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**Health and Safety Practices in Hotels in Central Region,  
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### **Abstract**

**Purpose:** Despite evidences that training helps improve health and safety practices in hotels, there is modicum of knowledge of how being a Technical and Vocational Education and Training-trained housekeeper influences health and safety practices in hotels in Central Region, particularly Cape Coast and Elmina. This study, in response to this gap, examined the effect of being a TVET-trained housekeeper on health and safety practices in hotels in Cape Coast and Elmina.

**Methodology:** The explanatory research design was employed. Data were collected, using self-administered questionnaire, from 100 conveniently selected housekeepers of 51 hotels in Cape Coast and Elmina in the Central Region. Data collected were analysed using means, standard deviations and regression analysis.

**Findings:** The results showed that seven dimensions account for about 60% of the variance in health and safety practices. Also, the general level of health and safety practices in hotels in Cape Coast and Elmina was high – with higher average scores recorded among TVET-trained housekeepers compared to non-TVET-trained housekeepers. Additionally, the study revealed a statistically significant positive effect of being a TVET-trained housekeeper on health and safety practices in hotels.

**Recommendation:** It was recommended that for improved health and safety practices in the hotels in Cape Coast and Elmina, there is the need for TVET-trained housekeepers; thus, hotel operators should give preference to employing TVET-trained housekeepers.

**Keywords:** *Health and safety practices, hotels, TVET, housekeeper, Central Region*

## INTRODUCTION

Good health and safety is a non-negotiable practice in hotel environments. Health and safety practices affect, among others, the overall level of productivity of a firm, and may be influenced by the level of training received by those in charge of its administration (Health and Safety Executive (HSE), 2013). According to the HSE (2013) and Budworth and Khan (2003), health and safety revolves around regulations and procedures to ensure that accidents, injuries and diseases are prevented in work environments. Considering this definition, the importance of health and safety practices in hotels cannot be overemphasised. For instance, health and safety ensures that workers go back home safe and healthy, and this ensures that absences are reduced (HSE, 2013; Shapoval et al., 2022).

Moreover, workplace and workers are more efficient and productive when health and safety practices are committed to (Shapoval et al., 2022). Also, down-time caused by sicknesses and accidents is reduced, and the firm's money is saved (Institution of Occupational Safety and Health (IOSH), 2016). Furthermore, it saves management of firms from being prosecuted, as health and safety practices are legal requirements in some jurisdictions (Shapoval et al., 2022). It further shows how committed a firm is to sustainability and corporate social responsibility which involves how workers are protected, and this draws investors to the firm (Ambardar & Raheja, 2017). Again, a good health and safety record serves as a source of competitive advantage, and contributes to building trusted reputation and brand, since poor health and safety practices may directly affect trade and profitability of a firm (Ambardar et al., 2017; Al-Akash et al., 2022).

Considering the foregoing importance of health and safety, it is not surprising that managements of businesses, including hotels, and scholars are in the search for strategies to improve health and safety in the workplace (IOSH, 2016; HSE, 2013). For example, Al-Akash et al. (2022) reported, among other things, that provision of training courses to employees contributes to improved health and safety competence in a business. Also, Osaili et al. (2017) documented training of employees as one of the most important strategies to ensuring good health and safety practices in the workplace. Besides, the link between training and health and safety practices could be inferred from the assertions of the Behavioural Reasoning Theory (Westbay, 2005). These assertions are further buttressed by a number of empirical studies which found a significant relationship between health and safety practices and the training received by employees.

For instance, Al-Akash et al. (2022) found a positive relationship between training and safety knowledge and practices. Muhammad et al. (2020) reported that as training of employees improves, their knowledge of health and safety practices in the workplace increases as well. Hardstaff et al. (2018) further revealed that training programmes are essential to improved health and safety practices. Additionally, El-Wehedy et al. (2019) intimated that training of workers is directly associated with health and safety practices. Moreover, Monteiro et al. (2010), and Moyce and Schenker (2018) averred that the more employees are trained in the areas of health and safety, the better the health and safety practices in the workplace. On the flipside, Alqurashi et al. (2019) posited that training of employees has no association with health practices. Similarly, Hsieh et al. (2016) stated that high levels of training impacts negatively on safety activities. In like manner, Lin et al. (2021) reported a negative relationship between training and health and safety practices. Taking these into account, a potential link between health and safety practices and Technical and Vocational Education and Training (TVET) could be inferred.

