

Original Research Article

Critical assessment of occupational health hazard in hospitality industry in Kano state, Nigeria

Yusuf M. Abdullahi^{1,2}, Hamza Garba^{1,3}, Ibrahim Baba^{1,4},
Abuhuraira Ado Musa^{5,6}, Faisal Muhammad^{7*}

¹Department of Environmental Health, School of Health Sciences, Maryam Abacha American University of Niger (MAAUN), Maradi, Niger

²Department of Environmental Health, Primary Health-Care Management Board, Kano, Nigeria

³Department of Environmental Health, Aminu Dabo College of Health Sciences and Technology Kano, Nigeria

⁴Department of Hospitality and Catering Studies, National Institute for Hospitality and Tourism (NIHOTOUR), Abuja, Nigeria

⁵Department of Public Health, National Orthopaedic Hospital Dala, Kano, Nigeria

⁶Department of Medical Microbiology and Parasitology, Faculty of Clinical Sciences, Bayero University Kano (BUK), Kano, Nigeria

⁷Department of Public Health, Faculty of Allied Health Sciences, Daffodil International University (DIU), Dhaka Bangladesh

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*Correspondence:

Dr. Faisal Muhammad,

E-mail: fokkanya@yahoo.com

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ABSTRACT

Background: It is a known fact that different occupations are occupied with different forms of hazard. Regardless to the nature, size and the enterprise scope of operation, the occupations available in the enterprise are no doubt associated with one form of hazard or the other. The purpose of this study was to critically assess the occupational hazard in hospitality industry in Kano state.

Methods: A total of 384 people from the selected hotels were recruited to form the sample of the study using simple random sampling technique. The instrument used for data collection in the study was self-administered semi-structured questionnaire. Data collected were analysed using statistical package for the social sciences (SPSS) version 20.

Results: In this study 50.0% of the respondents were ≤ 25 years and 54.9% of the respondents were male. More than three-fifths (64.0%) were civil servants, and most of the respondents (63.0%) were single. About 53.4% of them had tertiary level of education and above. Slightly below four-fifths (79.9%) of the respondents knew about physical work hazard and 75.0% of them were aware that physical work hazard can cause ailment and subsequently ill-health to employees and customers. Close to seven-tenths (69.8%) of the respondents understood what is meant by biological factors when issue relating to work hazard is being addressed. Little above half (53.4%) of the respondents knew what chemical hazard is all about and 75.8% of the respondents mentioned that if workable measures are implemented, this will reduce the occurrence of work related hazards.

Conclusions: There is lack of proper knowledge regarding the physical, chemical and biological hazards among the study participants. Government must provide suitable and enforcement laws that will enforce laws towards sustainable organizational safety.

Keywords: Occupational health, Hazard, Hospitality, Nigeria

INTRODUCTION

In developing countries the estimation shows that there's more than 120 million occupational accidents with over 200,000 fatalities occur each year. However the Sub-Saharan Africa appears to have the highest rate and then Asia.¹ Normally every work has its positive health-promoting effects, such as the financial dividend providing the worker with the basic necessities of life. Nevertheless there is a reciprocal and interactive relationship between workers and the work environment. However, knowledge of these interactions between work and health is fundamental in understanding and practice of occupational health and safety, the importance of safety at the workplace is often overlooked.²⁻⁴

More than one-third of injuries reported in the hospitality industry are due to trips and falls; making spillages the most common workplace hazard.⁵ It is a known fact that different occupations are occupied with different forms of hazard. Regardless to the nature, size and the enterprise scope of operation, the occupations available in the enterprise are no doubt associated with one form of hazard or the other. It is a common knowledge that some forms of hazard from occupation could emanate from physical factors such as physical environment (e.g. lighting, flooring, building etc.). Whereas, others occurred as a result of either biological or chemical factors such as the existence of microorganisms and chemical reagents which are injurious to the health of an individual. Many business organizations nowadays suffer a decline on employee turnover and/or productivity largely due to the persistence occurrence of one form of hazard or the other to the employees while at work. The continued occurrence of this hazard on employees while at work, no doubt have an economic and social cost to the enterprise.⁶

