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A study of musculoskeletal disorder among housekeeping staff in hotel industry

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Abstract

Background: The house keeping department plays a vital role in attracting and keeping the guest as it maintains top quality decor and service in the hotel. Housekeeping is the department which determines to a large extent whether guests are happy during stay. A hotel service position, a houseman (or housekeeping) employee performs all the behind-the-scenes maintenance to ensure hotel rooms and facilities are clean and functioning properly. Many work and environmental factors can affect the health of professional cleaners (Housekeeper). In many of the work environments where housekeepers are found the conditions that promote various occupational diseases (e.g., musculoskeletal disorders) are readily manageable.

Main objectives: *to explore the socio-demographic characteristics of housekeepers with musculoskeletal disorders. *to find out different body parts involved with musculoskeletal disorders & the risk associated with such disorders.

Methodology: Total 40 respondents were selected conveniently for this study from the hotels of cities of Gujarat state. Data was collected by using structured interview schedule.

Result: The result of the study shows that 25% participants had work related musculoskeletal disorders. Most of the education level was Higher Secondary (35%). The duration of job experience was found 3-5 years (58%). The result indicates that most discomfort of the body regions were in the lower back (60%), calf muscle & knee joint (30%) and only calf muscle (10%). The most common risk factors were working in same position and carry heavy load.

Conclusion: Work related musculoskeletal disorders (WRMDs) represent a significant burden for housekeeping staff. The study represents the strong evidence that WRMDs was common among housekeepers. Correct postural practices, proper design of tools and equipment significantly can prevent WRMDs.

Keywords: Hospitality, hotel, WRMDS, housekeeping staff

Introduction

Housekeeping

Housekeeping is one of the major departments of the hotel. The major function of the housekeeping department is to maintain the cleanliness and the aesthetic appeal of the hotel. Housekeepers are a primary component of any housekeeping department. They are employed by hotels to clean guestrooms, change bed linens, restock supplies, and provide turndown service when requested. Housekeeping is a very physically demanding job that includes many tasks. Those employed as housekeepers frequently suffer injuries at work that can be costly to employers. Evaluating the housekeeping services, one finds that many of the tasks are repetitive in nature such as bed making, buffing, a vacuuming, emptying garbage, tidying, dusting and cleaning floors. Hotels are increasing the burden on the housekeeping staff to survive the increase in the competition which includes heavenly beds and extra room amenities', etc. They are required to carry or move tons of trash and used linen every day and it is easy to see that many of injury types are directly related to the tasks performed in housekeeping operations.

Musculoskeletal Disorders (MSDs)

A musculoskeletal disorder defines anything to do with the relationships of bones and various tissues, ligaments, tendons and muscles in the body. The housekeeping department plays a vital role in attracting and keeping the guest as it maintains top quality decor and service in the

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hotel. Housekeeping is the department which determines to a large extent whether guests are happy during stay. The injuries most associated with housekeepers are known as musculoskeletal. Bed making duties, by nature, puts the back in its weakest position because it involves awkward lifting, twisting and holding up the mattress while tucking in linens. Housekeeping is a manual material handling job that requires bending, lifting, carrying, pushing, and pulling repetitively throughout the day-- often in awkward postures. Each housekeeping task carries certain risk factors. When these factors occur together during the work shift there is an increased risk of work-related musculoskeletal disorders (WMSDs).

Ergonomics

Ergonomics derives from two Greek words: *ergon*, meaning work, and *nomoi*, meaning natural laws. Combined they create a word that means the science of work and a person's relationship to that work. Hospitality industry being a service industry where guest experience and satisfaction are non-compromisable, it is quite important that high standards are maintained at all-time such that safety, security, cleanliness, hygiene are achieved at all time. In the era of pro-active social media, hotels cannot afford to have any negative review about any of these vital elements from guests. This puts a great amount of responsibility on the shoulders of housekeepers in a hotel environment. They required being on their toes to respond to any kind of situation while remaining invisible to guests and visitors. Doing such daily chores, they are prone to develop various health related issues in the longer term. Various studies done by specialized agencies internationally have revealed prevalence of various health and fitness issues in housekeepers due to their work related regimen at their work places. And a very high percentage of these are related to musculoskeletal, which is on account of the lack of ergonomics in terms of design of the interiors and other spaces, procurement related issues in terms of furniture, fittings, installations, etc., and poor selection of tools and equipment for cleaning and maintenance, etc.

Designing luxury spaces slight regard to its upkeep and maintenance after the project is completed can lead to huge problems. The victims obviously would be people who are entrusted with the maintenance. In order to overcome that, Ergonomics need to be a focus from the very beginning and should be incorporated into the design, procurement, execution, etc. By providing right tools and equipment and by employing right systems and procedures, a whole of work associated stress, fatigue and health issues can be tackled.

Objectives of the study

1. To explore the socio-demographic characteristics of housekeepers with musculoskeletal disorders.
2. To identify the common work related musculoskeletal disorders among the housekeepers.
3. To find out different body parts involved with musculoskeletal disorders and the risks associated with such disorders.