In spite of the need for good health and safety practices, globally, it has been estimated that about 2.2 million people are faced with accidents, injuries, and untimely demise due to issues of poor health and safety practices (International Labour Organisation (ILO), 2005). In Jordan, the level of safety practices was rated 56.3/90 and it was concluded that urgent safety education and training was needed (Osaili et al., 2017). Also, with the second-highest number of hotel housekeepers in the United States, Florida has reported cases of sprains, strains and chemical burns, among others, in hotels (Shapoval et al., 2022). Further, safety and health practices in Indian hotels were reported to be very poor (Ambaradar & Raheja, 2017; Tourism and Hospitality Sectoral Report, 2017). Furthermore, health and safety practices in Kenyan hospitality industry were not encouraging (Shalini, 2016). Similarly, health and safety practices at workplaces in Nigeria have been observed to be poor (Habeeb et al., 2022). These have led to the institution of health and safety related training programmes in some countries to train people on health and safety practices (Shapoval et al., 2022; Muhammad et al., 2020; El-Wehedy et al., 2019).

For instance in Ghana, TVET is a programme that trains individuals to acquire skills and knowledge related to occupations in various economic and social sectors, including knowledge of health and safety practices and activities (Kissi, & Ansah, 2014). According to a report by the Ghana Business News (GBN) (2019), the Minister in charge of TVET announced that government of Ghana has invested €500million in TVET to ensure that many people are given technical and vocational training and education. All the 35 TVET institutions in Ghana are being upgraded, and two new foundries and machinery centres have been established (GBN, 2019). Most importantly, since many TVET-trained individuals work as housekeepers at hotels (Boakye-Kessie et al., 2018), it will be in the right direction to know how the knowledge from the training contributes to safety and health practices in the hotels.

Moreover, Ghana makes modest amount of revenue from tourist activities (Appaw-Agbola & Freeman, 2015) and most tourists lodge in these hotels, implying that issues of health and safety should be taken seriously. In terms of tourist attraction, the Central Region serves as a hub in Ghana (Sirakaya et al., 2002; Adu-Ampong, 2017; Imbeah, 2017). Places such as Kakum National park, Cape Coast Castle and Elmina Castle cannot be left out when tourist attraction in Ghana is being considered, and all these are found in the Central Region – specifically, Cape Coast and Elmina. Taking into account the importance of ensuring improved health and safety practices in the hotels in the region, considering its tourism benefits to the nation, it is plausible that hotels in the Central Region commit to high level of health and safety practices

Nonetheless, health and safety practices at hotels in Cape Coast and Elmina in the Central Region do not seem encouraging, as there have been reports of repeated injuries, accidents and illnesses suffered by employees and customers in these hotels. This claim is supported by Anaman and Dacosta (2017) who revealed that safety issues in hotels in Cape Coast and Elmina are not the very best. Similarly, Amissah (2013) found that health and safety practices in hotels in Elmina and Cape Coast left a great deal to be desired. Furthermore, Imbeah (2020) showed that safety is an issue in lodges in both Cape Coast and Elmina. This problem, to some extent, could be attributed to the influence of the level of training received by the housekeepers in these hotels, and this is in line with the assertion of the Behavioural Reasoning Theory from which, among other things, it could be inferred that training programmes have a link with practices associated with health and safety. Besides, some empirical studies conducted in Ghana reported that safety practices, to some extent, are associated with training (Puplampu & Quartey, 2012;

Asumeng et al., 2015). Others also revealed that training and health practices are connected (Amponsah-Tawiah, 2013; Addo-Tham et al., 2020).

Despite the plethora of related empirical studies (Addo-Tham et al., 2020; Siaw et al., 2018), there is modicum of specific knowledge of TVET and how being a TVET-trained housekeeper influences health and safety practices in hotels. Moreover, majority of the related extant studies employed descriptive methods (Imbeah, 2020; Adu-Ampong, 2017); hence, utilised descriptive statistical tools of means and counts, among others, for data analysis – making it less realistic to draw explanatory inferences between training and health and safety practices. Additionally, the foci of some of the existing studies were on business firms other than hotels, and different concept combinations (Amponsah-Tawiah & Dartey-Baah, 2010; Siaw, 2018; Siaw & Siaw, 2021). It was thus against this background that this study was carried out to assess whether being a TVET-trained housekeeper affects health and safety practices in hotels in Cape Coast and Elmina in the Central Region of Ghana. The study also looked at the level of health and safety practices in these hotels.

