



## HEALTH HAZARDS AND THE ASSOCIATED CONTRIBUTIONS TO WORK SAFETY IN THE HOUSEKEEPING DEPARTMENT OF BUDGET HOTELS

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### Abstract

Health hazards abound in the Budget hotels in the study area but most hoteliers act in contravention of the ILO Conventions and the Tourism Act (Act 817) which requires that employees must be made aware of the potential hazards in their area of operations. It was found that there are seven major hazards affecting housekeepers in the study area and all but one of these hazards are significant in influencing work safety. These hazards are chemical exposure ( $\chi^2= 62.186$ ,  $p < 0.05$ ), followed by musculoskeletal disorder ( $\chi^2 = 49.447$ ,  $p < 0.05$ ), Trip/slip/fall ( $\chi^2 = 47.211$ ,  $p < 0.05$ ), cut ( $\chi^2 = 44.494$ ,  $p < 0.05$ ), fungi ( $\chi^2 = 34.549$ ,  $p < 0.05$ ), with the least being abuse ( $\chi^2=33.348$ ,  $p < 0.05$ ). Most of these hazards occur as a result of inadequate provision of PPE's and supervision which often leads to laxity on the part of housekeepers. It is therefore necessary that regulatory as well as supervising bodies should ensure safety standards among budget hotels in the study area.

**Key Words:** Health Hazards, Workplace Hazards, Housekeepers Injuries, Housecleaners Safety

### 1. INTRODUCTION

Occupational health and safety concerns are major global public health issues as they relate to morbidity and mortality associated with work-related injuries and diseases on a large scale,

International Labor Organization (ILO, 2015). Work-related injuries account for at least 9% of the global mortality (WHO, 2013). It accounted for 15% of the global Disability Adjusted Life Years (DALYs) lost in 1990 and it is projected to increase to 20% by 2020 (Lyons, Towner, Kendrick, Christie & Brophy, 2011).

The hospitality industry is a major employer and a source of potential health hazards (Bureau of Labour Statistics, 2013). Housekeepers are the most vulnerable as their injuries and illnesses surpass the national average of other workers in other service industries (Buchanan, Vossenas & Krause, 2010; Bureau of Labour Statistics, 2013). The housekeepers experience unique workplace hazards and characteristics that increase their risk for poor health outcomes (Sano, 2014). For instance, their workload involves constant repositioning, changing of postures including kneeling, lifting, stooping, squatting, twisting and pushing, and all these can potentially lead to sprains and back injuries (Canadian Centre for Occupational Health and Safety [CCOHS], 2007).

As a result of the high injuries and diseases in the housekeeping department (Buchanan *et al.*, 2010; Cheron, 2011), strict health and safety standards of operation have been outlined and it is a prerequisite for licensing (ILO, 2015). The legal requirements are that employers must identify hazards, carry out risk assessment, prepare a written safety statement and communicate risk and controls to their staff (Health and Safety Authority, 2015).

Despite the strict safety standards backed by the legal requirements, hotel housekeepers are exposed not only to high physical hazards, but also to chemical, biological, and psychosocial hazards (Hsieh, Apostolopoulos & Sonmez, 2013). Studies have established high risks for these workers. For example, Buchanan *et al.* (2010) analyzed the Occupational Safety and Health Administration (OSHA) logs of five hotel companies. They found that the reported injury rate for hotel housekeepers was 7.9% which was higher than for other jobs within these companies. They also established that hotel housekeepers have the highest rate of musculoskeletal disorders (3.2 in 100) among all other groups. In addition, Krause, Scherzer and Rugulies (2005) explored the prevalence of back and neck pain among 941 hotel housekeepers. Participants reported severe body pain (47%), neck pain (43%), upper back pain (59%), and lower back pain (63%). These findings on the health hazards are mainly from developed countries suggesting that such studies remain unexplored among developing countries. Since the physical as well as the socio-economic environments are not the same for both developing and developed countries, it is imperative to have a holistic view on causes and nature of health hazards among housekeepers.

