% being frequent users. Of the participants, 37.5% drank alcohol twice a week, 4.17% consumed alcohol more than once a day, 32.5% were classified as heavy drinkers, and 44% were mild drinkers (Adewunmi & Agwo, 2023). Another study conducted by Okafor (2023) surveyed 215 long-distance truck drivers and revealed several challenges related to alcohol consumption. Specifically, 43 participants admitted they had difficulty abstaining from alcohol once they started drinking, and 35 reported failing to meet their usual work expectations due to alcohol use (Okafor, 2023). A significant majority of 186 participants acknowledged facing difficulties in meeting general expectations as a result of their drinking habits (Okafor, 2023). These findings underscore the widespread issue of alcohol misuse among long-distance drivers and the impact it has on both individual performance and overall road safety.

Cross-sectional survey of long-distance truck drivers carried out in South Africa by Lalla-Edward et al. (2019), revealed that 40% (240 drivers) acknowledged a history of alcohol consumption, and 33% (196 drivers) reported regular drinking. Among those who consumed alcohol, 28% (54 drivers) were identified as problematic or heavy drinkers, defined as drinking more than 15 alcoholic beverages every week (Lalla-Edward et al., 2019).

In Ethiopia, Yosef's (2020) research highlighted that long- distance truck drivers exposed to prolonged working hours, job-related stress, and having multiple family responsibilities were more prone to engaging in daily alcohol consumption. The study identified that 66% of the long-distance truck drivers surveyed exhibited this shared behaviour of frequent alcohol use. Significantly, as reported by Yosef (2020), such behaviour wasidentified as a risk factor for diseases that are non-

communicable, which at the time of the study contributed to 42% of deaths in Ethiopia. These findings highlight a significant prevalence of alcohol usage amongst long-distance truck drivers, with a notable proportion engaging in problematic or heavy drinking behaviours.

In Kenya, Statutes and regulatory bodies have been enacted to control the production and usage of alcohol. One such statute is the Alcoholic Drinks Control Act of 2010 or otherwise referenced as "Mututho law" which provided a legal framework for the manufacture, sale, and ingestion of alcoholic drinks in Kenya. The Act empowers the different levels of government, that is the national and county, to regulate and control production, distribution, and sale of alcoholic beverages. Relevant government authorities, such as the Ministry of Interior and Coordination of National Government or the Alcoholic Drinks Control Board (ADCB), NACADA, NTSA amongst others are charged with the responsibility of ensuring compliance especially on our roads. According to a study examining the prevalence of AUD and its effect on job performance, Muli and Kyalo (2021) focused on long-distance truck drivers in Kenya.

In order to gather information for the study, 300 long-distance truck drivers were surveyed using standardized questionnaires about their drinking habits, job performance indicators, and the frequency of traffic incidents. The results showed that almost 45% of the truck drivers who were polled admitted to drinking too much. These actions were strongly linked to lower alertness and compromised cognitive abilities, which resulted in poor decision-making when driving. In particular, drivers who consumed large amounts of alcohol showed reduced attention spans, slower reaction times, and an increased risk of dozing off while operating a vehicle.

The study also discovered a significant link between alcohol abuse and a higher risk of mishaps. Drivers who drank alcohol on a regular basis had a threefold increased risk of being involved in traffic accidents as opposed to those who did not drink. The collisions were frequently severe, causing significant damage to the vehicles, injuries, and occasionally even fatalities. While specific data regarding the overall prevalence of AUD within the transport and logistics sector is limited, studies conducted in public health and university settings consistentlyhighlight alcohol use as a significant national public health concern. This research study is thus pertinent in determining the prevalence of alcohol use disorder amongst long distance truck drivers through a case study.

CONCEPTUAL FRAMEWORK

A conceptual framework offers a methodical strategy for comprehending and dissecting intricate phenomena by arranging fundamental concepts,variables, and their interconnections (Creswell, 2014). Information from existing literature indicates that the main factors that were considered included age, years of experience, level of education, hours spent driving, religion, marital status, coping mechanisms used, work-family conflict, value systems, social isolation, work and personal stressors, alcohol use while on duty. Figure 1 illustrates their contribution to the dynamics in assessing the prevalence of alcohol use disorder amongst long-distance truck drivers.