This study contributes a lot to practice, policy and scholarship. Management of hotels in the Central Region and beyond, through the findings of this study, will get to know whether or not to consider TVET-trained housekeepers for employment. Also, TVET authorities will get to know the level of applicability of the contents they teach their students, and whether there is the need to formulate and implement policies to modify, change or expunge some aspects of the TVET programme. Additionally, this study contributes to the existing body of knowledge on TVET training and health and safety practices in hotels, since as far as this study is aware, there is no existing empirical study on the relationship between these phenomena. It will further serve as a reference point for related studies to be conducted in the future.

## **MATERIALS AND METHODS**

This section presents the research design employed, the target population, the sample size, data collection instrument and procedures, and the techniques used for data processing and analysis. In respect of design, the explanatory research design was employed, as the study sought to determine the effect of being a TVET-trained housekeeper on health and safety practices in hostels in Cape Coast and Elmina (Saunders et al., 2019). Saunders et al. (2019) averred that this design ensures that the effect of an explanatory variable on an outcome variable is accounted for. Besides, Saunders et al. (2019) stated that the explanatory design upholds descriptive analysis which serves as a forerunner to inferential analysis.

The target population was all the housekeepers working at hotels in Cape Coast and Elmina at the time of this study. In total, 51 hotels were involved in the study – 46 in Cape Coast and five (5) in Elmina (Ghana Hotels Association, 2022). This number comprised only hotels registered with and recognised by the Ghana Hotels Association, as at 10<sup>th</sup> September, 2022. One hundred and forty (140) housekeepers were identified in hotels in Cape Coast whilst 21 were identified in hotels in Elmina, giving a total population of 161 housekeepers. This number (161) made up the sample frame. The informants making up the sample size were then selected using the convenience sampling method due to the fact that the sample frame comprised night-shift housekeepers who appeared unavailable for the study. Thus, only day-shift housekeepers were considered, and this consisted of 123 housekeepers. Nonetheless, only 119 agreed to take part in

the study. Out of the 119 housekeepers, 14 were working in five hotels in Elmina and 105 in the 46 hotels in Cape Coast.

In respect of the instrument to collect data from the housekeepers, a self-administered questionnaire was used. The questionnaire was divided into three parts, viz., health and safety practices, training type, and socio-demographic information of informants. With regards to health and safety practices, a number of instruments have been developed to measure it (Bobo, 2017; Senya, 2017; Selem et al., 2022). Nevertheless, this study adapted health and safety practices put forth by health and safety consultant, Neal Etchells; executive housekeeper at the Mövenpick Resort & Spa Mauritius, Jawahir Purmeswur; executive housekeeper at the Swissôtel Zurich in Switzerland, Christopher Rossbach; and executive housekeeper, Elena Philip of Discovery at Marigot Bay, St Lucia. They suggested health and safety practices contained elements from the many existing measurement instruments, making it more comprehensive and all-encompassing. These practices, comprising 10 items, were compiled by The Caterer (2021). A five-point Likert-type scale, ranging from strongly disagree (1) to strongly agree (5) was used for the service items. The second section of the questionnaire contained one item on training type (I am a TVET-trained housekeeper), and was anchored on a dichotomous scale of yes (1) and no (0). The third section elicited data on the housekeepers' demographic such as age and gender.

Next, data collection procedures were carried out. The procedures were carried out in all the 51 hotels between 25<sup>th</sup> June 2022 and 3<sup>rd</sup> September, 2022. Questionnaires were distributed among housekeepers who had come for their day-shift and were willing to participate in the survey after permission had been sought from the management of the hotel. Out of the sample size of 119 housekeepers, 102 questionnaires were retrieved; and out of the 102 questionnaires retrieved, 101 were found suitable for the analysis (50 TVET-trained and 51 non-TVET-trained). This number was deemed appropriate as it has even been recommended by Hair et al. (2010) that a minimum sample size of 100 is suitable for conducting inferential analysis, among others. To ensure equality of numbers, one non-TVET-trained instrument was dropped to obtain a balanced ratio of 50:50. A pre-test of 50 questionnaires was done outside Cape Coast and Elmina prior to the main data collection so as to evaluate appropriateness of the survey instrument (Cooper & Schindler, 2006). This gave the opportunity to obtain feedback from respondents regarding the legibility and clarity of the questions as well as to determine the reliability of the scale employed.