Hospitality industry being people and service oriented has large employer of labour largely due to the volume of activities being expected to deliver. Hospitality enterprises such as hotels, restaurants, clubs etc. employ large volume of labour to be able to cope with the pressure of service delivery. It is with a clear view to properly coordinate this service activity that employees are distributed into different departments/sections such as front office, housekeeping, kitchen, restaurants etc. In spite of this effort, one form of hazard or the other which is associated with the occupation in these service area's still occur.

Many employees of hospitality enterprises are faced with imminent danger of hazard in the course of discharging their duties.⁷ For instance, in a hotel, employees are exposed to various forms of work-hazard that range from accident occurrence, contracting infectious diseases, and disability of an employee as a result of chemical reagents.^{8,9} Receptionists and stewards are often than not, interacting with the hotel guests and other visitors. The appearance among the guests or visitors with infectious diseases could infect those employees in the course of discharging their duties.¹⁰ Similarly, if the hotel floor

surface area is dirty or slippery or a kitchen with inadequate ventilation or lightning, staffs working in these sections can be exposed to an accident or infected with respiratory tract illness. Additionally, in correct usage of chemicals by staffs of housekeeping during laundry and other cleaning services can cause skin dermatitis.¹¹ And continued usage of these chemicals without precautionary measures could result into disability of the employees.⁸ In Kano State, the hospitality enterprises such as hotels, restaurants, clubs etc. offer 24-hour service with a wide range of operation ranging from accommodation, catering and entertainment service. These chain of activities are no doubt associated with one form of hazard or the other on the employees. It is in consideration of this hazard on employees at work therefore, that the research work is designed to critically assessed occupational hazard in the hospitality industry with a specific reference to selected hotels, restaurants and clubs in Kano state, Nigeria.

METHODS

Study area, design and population

The study was conducted in Kano; a state located in the present North-West political zone of Nigeria. Kano was nicknamed centre of commerce and was ranked 2nd of the most populated state of the federation according to 2006 census with an estimate of 9,401, 288 people (2006). This study was a case study of assessing critically an occupational hazard in the hospitality industry with a specific focus to selected hotels in Kano state, Nigeria. Similarly, this study was also a cross-sectional study due to its focus on population studies upon and data were collected from the sample of population on which the study was carried out for intensive analysis. The total population between 18-45 years of age were sampled using random sampling technique from the study area to represent the population.

Selection criteria and sampling technique

This research work critically observed and carefully assesses an occupational hazard in the hospitality industry in Kano state, Nigeria. The hotels under study were observed and studied very well. This study exempted informal hospitality outfits such as brothels, road side catering outfits and tombola's. Therefore, due to this; a simple random sampling technique was employed to select 384 study participants, so that a dependable and well valid finding will be made.

Data collection method, management and analysis

An approved questionnaire was conveyed directly by the researcher to the area of the study and then distributed to the sample group. A self-administered semi-structured questionnaire was used to collect the information from the respondents. After collection of data, all the questionnaires were checked for completeness and correctness. The

corrected data was entered into statistical package for social sciences (SPSS) version 20 for analysis.

Ethical considerations

Ethical issues of this research work were clearly maintained. Written and verbal consent was taken before starting the data collection and the study was approved by Department of Environmental Health, School of Health Sciences, Maryam Abacha American University of Niger, Maradi, Niger.

RESULTS

Table 1 shows that 50.0% of the respondents were 25 years and below, 20.0% were between 26-35 years, 18.0% were in the 36-45 years age group and the rest (18.0%) were 46 years and above. About 54.9% of the respondents were male and more than three-fifths (64.0%) were civil servants, business holders (24.5%) and the rest (11.5%) were students. Most of the respondents (63.0%) were single, followed by married (24.5%), widow (5.7%) and the rest (5.7%) were divorced. Based on educational level of the respondents, 53.4% of them had tertiary level of education and above, 20.0% had primary level of education, 13.3% had secondary level of education and the remaining (13.3%) had other level of education.

