HEALTH AND SAFETY PRACTICES OF EMPLOYEES IN HOTEL AND RESTAURANT KITCHENS IN ACCRA

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Abstract

This study assessed employees' health and safety practices in selected hotel and restaurant kitchens in Accra, Ghana. A cross-sectional design was used. Data were collected through structured interviews with 320 kitchen staff and unstructured observations of staff practices between June and August 2021. The data were analysed using the chi-square test of independence. The study found that kitchen staff at hotels and restaurants in Accra primarily used personal protective equipment (PPE) to ensure their health and safety. However, the PPEs used were inappropriate, and there were lapses in the execution of staff roles as stipulated in the Occupational Safety and Health Convention (No. 155) and the Ghana Labour Act (Act 651). It was also established that demographic factors such as sex, educational level, and positions held within hotel and restaurant kitchens significantly influenced all health and safety practices undertaken by staff, including updating knowledge and skills, use of PPE, reporting hazards/accidents, and adhering to established instructions/procedures carried out by the staff. It is recommended that the Ghana Tourism Authority (GTA) and the Ghana Fire Service continue to sensitize hotel and restaurant staff and to ensure that managers supervise and enforce adherence to health and safety measures.

Keywords: Employees, Restaurant, Kitchens, Safety and Health, Practices

INTRODUCTION

Health and safety are important in workplaces as they focus on providing and improving a healthy working environment (Srivastava, 2017). The goals of workplace health and safety are to promote workers' well-being and safety, prevent accidents and illnesses, and create a workplace that supports health and safety for all employees (Srivastava, 2017; Taderera, 2012; World Health Organization, 2022). Working in a conducive, hygienic, and safe environment is not only a human need, as indicated in Maslow's Hierarchy of Needs (Maslow, 1943), but also a fundamental human right, as stipulated in most national legislation, including the Constitution of the Republic of Ghana [Section 24:1] (Republic of Ghana, 1992). It is also a global target under the Sustainable Development Goals (SDGs) [Target 8 of Goal 8] (United Nations, 2015) and a tool for achieving industry objectives, including those of the hospitality industry (Rasool, Hussaini, & Saeed, 2020).

The hospitality industry is labour-intensive (Aynalem, Birhanu, & Tesefay, 2016; Baum, 2013; Cherono, 2011; Tiwari, 2015). The industry encompasses a wide range of businesses, including hotels and restaurants, which form a significant part of the economy of most countries, including Ghana (Kuhn, Benetti, Dos Anjos, & Limberger, 2018; Peters & Kontor-Kwateng, 2016; Srivastava, 2017). Hospitality businesses also strive to meet the increased demands of customers who, through urbanisation and busy lifestyles, consider dining out a necessity to satisfy changes in their dietary habits and patterns (Fraikue, 2016; Horsu & Yeboah, 2015; Tiwari, 2015).

The kitchens of hotels and restaurants play a vital role in providing quality food, a prime factor in the success of hospitality businesses (Dareker & Peshave, 2016). The success of these businesses can be achieved and sustained through the effective performance of healthy kitchen staff (Amran, Ghazali, & Hashim, 2019). It takes an efficient, healthy kitchen staff to provide quality food service that satisfies customers, thereby encouraging repeat patronage and increasing sales (Adiele & Kenneth-Adiele, 2017).

Despite its importance, the kitchen remains one of the most complex areas in hotel and

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restaurant environments, where staff are exposed to harsh working conditions and various hazards (Bindu & Reddy, 2016; Malik & Reddy, 2017). These risks stem from the workload and the types of materials handled (Tomita et al., 2013). Poor kitchen design is also a hazardous factor affecting worker safety (Mondal, 2012; Syed Ali et al., 2018). This highlights the need to ensure health and safety in hotel and restaurant kitchens.

Employees are required to report any hazards or dangers they observe in the workplace to supervisors and to use tools and equipment provided by employers properly, as outlined in the Occupational Health and Safety Convention [No. 155] (International Labour Organisation [ILO], 1981) and the Ghana Labour Act [Act 651] (Republic of Ghana, 2003). These measures aim to prevent hazards that could cause injuries and illnesses, improve staff satisfaction, and positively influence performance. However, occupational health and safety remain serious public health issues due to the global prevalence of workplace injuries and deaths, with hotels and restaurants no exception (GSS, 2016; Kini et al., 2025). ILO reports indicate that approximately 374 million injuries and illnesses occur annually in the workplace worldwide, with nearly 2.8 million deaths (International Labour Organization [ILO], 2019a; ILO, 2019b).