Furthermore, after processing the data into a form suitable for analysis, a descriptive analysis was conducted to provide the statistics of the demographic information of the respondents – using frequencies and percentages. This was followed by an Explanatory Factor Analysis (EFA), and then a reliability analysis was conducted. Next, means and standard deviations were used to assess the level of health and safety practices in hotels in Cape Coast and Elmina. Finally, a regression technique was used to determine the link between being a TVET-trained housekeeper and health and safety practices, and the regression model was subsequently adjusted for age and gender of the respondents, after meeting all the underlying assumptions of regression analysis.

## RESULTS

This section presents the analysis of demographic characteristics of housekeepers, the explanatory factory factor analysis, reliability analysis, and a subsection that focuses on the main objectives of the study. The results in table 1 showed that majority of housekeepers at the hotels in Cape Coast and Elmina were between the ages of 30 and 49 years (46%), and unsurprisingly,

most of them are females (78%), as females are mostly seen taking up housekeeping positions compared to their male counterparts. Also, most of them were revealed to be single at the time of this study (50, 40%). Moreover, whilst only 16 were 50 plus years old, 39 were less than 30 years old. Again, it was shown that 42% were married whereas 8% claimed they were separated.

**Table 1: Demographic characteristics of respondents (N = 100)**

Characteristics	Frequency	Percent
Age		
<30	38	38.0
30-49	46	46.0
50+	16	16.0
Gender		
Male	22	22.0
Female	78	78.0
Marital status		
Single	50	50.0
Married	42	42.0
Separated	8	8.0
Training type		
TVET-trained	50	50.0
Non-TVET-trained	50	50.0

*Source: Field survey (2022)*

Additionally, an Explanatory Factor Analysis was conducted on the scale data using the principal component analysis (PCA) with Varimax factor rotation. The Bartlett's Test of Sphericity showed a score of  $X^2 = 3037.375$ , which was statistically significant at the 0.05 level. Also, Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.744, which is higher than the suggested minimum score of 0.6 (Kaiser, 1974). Considering these, the data were deemed appropriate for factor analysis. Three items that had loadings lower than 0.40 were expunged from the data set – based on the exclusion criterion defined by Armor (1974), and were subsequently excluded from further analysis. The emerging seven (7) factors were named “health and safety practices”, and they cumulatively explained about 63% of the variance. The analysis is shown in table 2.

**Table 2: Varimax rotated factor analysis of determining factors of health and safety practices in hotels in Cape Coast and Elmina**

Factors	Loadings	% of variance explained	Eigenvalue	Cronbach's Alpha
I clean the hotel rooms of dust, and ensure that they are free from pests and mites in order to curb allergies and sneezing fits.	0.77	11.98	6.30	
I check all rooms for electric faults, such as faulty wiring on kettles, broken plug sockets, and damaged lamps and TVs, among others.	0.64	11.63	5.56	

I look for bathroom dangers, as well as ensure that the bathrooms are thoroughly cleaned regularly to avoid hazardous slippery floors and legionnaire's disease.	0.59	10.01	2.54
I use the right tools for the job to ensure that cleaning is properly done.	0.89	8.06	2.39
I check smoke-alarms frequently to ensure that the hotel is not gutted by fire unexpectedly.	0.86	7.23	1.54
I advise guests not to leave remains of late-night meals lying around in order to keep pests and rodents off to avoid food poisoning.	0.91	6.91	1.24
I am able to spot bedbugs early and do the needful to clear them off.	0.83	4.77	1.21
<b>Health and safety practices</b>		<b>60.59</b>	<b>0.83</b>

Note:  $KMO = 0.744$ ; Bartlett's test of sphericity (approx  $X^2 = 3037.375$ ;  $p = 0.000$ ); only items with factor loadings of 0.40 and above were shown in Table 2.

