

KNOWLEDGE AND ATTITUDE TOWARDS ACCIDENT, PREVENTION AMONG WORKERS OF SELECTED PETROL STATIONS IN OSHODI-ISOLO LOCAL GOVERNMENT AREA OF LAGOS STATE

BY

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Abstract

This study examined knowledge, and attitude towards accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State. The study was guided by two research hypothesis that established the Knowledge and Attitude towards accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State. The study comprised 300 petrol station workers spread across three local council development area namely Papa Ajao, Ilasa and Okota of Oshodi-Isolo Local Government Area, using the multistage sampling technique. Stratified sampling technique was used in selecting the LCDAs while Convenience sampling technique was used in selecting 10 petrol stations from each selected LCDA. The sample for this study comprised Three hundred (300) Petrol Station workers in Oshodi-Isolo Local Government Area using the Purposive sampling technique to select ten (10) workers from each petrol station in Oshodi-Isolo Local Government Area. Data was collected using a self-developed questionnaire titled “Knowledge and Attitude towards accident prevention and questionnaire (KAAPQ). The validity of the instrument was ascertained by three experts in the department of Human Kinetics, Sports and Health Education. The reliability of the study was achieved using the test- retest method using Chronbach Alpha test with an r-value of 0.86. Data collected were descriptively analysed using frequency counts, percentage and measure of central tendencies for the demographic characteristics, while analytical tool of X^2 was used to test hypotheses one and two at 0.05 level of significance. Result of this research revealed that there was significant knowledge ($X^2 = 54.613$, $p = 0.000 < 0.05$) and attitude ($X^2 = 250.253$, $p = 0.000 < 0.05$) towards accident prevention. It is therefore recommended that Efforts should be made by stakeholders i.e., Government and concerned agencies in ensuring that owners of filling stations take responsibility for the health and safety of their workers

Keywords: Knowledge, Attitude, Accident, Prevention

Introduction

Health education and promotion, occupational health, accident prevention and safety techniques are all intertwined important elements in organizations today as each, in most case, is embedded in Occupational Health Policy and Safety Management. The role of Health, Safety and Environment (HSE) is necessary to optimally maintain high level of productivity encompassing reduction in the rate of mortality, developing and empowering a highly competent workforce that delivers results the right way while protecting people and the environment alike (Fam, Nikoomaram, & Soltanian, 2012; Li, Liang, Zhang, & Tang, 2015). In the face of all this challenges, Humans (workforce) contend with daily obligations to provide for their needs which is unavoidably necessary for life sustenance and achievements of life goals (Ogunbamowo, Oladipupo, Ashon & Ligali, 2022).

Globally, about two million workers die from work-related injuries and diseases worldwide, 11 million employees are in vulnerable employment every year while more than 1.4 billion people that is, almost four out of five workers in developing countries, work in hazardous settings or occupations (ILO, 2017). The world’s workforce sustains at least 370 million injuries every year (Hämäläinen, Takala & Kiat, 2017) and many studies and practical experiences have showed relationship between health, occupation and work

choices with factors like employment status, occupation and life style variables serving as determinant for the health of workers (Llena-Nozal, Lindeboom, & Portrait, 2004). Concurrently, the oil and gas sector has grown significantly and in recent time possess quiet a reasonable number of employees and engage in numerous daily business engagement. However, this sector is among the largest in the world, with increasing revenues and costs necessary to provide customers with the energy that they require in maintaining their style of living (Schneider, Ghetas, Merdaci, Brown, Martyniuk, Alshehri, & Trojan, 2013). Petroleum which is an inflammable product is prone to huge risks from its exploration, transportation, offloading, storing and sale points and as such facilities should not be taken for granted like other products (Kaynak, Toklu, Elci, & Toklu, 2016). Convincingly, more than 2.3 million lives and properties worth more than 4.5 billion were lost to fire outbreaks associated to petroleum product mishandling (World Health Organisation, 2004). Accumulatively, these activities and environment workers are exposed to determine what health condition, accident, hazards, workers are faced (Schneider, Vargo, Campbell, & Hall, 2011). However, around the world, millions of men and women are paid to work under poor and hazardous conditions and despite the availability of effective health education interventions to prevent occupational accidents and promote safety at the workplace, large gaps exist between and within countries concerning the health status of workers and their exposure to occupational risks. In a country like Nigeria where the wide majority run their daily activities all around the engagement of petroleum products the provision of filling stations or petroleum stations for sales of petroleum product is unavoidable hence creating job opportunities for crops of individuals who unfortunately are faced with some occupational challenges, hazards and accidents that the society may not have given due credence. Consequentially, Some Health education interventions applicable to health and safety promotion in petroleum firm and used in time past include Workers' hygiene improvement sensitization, promotion of physical activity and provision of safe work environment (Malik, Blake, & Suggs, 2014).

