



**Influence of ergonomics practices on the morbidity of housekeepers in three star
hotels in Nairobi**

SUBMITTED BY

Marindany Stella Chebet

096299

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
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DECLARATION

This project is my original work and has not been presented for a degree in any other university.

Signature: -----

Date: -----

Stella Chebet Marindany

STUDENT NO.: 096299

This project has been submitted for review with my approval as University supervisor.

Signature: -----

Date: -----

Dr. Lucy Gikonyo

Senior lecturer

School of Tourism and Hospitality

Strathmore University

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ABSTRACT

This paper is a research on the influence of ergonomics practices on morbidity of housekeeping staff in tree star Hotels in Nairobi. To know the influence of ergonomics, it is necessary to involve the housekeeping staff which includes the housekeepers and the housekeeping supervisors. This study used the questionnaires as a tool to collect the data for both the housekeepers and the supervisors. This study proposes the need for training on ergonomics and provision of the right equipment to suit the user to achieve good standard and stop and reduce staff turnover.

ACKNOWLEDGEMENTS

I thank my supervisor Dr. Lucy Gikonyo for her guidance and insights.

I thank my family for their moral support through-out this period and above all, I thank the almighty God for making this a success.

DEDICATION

This project is dedicated to all the housekeeping staff in the hotels and to all who assisted me in one way or another to make this research a success.

Thank you all. God bless you.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Hospitality industry is involved with the provision of food and accommodation to people who are away from home. It is a global industry and is service oriented and includes hotels which are the largest in the industry and the lodges which provide accommodation which is where housekeeping takes place, and its role is to clean and uphold the hygiene and the aesthetic appeal of the hotel (Joshi, 2016). Housekeeping is the operational division of a hotel that is accountable for hygiene, upkeep, aesthetic maintenance of rooms, public areas, back areas, and the environs (Hussain, 2016). It is the major revenue generating department in a hotel.

The hotel entrance generates the guests' first impression of interior decoration and comfort in the room. In a shift of nine hours, sixteen rooms in differing hygiene conditions are expected to be cleaned by a single housekeeping room attendant as Joshi, (2016) notes and adds that the task of the attendants is repetitive, thus making it very tiring. The newfound ambition by hotels to look heavenly and extra room amenities to survive competition has increased the burden on the already overworked housekeeper.

Ergonomics originates from the Greek word *ergon*, which denotes work and *nomoi*, which means natural laws. It is the science of optimizing and adapting the nature of products for human consumption. Occupational Safety and Health Administration (2007) defines ergonomics as the science of adapting the design people and their workstation equipment most proficiently and securely. Joshi, (2016), highlights that proper ergonomic design ought to provide work procedures while highlighting what will constitute a comfortable working environment for efficiency in housekeeping department. Industrial safety concerns are mainstream public health problems because they are associated with injury and death concerning occupational injuries and ailments on a large scale (International Labor Organization, 2015). Occupational injuries contribute to 9% of world deaths (World Health Organization, 2013). Morbidity and mortality present harsh consequences on an individual, household, the community, and the economy (Baron et al. 2013). In the worker's circumstance and the immediate family's burden, they faced the rocketing rate of treatment, pains, time spent

recuperating and the ultimate truth that majority suffer permanent incapacities (WHO, 2013). The hospitality industry is a chief employer making it a cause of likely health injuries as reported by the Bureau of Labor Statistics (Government of Kenya, 2013). Housekeeping personnel contribute to most vulnerabilities as their morbidity and mortality rates exceed the nation-wide average of other staff in different departments in service industries (Buchanan 2010). Housekeeping personnel are exposed to exceptional occupational hazards and features that intensify the probability of low health consequences. For example, the tasks consist of continual locomotion and shifting of stances, resulting in sprains and back injuries (Canadian Centre for Occupational Health and Safety, 2007).

1.2 Problem statement

Mammen, (2017) notes that problems of workload and ergonomic issues are common among housekeepers. The efficiency of housekeeping staff in hotels depends highly on proper ergonomics. (Shih-Yun Hsu, 2011) housekeeper's efficiency lowers hotel operational costs; hence their efficiency is one of the critical aspects that guides hotels' business performance. This study proposes at establishing the influence of ergonomics practices on morbidity of housekeeping staff in three-star hotels in Nairobi.

1.3 Hypothesis

- i. Are the housekeeping staff in three-star hotels aware of ergonomics?
- ii. Is ergonomics applied in the housekeeping department in three-star hotel?
- iii. Do ergonomic issues cause the turnover of housekeeping staff?

1.4 Research Objective

1.4.1 General objective

Influence of ergonomics practices on morbidity of housekeeping staff in three-star hotels in Nairobi.

1.4.2 Specific objective

- i. To establish the awareness of ergonomics among housekeeping staff in three-star hotels in Nairobi.

- ii. To establish the application of ergonomics in the housekeeping department in three-star hotels in Nairobi.
- iii. To examine the turnover of the housekeeping staff due to issues rising from ergonomics.

1.5 Scope of the study

The research was done in Nairobi only because there are more three-star hotels in Nairobi compared to other cities in Kenya and forms a good representation. There are 18 registered three-star hotels distributed in Nairobi by the Tourism Authority Regulation.

1.6 Significance of the study

This study's findings are will be beneficial to the hotels and the housekeeping staff. The study could offer knowledge to the hotel management on the influence of ergonomics on the morbidity of housekeepers and thus come up with ideas such as training on ergonomics for their staff. This will reduce the turnover among the housekeepers resulting in low cost of operation due to less time taken for recruitment and training new staff. The housekeepers will be less exposed to work related injuries because they will have proper working tools and the ergonomics knowledge which will reduce the turnover and increase efficiency among the housekeepers due to good working condition.

CHAPTER TWO

LITERATURE REVIEW

2.1 Hospitality industry

The hospitality industry has many definitions but mainly comprises lodging and foodservice businesses involved with providing food and accommodation to people away from home. It also includes hospitals, guest houses, schools (Angelo & Vladimir, 1991). It is a global industry and is service-oriented, with hotels being the largest in the industry and are classified as one-star to five-star hotels, five stars being the best of all. Still, this study focuses on three-star hotels and the lodges that provide accommodation where Housekeeping occurs. Its role is to clean and uphold the hygiene and the aesthetic appeal of the hotel (Joshi, 2016). Housekeepers in the hospitality industry are the most susceptible as their morbidity and mortality rates exceed other service personnel's national average (Buchanan et al., 2010). The application of ergonomics, therefore, is vital in improving housekeeping practices.

Ergonomic is influenced by certain factors such as law, regulations, and technology. According to OSHA, there no specific regulations on ergonomics but are put together under General Duty Clause OSHA Act. Employees who have been trained to identify and avoid ergonomic hazards create a safer workplace. Technology can be used in ergonomics to ease the work by improving the equipment and tools used as well as the amenities in hotel rooms. This could reduce or eliminate the factors that lead to ergonomics issues.

2.1.1 Hospitality industry in the face of Covid 19 pandemic

Davahli et al, (2020) report that travel bans, cessation of movement, and social distancing directives have all been crucial worldwide interventions to mitigate the transmission of the COVID-19 disease outbreak. The pandemic has created greater need for high hygiene and cleanliness standards in guest rooms is required thus increasing the workload on the housekeeping staff due to frequent cleaning and sanitization of the guest rooms. The bulk of the globe's populace is affected by travel restrictions that have been enforced in most jurisdictions around the world. Travel restrictions have been detrimental to the hospitality industry, which relies on travelers as guests. The pandemic has resulted in layoffs and an economic downtrend. The industry is picking up slowly and will be in its full operation again.

2.2 Housekeeping

Housekeeping is the operational division of a hotel that is accountable for hygiene, upkeep, aesthetic maintenance of rooms, public areas, back areas, and the environs (Hussain, 2016). The department ensures that the hotel is clean, maintained, and all rooms and public spaces are aesthetically appealing. Also, it is responsible for cleaning and maintaining the hotel to ensure the property is as fresh and attractive as the day it opened its doors for business and the timely preparation of guestrooms. Housekeeping operates closely with the engineering division because the housekeeping personnel detects diverse types of maintenance problems while undertaking their cleaning duties in the rooms. They report to the maintenance division for repairs and replacement that may need to be carried out in the guestrooms (Hussain, 2016).

Walton (2017) notes that housekeepers typically clean 14-15 guest rooms, most of the day being on their feet. While not on breaks, housekeepers are pulling trolleys, standing to wipe, squeezing mops, or bending and lifting stuff. The workload and different postures while performing their duties leaves them very tired yet not rewarded equitably. In Liladrie, (2010) study on ergonomics tried to analyze personnel's posture while doing the job, lifting heavy materials, working conditions such as air quality, the noise of the working environment, and ergonomic conditions of materials used lacked improvements in the area.

Housekeepers in the hospitality industry are the most susceptible as their morbidity defined by Collins, (2020) as any physical or psychological state considered to be outside the normal wellbeing. and mortality rates exceed other service personnel (Buchanan et al. 2010). In developed nations research has been done however, no research has been done in developing countries hence the aim of this study, particularly Kenya Nairobi. In Shih-Yun Hsu (2011), the housekeeping department has been considered to affect the hotel and revenue costs; thus, while the housekeeping profession's quality is constant, the department is competent. The workload pressure necessitates the need to provide proper tools to perform and consciousness on the housekeeper's workload.

Chijioke & Alozie, (2019) Turnover rates are directly connected to the number of physical injuries due to poor working conditions. Similarly, owing to time-consuming procedures or employers' unwillingness to act, workers entitled to arbitration are deterred from seeking compensation for their injuries. As a result of the increased pressure and ergonomic issues, work-related stress has escalated. The hotels are aware of the traumatic injuries that their

incumbent housekeeping staff suffers from not adhering to ergonomics standards. As a result, absenteeism, high unemployment, exhaustion, and low employee engagement arise (Chijioke & Alozie, 2019).

2.3 Ergonomics

2.3.1 The Origin of Ergonomics

Jastrzebowski, (1857) a Polish scholar, coined the word ergonomics from the Greek word *ergon*, which denotes work, and *nomoi*, which means natural laws to mean the science of work (Te-Hin & Kleiner, 2001). In 1857, Wojciech Jarzembowski created ergonomics as the science of creation as described in his Polish weekly article called 'Przyroda I Przemyst' (2001). The Central Institute for Labour Protection- National Research Institute published the same article translated from original Polish to English Titled "*Wojciech Jastrzebowski – An outline of ergonomics, or the science of work based upon the truth drawn from the science of nature*".

Ramazzini, (1700) in his book "*De morbis artificum diatriba*," established the earliest link between working conditions and pathology in respect to the occupational health perspective. In his book, Ramazzini identified the consequences of awkward working postures on mining workers' bodies as diseases. The modern history of ergonomics begins from the year 1939 to 1945 World War.

In the United Kingdom, the ideas and expertise from varying disciplines concerned with the efficiency of human production and an emphasis on theory and methodology led to the creation of ergonomics with two solid sub-groupings: those of physiology and experimental psychology.