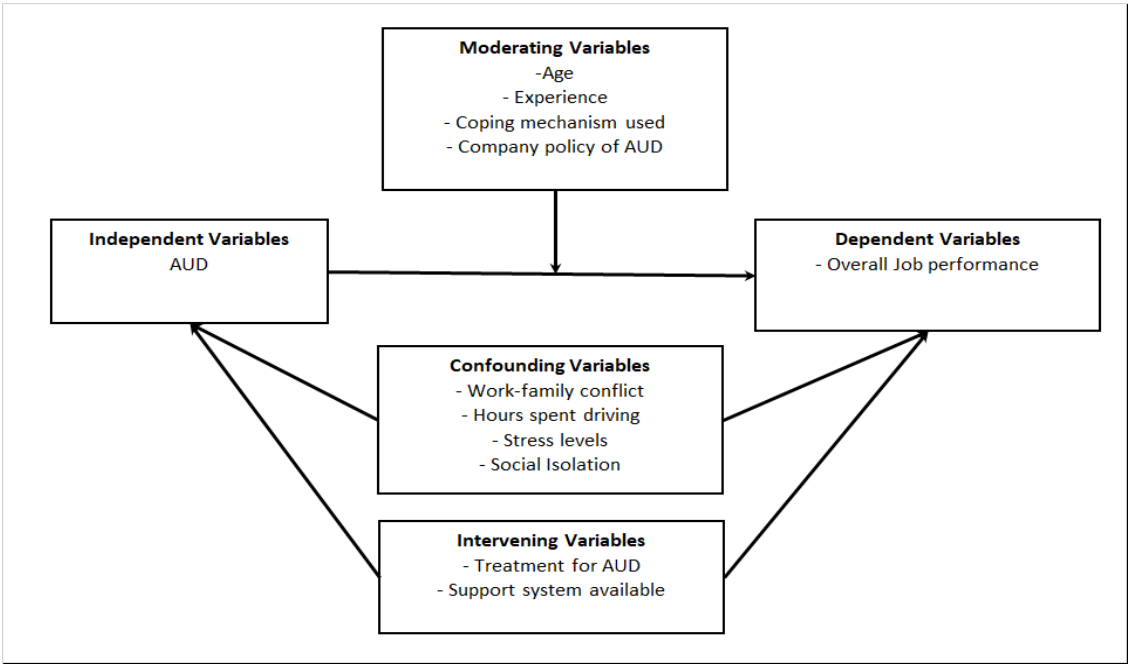

Figure 1: Conceptual Framework

Source: Researcher (2025)

According to Gravetter and Wallnau (2013), the researcher is responsible for manipulating or controlling variables within a study. In the context of assessing Alcohol Use Disorder (AUD), the disorder itself is considered an independent variable. The National Institute on Alcohol Abuse and Alcoholism (NIAAA, 2021) notes that the severity of AUD can vary based on factors such as age, gender, and socioeconomic status, affecting a significant portion of the population. By examining AUD as an independent variable, researchers can gain a deeper understanding of its diverse impacts on individuals and society. This, in turn, enables the development of evidence-based

strategies for prevention, intervention, and policy-making aimed at reducing the severity and societal burden of AUD.

METHODOLOGY

This study utilized both quantitative and qualitative techniques in its assessment. Therefore, a mixed-methods research approach was deemed appropriate. Specifically, this research used descriptive research design. According to Kumar (2011), descriptive design describes a phenomenon by providing information through careful selection of what to research and measurement of variables. A descriptive research design was used to assess the prevalence of alcohol use disorder amongst long-distance truck drivers.

According to the organization's human resources database for the year 2023, the total employee count stood at 292 individuals. Among these employees, 164 are designated as drivers with 162 classified as long-distance truck drivers, primarily engaged in cross-border transportation duties. The distribution of employees who met this criterion is illustrated in Table 1.