Many studies on work-related injuries and their impact on the health status of hotel staff are very general, that is, covering all work forces in the hotel. Such studies often compare vulnerabilities in the hotel to other institutions (Baron *et al.*, 2013; Sano, 2014). The determination of the health status in the various departments in the hospitality industry is very essential for a targeted intervention since the level of susceptibility to injuries is not the same in all departments. To this end, the housekeeping department which is known to be the most hazardous places in the hotel needs to be studied to determine the extent of the health hazards in such marginalized and underserved departments.

## **2. RESEARCH METHODOLOGY**

## 2.1 Study design and data collection

This is a descriptive survey which employed the quantitative methods of data analysis. Data were collected using self-administered questionnaires to determine the level of health hazards among housekeepers in the budget hotels in the Eastern Region of Ghana. Questionnaires were based on a 5-point Likert type scale and were administered to 393 respondents who were drawn from housekeepers in budget hotels in the Eastern region of Ghana using Fisher *et al.* (1983, as cited in Mugenda & Mugenda, 2003) sample size determination formula. This research design is considered appropriate as it provides the basis for describing health related issues relating to peoples' knowledge, attitude and practices as is popularly done in "KAP" surveys (Abrahamson & Abrahamson, 2000; Fink 2003; Mugenda & Mugenda 2003).

## 2.2 Setting

The study was conducted in the Eastern Region of Ghana. The region covers an area of 19,323 square kilometres, which is about 8.1% of Ghana's total landform. It has a population of 2,106,696 which represents 11.1% of the total population of Ghana (Ghana Statistical Service, 2010). The Region is located in south Ghana and is one of ten administrative regions. The Region consists of 26 districts which are home to 182 licensed budget hotels (Ghana Tourism Authority Hotel Directory, 2014). The region was chosen for the study due to the proliferation of budget hotels in the area.

## 2.3 Sampling technique

Simple random sampling technique employing the lottery method was used to select a third of the budget hotels in the region, amounting to a total of 61 budget hotels. Of these hotels, a total number of 393 housekeepers were drawn for inclusion into the study sample.

## 2.4 Data analysis

The survey data were analyzed using the five point Likert scale to determine the type of health hazards housekeepers are exposed to in the budget hotels. In order to test the association between health hazards and work safety in the selected budget hotels, we conducted a  $\chi^2$  association test.

## 2.5 Ethical issues

Ethical clearance was sought from Ghana Tourism Authority before the study began. In addition, permission was also sought from the Eastern Regional branch of Ghana Hoteliers Association. Finally, the researcher sought ethical consent from the respondents before the study began.

## 3. RESULTS

According to Bureau of Labour Statistics (2013), the work load of housekeepers as well as the nature of their work predisposes hotel housekeepers to high injuries and illness. This current study sought to determine the types of health hazards that are affecting work safety in the study area and the details are presented in Table 1.

*Table 1: Hazards at the house keeping department*

<b>Health Hazards</b>	<b>SA</b>	<b>A</b>	<b>U</b>	<b>D</b>	<b>SD</b>	<b>M</b>	<b>Sd.</b>
Trips/ slip / fall	199 (50.9%)	145 (36.9%)	21 (5.3%)	19 (4.8%)	9 (2.3%)	4.30	.924
Cuts	107 (27.2%)	167 (42.5%)	46 (11.7%)	44 (11.2%)	29 (7.4%)	3.85	1.092
Fungi/ bacterial infections	154 (39.2%)	124 (31.6%)	48 (12.2%)	38 (9.7%)	29 (7.4%)	3.95	1.046
Chemical exposure	134 (34.1%)	134 (34.1%)	52 (13.2%)	52 (13.2%)	21 (5.3%)	3.98	1.100
Musculoskeletal disorder	119 (30.3%)	118 (30.0%)	81 (20.6%)	50 (12.7%)	25 (6.4%)	3.75	1.013
Abuse/sexual harassment	192 (48.9%)	96 (24.4%)	56 (14.2%)	28 (7.1%)	21 (5.3%)	4.14	1.083
Stress	236 (60.1%)	105 (26.7%)	18 (4.6%)	14 (3.6%)	20 (5.1%)	4.33	1.068