In parallel, the United States promoted the rise of the human factors' profession, with two concrete inputs from psychology and engineering (Singleton, 1982). In extension, Chapanis, (1996) defines ergonomics as a multi-disciplinary subject, with psychology, applied physiology, environmental medicine, anthropometry, engineering, statistics, and operations research all contributing. However, according to Wickens et al. (1998), the field of human factors initially rose from a narrowed concern for the interaction of humans with tangible devices but has expanded exponentially in the last few decades.

2.3.2 Theories of ergonomics

Physical ergonomics are arguably the vital type of ergonomics, as most employers prioritize physical comfort when trying to accommodate their workers. Physical ergonomics focuses on how people's bodies interact with the tools they use daily. Item Response Theory (IRT) is applicable for this study as it is the most reliable in offering more accurate results and involves the tools that are used when performing housekeeping duties.

It is the distinctive practice in studies for ergonomic evaluation to utilize instruments that aim to quantify, using items and queries, some observation, awareness, skill or characteristic also referred to as latent trait of persons or elements that are part of the workplace. Two theories have been used in ergonomics the Classical Test Theory (CTT) and Item Response theory (IRT).

Classical Test Theory

The results are taken as collectively and not on the single item and that becomes the outcome. Critics of CTT argued that the variances between items in an instrument are overlooked, leading to twisted outcomes (Fox, 2005). Practically, when approximating an individual's latent trait using CTT, it is probable that a varying outcome for the same latent trait would be attained if items of the instrument were altered. This variation is due to the dependence of CTT's conclusions concerning the latent trait on the test as a whole and not specific to each item that composes it (Leite,2019). In ergonomics, this fact leads to uncertainty in making decisions because, in most cases, ergonomics intercessions are directed by scores of tools, instruments, questionnaires, and diagrams composed by items. When larger samples are available, persons with varying characteristics are easily found, making researchers in ergonomics prefer using CTT in most cases.

Item Response Theory

The IRT models grew in the 50s to overcome the deficits of the CTT (Lord, 1968), offering unique characteristics. IRT aims to improve the tools used in housekeeping to suite the user. Critics of CTT argued that the difference between tools assessed are overlooked, leading to twisted outcomes (Fox, 2005). IRT considers individual results for the tools used to give different results on the same item assessed (Gorter, Fox & Twisk, 2015). Examples in ergonomics are the musculoskeletal discomfort undergone by housekeepers after a day's work (Silva et al., 2020).

Results from IRT are superior and has more advantages to those produced by CTT, as they generally offer data that is less biased and adjusted better (O'Connor, 2004). IRT is currently the most suitable technique to improve new tools that are used in ergonomic interventions (Silva et al., 2020). IRT can be used to determine the proper height, movement, and a comfortable working environment for the housekeeping staff to reduce morbidity and increase efficiency. IRT has been used to assess the ergonomic needs of tablet armchair for the comfort of the users (Tirloni et al., 2016) and the same can be applied to housekeeping equipment.

In conclusion, ergonomic instruments should be re-evaluated from an IRT point for improved reliability and accuracy of results that ergonomics intercessions are founded on more precise standards. IRT is preferable due to its ability to overcome limitations and weaknesses while presenting more accurate and reliable results for ergonomists to make informed decisions. (Silva et al., 2021)

2.4 Application of ergonomics in Housekeeping

2.4.1 Ergonomics for proper height

Working with proper height is vital, that is, appropriate equipment for the right purpose. Some cleaning equipment have been adapted to ease housekeeping work. Still, equipment utilization must be proper because those that clean the lower surfaces well may not be appropriate for high characters. Housekeepers do not participate in the purchase of equipment, and they end up having too heavy carts and the push bar being too high for the user. Effective ergonomics plan offers work procedures, tools, and equipment that are comfortable and efficient for the worker to use. A healthy work environment is created as a result and the work process the control or remove hazards (Joshi, 2016). Housekeeping services in hotel entails cleaning of different surfaces of different heights which are required always as cleanliness of guestrooms is one of the important service standards required by guests (Liladrie, 2010).

2.4.2 Ergonomics for movement

Work is repetitive and routine, so movement is in the same motion throughout when performing activities such as bending to make beds, moving heavy trolleys and furniture, and the general cleaning of different areas (Liladrie, 2010). Hsieh et al., (2013) reported that ergonomics cleaning tools such as powered linen carts that are highly maneuverable and can reduce the

force involved in pushing them over carpeted areas, they should be replaced old-fashioned manually driven and poorly designed carts. Housekeeping involves moving from one place to the other in the hotel, including the guest rooms, the lobby, and the corridors.

The literature reviewed found that the poor design and arrangement of furniture force cleaners to over stretch or overexert their bodies while working, causing increased musculoskeletal burdens. In this regard, guestrooms should be designed to be easy to clean and furniture rearranged to reduce lifting, stretching, and bending (Joshi, 2016).

2.4.3 Ergonomics for a comfortable environment

A comfortable working environment will yield efficient work, and for this reason, the research established if the ergonomics for this is applied in three-star hotels in Nairobi. Housekeeper`s role is crucial to service provision and hotel profitability. The management must manage various health and safety concerns in the working area. Occupational Health and Safety practices and guidelines play a vital role in providing a healthy and safe environment for the employees (Ambardar & Raheja, 2017).

The housekeeping department managers should have this in mind and take them as significant as other staff. Chemicals are used in cleaning, which can be hazardous to the user. When the housekeepers get exposed to chemicals used for cleaning toilets and sinks , the skin can get irritated and cause other respiratory diseases (Hsieh et al., 2013). This study, therefore, aims to examine the influence of ergonomics practices on morbidity of housekeepers in three-star hotels in Nairobi.

2.5 Advantages of employing Ergonomics.

2.5.1 Ergonomics saves money.

By employing ergonomics in the industry, ergonomic risk factors are reduced. Similarly, the prevalence rate of musculoskeletal disorders is lowered, and lower labor costs (Joshi 2016). The hospitality industry is infiltrated with high turnover rates, which result in huge expenses emanating from training new employees time and again. By improving the work conditions, turnover can reduce and therefore the excessive expenses would also be reduced.

2.5.2 Ergonomics improves productivity.

Ergonomics results in the workstation's convenience when designed to facilitate good posture, less exhaustion, fewer movements, and reduce the distances for lifting and reaching out for objects stored in elevated heights (Walton, 2017). The housekeeping staff will be more productive in their work as they will not get exhausted since their workstation will be comfortable to work. The turnover of the housekeepers will reduce which increases efficiency hence productivity becomes higher. The physical and psychological needs of the housekeepers when met ensures good work performance as the staff will be of good health.

2.5.3 Ergonomics promotes a safer workplace.

Ergonomics demonstrates a dedication to Occupational Safety and Health. Employees create a competitive advantage, and cultivating safety, and environmental culture will result in improved employee engagement (Jablonska & Trocka-Leszczynska, 2019). Ergonomics ensures that there are less injuries and the turnover of the staff is reduced because the right tools and equipment are in place which ensures that the users are safe and can work for many years in the hotel. The hotel on the other hand reduces the time and cost of recruiting new staff often and will have staff who are dedicated to their work.

2.5.4 Ergonomics Improves engagement

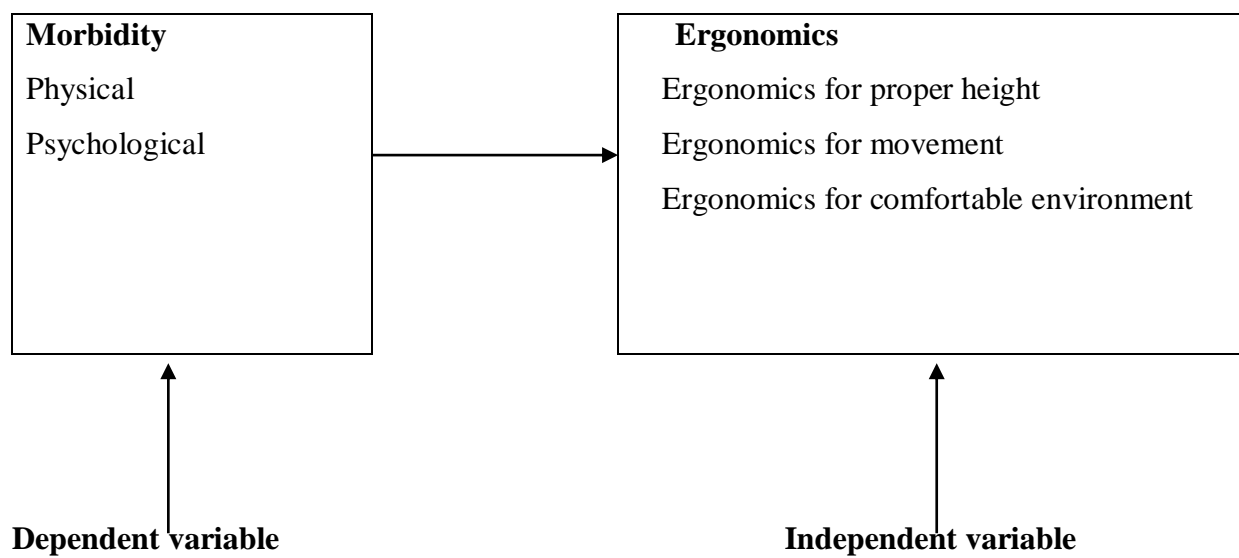
It will minimize attrition, delinquency, raise productivity, and improve employee engagement since the working conditions are favorable (Walton, 2017). Encouraging employees to work in a poor working environment is difficult to them and they cannot be efficient. The housekeepers' contribution in purchase of cleaning equipment and materials will be taken into place therefore, the right ones will be purchased that will suit the worker and ergonomic aims will be achieved. Feedback is gotten from the housekeepers which is used for continuous improvement.

2.6 Theoretical Framework

Theoretical background of this study has heavily relied on literature reviewed in this chapter. Ergonomics properly adhered to impacts positively on the effectiveness of housekeeping staff in hotel industry and reduces morbidity.

2.5 Conceptual framework

This framework adopts the model below to show the relationship between ergonomics and morbidity as the topic states. Ergonomics is the dependent variable and includes ergonomics for proper height, ergonomics for movement and ergonomics for comfortable environment. Morbidity is the dependent variable and includes physical and psychological as shown in the diagram below.



CHAPTER THREE

RESEARCH METHODOGY

3.1 Introduction

The previous chapter has reviewed literature on hospitality industry, housekeeping, ergonomics, and the theories. Advantages of applying ergonomics and influence of applying ergonomics practices on morbidity of housekeepers. This chapter includes research design, population, sampling design, data collection methods and how the data will be analyzed.

3.2 Research design

Research design is a systematic approach that a researcher uses to carry out a study as a framework that guides in carrying out the research. Descriptive design was used for this study as it has been used in similar studies to describe characteristics of a population or the phenomenal being studied and provides described information that address the research study therefore, suitable for this study. Quantitative research was used to collect quantifiable information as it deals with numbers and statistics that systematically collects and analysis data (Mammen, 2017).

3.3 Population

Leslie, (1995) defines population as the whole group from which a sample is drawn and for this study it includes are all three-star hotels in Nairobi because of ease of accessibility and Nairobi has the largest number of three-star hotels and would form a good sample as the representation of the others. There are fifteen registered three-star hotels in Nairobi by the Tourism Regulatory Authority.