In Ghana, individuals in the accommodation and food service industries experience some form of injury annually (GSS, 2016). According to Awang and Yoong (2018), such injuries can affect workers' behaviour and their ability to work efficiently. Kini et al. (2025) have also indicated that injuries in hotels and restaurants have severe implications for a nation's economy. Therefore, addressing occupational health and safety issues in the hotel and restaurant sectors of the hospitality industry is crucial for maintaining the facilities' positive reputation and safeguarding employee well-being.

However, the existing literature on health and safety issues in Ghana's food service sector primarily focuses on safety risks in local catering environments (Alfers & Abban, 2011), staff knowledge of occupational health and safety in institutional catering (Dzah, 2021), and safety practices in institutional catering (Adanse et al., 2017; Adzinyo et al., 2024). Studies on compliance with health and safety measures as required by the ILO and the Ghana Labour Act have received limited attention in Ghana and in other countries such as Nigeria (Joshua et al., 2017), Kenya (Kaylo, 2016), South Africa (Maseko, 2016), and Sri Lanka (Rajini et al., 2012). Existing studies tend to overlook employees' socio-demographic characteristics in the context of implementing compliance with health and safety measures, even though, according to He et al. (2023), these characteristics are critical to workers' safety, as they affect safety behaviour. The limited understanding of health and safety issues in Ghana's hospitality industry may hinder efforts to improve workplace safety, especially in the kitchen, where hazards are numerous. Therefore, this study aims to examine the relationships between socio-demographic characteristics and the health and safety measures adopted by kitchen staff in hotels and restaurants in Accra, Ghana.

LITERATURE REVIEW

Theoretical Framework

Andersen's Behavioural Model (Andersen, 1968) provides the theoretical foundation for this study. Developed to explain the use of health care services, the model focuses on identifying conditions that promote or hinder utilisation of health care services among individuals (Andersen & Newman, 1973). According to the model, personal

and environmental characteristics, categorised as predisposing, enabling, and need factors, influence health behaviours and the utilization of health services, which in turn affect health outcomes. Predisposing factors include socio-demographic characteristics such as age, sex, and marital status; social structural factors such as education, race, occupation, ethnicity, and religion; and personal beliefs, including values, attitudes, and knowledge about health services (Andersen, 1995; Andersen & Newman, 2005). These factors are believed to be supported by enabling personal, family, and community resources, as well as by perceived and actual needs for accessing health services and by the decision to seek health care.

Even though this theory has been adopted mainly to discuss the utilisation of healthcare services, it could be adopted to explain the behaviour of hotel and restaurant kitchen staff towards health and safety measures in the hospitality industry. This study posits that predispositional factors, being referred to as background characteristics such as age, sex, education, mode of employment, and job positions of staff in hotel and restaurant kitchens, may influence their behaviour regarding health and safety practices mandated by the Ghana Labour Act (Act 651) and ILO.

Health and Safety Practices of Hospitality Staff

In the literature, few studies have examined the measures employees use to perform their duties and ensure their health and safety. The studies showed that staff in various workplaces have implemented certain measures. For instance, the results from studies conducted among bakeries in Kaduna, Nigeria (Joshua et al., 2017), food industries in Nairobi (Kaylo, 2016), food and beverage industries in South Africa (Maseko, 2016), and hotels in Sri Lanka (Rajini et al., 2012) revealed that the use of PPEs was the common health and safety measure, reported by more than half of the respondents in the surveys. Similarly, Eyo et al.'s (2025) study, conducted among hotels in Calabar Municipality, indicated that PPE use was widespread among hotel kitchen staff. In contrast, a study by Delfahedah (2022) found that PPE use among hotel employees was uncommon at the Simalungun City Hotel in Indonesia. Likewise, the use of appropriate PPE by staff in the discharge of their duties was reported only in Gaydos et al.'s (2011) study conducted in restaurant kitchens in Chinatown, San Francisco, which focused on hazardous practices among kitchen staff. The results indicate that the use of appropriate protective clothing was uncommon among the staff.