Table 1: Target Population

Branch	**Population**
Head Office – Nairobi	29
Eldoret Branch	43
Kisumu Branch	2
Mombasa Branch	3
Nakuru Branch (Depot)	2
Juba Branch – South Sudan	17
Tanzania Branch	2
Democratic Republic of Congo Branch	17
Zambia Branch	13
Drivers (long-distance and private car drivers)	164
Total Population	**292**

Source: Kengas Logistics Ltd (2023)

As shown in Table 1, Kengas Logistics Limited has a total of 164 drivers, 162 of whom are long-distance truck drivers who met the criterion for the target population. Using the Finite Population Correction Factor, the study utilized a sample size of 114 long-distance truck drivers employed by

Kengas Logistics Limited, tasked with cross-border responsibilities across various regions of East Africa and the Southern African Development Community (SADC) region.

The study applied Simple Random sampling. According to Leedy and Ormrod (2019), this sampling technique is also identified as probability sampling or chance sampling which guarantees that every person within the population gets an equal opportunity to be selected for the sample. This sampling technique was ideal for the population as the long-distance truck drivers had an equal probability of being selected for the sample.

Within the context of this study, the sample population is 162 long-distance truck drivers whereas the sample size is 114 long-distance truck drivers. To select 114 long-distance truck drivers from the population, the researcher first compiled the employee staff numbers for the long-distance truck drivers, which acts as a unique identifier. Second, a random number generator was utilized to select the sample size of 114 from the total population of 162 long-distance truck drivers. Then the selected employee numbers selected by the random number generator were checked against the actual list of employees to ensure that the numbers selected were actually on the employee list of drivers.

This study utilized primary data collected through a questionnaire that incorporates AUDIT and CAGE assessment tools. Primary data is original and has not been previously collected or published. The questionnaire was administered via an online link shared via WhatsApp with the respondents. This ensured the anonymity of respondents. The questionnaires were created using Google Forms and an online link to the questionnaire was shared with the sample selected for the study via WhatsApp. The drivers then completed the questionnaires electronically using their smartphones or other devices with internet access.

The objective of using Google Forms was to ensure a high response rate from the sample size selected. Creating the questionnaire on Google Forms ensured that all long-distance truck drivers who fall within the sample size participated in the study. By leveraging the WhatsApp platform, the study sought to reach a high number of respondents selected as part of the sample size and facilitated their participation in the research. The AUDIT and CAGE assessment tools are the most effective instruments for data collection, and it is economical as respondents are distributed over various geographical locations and free from researcher bias as respondents cannot be influenced bythe researcher with respect to their responses.

The researcher incorporated standardized tools namely CAGE and AUDIT questionnaire into the Google Form utilized for data collection. It was assumed that both tools are culturally and contextually appropriate for the target population. Pretesting was carried out with a small sample of long-distance truck drivers to identify any issues with clarity, comprehension, or cultural sensitivity. Feedback received was utilized to revise the tools. The assessment tools were administered online via Google Forms as this ensured confidentiality is maintained during data collection.

The researcher was the sole custodian of the Google Form and data collected. The data collected was stored on Google Drive for security and confidentiality. Data collected was analyzed using statistical methods specifically descriptive and correlational analysis. Lastly, the outcome of the study was presented clearly and concisely by the researcher ensuring observance of the ethical guidelines of research. A research report was presented to the directorate of graduate research studies at Daystar University and once approved, the study was published and submitted to the library as a reference point for relevant stakeholders.

The study collected both quantitative and qualitative data to provide a comprehensive perspective on the prevalence of AUD among long-distance truck drivers and the factors influencing alcohol usage. Data analysis involved both descriptive analysis and chi-square tests. Descriptive analysis was used to summarize and describe the collected data (Mishra & Alok, 2017). For quantitative data, this included calculating measures such as means, frequencies, and percentages to report the prevalence and patterns of AUD among the drivers. For qualitative data, descriptive analysis involved identifying common themes, patterns, and trends in the drivers' narratives about their alcohol use and related experiences.