3.4 Sampling Design

The sampling design used was convenience sampling design because many of the hotels are not operational due to the Covid 19 pandemic and the hotels that were sampled are those that are in operation. The questionnaires used will be 100 which will comprise of 20 supervisors and 80 housekeepers. Ten hotels will be sampled, and each hotel will have 10 respondents comprising of 2 supervisors from each hotel and 8 housekeepers. The sampling error is 5%.

Sample size formula: $n = \frac{N}{1+Ne^2}$.

Where n = the sample size

$$N = \text{the population size}$$

$$E = \text{the acceptable sampling error}$$

$$= \frac{134}{1 + 134 \times 0.0025} \quad \text{Sample size} = 100$$

3.5 Data Collection and instrument

The primary data for the research was collected through a survey method with the use of questionnaires as a tool for collecting data. The questionnaires were self-administered and were distributed to the housekeeping staff who included the supervisors and the housekeepers of the three-star hotels in Nairobi. The researcher visited the sample hotels and requested the housekeeping staff to fill the questionnaires and waited for them to be filled. After that, the researcher collected them to be used for data analysis. During the data collection the housekeepers were asked to be confident that the information they give will be confidential so that they are encouraged to fill the questionnaires.

3.6 Data analysis

The data collected was analyzed quantitatively. The relevance of the data collected to the objectives of the study was established and quantitatively analyzed to derive descriptive statistics. Univariate descriptive statistics deals with one variable at a time and the types that were used for this study were central tendency which estimates the average of the data set and measures of distribution which includes distribution of values. The data was grouped into different categories and presented in tables, charts, and graphs.

3.7 Limitations of the study

The Covid19 pandemic has greatly affected the hotel industry. The pandemic has seen many hotels close with most staff's contracts terminated. This limited the sample size intended to 40 respondents. Another challenge was juggling between work and collecting the data as the time was limited. Also getting the respondents was challenge since they are few in the hotels and getting their attention posed a challenge.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF FINDINGS

4.1 Introduction

The aim of the study was to examine the influence of ergonomic practices on the morbidity of housekeepers in three-star Hotels in Nairobi. Data was collected and analyzed regarding the specific objectives.

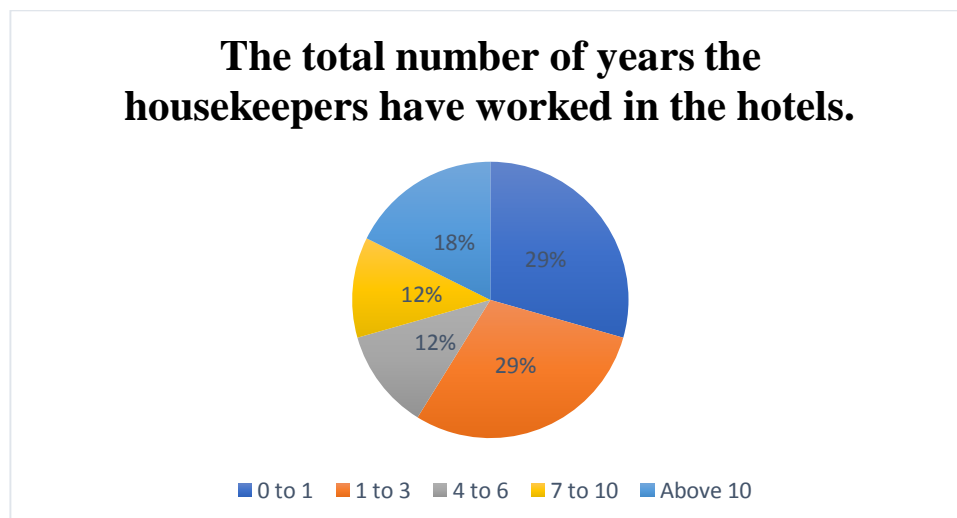
4.2 Data analysis in relation to the objectives

Figure 4.1 years worked

The total number of years the housekeepers have worked in the hotels.

of years worked.	Number of Housekeepers Number	Percentage %
0-1	10	29
1-3	10	29
4-6	4	12
7-10	4	12
Above 10	6	18
Total	34	100

Figure 4.2 shows total numbers of years worked



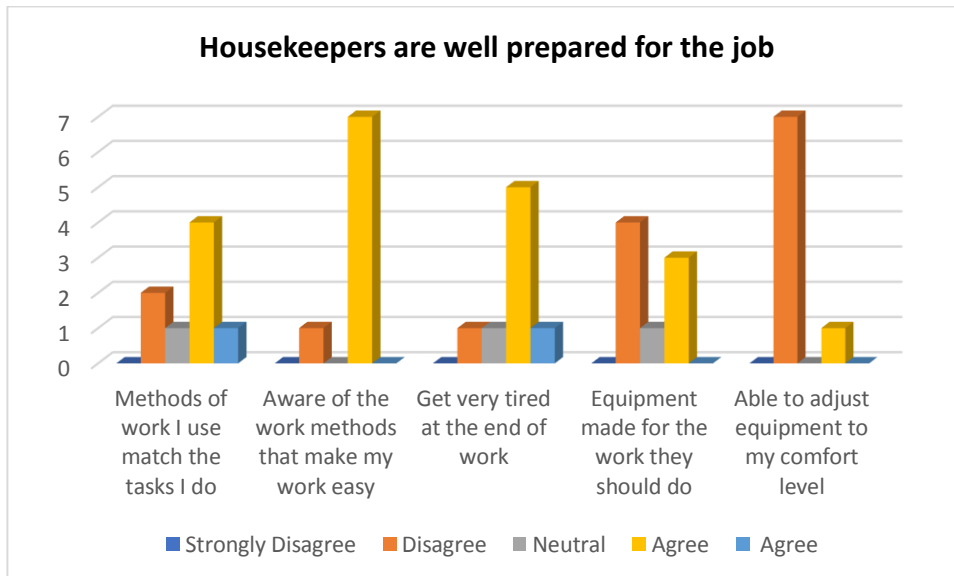
The total respondents from all the housekeeping supervisors from the different Hotels

Number of years worked.	Number of Housekeepers	Percentage %
0-1	1	17
1-3	2	33
4-6	2	33
7-10	1	17
Above 10	0	0
Total	6	100

Hotel A

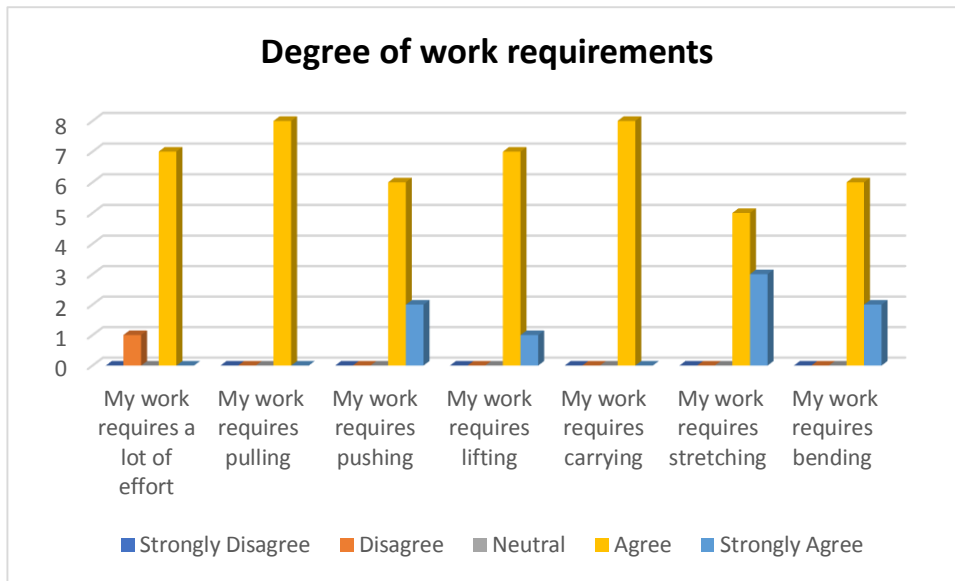
Q3. The study shows that most of the respondents get very tired after work and disagree that they can adjust equipment to their comfort level.

Figure 4.3 shows how well the housekeepers are prepared for the job



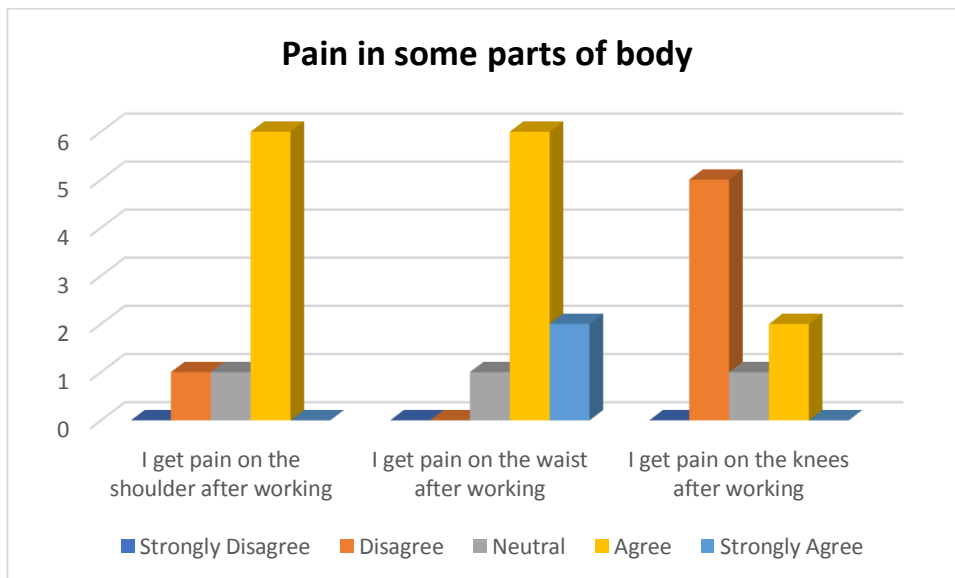
Q4 The study shows that over 90% respondents of the requires a lot of effort and pulling, pushing, lifting, carrying, stretching, and bending.

Figure 4.4 shows the degree of work requirements



Q5 95% and above of the respondent as the study shows agree that they get pain in some parts of their body

Figure 4.5 shows pain in some parts of the body



Q6. The work environment is comfortable to work as shown by the findings is that majority over 50% disagree.