Among the few empirical studies that have explored the reporting of workplace hazards and accidents in the food and beverage sector is Maseko's (2016) study. The finding showed that only 16.8% reported any hazard, unsafe act, or unsafe condition to management. Respondents attributed this low reporting rate to a perceived lack of management commitment to ensuring employee health and safety in the industry.

Aside from being mandatory for employees to attend health and safety training organised by organizations, such training also raises employees' awareness (Cherono, 2011). As such, employees who receive this training can help reduce the number of accidents that lead to injuries, illnesses, and even death. A literature search found that few studies had reported on employees' health and safety training. For instance, Maseko (2016) indicated that more than half of the staff in South Africa's food and beverage industry had received induction training on general workplace health and safety rules. However, in an earlier study conducted specifically in the catering industry, fewer than half of the surveyed caterers had received occupational health and safety training.

From the foregoing analysis of the literature on the measures employees use to ensure health and safety in workplaces, it is evident that little has been reported on the health and safety practices of hotel and restaurant kitchen staff, despite the high rates of injuries and illnesses and even death in these facilities (GSS, 2016; Kini et al., 2025). This situation is largely attributed to inadequate measures to ensure occupational health and safety at most workplaces (Reid et al., 2014).

Socio-demographic Characteristics and Health and Safety Practices

An important aspect of occupational health and safety studies is the relationship between employees' background characteristics and their compliance with safety measures. A study by Kyalo (2016) assessing PPE use among food industry workers in Nairobi found a significant association between PPE use and factors such as age, gender, and work experience. The study also found that PPE use was more common among female employees over 35 and those with more than 6 years of work experience.

A study by Delfahedah (2022) found that PPE use was less prevalent among hotel employees with lower educational backgrounds (78.6%) at the Simalungun City Hotel than among those with higher educational backgrounds (21.4%). The study further revealed that employees with less work experience (94.3%) did not use PPE, compared with those with more work experience (5.7%). Regarding gender, Gyekye and Salminen (2011) report that male employees tend to ignore safety procedures more often than female employees. This may be attributed to males' tendency to take risks.

A similar study conducted among star-rated hotel workers in Addis Ababa, Ethiopia, in 2017 found that background characteristics such as gender, educational status, and hotel grade were significantly associated with employees' occupational health and safety practices (Bobo, 2017). Variables such as marital status and work experience were not significantly associated with employees' occupational health and safety practices.

MATERIALS AND METHODS

The study was conducted in Accra, the capital city of Ghana. A quantitative research approach and a cross-sectional study design were employed in gathering information from a sample of restaurant kitchen staff at a single point in time. This design was useful for capturing a snapshot of the health and safety practices of hotel and restaurant kitchen staff, providing a representative overview of the findings at the time of data collection.

The study employed a six-stage sampling technique to select the number of hotel and independent restaurant kitchen staff. The procedure began by using the GTA Catering and Hotel Directories to group licensed accommodation and food service facilities in Accra into independent restaurants and hotel restaurants (Table 1). This was followed by sub-groupings of hotels by star rating and of independent restaurants by grade, with the following breakdowns: Hotels: 5-Star (3), 4-Star (8), 3-Star (6), 2-Star (65), and 1-Star (102); Independent restaurants: Grade 1 (49), Grade 2 (123), and Grade 3 (32). The third stage was devoted to sample allocation of the facilities. Fifty percent of the facilities in each stratum of hotels or restaurants were selected to form the facility sample. In all, 93 hotels and 103 independent restaurants were selected for the study. At stage 4, the lottery method was used to randomly select a specific number of facilities in each star and grade stratum. Stage 5 involved allocating kitchen staff to each stratum. Here, a 10% sampling fraction was applied to the total number of staff in each selected facility type. This resulted in 618 respondents: 303 from hotel

restaurants and 315 from independent restaurants (Table 1). The sixth stage was the selection of the respondent. A convenience sampling method was used to select the respondents due to a shortfall in staff availability, attributed to reduced patronage and COVID-19 layoffs.