Table 2 shows that about 79.9% of the respondents knew about physical work hazard and 75.0% of them were aware that physical work hazard can cause ailment and subsequently ill-health to employees and customers. About 72.4% of the respondents knew that lack of proper use of standard operation procedure can contribute to physical hazard and 81.3% of them believed that application of traditional procedure could minimize the chance of physical hazards occurrence. Close to seven-tenths (69.8%) of the respondents understood what is meant by biological factors when issue relating to work hazard is being addressed and about half knew how biological hazards occur in the establishment. Little above half (52.0%) agreed that biological work hazards if known in good time will help reduce the chance of its occurrence and 76.6% stated that the intervention of an expert in tackling this menace in hotels is essential. About 45.1% of the respondents knew that lack of adherence of biological preventive measures could result into poor quality work

delivery. About 53.4% of the respondents knew what chemical hazard is all about and 54.9% mentioned that the occurrence of chemical hazard so often in once affect the employees performance and hotel turnover. More than six-tenths (64.0%) stated that application of necessary preventive measures help in curtailing the occurrence of chemical hazards and 45.1% mentioned that lack of adherence to the preventive measures give room for the occurrence of more chemicals work hazards.

Table 1: Demographic information of the respondent (n=384).

Items	Frequency	Percentage
Age (years)		
≤25	192	50.0
26-35	74	20.0
36-45	72	18.0
≥46	46	12.0
Sex		
Male	211	54.9
Female	173	45.1
Occupation		
Civil servants	246	64.0
Business holders	94	24.5
Students	44	11.5
Marital status		
Married	94	24.5
Single	246	63.0
Widow	22	5.7
Divorce	22	5.7
Educational qualification		
Primary	77	20.0
Secondary	51	13.3
Tertiary and above	205	53.4
Others	51	13.3

Table 3 shows that only 53.4% of the respondents agreed that is possible for a workable measure to be put in place in the hotel and 54.9% also stated that workable measures serve as the medium in tackling this problem.

About 75.8% of the respondents mentioned that if workable measures are implemented, this will reduce the occurrence of work related hazards in the hotel.

Table 2: Distribution based on awareness on hazards and associated factors (n=384).

Items	Yes (%)	No (%)	No opinion (%)
Physical factor			
Knows physical work hazard	307 (79.9)	77 (20.1)	0 (0.0)
Aware that physical work hazard can cause ailment and subsequently ill-health to employees and customers	288 (75.0)	48 (12.5)	48 (12.5)
Knows that lack of proper use of standard operation procedure can contribute to physical hazard	278 (72.4)	106 (27.6)	0 (0.0)
Think that application of traditional procedure could minimize the chance of physical hazards occurrence	312 (81.3)	40 (10.4)	32 (8.3)

Continued.

Items	Yes (%)	No (%)	No opinion (%)
Biological factor			
Understand what is meant by biological factors when issue relating to work hazard is being addressed	268 (69.8)	116 (30.2)	0 (0.0)
Knows how biological hazards occur in the establishment	201 (52.3)	183 (47.9)	0 (0.0)
Agree that biological work hazards if known in good time will help reduce the chance of its occurrence	200 (52.0)	92 (24.0)	92 (24.0)
Think that the intervention of an expert in tackling this menace in hotels is essential	290 (76.6)	46 (12.1)	46 (12.1)
Knows that lack of adherence of biological preventive measures could result into poor quality work delivery	173 (45.1)	115 (29.9)	96 (25.0)
Chemical factors			
Knows the meaning of chemical hazard	205 (53.4)	102 (26.6)	77 (20.0)
Think that the occurrence of chemical hazard so often in once affect the employees performance and hotel turnover	211 (54.9)	173 (45.1)	0 (0.0)
Application of necessary preventive measures help in the curtail of occurrence of chemical hazards	246 (64.0)	94 (24.5)	44 (11.5)
Lack of adherence to the preventive measures give room for the occurrence of more chemicals work hazards	173 (45.1)	115 (29.9)	96 (25.0)

Table 3: Measures to prevent the occurrence of work hazards.