Figure 4.6 shows the work environment is comfortable to work in

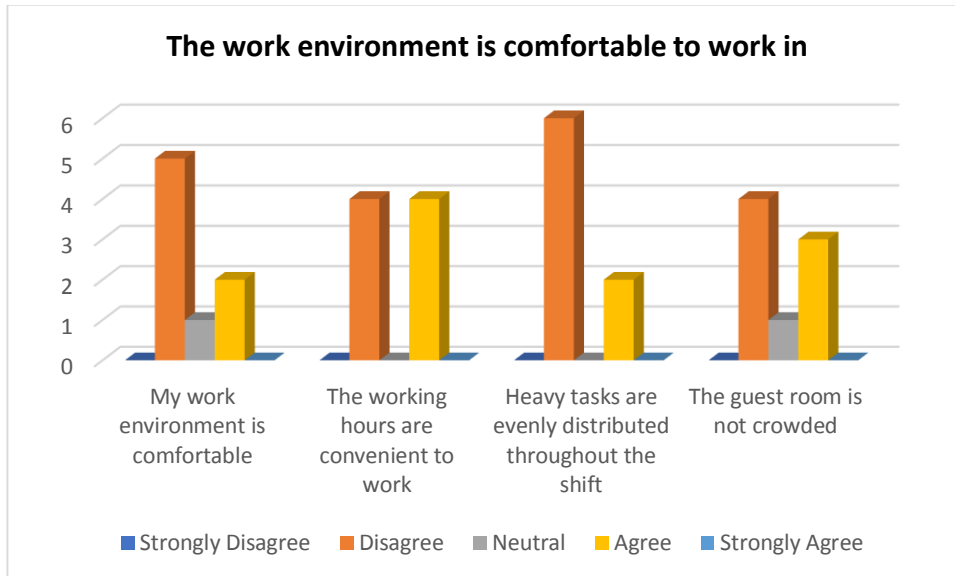
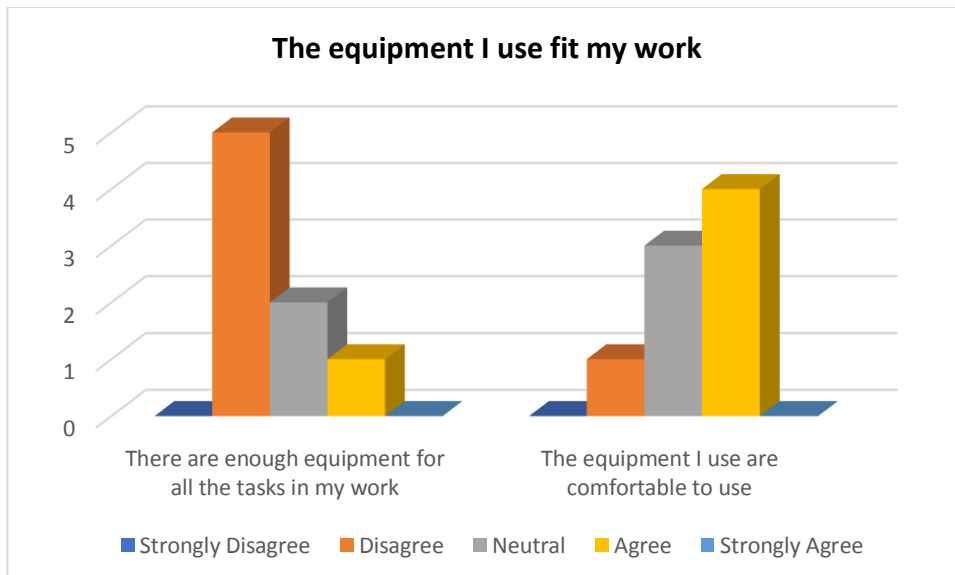


Figure 4.7 shows the equipment used fit the work

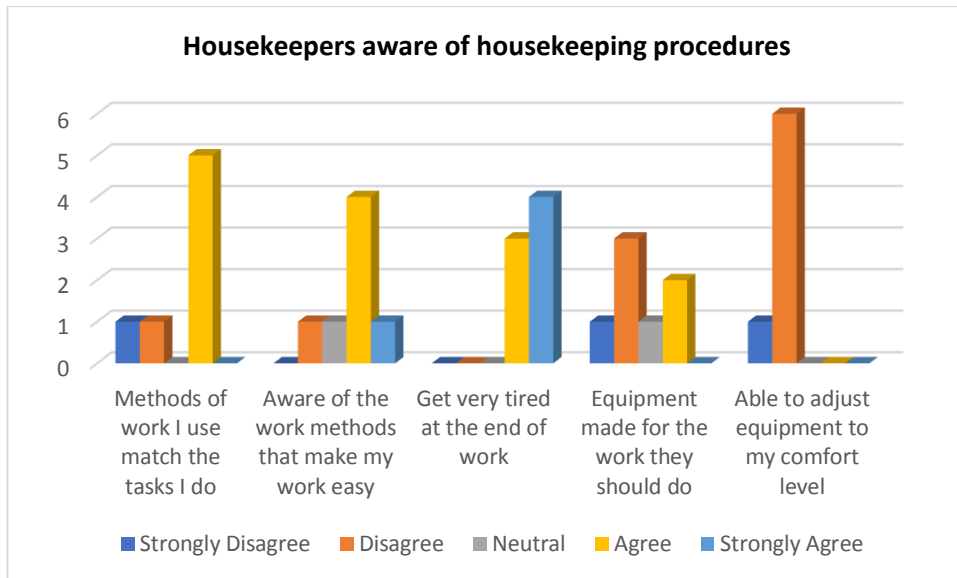
Q7 The study shows that the equipment used do not fit the work with the over 50% disagreeing that there is enough equipment for all the tasks.