Data were collected from the kitchen staff using interview schedules. The instrument focused on the health and safety practices of kitchen staff, using closed-ended response options (Yes/No) aligned with the requirements outlined in the ILO guidelines (ILO, 2009) and the Ghana Labour Act (Act 651). The instrument also covered socio-demographic and work-related characteristics, such as gender, age, level of education, type of restaurant kitchen, employment status, kitchen position, and respondents' work experience. In total, data were obtained from 320 kitchen staff.

The data collection exercise took place mainly after breakfast or during lunch, depending on the interview time. Kitchen staff at independent restaurants were primarily interviewed during lunch service, when they were more accessible. Each interview session lasted 45 minutes. Staff practices were observed alongside the interviews, and both activities were conducted on the same day.

Table 1: Selected Facilities and Respondents

Hotels						**Restaurants**					
Rating	No. of HR (A)	Pop. of KS (B)	Total Pop. of KS (A*B)	Sampled KS (10% of A*B)	Sampled HR (50% of A)	Grade	No. of IR (A)	Pop. of KS (B)	Total Pop. of KS (A*B)	Sampled KS (10% of A*B)	Sampled IR (50% of A)
5-Star	3	60	180	18	2	Grade 1	49	20	980	98	25
4-Star	8	45	360	36	4	Grade 2	123	15	1845	185	62
3-Star	6	30	180	18	3	Grade 3	32	10	320	32	16
2-Star	65	20	1300	130	33						
1-Star	102	10	1020	102	51						
Total	**184**	**165**	**3040**	**303**	**93**		**204**	**45**	**3145**	**315**	**103**

NB. HR is Hotel Restaurant, IR Independent Restaurant, and KS Kitchen Staff

Source: Field survey, 2021

Before the interviews began, the head of the kitchen or the manager typically accompanied the researcher on a brief tour to observe relevant staff practices. Where appropriate, photographs were taken with the consent of both staff and management. Ethical clearance for the study was sought from the Institutional Review Board (IRB) of the University of Cape Coast. On all occasions prior to data collection, informed consent was obtained from participants. The purpose of the study was clearly explained to each respondent and assurances were given regarding their anonymity and the confidentiality of all information provided. Participation was entirely voluntary and respondents

were informed of their right to withdraw at any stage of the interview.

The data were analysed using SPSS version 28. Health and safety practices were examined across demographic and occupational variables, including gender, age, level of education, type of restaurant kitchen, employment status, kitchen position, and work experience. A chi-square test of independence was used to assess associations between these variables and health and safety practices by staff. Statistical significance was set at $p \leq 0.05$.

FINDINGS

Table 2 shows that slightly more than half (56.6%) of the respondents were female, while 43.4% were male. The majority (69.4%) were under 35 years old, and about two-thirds (66.6%) were not married. Nearly 74% of the kitchen staff had secondary education qualifications. In terms of employment characteristics, 56.9% worked in independent restaurant kitchens, while the remaining 43.1% worked in hotel restaurant kitchens. Among those who worked in hotels, 34.8% worked in upmarket hotels, 47.1% in 2-star hotels, and 18.1% in 1-star hotels. For those working in restaurants, 41.2% worked in grade-2 restaurants, 35.7% in grade-3 restaurants, and 23.1% in grade-1 restaurants. Approximately 89% of the respondents were employed as permanent staff in restaurant kitchens. Overall, there were more Cooks (55.0%) than Chefs (30.0%). A greater proportion (84.1%) of respondents had been working at their current workplace for less than 10 years

Table 2: Socio-demographic Characteristics of Respondents

Variable	Frequency (N = 320)	Percentage (%)
Gender		
Male	139	43.4
Female	181	56.6
Age		
< 35 years	222	69.4
35 & above	98	30.6
Level of Education		
Basic Education	36	11.2
Secondary Education	236	73.8
Tertiary Education	48	15.0
Type of facility		
Independent Restaurant	182	56.9
Hotel restaurant kitchen	138	43.1
Status of Workers		
Permanent	284	88.8
Temporal	36	11.2
Staff position in kitchen		
Chef	96	30.0
Cook	176	55.0
Kitchen assistant/Steward	48	15.0
Experience of workers		
< 10 Year	269	84.1
10 years & above	51	15.9