**Notes:** SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly Disagree, M = Mean, Sd. = Standard deviation

**Source: Analysis of Survey Data**

From Table1, it was found that (N= 199, 50.9% of the respondents strongly agreed that trips/ falls/slips were common hazards prevailing in the housekeeping department. Another set of respondents constituting (N = 145, 36.9%) also agreed to the presence of such hazards in the housekeeping department, while small percentages either strongly disagreed (N= 9, 2.3%) or disagreed (N= 19, 4.8%) to the assertion that trips/fall/slips are common in the housekeeping department. These results suggests a high level of exposure of physical hazards in the form of trips/ falls/slips in the housekeeping department in budget hotels in the study area.

Another physical hazard identified in the housekeeping department was cut. As high as (N= 167, 42.5%) agreed that this health hazard is common among hotel housekeepers in the study area, while (N= 29, 7.4%) strongly disagree that cuts are major health hazards among hotel housekeepers. Besides the presence of the physical hazards, abuse and sexual harassment was identified as another major source of hazards. It was found that majority of the respondents (N= 192, 48.9%) strongly agreed that sexual harassment and abuse were common among the major hazards in the housekeepers in the study area.

In terms of fungi and bacteria infections as hazards, it was found out that (N= 154, 39.2%) of housekeepers strongly agreed that it is a threat to health and safety in housekeeping department, (N= 124, 31.6%) also agreed, while (N= 48, 12.2%) could not decide on whether fungi or bacterial infection was a threat to workers. Chemical hazards were identified by most of the respondents (N= 134, 34.1%) who agreed that its exposure is a threat to their health. Common chemicals that they are often exposed to include ammonia, chlorine, or bromine-based chemical cleaners. A major psychological hazard affecting hotel housekeepers was strongly agreed by most respondents (N= 236, 60.1%) to be stress. This assertion was agreed by (N= 105, 26.7%) of

respondents that housekeepers are often found stressful at the workplace due to work overloads, lack of cooperation and respect from colleagues and supervisors.

The average mean for all the health hazards investigated in the study is equal to 4.04 with a standard deviation of 1.05, indicating that participants in the study pointed that housekeepers in budget hotels in the Eastern Region of Ghana experience these major health hazards in the housekeeping department: trips/ falls/slips, cuts, musculoskeletal disorders, abuse and sexual harassment, stress, chemical infections, fungi, and bacterial infections. Findings in Table 2 presents the  $\chi^2$  test of association results between the health hazards and work safety.

**Table 2: Chi Square Association between health hazards and work safety**

<b>Health Hazards</b>	<b><math>\chi^2</math></b>	<b>df</b>	<b>Sig. Level</b>
Trip/slip/fall	47.211	20	.001*
Cut	44.494	20	.001*
Fungi	34.549	20	.032*
Chemical exposure	62.186	20	.001*
Musculoskeletal Disorders	49.447	20	.001*
Abuse	33.348	20	.031*
Stress	27.164	20	.131

**Notes:** *N = 393. \*Significant at .05 level*

**Source: Analysis of Survey Data**

As indicated in Table 2, it was found that all but one of the identified health hazards (stress,  $\chi^2 = 27.164$ ,  $p > 0.05$ ), in the housekeeping department have significant contributions to work safety. The health hazard with the highest significant  $\chi^2$  was chemical exposure ( $\chi^2 = 62.186$ ,  $p < 0.05$ ), followed by musculoskeletal disorder ( $\chi^2 = 49.447$ ,  $p < 0.05$ ), Trip/slip/fall ( $\chi^2 = 47.211$ ,  $p < 0.05$ ), cut ( $\chi^2 = 44.494$ ,  $p < 0.05$ ), fungi ( $\chi^2 = 34.549$ ,  $p < 0.05$ ), with the least being abuse ( $\chi^2 = 33.348$ ,  $p < 0.05$ ).