Source: Field survey (2022)

Furthermore, as shown in Table 2, the level of internal consistency in health and safety practices scale was acceptable with Cronbach's Alpha of 0.83, which exceeded the cutoff point of 0.70 – indicating internal consistency of the measured items (Nunnally & Bernstein, 1994). The next two tables, Table 3 and Table 4 displayed results in relation to the objectives of the study which sought to determine the level of health and safety practices in hotels in Cape Coast and Elmina and the effect of being a TVET-trained housekeeper on health and safety practices, respectively. Specifically, the level of health and safety practices was assessed for TVET-trained housekeepers on one side, and for non-TVET-trained housekeepers on the other side, and subsequently aggregated to ascertain the overall level of health and safety practices in the hotels. All analyses were significant at the 0.05 level, where applicable.

**Table 3: Level of health and safety practices in hotels in Cape Coast and Elmina (N = 100)**

Practices	TVET-trained		Non-TVET		Combined Mean±SD
	Mean	SD	Mean	SD	
I clean the hotel rooms of dust, and ensure that they are free from pests and mites in order to curb allergies and sneezing fits.	4.11	0.76	3.43	0.93	3.77±0.85
I check all rooms for electric faults, such as faulty wiring on kettles, broken plug sockets, and damaged lamps and TVs, among others.	3.52	0.79	3.49	0.81	3.51±0.80
I look for bathroom dangers, as well as ensure that the bathrooms are thoroughly cleaned regularly to avoid hazardous slippery floors and legionnaire's disease.	3.71	0.86	3.23	0.97	3.47±0.92
I use the right tools for the job to ensure that cleaning is properly done.	2.55	1.11	2.60	0.99	2.58±1.05



I check smoke-alarms frequently to ensure that the hotel is not gutted by fire unexpectedly.	2.31	1.24	2.22	1.08	2.27±1.16
I advise guests not to leave remains of late-night meals lying around in order to keep pests and rodents off to avoid food poisoning.	3.66	0.94	3.51	0.96	3.59±0.95
I am able to spot bedbugs early and do the needful to clear them off.	3.93	0.80	4.01	0.67	3.97±0.74
<b>Health and safety practices</b>	<b>3.40</b>	<b>0.93</b>	<b>3.21</b>	<b>0.92</b>	<b>3.31±0.93</b>

Note: SD = standard deviation

Source: Field survey (2022)

As could be seen in Table 3, overall, the average level of health and safety practices among TVET-trained housekeepers (Mean = 3.40±0.93SD) appears higher than that of non-TVET-trained housekeepers (Mean = 3.21±0.92SD). Besides, the overall combined level of health and safety practices in the hotels in Cape Coast and Elmina was encouraging, on the average (Mean = 3.31±0.93SD). Specifically, apart from health and safety practices associated with checking for bathroom dangers (Mean = 2.58±1.05SD) and usage of right tools for jobs (Mean = 2.27±1.16SD) which appeared less promising, the remaining health and safety practices in the hotels, on the average, were high. Moreover, apart from the practice of being able to spot bedbugs early and doing the needful to clear them off (Mean = 4.01±0.67SD) which was higher among non-TVET-trained housekeepers, compared to TVET-trained housekeepers, all the remaining practices were better executed by the TVET-trained housekeepers. Table 4 shows the effect of being a TVET-trained housekeeper on health and safety practices.

**Table 4: TVET-trained housekeeper, and health and safety practices in hotels in Cape Coast and Elmina (N = 100)**

	<b>Dependent: Health and safety practices</b>	
	<b>Model 1</b>	<b>Model 2</b>
TVET-trained (non-TVET = 0)	0.432**	0.457**
Gender (male = 0)		0.156**
Age		0.071**
Adj. R <sup>2</sup>	0.367	0.432
F-stat	102.041	194.722

Note: \*\*  $p < 0.01$

Source: Field survey (2022)

From table 4, the regression results indicated that being a TVET-trained housekeeper has a statistically significant positive effect on the level of health and safety practices in hotels in Cape Coast and Elmina ( $\beta = 0.457$ ). This positive sign shows that in the presence of TVET-trained housekeepers in hotels, health and safety practices in the hotels are more likely to improve, compared to having housekeepers who were trained through programmes other than TVET. Similarly, it appeared that hotels in Cape Coast and Elmina were better off employing female housekeepers, in terms of health and safety practices ( $\beta = 0.156$ ). Moreover, it was revealed that hotels in Cape Coast and Elmina would be well off when older housekeepers were employed ( $\beta$

= 0.071). Furthermore, the unadjusted model 1 and the adjusted model 2 explained about 36.7% and 43.2%, respectively, of the variation in the level of health and safety practices in the hotels in Cape Coast and Elmina. The remaining variations could be attributed to factors not considered in this study. Considering the explanatory powers of the two models, the adjusted model (model 2) was taken to be more robust, and was likely to produce more reliable results; thus, the preferred model.