Health and Safety Measures Adopted by Kitchen Staff in Hotels and Restaurants

Figure 1 illustrates the percentage of workers engaged in health and safety measures in hotel and restaurant kitchens. Mainly, four health and safety measures were carried out by the kitchen staff. These ranged from updates to knowledge and skills in health and safety (training), use of PPE, reporting hazards/accidents, and following instructions/procedures. Generally, Figure 1 shows that fewer than half of the respondents engaged in any of the health and safety measures. Nevertheless, the use of PPE emerged as the most effective and safety-conscious measure implemented by respondents in the kitchens (45%). Updating knowledge and skills in safety and health ranked second as the most significant health and safety measure among the kitchen staff (26%). This was followed by the practice of reporting hazards and accidents (16%). The measure least adhered to by respondents was following instructions and procedures (13%).

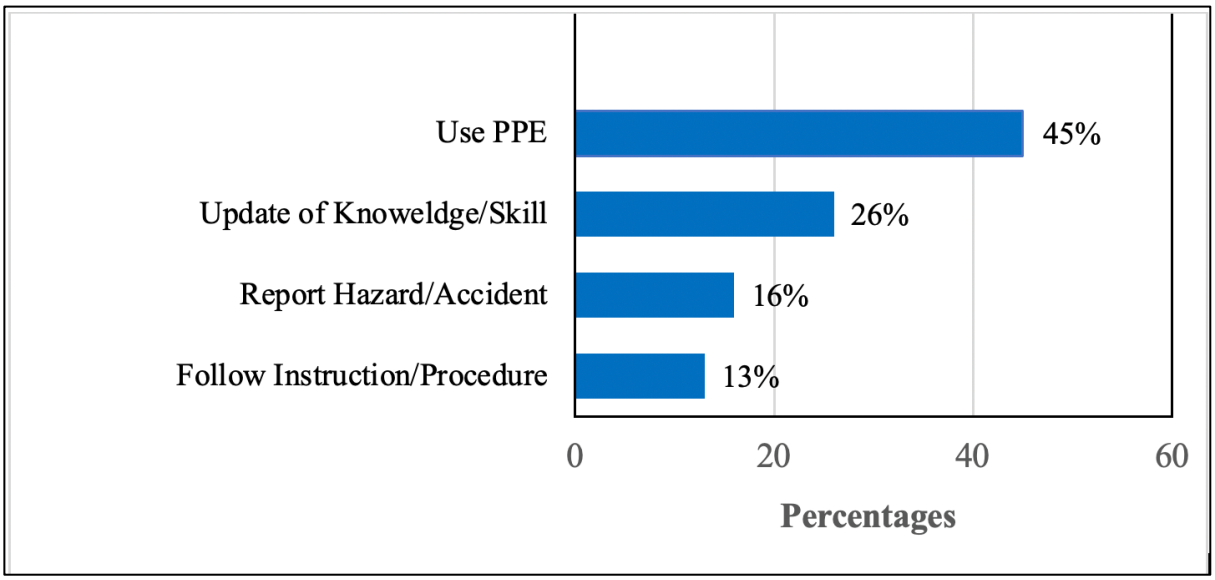

Figure 1: Measures Employed by Kitchen Staff

Although PPE was identified as the primary measure staff used to ensure health and safety in restaurant kitchens, observations revealed that employees wore PPE that was not appropriate and, in some instances, it was not appropriate for the assigned tasks. Evidence of inappropriate PPE observed during the study is presented in Plate 1.

As shown in Picture 1, the respondent wore a lightweight polyester apron that was not waterproof and therefore offered limited protection against burns from hot liquids, a common hazard for chefs and cooks in routine kitchen operations. Besides, the respondent was not wearing a chef's jacket, which is designed to provide insulation and protection against hot liquids, steam, and open flames commonly encountered in the kitchen.

The gloves worn by the respondents in Picture 2 were standard synthetic rubber gloves, not cut-resistant gloves designed for food-preparation tasks involving sharp equipment. This finding is particularly concerning because the respondent was observed wearing the gloves while descaling fish, an activity that involves direct contact with sharp knives and fish fins, thereby increasing the risk of

lacerations. The respondent wore the same gloves while frying the fish, despite their limited ability to protect against heat and oil splashes.