## 4. DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

### 4.1 Discussions

The study found high levels of exposure of chemical and physical hazards in the housekeeping department in budget hotels in the study area. The finding is consistent with Sano (2014) and Hsieh *et al.*'s (2013) studies that housekeepers experience unique workplace hazards and characteristics that increase their risks for poor health outcomes which are most often physical in nature such as repetitive movement of cleaning hotel rooms from top to bottom: scrubbing bathtubs and toilets, mopping and vacuuming floors, changing sheets, towels and shower curtains, making beds, and dusting light bulbs and lampshades, lack of ergonomic equipment and many more. According to the US National Floor Safety Institute (2006), wet or otherwise dangerous floors directly cause most slips and falls that occur in the housekeeping department. It was also found that inexperience of a housekeeping staff affects the likelihood of a slip and fall, as does age (US National Floor Safety Institute, 2006).

In considering the issue of wet floors as a threat to housekeepers' safety comes with the question of how slips and falls can be avoided in such circumstances. Literature has indicated that to avoid slips and falls of housekeepers, there is the need to use non-slip footwear or non-slip mats, unfortunately, most housekeepers in the study area have not been provided with such a safety wear and equipment and this might account for the high rate of trip/fall/slip. From this standing point of view it is clear that the supervisors in the housekeeping department as well as the hoteliers have not kept faith with the safety standard required by providing the requisite equipment needed for housekeeping safety. A similar case was found when the underlying factor for the high chemical exposure was explored and found the right protective wears are often not provided on time and the right chemicals to be used for cleaning purposes are also not provided due to its high cost. Some workers are also found to be allergic to the latex gloves so such workers do not use the protective wear. In the same vein, the regulatory authority (GTA) who is mandated to ensure that hoteliers keep to the standards required have also neglected their responsibility of enforcing safety in the hotel in general and the housekeeping department in particular. The inability for the regulatory body (GTA), the supervisors as well as the hoteliers to ensure housekeepers' safety needs to be explored in order to reduce the rate of injury in the housekeeping department.

Another critical issue worth considering in reducing physical hazards among housekeepers is how to improve the cleaning skills of inexperienced housekeepers since inexperience is a major contributory factor to physical hazards. The answer is obvious that is capacity building workshop in cleaning skills must be organized for the housekeepers. But this is not often undertaken and newly recruited housekeepers are made to learn on the job by learning from old housekeepers. The problem with this method of training is that bad skills of cleaning are passed on to the newly recruited staff and therefore the level of cleaning skills expected from them often remains questioned due to the inappropriate training method adapted. It is therefore necessary that appropriate training methods that involve experts from the industry must be harnessed for this purpose.

#### *4.2 Conclusions and recommendations*

It can be concluded that there are high physical and chemical exposures in the housekeeping departments of budget hotels in the study areas and these are mainly due to inadequate provision of Personal Protective Equipment and wears as well as poor supervision of regulatory bodies and hoteliers. To address these challenges call for proactive measures in ensuring that there right equipment and cleaning wears are provided on time. Again, the regulatory bodies' needs to enforce safety standards among budget hotels as this will also compel supervisors in the housekeeping department to ensure that safety practices are adhered to.

#### *4.3 Limitations and further research*

The findings of this study should be seen within the context of its limitations, which could be avenues for future research. The study tested the associations between the health hazards and work safety using a questionnaire survey, only providing cross-sectional data. A longitudinal research design is necessary to validate these associations. Additionally, this study was focused specifically on budget hotels in the Eastern region of Ghana. Further studies need to focus on other hotel types or regions, allowing for comparison.

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**Statement on conflict of interest**

The researchers do declare that they do not have any direct interest apart from promoting health and safety among housekeepers in various hotels. They have not received any sponsorship from any institution competing with the hotel industry to publish this work. They are just honoring their responsibility as occupational health researchers.