## **DISCUSSION AND CONCLUSION**

The study was concerned with finding out the level of health and safety practices in hotels in Cape Coast and Elmina, as well as determining how being a TVET-trained housekeeper influences health and safety practices in these hotels. This was against the background that prior studies had reported poor levels of safety practices in hotels in the Central Region at large – without a specific analysis of hotels in Cape Coast and Elmina, with respect to the housekeepers. Also, the kind of training received by housekeepers and how this affects health and safety practices in hotels in Cape Coast and Elmina had not been highlighted in prior studies despite evidences that training could influence health and safety practices of an individual (Westbay, 2005). Among other things, it was revealed that seven dimensions of health and safety practices account for more than 60 percent of variance in health and safety practices in hotels in Cape Coast and Elmina (table 2).

Moreover, assessment of the level of health and safety practices in hotels in Cape Coast and Elmina showed that, generally, the level of health and safety practices in hotels in Cape Coast and Elmina was high – with TVET-trained housekeepers contributing more to this high level of health and safety practices than non-TVET-trained housekeepers. This finding suggests that housekeepers in these hotels were ensuring that health and safety issues are kept under improved conditions to minimise injuries, accidents and sicknesses. Taking this into account, to some extent, it could be said that the TVET programme has helped by contributing to addressing the health and safety practices problem experienced in Ghanaian hotels.

The foregoing result was further buttressed by the inferential statistics which showed a significant positive effect of being a TVET-trained housekeeper on health and safety practices in hotels in Cape Coast and Elmina. This means that holding all other things constant, in terms of health and safety practices, hotels in the Central Region are better off employing TVET-trained workers. It could be said that the TVET programme contains aspects that ensure that the trainees are well equipped with knowledge and skills that support and prioritise practices on health and safety. This finding coincides with the results of a number of prior studies which reported training to have influence on safety practices (Al-Akash et al., 2022; Muhammad et al., 2020; El-Wehedy et al., 2019; Hardstaff et al., 2018). On the flipside, it should be stated that the results are contradictory to that of some prior studies (Lin et al., 2021; Alqurashi et al., 2019; Hsieh et al., 2016), possibly due to the fact that these prior studies focused either on firms other than hotels, programmes other than TVET, or were done in locales whose conditions are different from that of the current setting, and these might have influenced their findings.

## **RECOMMENDATIONS**

Based on the findings and the conclusions drawn thereof, it was recommended that hotel operators or managers in Cape Coast and Elmina and the Central Region at large should focus on

employing TVET-trained housekeepers, since the study has revealed that this would ensure that high health and safety standards are achieved. Also, government, through the Commission for Technical and Vocational Education and Training (CTVET), should continue to invest in TVET to ensure that more people are educated this way in order to give standard health and safety services to their employers; and this is also a way of making TVET trainees more employable compared to those trained through other programmes.

A major limitation to the study was that the focus was on only hotels in Cape Coast and Elmina, and data were only collected from these hotels, thereby limiting the generalisability of the findings of the study. To address this limitation in order to ensure result generalisability, it is recommended that further studies cover hotels across Ghana. Also, future studies can use the two-sample independent t-test to assess whether there is any significant difference between TVET-trained housekeepers and non-TVET-trained housekeepers, with respect to health and safety practices in hotels in Ghana.

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**Institutional Review Board Statement:** Because of the nature of the study, and in the absence of any involvement of medication, no formal approval of the Institutional Review Board of the local Ethics Committee was required. Nevertheless, all subjects were informed about the study and participation was fully on a voluntary basis. Participants were assured of confidentiality and anonymity of the information associated with the survey. The study was conducted according to the guidelines of the Declaration of Helsinki.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Conflicts of Interest:** The authors declare no conflict of interest.

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