The footwear observed among the respondents featured openings that compromise foot protection. The clog shown in Picture 3, a popular choice of footwear among the kitchen staff due to its slip-resistant properties, lightweight, comfort during extended work shifts, and easy-to-clean characteristics, had ventilated openings, while the sandals shown in Picture 4 had an open design.

1. ***Non-waterproof apron***

2. ***Synthetic rubber gloves used for fish descaling and frying***

3. ***Clog with ventilated openings***

4. ***Open-design sandals***

Plate 1: Inappropriate PPE Used by Staff in the Restaurant Kitchens

Table 3 presents the actions taken by staff to promote health and safety in hotels and restaurant kitchens, categorised by background characteristics. A chi-square test of independence was used to examine associations between variables. The results indicate that many of the relationships across variables were statistically significant. For instance, significant associations were found between all reported health and safety practices, namely updating knowledge and skills, using PPE, reporting hazards and accidents, and following instructions or procedures, and respondents' sex, educational level,

and positions held within the kitchen. The practice of using PPE in the kitchen was also statistically significant with respect to the type of restaurant kitchen ($\chi2 = 15.78$; $p = 0.000$) and respondents' work experience ($\chi2 = 8.81$; $p = 0.003$). In contrast, no statistically significant relationships were observed between the use of PPE as a health and safety measure among kitchen staff and their age or mode of employment. However, an exception was found in the practice of following instructions and procedures to ensure health and safety, which was statistically associated with both age ($\chi2 = 16.22$; $p = 0.000$) and mode of employment ($\chi2 = 4.54$; $p = 0.033$), but not with the type of restaurant kitchen and workers' years of experience.

Table 3: Health and Safety Measures Employed by Kitchen Staff by Demographic Characteristics

Characteristics	Measures of health and safety (%)			
	UKS	UPPE	RHA	FIP
Sex				
Male	58.7	71.0	92.4	74.8
Female	47.8	61.6	77.3	65.7
χ2 (p-value)	18.59 (0.001)	21.47 (0.001)	26.54 (0.001)	6.13 (0.013)
Age				
< 35 years	51.8	65.1	82.4	74.5
35 & above	54.3	67.1	87.2	58.7
χ2 (p-value)	0.84 (0.359)	0.79 (0.374)	2.33 (0.127)	16.22 (0.001)
Level of Education				
Basic Education	61.7	62.7	91.7	50.0
Secondary Education	48.8	64.7	80.5	72.0
Tertiary Education	64.2	72.9	94.8	72.9
χ2 (p-value)	25.60 (0.001)	9.49 (0.009)	15.67 (0.001)	14.92 (0.001)
Type of restaurant kitchen				
Independent restaurant	50.3	62.2	84.3	72.0
Hotel restaurant	55.5	70.3	83.3	66.7
χ2 (p-value)	4.22 (0.040)	15.78 (0.001)	0.12 (0.731)	2.10 (0.148)
Mode of Employment				
Permanent	52.9	65.6	83.5	68.3
Temporal	50.0	66.3	87.5	80.6
χ2 (p-value)	0.53 (0.465)	0.04 (0.844)	0.78 (0.378)	4.54 (0.033)
Position in kitchen				
Chef	61.9	71.6	95.8	78.6
Cook	47.6	62.3	76.1	64.2
Kitchen Assistant/Steward	52.1	66.4	88.5	71.9
χ2 (p-value)	25.36 (0.001)	16.55 (0.001)	37.49 (0.001)	12.52 (0.002)

Work experience				
< 10 Year	82.4	64.4	82.2	70.4
10 & above	68.3	72.5	93.1	65.7
χ2 (p-value)	4.19 (0.041)	8.81 (0.003)	7.66 (0.001)	0.92 (0.338)

Source: Field survey (2021)

NB: Update of knowledge and skill (UKS); Use of personal protective equipment (UPPE); Report hazards/accidents (RHA); Follow instructions/procedures (FIP)