Chi-square tests were employed to examine the relationships between variables, exploring associations between alcohol use and various factors such as social isolation, stress levels, and work-family conflict. This approach helped identify potential risk factors and protective factors linked to alcohol usage among long-distance truck drivers. Data was analyzed using the Statistical Package for Social Sciences (SPSS, version 28). Descriptive data analysis was conducted through frequency distribution tables and graphs. The prevalence rate of alcohol use disorder was calculated based on standardized screening tools. Chi-square tests were used to ascertain the significance level of the association between variables, particularly focusing on the relationship

between AUD severity and self-reported job performance outcomes. The integration of quantitative and qualitative findings provided a comprehensive understanding of AUD prevalence among long-distance truck drivers, with quantitative results offering statistical associations and qualitative insights providing context and explanations for the observed patterns.

During this study, several ethical considerations that were addressed included, institutional approval, informed consent, maintaining confidentiality and anonymity, voluntary participation, using respectful language, and debriefing of participants. Debriefing created a platform where the researcher obtained feedback from participants on their experience and provided contact information for counseling and support services, especially for participants who had severe AUD. These considerations ensured the ethical conduct of the study and the well-being of the participants involved. It also helps to maintain the integrity and credibility of the findings of the research (National Institutes of Health, 2020).

Within the framework of this study, the researcher obtained approval from the management of the organization to conduct the research. This provided access for the researcher to the target population. Moreover, the researcher ensured that the research was conducted within the confines of the approved parameters. According to Arifin (2018), it is imperative to obtain voluntary and informed consent from the respondents of the study. Consent should be freely given, and participants must comprehend the research objectives, expectations, and their rights. Participants should feel content to provide consent and have the liberty to choose whether to partake or withdraw from this study.

Voluntary and informed consent was sought from all respondents within the sample size and a consent section was incorporated in the data collection questionnaire, which participants were required to agree to before proceeding to the questionnaire. The researcher endeavored to explain to the participants during the initial meeting with the participants which took approximately 30 minutes, regarding the informed consent section. It was important to note that a physical initial meeting was held with participants who were on-site at Eldoret, and another meeting was held via WhatsApp group call for the participants who were engaged in driving duties. This created an opportunity for the researcher to explain the details of the research, clarify issues raised, and create a rapport between the researcher and the population under study.

Protecting the privacy of study respondents by maintaining confidentiality of their personal information and ensuring that data was anonymized during analysis and reporting was paramount in research (American Psychological Association, 2017). Using identifiable information for the participants, such as names, must be avoided at all times in any published reports or presentations (American Psychological Association, 2017). This research sought to ensure that confidentiality and anonymity was maintained by limiting access to data obtained to the researcher only and using password-protected Google Drive data storage. Additionally, the identities of the respondents also remained anonymous because they were not required to provide their names or personal information during the study. If deemed necessary, numbers or coded names were utilized to hide the identity of the respondents if the researcher had to disclose information about an individual participant (Mugenda & Mugenda, 2013).

According to Arifin (2018), the researcher should ensure that respondents voluntarily participate in research activities without feeling coerced or pressured to take part. It is important to respect participants' autonomy and right to decline participation without consequences. This study ensured that participants were informed of their right to decline participation. This information was included in the questionnaire under the informed consent section, and participants were asked to provide their agreement to participate. Using respectful language.

RESULTS AND DISCUSSION

A total of 114 questionnaires were distributed to the respondents, and 110 responses were received, resulting in a response rate of 96%. According to Oladipo et al. (2015), a response rate of 80% or higher is ideal, as it enhances the efficiency of data analysis and reporting.

Table 2: Response Rate

Total Distributed Questionnaires	Number of Completed Questionnaires	Response Rate (%)
114	110	96%

All respondents were male, with a frequency of 110 (100%). In terms of marital status, the majority were married, with a frequency of 99 (90%), followed by single respondents at a frequency of 5 (4.6%). The education levels reveal that most respondents held a KCSE certificate, with a frequency of 69 (62.7%), while 39 (35.5%) had a KCPE certificate, and 2 (1.8%) held a Diploma

certificate. Age-wise, the majority of the respondents were aged 36-45 years with a frequency of 79 (71.8%), followed by respondents aged 46-55 years with a frequency of 24 (21.8%), and the respondents aged 25-35 years were the least with a frequency of 7 (6.4%). With respect to working experience as long-distance truck drivers, most respondents had been working for 11-15 years, with a frequency of 58 (52.7%), followed by those with over 15 years of experience at a frequency of 45 (40.9%), and a smaller group with 6-10 years at a frequency of 7 (6.4%). Regarding religion, the majority were Muslims, with a frequency of 87 (79.1%), while Christians had a frequency of 23 (20.9%).