Hotel B

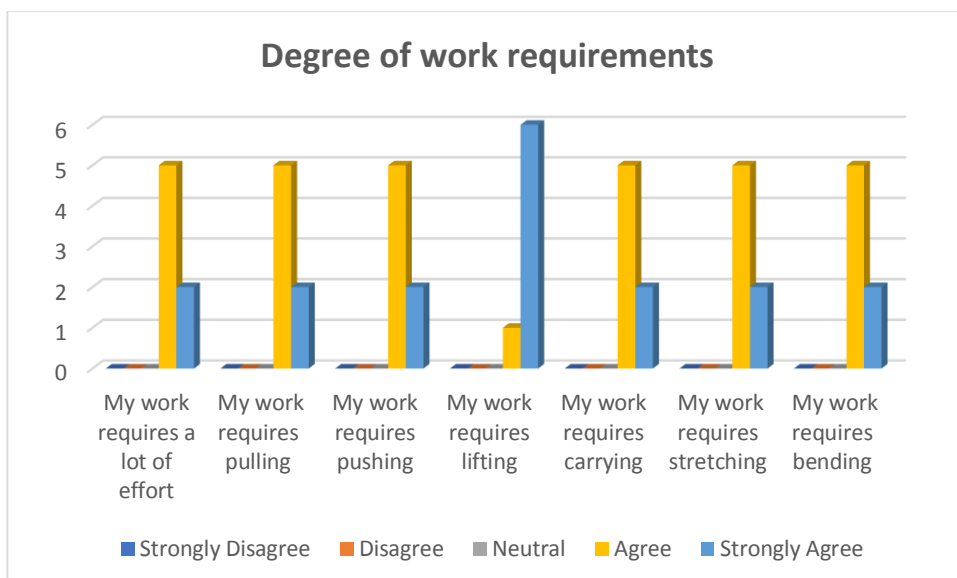
Q3

Figure 4.8 shows housekeepers are aware of housekeeping procedures



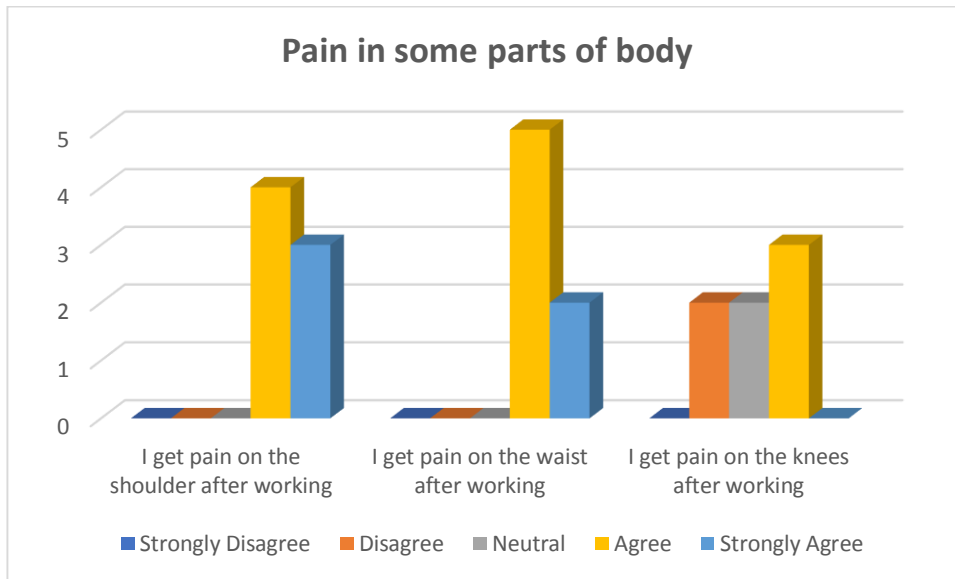
Q4

Figure 4.9 shows degree of work requirements



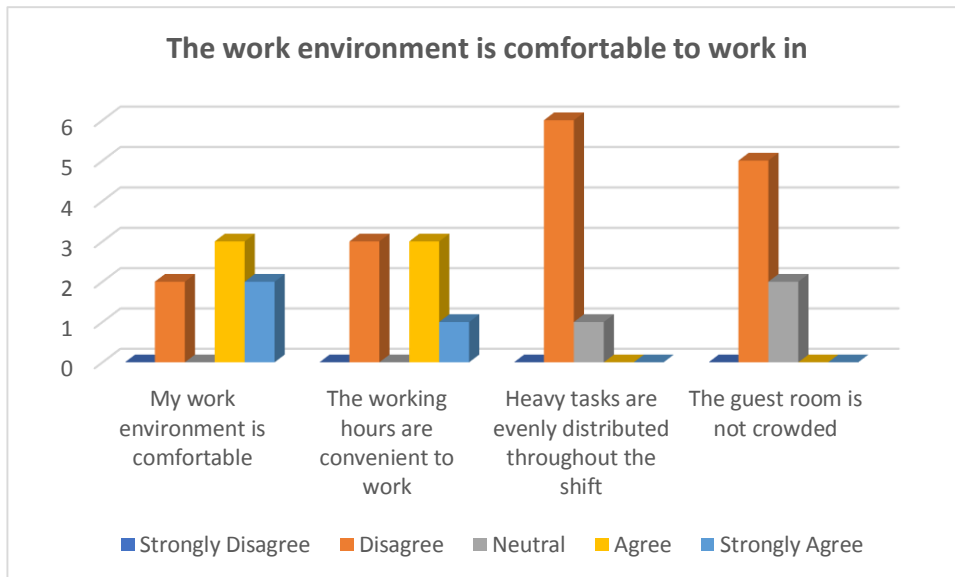
Q5

Figure 4.10 shows pain in some parts of the body



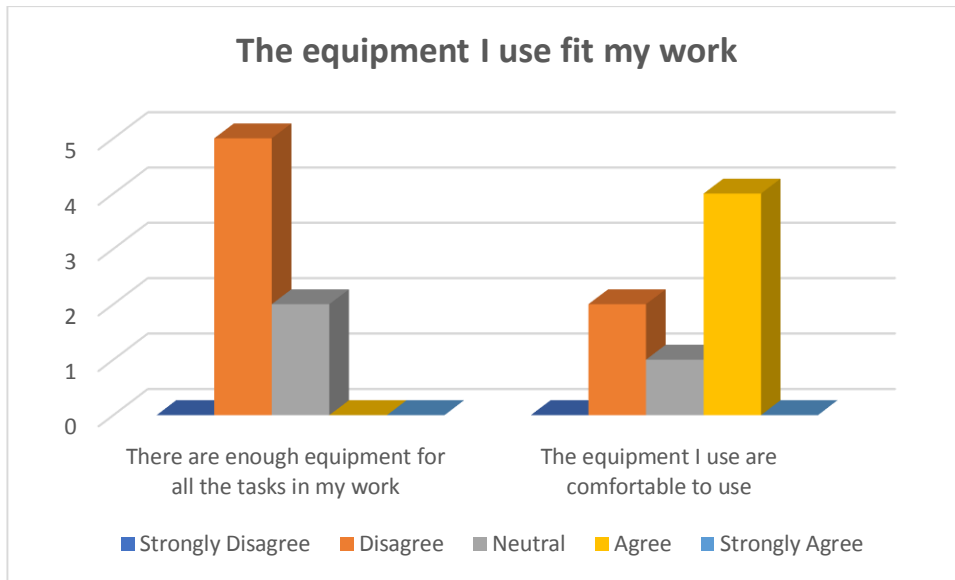
Q6

Figure 4.11 shows the work environment is comfortable to work in



Q7

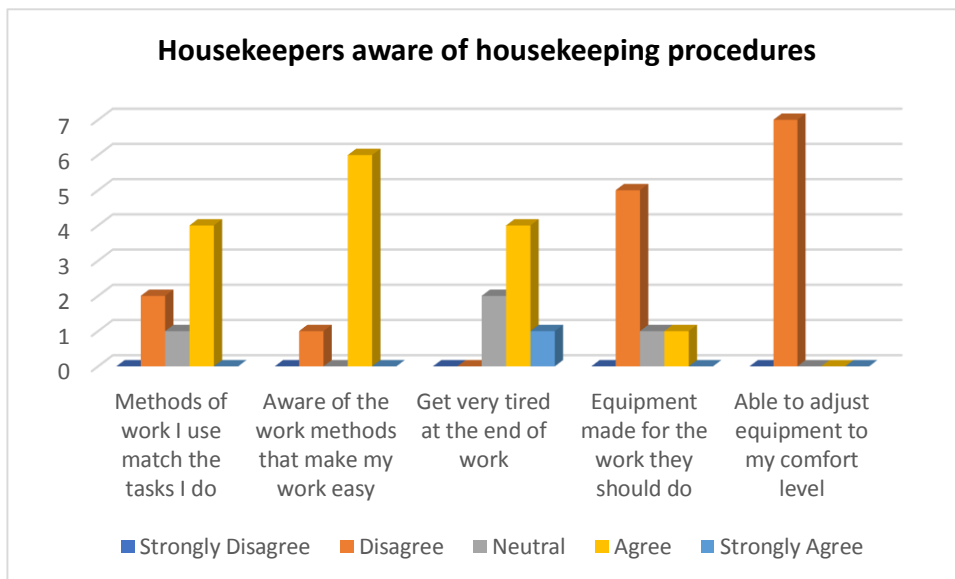
Figure 4.12 shows the equipment used fit the work