Significance level at p<0.05

The study also reveals that a high proportion of respondents across the variables reported engaging in key safety practices, including the use of personal protective equipment (PPEs), reporting of hazards or accidents, and adhering to safety instructions and procedures in the kitchens. However, despite a statistically significant relationship established between the practice of updating knowledge and skills as a health and safety measure and staff characteristics such as sex ($\chi2 = 18.59$; $p = 0.000$), level of education ($\chi2 = 25.60$; $p = 0.000$) and staff positions in the kitchens ($\chi2 = 25.36$; $p = 0.000$), notable variations were observed in the proportions of respondents engaging in this practice across the different demographic cohorts. For instance, a higher proportion of male respondents (51.8%) reported updating their knowledge and skills than female respondents (47.8%). Similarly, respondents with tertiary education (64.2%) and those with basic education (61.7%) were more engaged in this practice than those with secondary education (48.8%). In terms of kitchen roles, chefs (61.9%) and kitchen assistants or stewards (52.1%) reported higher rates of updating in their knowledge and skills than cooks (47.6%).

DISCUSSION

According to the results, hotel and restaurant kitchen staff primarily used PPE to ensure health and safety. However, less than half of the respondents engaged in this practice. This behaviour contradicts the Ghana Labour Act, which mandates that every worker use safety appliances, including PPE, in the workplace. The finding that PPE use was the most common health and safety measure among kitchen staff is consistent with observations made by Rajini et al. (2012) in their study of hotel kitchen workers in Sri Lanka and by Eyo et al. (2025) in their study of hotel employees in Calabar Municipality, Nigeria. The findings also revealed that the PPE used by most kitchen staff was inappropriate for the tasks. These observations suggest a mismatch between the protective properties of PPE and the hazards associated with the tasks being undertaken. This finding is concerning, as the proper use of PPE is a critical measure for controlling hazards and preventing unnecessary injuries in restaurant kitchens. For instance, appropriate footwear is necessary to protect respondents' feet from workplace hazards, such as hot liquid spills and falling objects. Staff using the wrong PPE in the workplace not only puts them at risk but may also endanger the lives of their colleagues through potentially work-related injuries and illnesses. The finding indicates a potential lapse in management responsibility to supervise staff activities as required under the Ghana Labour Act to safeguard employees' safety and health. This observation aligns with findings from a study conducted in

China and San Francisco, in which Gaydos et al. (2011) reported that inappropriate protective clothing was common among restaurant kitchen staff.

Updating knowledge and skills related to health and safety emerged as the second most important measure among hotel and restaurant kitchen staff. The finding also showed that only about a quarter (26%) of employees received workplace training on health and safety protocols. This suggests a failure by employers to meet their legal obligation under the Ghana Labour Act to provide health and safety training, which is essential for fostering a safer working environment for all workers. The limited number of staff updating their knowledge and skills in health and safety practices contradicts Maseko's (2016) findings, which reported that more than half of food and beverage staff in South Africa have received induction training on general workplace health and safety rules.

The results further showed that fewer than one-fifth (16%) of respondents reported hazards and accidents in the kitchen environment, despite the explicit requirement in the Ghana Labour Act that employees promptly report imminent or serious hazards to their immediate supervisors. The low reporting rate is alarming, given that the kitchen environment is hazardous (Maseko, 2016; Mondal, 2012) due to workers' exposure to high temperatures, use of sharp utensils, walking on slippery floors, and working with flammable materials. Occupational health and safety literature has emphasised that these conditions can have far-reaching consequences, including disruptions in productivity (Hughes & Ferrett, 2013) and increased health care costs, long-term disability, severe cases, and fatalities (WHO/ILO, 2021). This reluctance or failure of the majority of respondents to report kitchen hazards or accidents, as required by law, also raises critical concerns about workplace health and safety culture, staff awareness of legal responsibilities, and the potential effectiveness of existing safety management systems in hotels and restaurants. The low rate of respondents reporting hazards or accidents to management in hotel and restaurant kitchens in Accra aligns with Maseko's (2016) findings from a related study conducted in the South African food and beverage sector.