The inadequate prevention of occupational accident has profound negativity, not only on workers and their families but also on the organization at large due to the tremendous costs it generates, particularly, in terms of loss of productivity. Therefore, it became an imperative question for all on the possible existence of any form of relationship between any of the health education interventions, accident prevention and safety management. Most importantly in a period where occupational health is gaining due recognition and safety management is emphasized. This study therefore examined the Knowledge and Attitude towards accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State.

Hypotheses

The following research hypotheses were postulated for the study:

1. There will be no significant knowledge of accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area Lagos State.
2. Workers of petrol stations in Oshodi-Isolo Local Government Area of Lagos State will show no significant positive attitude towards accident prevention.

Methodology

The Descriptive research design was adopted because of its capability to examine the relationship between variables under study, hypotheses testing and development of generalization. The population of the study consists of all teenage mothers in Alimosho Local Government Area, Lagos State. The study comprised 300 petrol station workers spread across three local council development area namely Papa Ajao, Ilasa and Okota of Oshodi-Isolo Local Government Area, using the multistage sampling technique. Stratified sampling technique was used in selecting the LCDAs while Convenience sampling technique was used in selecting 10 petrol stations from each selected LCDA. The sample for this study comprised Three hundred (300) Petrol Station workers in Oshodi-Isolo Local Government Area using the Purposive sampling technique to select ten (10) workers from each petrol station in Oshodi-Isolo Local Government Area. Data was collected using a self-developed questionnaire titled "Knowledge and Attitude towards accident prevention and questionnaire (KAAPQ). The questionnaire was divided into two sections: A and B. Section A contained demographic data of respondents, while Section B was structured to test the hypothesis. The questionnaire adopted a four (4)

point Likert modified scale ranging from Strongly agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). The face and Content validity of the instrument were ascertained by a panel of three experts in the departments of Human kinetics, Sports and Health Education, Faculty of education, Lagos State University, Ojo, Lagos.

The test-retest method of reliability was adopted and the reliability of the instrument was tested using the Cronbach alpha technique. An r-value of 0.86 was obtained and used as basis for the adoption of the instrument for data collection. The copies of the questionnaire were personally administered with the help of three trained research assistance to the respondents. A total of 300 copies of the questionnaires were distributed and collected by the researcher with the help of research assistants at the spots and data collection lasted for four weeks. Copies of the administered questionnaires were checked to ensure that they were well completed. Daily review meetings were held at the beginning and end of each day with the research assistants. Data collected were analyzed using appropriate descriptive statistics of frequency counts and percentages for data presentation. While the inferential statistics of Chi-square (X^2) was used to test stated hypothesis at 0.05 alpha level of significance. The Statistical Package for Social Science (SPSS) version 23 was used for analyzing the data collected.