Measures	Yes (%)	No (%)	No opinion (%)
Is possible for a workable measure to be put in place in the hotel	205 (53.4)	102 (26.6)	77 (20.0)
Workable measures serve as the medium in tackling this problem	211 (54.9)	173 (45.1)	0 (0.0)
If workable measures are implemented, will this reduce the totally occurrence of work related hazards in the hotel	291 (75.8)	93 (24.2)	0 (0.0)

DISCUSSION

This study aimed to critically assess the occupational hazard in hospitality industry in Kano state. Close to eighty percent of the respondents knew about physical work hazard and 75.0% of them were aware that physical work hazard can cause ailment and subsequently ill-health to employees and customers. This finding is inconsistent with that of similar studies conducted in Ethiopia.^{12,13} Another study conducted in Nigeria also reported that most respondents were aware about types of hazards and hazardous situations.¹⁴

Over seventy percent of the respondents knew that lack of proper use of standard operation procedure can contribute to physical hazard and also most of them believed that application of traditional procedure could minimize the chance of physical hazards occurrence. Physical hazards are a common source of injuries which could be found in several industries.¹⁵ In construction and mining industries, the physical hazards are perhaps unavoidable, but over time people have developed safety methods and procedures to manage the risks of physical danger in the workplace.¹⁶ A study reported that there are various health and safety hazards associated with hotel industry. However the physical, chemical and mechanical are the main types of health and safety hazards happened in the hotel industry.¹⁷

About seventy percent of the respondents understood what is meant by biological factors when issue relating to work hazard is being addressed and about half knew how biological hazards occur in the establishment. A study reported that it is important to improve the current understanding of the health hazards caused by biological factors at the workplace including the hotels.⁹ Over seventy percent of the respondents believed that the intervention of an expert in tackling this menace in hotels is essential. More than half of the respondents knew about chemical hazards and most of them stated that lack of adherence to the preventive measures give room for the occurrence of more chemicals work hazards. It's known that the exposure to chemicals in the workplace can cause acute or long-term detrimental health effects.¹⁸ The history of occupational hazards awareness can be traced back to 18th century when the father of occupational medicine (Bernardino Ramazzini), recognised the role of occupation in dynamics of health and diseases.¹⁹ In this study about 54.9% of the respondents stated that workable measures could be served as the medium in tackling the occupational hazard problems. Nevertheless most of the respondents believed that implementation of workable measures will reduce the occurrence of work related hazards in the hotel.

Limitation

This research limited itself to the selected hotels in Kano state only. This limitation covers the proximity, time and other financial resources necessary for conducting the

research work. However, phobia from the hotel employees in filling the designed questionnaire appeared to be another limitation.

CONCLUSION

Our finding reported that there is lack of proper knowledge regarding the physical, chemical and biological hazards among the respondents. Government must provide suitable and enforcement laws that will enforce laws towards sustainable organizational safety. There is a significant role play by these hazards towards societal safety both in our hotels and other enterprises.

Recommendations

Government should create an awareness institution, in concern with hotels and enterprises. Health educators and environmentalist should do every possible in ensuring that set of rules and regulations enforce are abide by these institutions concern. Both state and local government area are to join hand together in addressing this bed willing problem that arose for decay. Proper environmental sanitation and ensuring forcing of environmental health law and punishment. The staff must be given extra knowledge training programme time to time regarding the occupational hazards and there's need for more awareness to the general public as well.