The results demonstrate associations between respondents' sex, educational attainment, and positions held in the kitchen and their use of PPE, reporting of hazards and accidents, adherence to instructions or established procedures, and updating knowledge and skills. Moreover, the use of PPE, updating knowledge and skills, and reporting of hazards and accidents were significantly associated with respondents' work experience. These findings suggest that demographic variables have a notable influence on individual behaviour, aligning with Andersen's Behavioural Model (Andersen, 1968), which posits that predisposing factors such as demographic factors shape behavioural outcomes. The observed association between respondents' use of PPE and sex may be linked to differences in risk perception and safety socialization, with female staff more likely to perceive higher risk and therefore comply with safety measures, while male staff may underestimate risk and refrain from using PPE in the discharge of their duties. Another reason for the relationship may be an organizational factor, such as gender-based role assignment, which affects staff hazard exposure and the expectations placed on PPE usage. Having an observed significance of PPE use in relation to work experience can also be linked to the reason that more experienced kitchen staff are likely to have greater exposure to safety training and workplace hazards and injuries, which increases their risk awareness and encourages consistent use of PPE, in

contrast to less experienced staff, who may have limited training and hazard recognition, leading to lower compliance. The observed significance of PPE use in relation to sex and work experience corroborates the findings of Kyalo's (2016) study, which revealed similar patterns among food industry workers in Nairobi.

CONCLUSION AND RECOMMENDATIONS

Hotel and restaurant kitchen staff practiced the use of PPEs, updating of knowledge and skills, reporting of hazards or accidents, and following safety instructions and procedures to ensure safety and health. Overall, staff adoption of occupational health and safety measures in the hotel and restaurant kitchens is insufficient. While PPE usage was recognised primarily as a health and safety measure employed by the kitchen staff to ensure safety and health, it was often used inappropriately. The majority of the kitchen staff did not fully implement the health and safety practices as required by the ILO and the Ghana Labour Act. Demographic factors such as sex, educational attainment, positions held in the kitchen, and work experience have a significant influence on the health and safety behaviours of kitchen staff, as explained by Andersen's Behavioural Model, therefore underscoring the need for targeted intervention to help prevent the occurrence of workplace injuries and illnesses.

To address insufficient adoption of health and safety practices in the kitchen and improper use of PPE by staff while performing their duties, hotel and restaurant managers need to enforce stricter oversight of staff adherence to all health and safety protocols, particularly the proper use of PPE. Moreover, Management should consider introducing award and incentive schemes to encourage the consistent use of appropriate PPE by all staff. With support from the National Restaurant Association and Ghana Hotels Association, hotels and restaurants should also develop and implement comprehensive, structured health and safety education programmes. These programmes would play a crucial role in raising staff awareness of workplace hazards and reinforcing the importance of using the correct PPE during daily tasks. This will also help foster a culture of health and safety in the kitchen. Strengthening these measures will ultimately contribute to a safer and healthier workplace for all kitchen staff.

Additionally, the Ministry of Employment and Labour Relations, in collaboration with GTA, should organise workshops and seminars to educate employees about their legal rights and responsibilities regarding health and safety in hotels and restaurants. Managers should also strengthen hazard communication protocols by establishing transparent, accessible, and non-punitive reporting systems to protect employees' well-being in kitchens. This initiative will promote confidence and encourage employees to report existing hazards and accidents in the kitchen.

The study also recommends a follow-up qualitative study to provide a deeper explanation of employees' adherence to health and safety measures in restaurant kitchens. Other studies should use participatory observation to document actual events in hotel and restaurant kitchens regarding health and safety practices. Further studies should also focus on other sectors, such as front offices and housekeeping, to uncover what is happening in these areas of the hospitality industry.

Limitations

The study focused on selected hotels and restaurants in Accra rather than the entire Greater Accra region and other regions, where conditions might differ. Also, the study adopted a quantitative research approach that relied on scheduled,

structured interviews, thereby limiting respondents' ability to provide deeper explanations regarding health and safety practices. The use of self-reported data may have introduced social desirability bias, as some employees may have provided responses that they considered acceptable rather than reflecting their actual practices.

Another limitation of this study is that it examined only the predisposing factors (demographic characteristics) of Andersen's Behavioral Model and not the enabling factors (e.g., availability of PPE, management support, and safety budget) and the need factors (perceived risk, prior injuries) as other determinants of the behaviour of the hotel and restaurant kitchen staff. This implies that the study did not capture all the determinants influencing behaviour outcomes as postulated in Andersen's Behavioural Model. This exclusion limits generalisation of the findings regarding the application of Andersen's Behavioural Model to understanding the behavioural outcomes among hotel and restaurant kitchen staff of the hospitality industry.

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