Results

Data Presentation

Table 1: Distribution of respondents by Gender, Age and Educational Qualification

Gender	Frequency	Percentage %
Male	150	50
Female	150	50
Total	300	100.0
Age	Frequency	Percentage %
18 - 25	129	43.0
26 - 35	121	40.33
36 above	50	16.67
Total	300	100.0
Qualifications	Frequency	Percentage %
FSLC	43	14.33
SSCE	203	67.67
OND/NCE	33	11
BSC/HND	21	7
Masters Above	0	0
Total	300	100

Table 1 showed the distribution of respondents on gender, age and educational qualification, gender of the respondents showed that 150 (50%) of the respondents were males while the remaining 150 (50%) were females. The distribution of respondents by age showed that 129 (43.0%) of the respondents were within the age bracket of 18-25 years, while 121 (40.33%) were within the age bracket of 26-35 years and 50 (16.67%) were 36 years above while the distribution of respondents by educational qualification showed that 43 (14.33%) of the respondents had First school leaving certificate while 203 (67.67%) had Senior Secondary Certificate Examination, 33 (11.00%) had OND/NCE, 21 (7.0%) had BSC/HND and 0 (0%) had Masters Above.

Hypothesis One

Hypothesis one states there will be no significant knowledge of accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State. This hypothesis was tested using Chi Square at 0.05 level of significance. The result is presented on the table below.

Table 2: Chi-Square result on knowledge of accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State.

Responses	FRQ	%	DF	LS	Cal X^2	P value	RMK
SA	770	51.33					
A	131	8.73	12	0.05	54.613	0.000	Sig
D	202	13.47					
SD	397	26.47					
TOTAL	1500	100					

Table 2 projects the data collected from the respondents on hypothesis one. It shows that 51.33% of the respondents strongly agreed to the items on having significant knowledge of accident prevention, 8.73% of the respondents agreed while 13.47% of the respondents disagreed and 26.47% strongly disagreed to the items respectively. Further, the table reveals a calculated X^2 value of 54.613 which is statistically significant at $p=0.000<0.05$ at 12^0 of freedom hence the rejection of the null hypothesis. It therefore implies that there was significant knowledge of accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State.

Hypothesis Two

Hypothesis two states that Workers of petrol stations in Alimosho Local Government Area of Lagos State will show no significant positive attitude towards accident prevention. This hypothesis was tested using Chi-Square at 0.05 level of significance. The result is presented on the table below.

Table 3: Chi-Square result on positive attitude towards accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State

Responses	FRQ	%	DF	LS	Cal X^2	P value	RMK
SA	133	8.87					
A	184	12.27	12	0.05	250.253	0.000	Sig
D	247	16.47					
SD	936	62.4					
TOTAL	1500	100					

Table 3 projects the data collected from the respondents on hypothesis two. It shows that 8.87% of the respondents strongly agreed to the items on attitude towards accident prevention among workers of selected petrol stations, 12.27% of the respondents agreed while 16.47% of the respondents disagreed and 62.4% strongly disagreed to the items respectively. Further, the table reveals a calculated X^2 value of 250.253 which is statistically significant at $p=0.000<0.05$ at 12^0 of freedom hence the rejection of the null hypothesis. It therefore implies that there was significant positive attitude towards accident prevention among workers of selected petrol.

Discussion

Hypothesis one states that “there will be no significant knowledge of accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State.” Chi-Square (X^2) analysis review that there was significant knowledge of accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State. The result of the research hypothesis disagrees with Lafta, Al-Shatari, & Abass (2014) in their study which assessed the level of knowledge of women on children's domestic accidents while determining association with some demographic factors. A cross-sectional investigation was conducted on both sides of Baghdad City between April and August 2013 while Female patients at primary healthcare centers were the target market (PHCCs). An unbiased sample of 20 PHCCs was gathered using stratified random sampling technique Was used in selection of 1032 women between the ages of 15 and 50 participated in this study. 9.2% of women had high understanding of preventing injuries from chemicals and detergents, according to the results, while more than 90% had inadequate knowledge. Further, 10.2% of them were found to have a decent level of expertise when it came to preventing electrical accidents brought on by power outlets and electrical appliances while 11.6% of the mothers fared well in the outcomes for fire accident-related accidents and only 6.3% of the women had a score that showed a good degree of knowledge for handling mishaps brought on by sharp objects in the

kitchen. Findings from this study therefore concludes that Baghdadi women had no significant knowledge of accident prevention in the home.