Hotel C

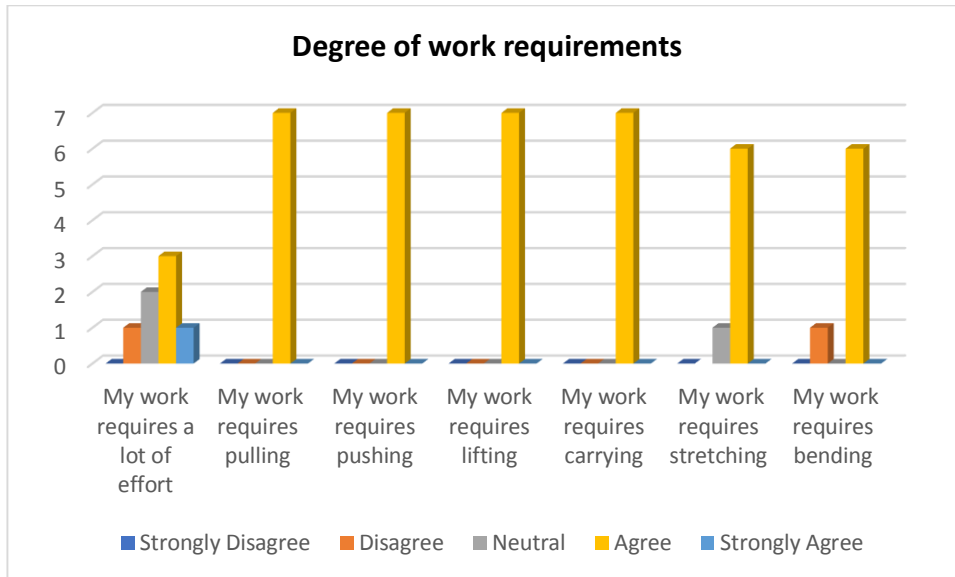
Q3

Figure 4.13 shows housekeepers aware of housekeeping procedures



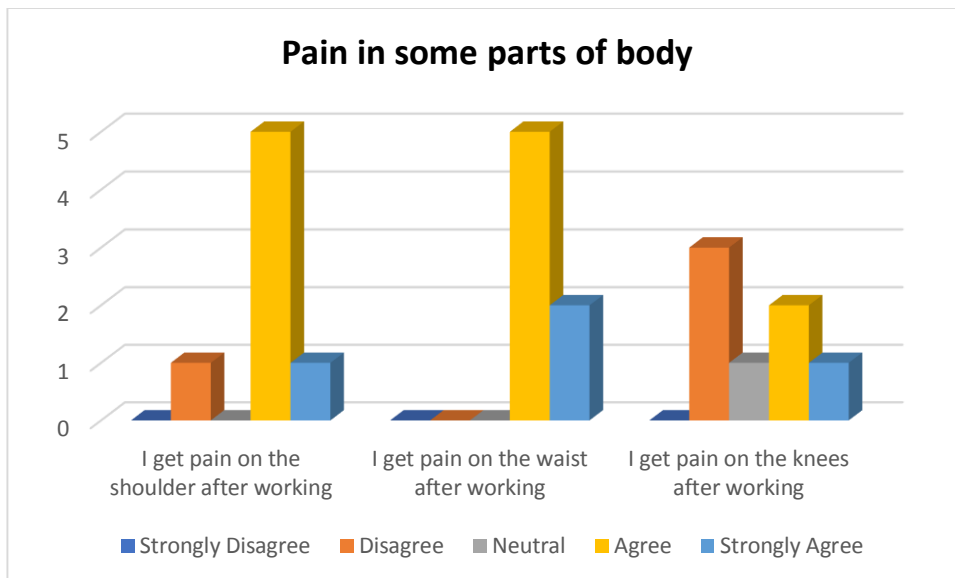
Q4

Figure 4.14 shows degree of work requirements



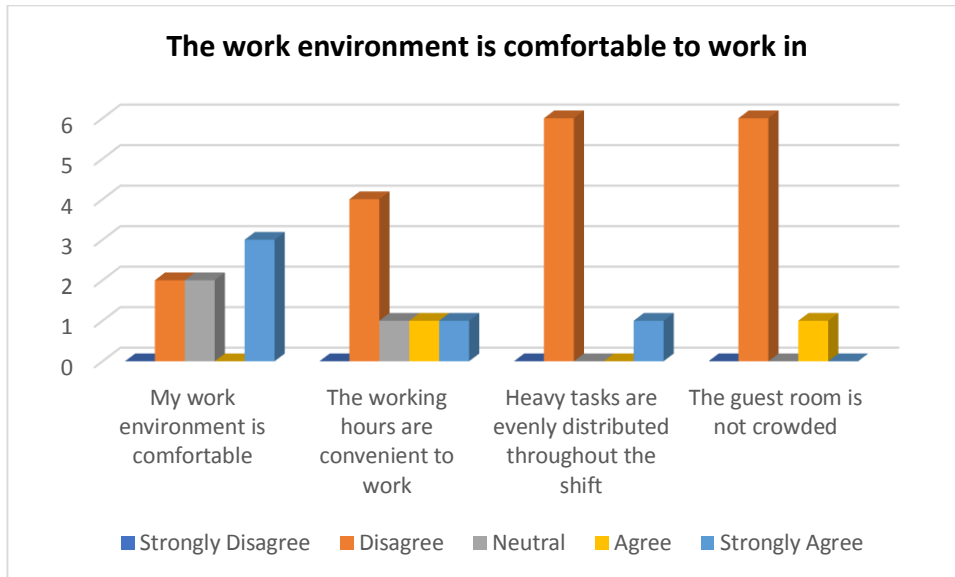
Q5

Figure 4.15 shows pain in some parts of the body



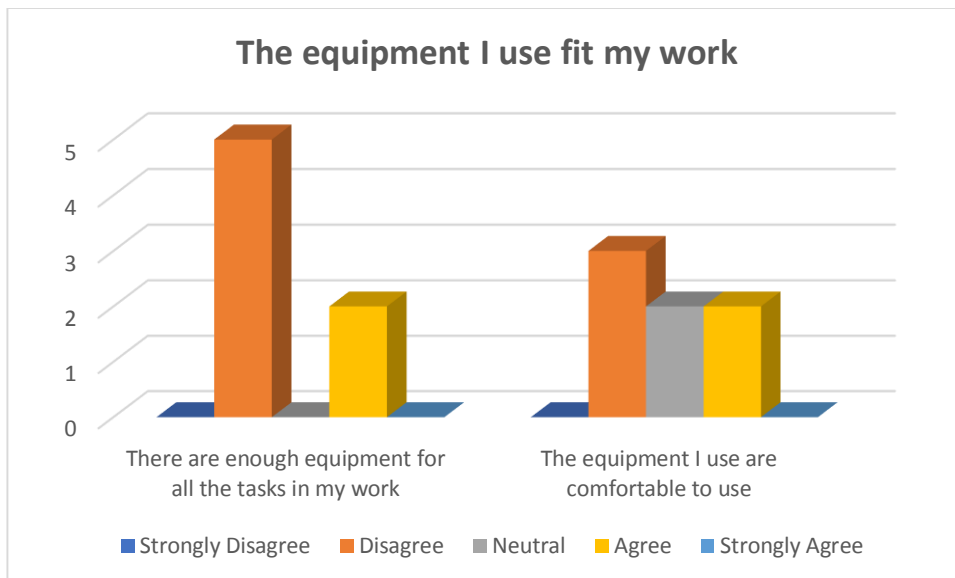
Q6

Figure 4.16 shows the work environment is comfortable to work in



Q7

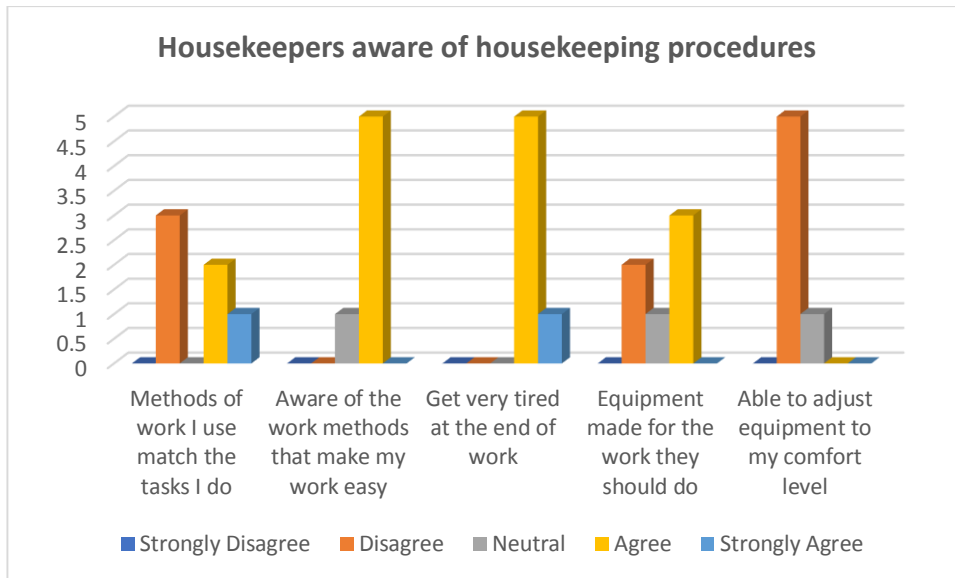
Figure 4.17 shows the equipment used fit the work



Hotel D

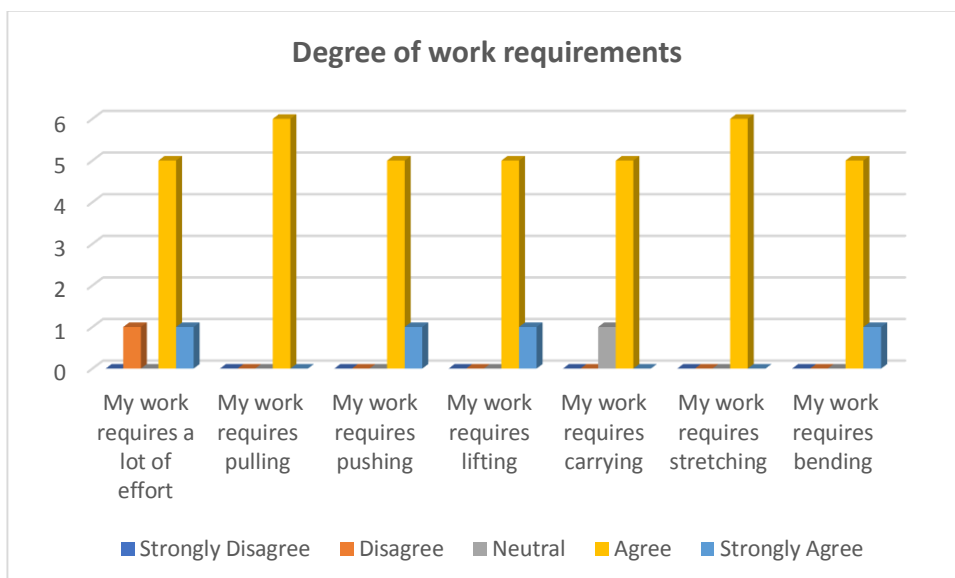
Q3

Figure 4.18 shows housekeepers aware of housekeeping procedures



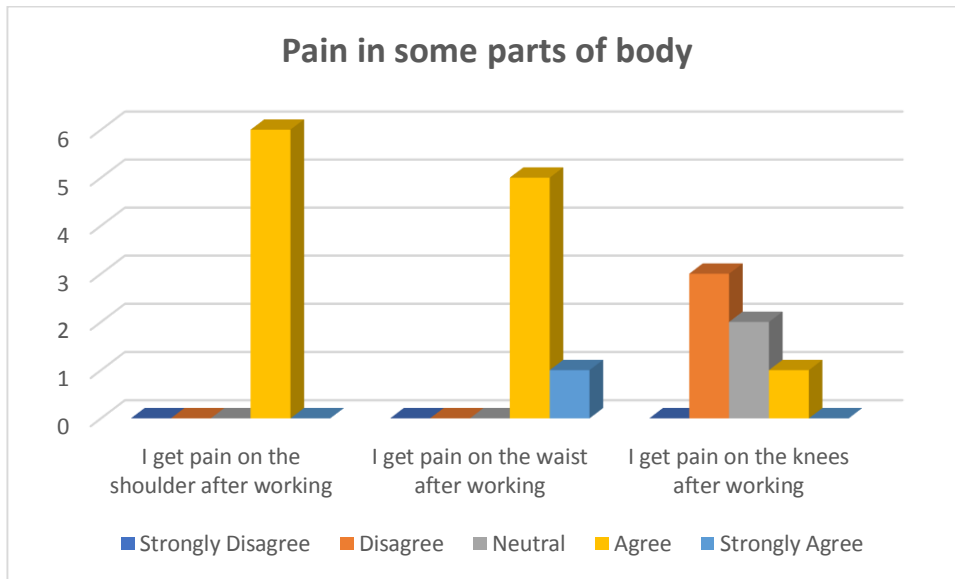
Q4

Figure 4.19 shows degree of work requirements



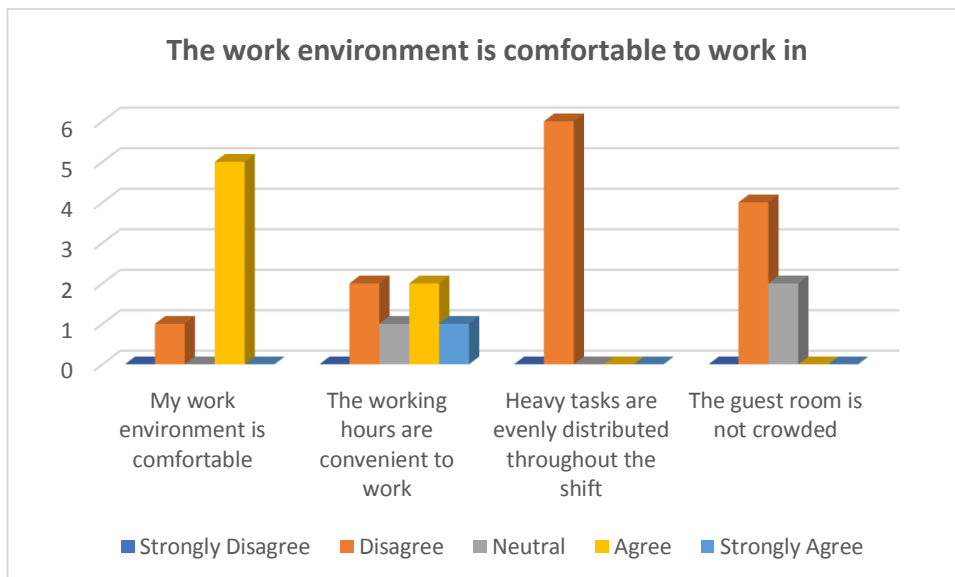
Q5

Figure 4.20 shows pain in some parts of the body



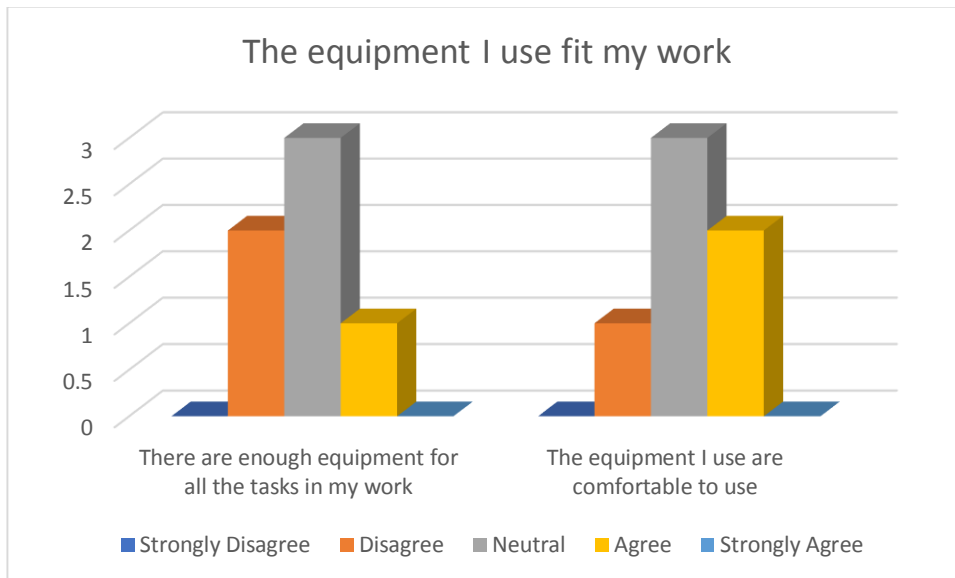
Q6 majority of the respondents disagree that heavy tasks are distributed throughout the shift and that the guest rooms are crowded.

Figure 4.21 shows the work environment is comfortable to work in



Q7 A big number of the respondents disagree that there is enough equipment for all the tasks in their work. A good number did not agree or disagree.

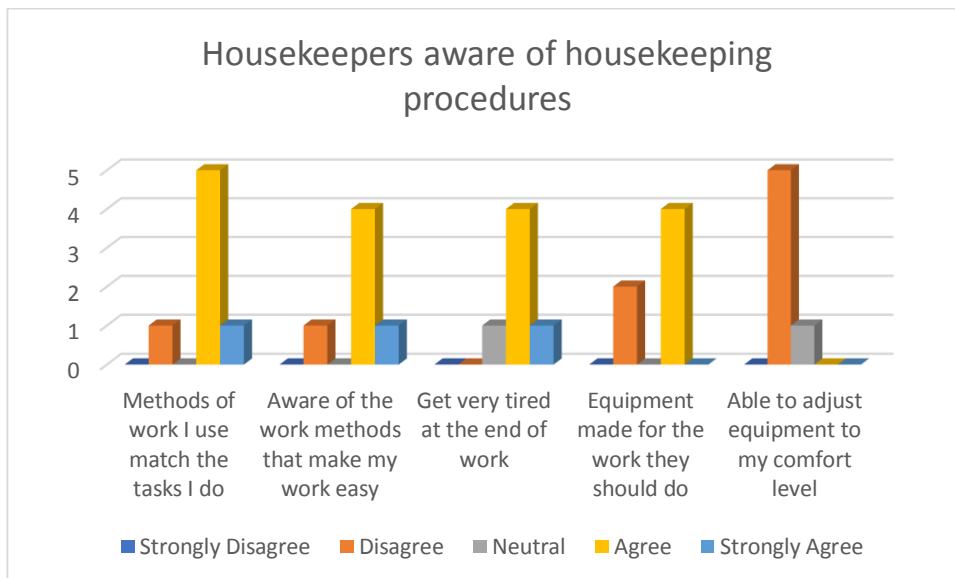
Figure 4.22 shows the equipment used fit the work