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REFERENCES

1. Tadesse S, Bezabih K, Destaw B, Assefa Y. Awareness of occupational hazards and associated factors among welders in Lideta Sub-City, Addis Ababa, Ethiopia. *J Occup Med Toxicol.* 2016;11:15.
2. Awodele O, Popoola TD, Ogbudu BS, Akinyede A, Coker HA, Akintonwa A. Occupational hazards and safety measures amongst the paint factory workers in lagos, Nigeria. *Saf Health Work.* 2014;5(2):106-11.
3. Fasunloro A, Owotade FJ. Occupational Hazards Among Clinical Dental Staff. *J Contemp Dent Pract.* 2004;5:134-52.
4. Diwe K, Duru C, Iwu A, Merenu I, Uwakwe K, Oluoha U, Ogunniyan T, Madubueze U, Ohale I. Occupational Hazards, Safety and Hygienic Practices among Timber Workers in a South Eastern State, Nigeria. *Occup Dis Environl Med.* 2016;4:63-71.
5. Monk Z. The biggest five health hazards in hospitality. May 10, 2018. Available at: <https://www.boutiquehotelier.com/biggest-five-health-hazards-hospitality/>. Accessed on 20 December 2020.
6. Abdalla S, Apramian SS, Cantley LF, Cullen MR. Occupation and Risk for Injuries. In: Mock CN, Nugent R, Kobusingye O, Smith KR, editors. *Injury Prevention and Environmental Health.* 3rd ed. Washington (DC): The International Bank for Reconstruction and Development/The World Bank. 2017.
7. International Labor Organization (ILO). *Development and Challenges in Hospitality and Tourism Sector,* 2010. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_162202.pdf. Accessed on 20 December 2020.
8. World Health Organization (WHO). *Occupational health: A manual for primary health care workers;* 2001. Available at: https://www.who.int/occupational_health/regions/en/oehemhealthcareworkers.pdf. Accessed on 05 December 2020.
9. Rim KT, Lim CH. Biologically hazardous agents at work and efforts to protect workers' health: a review of recent reports. *Saf Health Work.* 2014;5(2):43-52.
10. Hung KKC, Mark CKM, Yeung MPS, Chan EYY, Graham CA. The role of the hotel industry in the response to emerging epidemics: a case study of SARS in 2003 and H1N1 swine flu in 2009 in Hong Kong. *Global Health.* 2018;14:117.
11. European Agency for Safety and Health at Work (EU-OSHA). *Literature review – The occupational safety and health of cleaning workers.* 2009. Available at: <https://osha.europa.eu/en/publications/occupational-safety-and-health-cleaning-workers>. Accessed on 05 December 2020.
12. Achenef M. "Assessments of knowledge and practice on safety information among factory workers in Addis Ababa," Thesis, Addis Abeba Universty, Addis Ababa, Ethiopia. 2007.
13. Desalegn T. Knowledge and practices regarding safety information among textile workers in Adwa town. *Science Postprint.* 2014;1:1.
14. Aluko OO, Adebayo AE, Adebisi TF, Ewegbemi MK, Abidoye AT, Popoola BF. Knowledge, attitudes and perceptions of occupational hazards and safety practices in Nigerian healthcare workers. *BMC Res Notes.* 2016;9:71.
15. International Labor Organization (ILO). *Hazardous Work.* 2012. Available at: <https://www.ilo.org/safework/areasofwork/hazardous-work/lang--en/index.htm>. Accessed on 10 December 2020.
16. International Programme on the Elimination of Child Labour (IPEC). *Children in hazardous work What we know What we need to do.* International Labour Organization. 2011. Available at: https://web.archive.org/web/20191024123141/http://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_155428.pdf. Accessed on 06 December 2020.
17. Calvin B, Joseph A. Common hazards in garment factories. *India J Comm Med.* 2009;4(2):20-4.
18. Centre for Disease Control and Prevention (CDC). "CDC - Chemical Safety - NIOSH Workplace Safety and Health Topic". 2015. Available at: https://www.cdc.gov/niosh/chemicals/default.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov

%2Fniosh%2Ftopics%2Fchemical-safety%2Fdefault.html. Accessed on 11 December 2020.

19. Asuzu MC. Occupational health: A Summary, introduction, and outline of principle. Ibadan: Afrika-Links Books. 1994;1.

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