Scope of Research

This study will be helpful for the professions or professional physiotherapy and with this connection other professionals, students will have a chance together their knowledge from this study. Finally, the study will add to existing knowledge about the impact of musculoskeletal disorders on housekeepers and can serve as a reference material for further research.

Literature Review

1. Faulkner and Patiar (1997) ^[2] were told (in written survey form) by Housekeeping staff in four star hotels that their work is routine and repetitive including the activities of pushing heavy trolleys, moving heavy furniture, bending to make different sized beds, cleaning bathrooms, vacuuming, and dusting. Furthermore, it was reported that a Housekeeper on average services 12-18 rooms during the course of a 7.5 hour shift.
2. Liladrie (2010) ^[5] found that a housekeepers' changes body position every 3 seconds while cleaning a room and that the average cleaning time for each room is 25 minutes, resulting in 8000 posture changes per shift. Liladrie (2010) ^[5] confirmed this finding and reported that as hotels offer more luxury services, the work of the housekeepers becomes more physically demanding and burdensome, increasing housekeepers' workloads are strongly correlated with musculoskeletal conditions such as low back pain, tendonitis, shoulder injuries, bursitis of the knee, carpal tunnel syndrome, and constant hand, neck and wrist pain.
3. About 80% of cleaning work is manual, using non-powered tools and about 30% of this is spent mopping (Hopsu et. al., 2000). Wet/dry mopping entails moving a long handled mop in a figure eight pattern across a floor while slowly walking backwards. The movement is controlled by the wrists and a high muscle force is necessary.
4. Specifically, frequent floor mopping seems to lead to a high static load on the upper arm and back muscles (Hagner and Hagberg 1989) ^[3]. Structural changes in the carpal tunnel region were associated with movements of the lower arms, elbows and wrists when mopping (Pierre-Jerome et al., 1996).
5. Montross & Chris, March (2013) ^[6], focused on the musculoskeletal injuries of the housekeeping employees in Unites States. It mentions that recent trend of hospitality to remodel rooms for luxurious accommodations, leads hotels to use heavier, more cumbersome mattresses. It suggests the use of ergonomic systems that promote the use of safer body mechanics.

Research Methodology

Primary Data Collection

The primary data was collected with the help of information based on the structured interview schedule to the housekeeping employees.

Secondary data

The secondary data was collected with the help of articles from literature reviews from published journals, published research papers, newspapers, magazines, etc.

Research design

Selection of location: The location of the study was three cities (Vadodara, Anand and Ahmedabad) of Gujarat state.

Sample Size: Sample size consisted of 40 housekeepers from the selected hotels.

Tool prepare: A self-prepared structured interview schedule was used for collecting the relevant information regarding the study and random sampling was used.

Methods of enquiry and collection of data: Survey methods were adopted in order to collect the data from the selected respondents with the help of structured interview schedule. The schedule included aspects which led to the fulfillment of the objective of this study. The schedule included the following information: 1. General information 2. Specific information about work related musculoskeletal disorders (WRMSDs).

General profile: Data regarding general profile of respondents were collected using the first part of the schedule. This section covered the aspects including respondents name, age, and sex, educational status, current job experience and medical history. All these are important for knowing the respondents socio-economic status.

Findings

Major Findings:

- Age was the outstanding characteristic that was significant in the etiology of musculoskeletal disorders. The late youth (31 - 40 years) and the early middle ages (21 - 30 years) were found to be prone to musculoskeletal disorders.
- Musculoskeletal disorders were characterized on the basis of frequently incurred injuries. The results showed that the incidence was more in the lower back, calf muscles & knee joint and only calf muscles (i.e. 60, 30 and 10 %, respectively). However, most housekeepers indicated pain in more than one body region.
- While performing activities the respondents adopted bending-cum-repetitive posture, with back, and hand flexion. Standing-cum-stretching posture was adopted. Palmer (2007) claimed that repetitive work, static loading are responsible for most of the work related musculoskeletal disorders. A positive relationship between fixed postures and musculoskeletal disorders had documented for a number of occupations (Akesson *et al.*, 1995). The housekeepers who experienced musculoskeletal disorders were 25% of all the housekeepers studied, indicating that the prevalence is not quite high in the selected respondents.
- The result indicates there is a great need for an ergonomic intervention to control the musculoskeletal disorders.

Conclusion and Recommendations

Conclusion

In conclusion, work related musculoskeletal disorders represent a significant burden for housekeeping staff. In order to reduce musculoskeletal problems, correct postural practices, proper design of tools and equipment significantly can prevent musculoskeletal disorders.

Recommendations

Based on the findings and observations of the study, the following recommendations were made. A recommendation evolves out of the context in which the study was conducted.

- Ergonomic programs to address equipment design, teach safe handling techniques, attend to the work procedures and organizational factors should be incorporated to improve the efficiency of the staff.
- The ergonomic factors investigated in this study did not include the environmental and psychosocial aspects. Also, other factors such as the participants' characteristics of their lifestyle which could have an impact on their health at work need to be taken in consideration in future studies.

- On job training should be provided to the housekeeping staff to make them aware about the ergonomics practices.
- Frequent rest breaks to avoid the monotonous and heavy housekeeping job should be provided.
- Ergonomists should be consulted before buying housekeeping cleaning equipment.

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