The prevalence rate was assessed using two key screening tools: The Alcohol Use Disorder Identification Test (AUDIT) and the CAGE questionnaire.

Table 3: Prevalence Rate of Alcohol Use Disorder (AUD) among Long-Distance Truck Drivers

Category	Frequency	Percentage (%)
AUDIT Scores		
Zone I (0-7): Low Risk	74	67.3
Zone II (8-15): Hazardous Use	8	7.3
Zone III (16-19): Harmful Use	6	5.5
Zone IV (20-40): Possible Dependence	22	20
CAGE Scores		
0-1: Low Risk	74	67.3
2-3: High Risk	2	1.8
4: Possible Dependence	34	30.9
Other Relevant Data Points		
Total number of respondents	110	100
AUDIT score Mean	20.36	
CAGE Score Mean	3.94	
Overall Mean	16.4	
Standard Deviation	4.913	
AUDIT & CAGE scores Correlation	0.411	
One-sided p	0.006	
Two-sided p	0.013	

Table 4 shows the prevalence of AUD among the respondents based on their AUDIT and CAGE scores. According to the AUDIT scores, the respondents fell into Zone I (low risk) with a frequency of 74 (67.3%). 8 (7.3%) fell in Zone II (hazardous use), while 6 (5.5%) were found in Zone III

(harmful use), and 22 (20%) were in Zone IV, which suggests possible alcohol dependence. In terms of CAGE scores**,** 74 (67.3%) are classified as low risk, while 36 (32.3%) were identified as having possible dependence on alcohol use. The mean score for AUDIT scores was 20.36 and the mean score for CAGE scores was 3.94.

The overall CAGE mean was 16.4 with a standard deviation of 4.913. The correlation coefficient between AUDIT_SCORE and CAGE_SCORES is 0.411. This indicates a moderate positive correlation between the two scores. In other words, as AUDIT scores increase, there tends to be a moderate increase in CAGE scores. The two-sided p-value is generally used to test for the significance of the correlation. Since the two-sided p-value is 0.013, which is less than the commonly used significance level of 0.05, this indicates that the correlation is statistically significant. This indicates that the observed correlation is unlikely to have occurred by chance, allowing us to reject the null hypothesis and suggesting that there is a meaningful relationship between the variables under study.

These results emphasize the fact that, although a majority are categorized as low risk, a sizable group of long-distance truck drivers is either already struggling with harmful alcohol use or at risk of developing severe alcohol-related issues. This highlights the urgent need for interventions aimed at addressing and reducing alcohol dependence within this profession to safeguard their well-being and ensure job performance is not compromised. The possible attribution to the scores was determined to include high stress levels, social isolation, long working hours, poor working conditions, limited access to support systems, insecurity on the roads in South Sudan and Eastern Democratic Republic of Congo, peer influence and economic pressure.

These findings highlight the high prevalence (32.7%) of AUD among long-distance truck drivers, with a significant proportion of respondents falling into hazardous and harmful drinking categories based on their AUDIT and CAGE scores. The results accentuate the risks that many drivers face, both in terms of their well-being and job performance. The attribution to these scores reveals a range of contributing factors, including high-stress levels, social isolation, and long working hours' elements that are inherent to the nature of the profession.

Poor working conditions, limited access to support systems, and the insecurity faced on roads in regions like South Sudan and the Eastern Democratic Republic of Congo further exacerbate the prevalence rate amongst this population. These findings underscore the need for comprehensive

strategies aimed at reducing stress levels, enhancing access to support especially psychosocial support, and addressing the underlying circumstances that drive alcohol use among long-distance truck drivers. Only by tackling these factors can we hope to mitigate the impact of AUD on this workforce and improve their health, safety, and overall quality of life.