Further, finding of this study agrees with Hammam, Abd-ElGhany, Ibrahim & Mahmoud (2000) in their study on assessment of nurses' knowledge on accident prevention among the elderly in Assuit governorate. The study was carried out in five different locations: Assiut University Hospitals, Health Insurance Hospital (Elmabarra), Assiut General Hospital (Elshamla), District hospitals (Dirout and Abnob Hospital), and Rural Hospitals (Dronka and Banimohamadiat Hospitals). 30% of each previous setting's total number was taken. 500 nurses made up the sample as a whole. For this study, a written structured interview questionnaire was created. Between August 1998 and March 1999, a total of eight months were spent collecting the data. The study questionnaire has only ever been used to interview one nurse at a time. The current study's objective is to evaluate nurses' knowledge about senior accident causes, types, complications, prevention, and nursing's involvement in accident prevention. Since the study was conducted to evaluate the nurses on the elderly's awareness of accident prevention. There was poor knowledge among nurses of the types, causes, complication and accident prevention applicable to the elderly.

The hypothesis two states that “there will be no significant Positive attitude towards accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government area, Lagos State.” Chi-Square (X^2) analysis review that there was significant attitude towards accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government area, Lagos State. This finding is in consonance with Hassen, Godesso, Abebe, & Girma (2011) in their research titled Risky driving behaviors for road traffic accident among drivers in Mekele city, Northern Ethiopia. The sample size for the quantitative cross-sectional study in April 2011 was 350 drivers encompassing cabs, Bajajs (three-tire vehicles), and privately owned cars. The information was gathered through a face-to-face interview with a prescreened interviewer. Univariate, bivariate, and multivariate analyses were carried out using SPSS version 16. A sizable portion of the 233 study participants (66.6%) engaged in unsafe driving practices. More than one-quarter (28.6%) of 100 participants knew less about fundamental traffic indicators. 51.7% of the 181 drivers had an unfavorable opinion toward unsafe driving practices and 148 (42.3%) regularly used their phones while operating a car, and 28 (9.7%) had experience doing so after consuming alcohol. While driving, all Bajaj vehicles, 97 (62.6%) homes, and 58 (37.4%) taxis unbuckle their seatbelts. The researchers deduced that attitude was significant towards cause and prevention of accidents as many of the drivers examined showed poor attitude.

Also, finding of this research agrees with Mallia, Lazuras, Violani, & Lucidi (2015) in their study on Crash risk and aberrant driving behaviors among bus drivers: The role of personality and attitudes towards traffic safety. A standardized questionnaire measuring personality traits, attitudes toward road safety, self-reported aberrant driving behaviors (i.e., errors, lapses, and traffic violations), and accident risk over the previous 12 months was completed by 311 bus drivers (mean age = 39.1, SD = 10.7 years). Personality factors were both directly and indirectly linked to erratic driving behaviors, according to a structural equation modeling investigation. Altruism, excitement seeking, and normlessness in particular directly predicted bus drivers' attitudes about traffic safety, which in turn were adversely linked to the three categories of self-reported deviant driving actions. Without the need for attitude mediation, emotionality-related personality factors directly predicted the aberrant driving behaviors of bus drivers. The result from this study identified that poor and unhealthy attitude towards accident prevention was significant and could be a major cause of accident.

Conclusion

Based on the findings on this study, the following conclusions were made: there was significant knowledge of accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State. While the second hypothesis revealed that there was significant positive attitude towards accident prevention among workers of selected petrol stations in Oshodi-Isolo Local Government Area of Lagos State.

Recommendations

Based on the findings of the study, it was recommended that;

1. Efforts should be made by stakeholders, Government and concerned agencies in ensuring that owners of filling stations take responsibility for the health and safety of their workers.

2. Interventions targeted at developing negative attitude towards risky behaviors and accidents should be promoted among workers of petrol stations in order to enjoy safety and accident free environment.

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