Hotel E

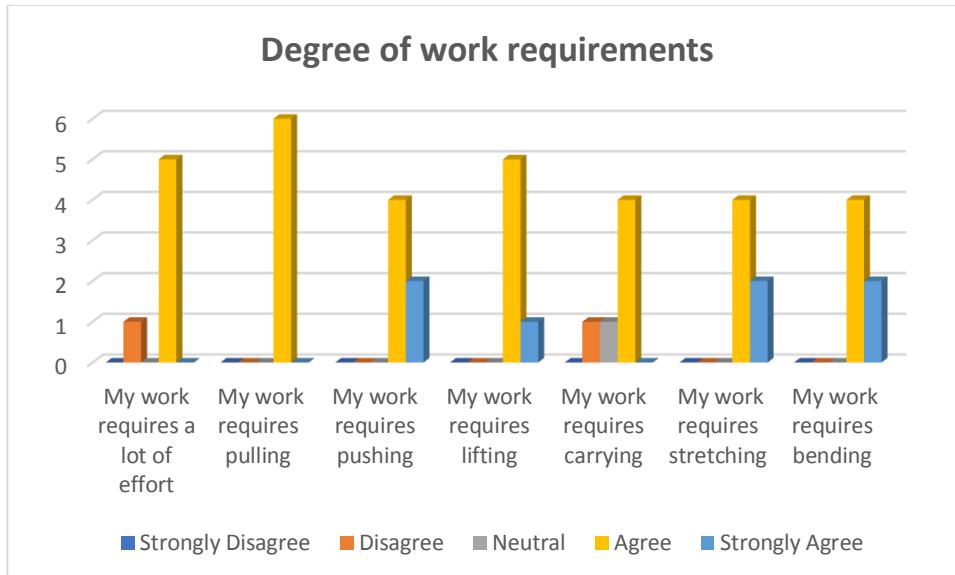
Q3 Majority of the housekeepers are aware of the housekeeping procedures, but majority disagree that they can adjust equipment to their comfort level.

Figure4.23 shows housekeepers aware of housekeeping procedures



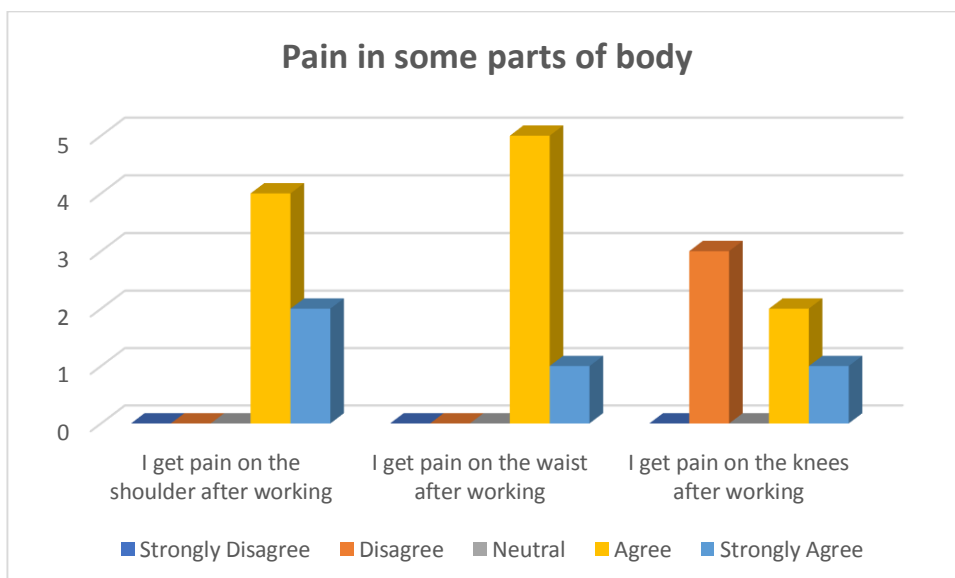
Q4 Research shows that most of the respondents agree that their work requires a lot of effort and requires pulling, pushing, lifting, carrying, stretching, and bending

Figure 4.24 shows degree of work requirements



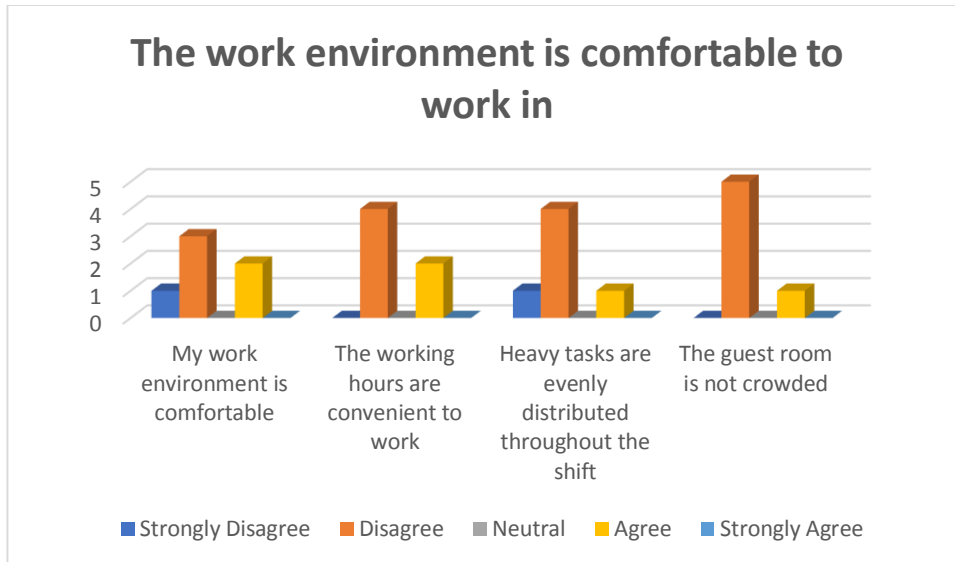
Q5 The study shows that most of the respondents get pain on the shoulder and waist after working and some strongly agree and few disagree.

Figure 4.25 shows pain in parts of the body



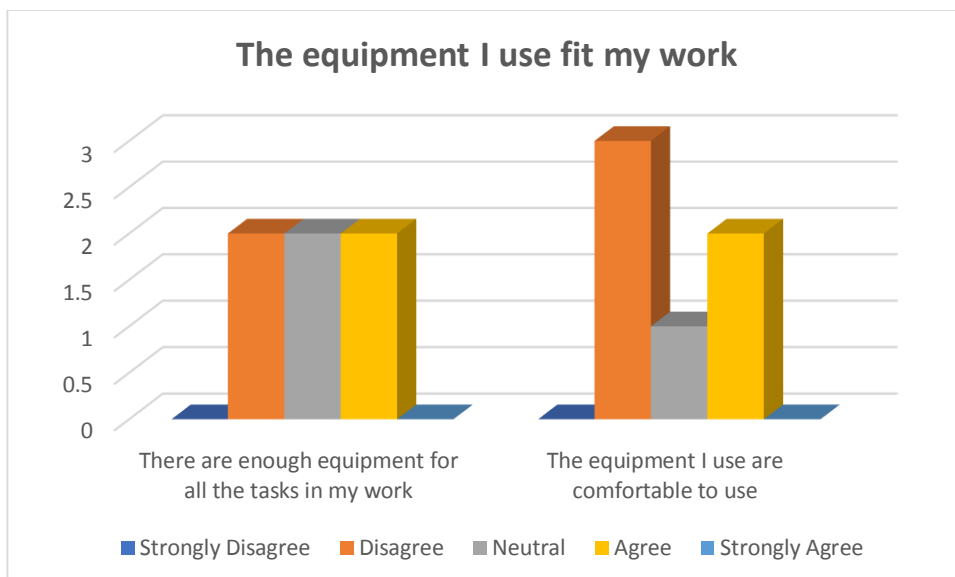
Q6 The study shows that most of the respondents disagree that the work environment is comfortable to work in.

Figure 4.26 shows the work environment is comfortable to work in



Q7 The research shows that all the respondents were equal those who agreed, the neutral ones and those who disagreed that they have enough equipment for all the tasks most of the respondents disagreed that the equipment they use are comfortable.

Figure 4.2.27 shows the equipment used fit the work



The total responses for all the five Hotels

Question 3

From the data, it shows that for question three 53% agree that they always get very tired at the end of the shift, those who strongly agree at 12%, Those who were neutral are at 6% and those disagree are at 26% and strongly disagree at 3%.

Question 4

68% agree that their work requires a lot of effort when working and 14% strongly agree, 6% are neutral and 12% disagree.

Question 5

79% of the respondents agree that they get pain on the shoulder, 12% strongly agree, 3% neutral and 6% disagree. 76% agree that they get pain on the waist after working, 24% strongly agree.

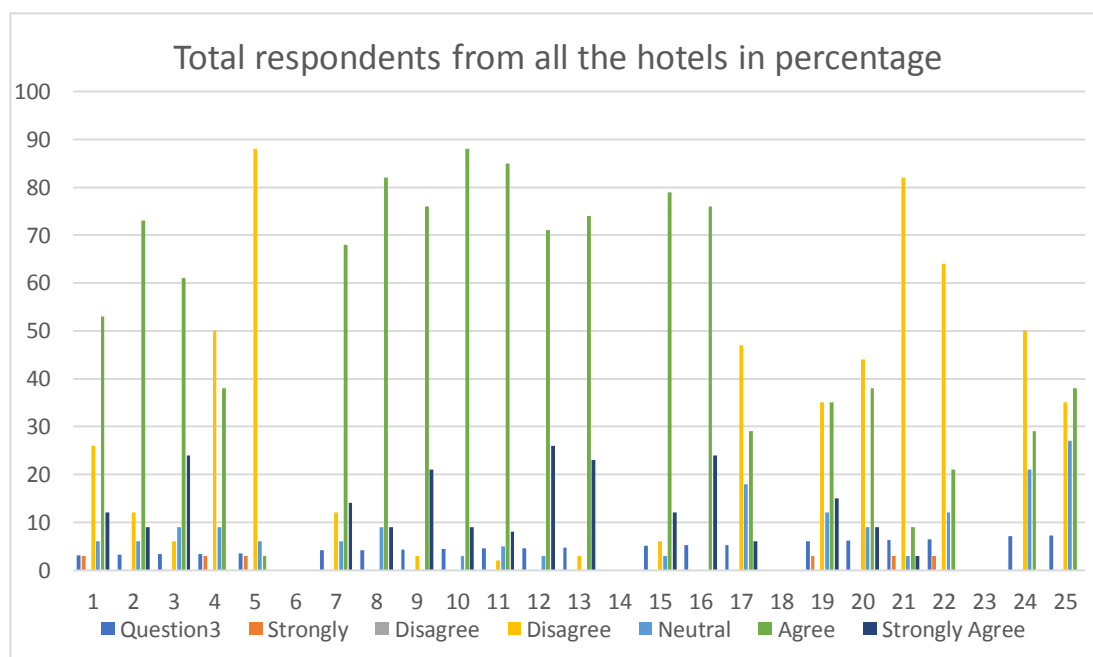
Question 6

35% of the respondents agree that their work environment is comfortable and 15% strongly agree while 35% disagree and 12% are neutral. 3% of the respondents strongly disagree, that the guest rooms are not crowded 64% disagree, 12% are neutral and 21% agree.