Discussion

The study findings revealed a high prevalence of AUD among long-distance truck drivers at Kengas Logistics Ltd. According to the AUDIT scores, 67.3% of the respondents fell into the low-risk category (Zone I), while 7.3% were in the hazardous use category (Zone II), 5.5% in the harmful use category (Zone III), and 20% in the possible dependence category (Zone IV). The CAGE scores showed that 67.3% of the respondents were at low risk, while 32.3% had possible alcohol dependence. The mean value was 16.4, with a standard deviation of 4.913. There is a moderate positive association ($r = 0.411$) between AUDIT and CAGE scores, suggesting that as the AUDIT scores increase, so do CAGE scores. The relationship is statistically significant, with a p-value of 0.013, which is less than the 0.05 threshold, implying that the correlation is not due to chance, and more research is needed to corroborate these outcomes. These results underscore the importance of using multiple screening tools to assess alcohol use disorders comprehensively.

The high prevalence of AUD among long-distance truck drivers is consistent with findings from other studies. A study by Adewunmi and Agwo (2023) in Lagos, Nigeria, found that 85.5% of long-distance drivers consumed alcohol, with 45.5% being frequent users and 32.5% being heavy consumers. Adewumi and Agwo (2023) discovered a substantially higher overall incidence of alcohol intake among long-distance truck drivers in Lagos, Nigeria, with a more prevalent and severe pattern of alcohol use than the findings of this research.

Similarly, Lalla-Edward et al. (2019) conducted a cross-sectional survey of long-distance truck drivers in South Africa and found that 40% of the drivers acknowledged a history of alcohol consumption, with 28% of those who consumed alcohol being identified as problematic or heavy drinkers. This percentage aligns closely with the 20% of drivers at Kengas Logistics who were categorized in the possible dependence category, suggesting a similar level of significant alcohol use among drivers in both studies. Yosef's (2020) research in Ethiopia found that 66% of long-distance truck drivers consumed alcohol regularly, which is far higher than Kengas Logistics' 20% prevalence of probable dependence.

While there is consistency in the identification of alcohol use issues among long-distance truck drivers across different studies, the prevalence rates and the severity of alcohol use vary. This disparity may reflect geographical disparities in cultural norms, job-related stress, or access to alcohol treatment facilities. While the studies highlight the prevalence of problematic drinking practices in the profession, the percentage disparities suggest that regional or contextual factors influence the severity of AUD. The findings from Kengas Logistics Ltd indicate a substantial issue of alcohol dependence, though not as severe as in some other studies. In the current study, 67.3% of Kengas Logistics Ltd drivers were classified as low-risk drinkers, whereas 32.7% displayed indicators of hazardous, harmful, or dependent alcohol use based on AUDIT and CAGE scores.

The high prevalence of AUD among long-distance truck drivers in various African countries underscores the importance of addressing this issue as a significant public health concern. The findings of the current study align with the existing literature and highlight the need for targeted interventions to reduce the prevalence of AUD among this population.

CONCLUSION

The study concluded that Alcohol Use Disorder (AUD) is highly prevalent among long-distance truck drivers at Kengas Logistics Ltd. The findings revealed that a significant portion of the drivers experienced hazardous use, harmful use, or possible alcohol dependence, as indicated by their AUDIT and CAGE scores. These results were consistent with previous studies conducted in various African countries, which have documented high rates of alcohol consumption and AUD among long-distance truck drivers.

RECOMMENDATIONS

The study recommended that the organization should conduct regular monitoring and evaluation of its alcohol prevention and intervention efforts to assess their effectiveness and identify areas for improvement. This may involve collecting data on AUD prevalence, job performance indicators, and employee feedback to inform ongoing program development and refinement. Continuous assessment will enable the organization to make informed adjustments that directly benefit long-distance truck drivers, ultimately contributing to a reduction in the prevalence rate of AUD and enhancing overall workplace well-being.

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