Question 7

From the data, 50% disagree that there is enough equipment for all the tasks in my work, 21% are neutral, 29% agree. 35% disagree that the equipment they use are comfortable to use while 27% were neutral and 38% agree. The diagram below shows the above.

Figure 4.2.28 shows total respondents from all hotels in percentage

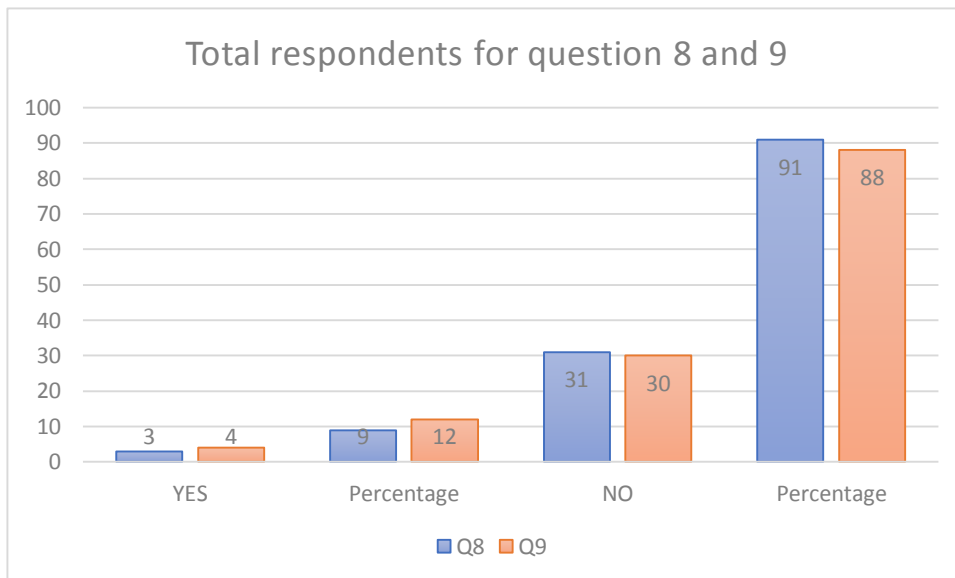


Question 8 and 9

	YES	Percentage	NO	Percentage
Q8	3	9	31	91
Q9	4	12	30	88

3% of the respondents are happy with the housekeeping procedures they practice and 91% are not. For Question 9, 12% of the respondents will continue to work for the hotel while 88% will not as shown in the figure below.

Figure 4.2.29 shows total respondents for question 8 and 9.



CHAPTER FIVE

DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.0 Discussions

Questionnaires were used as a tool to carry out the study and there was varied feedback from the respondents who were the housekeeping staff from the five different hotels visited.

5.1 To establish the awareness of ergonomics among housekeeping staff in three-star hotels in Nairobi.

The study shows that a high percentage of the housekeepers are not aware of ergonomics since majority have ergonomic related problems where they experience pain in some parts of their body after working. Those who are aware do not practice it due to the work pressure and the time limit. Little research has been done on three-star hotels specifically but Liladrie, (2010) states that middle class hotels do not practice proper ergonomics as their supervisors do not pay much attention the staff but the profits of the hotels.

5.2 To establish the application of ergonomics in the housekeeping department in three-star hotels in Nairobi.

The responses from the study shows that very little ergonomics is applied in the hotels as the findings show that most of them cannot adjust the equipment they use to their comfort which suggest that the equipment they use are not designed to suite the user. There is need for improvement in this area. A research by Joshi, (2010) shows that ergonomics is one of the factors to be considered to reduce staff turnover. The supervisors should conduct trainings and always remind the housekeepers of the ergonomics practices to reduce injuries while at work.

5.3 To examine the turnover of the housekeeping staff due to issues rising from ergonomics.

The findings show that there is high turnover of the housekeepers and this is evident from the number of years they have worked in the hotels. Majority are those who have worked from one year to three years and very few have worked for more than seven years. The workload has increased greatly due to the need for provision of luxury accommodation which comes with heavy mattresses which are heavy thus increasing the prevalence of pain in some body parts (Liladrie,2008). To keep the housekeepers working for more years then, the proper equipment for the tasks and those that fit the user should be provided. The hotels will benefit on the other hand by having no or less turnover which will reduce the cost of medication, absent seem and recruitment to the hotel.

Conclusion and limitation of the study

This study shows the findings about the influence of ergonomics practices on the morbidity of housekeepers in three-star hotels in Nairobi. Ergonomic practices are very important in housekeeping department as the overall performance of the housekeeping staff depends on it. The hotel profits depend on the performance of the housekeeping staff.

Recommendation

Ergonomics practices are very important and should be considered in the housekeeping department at all time to ensure that the productivity of the staff is at a hundred percent. Trainings should be carried out from time to time to ensure that every housekeeper is aware of ergonomics and are able to apply it in their work. This will create a comfortable environment to work in and will reduce injuries leading to no or less staff turnover.

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APPENDICES

APPENDIX 1

SAMPLE QUESTIONNAIRES FOR HOUSEKEEPERS

To the respondent

This questionnaire has been designed by Stella Chebet to assist in data collection that will be used in academic research. You are very much and appreciated in advance for your time and response in filling the questionnaire. Your response will be treated with utmost confidentiality and secrecy.

Part 1; Please tick the appropriate box below.

1. How long have you been working as a housekeeper in the hotel?

0 -1 years 1-3 years 4-6 years

7-10 years Above 10 years

2. What is your position?

Housekeeper

Supervisor

Part 2: Please tick in the appropriate box to what extent you agree or disagree with the following statements on a scale of 1 to 5. 1 to mean Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

3. I am aware of housekeeping procedures					
Please tick in the appropriate box	1	2	3	4	5
3.1 The methods of work I use match the tasks I do					
3.2 I am aware of the work methods that make my work easy					
3.3 I always get very tired at the end of work					
3.4 The equipment I use are made for the work they should do					
3.5 I can adjust the equipment I use to my comfort level					

Part 2: Please tick in the appropriate box to what extent you agree or disagree with the following statements on a scale of 1 to 5. 1 to mean Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

4. My work requires the following					
Please tick in the appropriate box	1	2	3	4	5
4.1 My work requires a lot of effort while working					
4.2 My work requires pulling					
4.3 My work requires pushing					
4.4 My work requires lifting					
4.5 My work requires carrying					
4.6 My work requires stretching					
4.7 My work requires bending					
5. I feel pain in some parts of my body					
Please tick in the appropriate box	1	2	3	4	5
5.1 I get pain on the shoulder after working					
5.2 I get pain on the waist after working					
5.3 I get pain on the knees after working					
6. The work environment is comfortable to work in					
Please tick in the appropriate box	1	2	3	4	5
6.1 My work environment is comfortable					
6.2 The working hours are convenient to work					
6.2 Heavy tasks are evenly distributed throughout the shift.					
6.3 The guest room is not crowded					
7. The equipment I use fit my work					
Please tick in the appropriate box	1	2	3	4	5
7.1 There are enough equipment for all the tasks in my work					
7.2 The equipment I use are comfortable to use					

14. I am happy with the housekeeping procedures I practice

Yes

No

15. I will continue to work for this hotel

Yes

No

APPENDIX 2

SAMPLE QUESTIONNAIRES FOR HOUSEKEEPING SUPERVISORS

To the respondent

This questionnaire has been designed by Stella Chebet to assist in data collection that will be used in academic research. You are very much and appreciated in advance for your time and response in filling the questionnaire. Your response will be treated with utmost confidentiality and secrecy.

Part 1; Please tick the appropriate box below.

1.How long have you been working as a housekeeper in the hotel?

0 -1 years 1-3 years 4-6 years

7-10 years Above 10 years

2. What is your position?

Housekeeper

Supervisor

Part 2: Please tick in the appropriate box to what extent you agree or disagree with the following statements on a scale of 1 to 5. 1 to mean Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

3. I ensure that the housekeepers are well prepared for the job					
Please tick in the appropriate box	1	2	3	4	5
3.1 The housekeepers are aware of housekeeping procedures to use in their work					
3.2 There are enough equipment for all the tasks					
3.3 The operating procedures in place prevent injuries in the workspace.					
3.4 The housekeepers have the appropriate equipment for their work					
3.5 The equipment used are designed to suit the housekeeper					
3.6 The housekeepers are trained on how to use work equipment					

Part 2: Please tick in the appropriate box to what extent you agree or disagree with the following statements on a scale of 1 to 5. 1 to mean Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

4.The environment is comfortable to work in					
Please tick in the appropriate box	1	2	3	4	5
4.1 The working hours are convenient to work					
4.2 The guest rooms are not crowded					
5. Rotation of the housekeepers is done as follows					
Please tick in the appropriate box	1	2	3	4	5
5.1 Daily rotation					
5.2 Weekly rotation					
5.3 Monthly rotation					
5.4 Periodic rotation					
6. Issues arising while the housekeepers are at work					
Please tick in the appropriate box	1	2	3	4	5
6.1 They get pain on their back					
6.2 They get pain on the shoulders					
6.3 They get pain on the knees					
6.4 They work with an awkward posture					

7. Use of good housekeeping practices can reduce and prevent injuries among the hotel housekeepers.


Yes No

8. How often is the turnover of the housekeepers

Daily Weekly Monthly Periodically

Appendix 3
Classified establishments register

TUESDAY, MAY 4, 2021



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Classified Tourism Enterprises Updates

CLASSIFIED ESTABLISHMENTS-REGISTER

1. GREATER NAIROBI

NO	ESTABLISHMENT	COUNTY	CAPACITY		RATING
			ROOMS	BEDS	
1	Ibis Styles Nairobi Westlands	Nairobi	277	331	***
2	Maanzoni Lodge	Machakos	272	421	***
3	Azure Hotel	Nairobi	165	231	***
4	Best Western Plus Meridian Hotel	Nairobi	128	166	***
5	Ngong Hills Hotel	Nairobi	110	165	***
6	The Heron Portico	Nairobi	109	218	***
7	Pride Inn Raptha Nairobi,	Nairobi	100	200	***
8	Sportsview Hotel Kasarani	Nairobi	94	188	***
9	Kenya Comfort Suits	Nairobi	88	120	***
10	Amboseli Sopa Lodge	Kajiado	83	166	***
11	La Masion Royale	Nairobi	71	144	***
12	The Clarion Hotel	Nairobi	62	67	***

13	Kibo Safaris Camp	Kajiado	60	120	***
14	Boma Inn Nairobi	Nairobi	59	83	***
15	Utalii Hotel	Nairobi	57	114	***
16	Marble Arch Hotel	Nairobi	41	57	***
17	Fahari Gardens Hotel	Nairobi	32	64	***
18	Villa Leone Guest House	Nairobi	51	54	***