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Review Article

Occupational Health Risks and Safety Challenges Among Hotel Workers: Evidence from a PRISMA-Based Systematic Review

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Abstract

Globally, the hospitality industry became a major service industry that provides larger employment and income opportunities in the hotel service sector, but the hotel workers are still exposed to different types of health risks and injuries due to their heavy workload and lack of proper ergonomic facilities. The study follows a systematic review approach based on PRISMA guidelines and research articles published between 2010 to 2024 from major academic sources that focuses on psychological stress, chemical exposure, working conditions and safety practices in the organizations. The review addressed research gaps like lack of attention to socio-Economic factors and longitudinal health problems faced by hotel workers in the fast-developing region like Tamil Nadu, India. The study emphasises the significant development in occupational health policies, improving the workplace conditions with strong need for future research improving economic and social aspects to provide better and sustainable working environment in the hotel sector.

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1. INTRODUCTION

The hospitality sector plays an important role in global economic development by creating the employment opportunities in the food service industry. As per the report of the World Tourism Organisation, the hotel sector provides nearly 10 percent for global employment and provides jobs to millions of people in various hotels and restaurants. In hotels the housekeeping section workforce is mainly responsible for maintaining cleanliness, hygiene and customer satisfaction. In hotel workers, the housekeeping staffs are works under physically challenging and stressful conditions. The Term "Hotel workers" refers to workers employed in different departments in hotel, such as housekeeping, front office, food and beverage section, kitchen and maintenance. As per the International Labour Organisation, the hotel workers include the various job roles that involve labour-intensive work, unique skill levels, and different employment conditions. These Workers directly involved in providing services and getting exposure to different kinds of occupational health risks.

The present research work considers all categories of hotel workers, with special focus given to housekeeping staff because they have higher exposure to physical and occupational health risks. Hotel workers are highly exposed to various occupational health and safety risks in their daily work. They are usually involved in repetitive activities like cleaning, standing for long hours, and lifting heavy objects during their work. These activities increase the chances of musculoskeletal disorders, tiredness, and workplace injuries. The hotel workers regularly involved in the use of cleaning chemicals and detergents can lead to respiratory diseases, skin irritation and other health problems. Apart from their physical health hazard, workers often face mental stress due to heavy workload, lack of job security, and lack of support from management. These factors can reduce job satisfaction and affect their overall well-being.

In developing countries like India, this problem creates serious concern due to their low wages, lack of social security, and poor implementations of safety practices. This review provides the broader global view and focuses on situation in Tamil Nadu to understand the challenges faced in the developing region. The main objective of the study is to identify the occupational health risks, Examine the socio- economic condition of workers, and to analyse the existing polices and workplace practices. The study aims to provide practical and inclusive policy measures to improve the occupational health and working conditions of hotel workers.

Research Questions

- What are the main occupational safety and health risks faced by hotel workers?
- In what ways do socio-economic and organisational factors affect workers health outcomes?
- What are the policies and workplace practices addressing the occupational health issues of hotel Workers?
- What are the major gaps identified in the existing literature on this topic?

Rationale of the Study:

This research work on hotel workers is intentional because they represent one of the most vulnerable groups in the hospitality industry. The hotel workers are severely exposed to various types of occupational health risks such as Physical strain from repetitive work, continuous exposure to cleaning chemicals, long and irregular working hours, and mental stress due to continuous interaction with customers.

While we compare to other areas in the hospitality industry, hotel workers involving in various roles like Housekeeping, kitchen services, front office and maintenance, each role own a set of health risks. Hotel workers also face issues like Job insecurity, informal employment, and limited access to occupational health risks, particularly in developing countries like India and Tamil Nadu. Therefore, the study on hotel workers helps to understand the specific occupational health and safety challenges faced within the sector.

2. METHODOLOGY

Systematic Review Approach Using PRISMA

The research work uses a systematic review method based on the PRISMA framework to provide clarity, Transparency, and consistency in the review process. This review method helps in identifying, selecting, and analysing relevant studies in an organised manner. This review was carried out in four main stages: Identification, Screening, Eligibility, and final inclusion.

Data Sources and Search Strategy

The relevant studies were collected from well- known academic databases like Scopus, Web of Science, Science Direct, PubMed, Google Scholar, and Research Gate. These sources provide a wide range of peer-reviewed research related to occupational safety and health risks faced by hotel workers. The search was carried out by using keywords like occupational health, hotel workers, hospitality industry workers, workplace hazards, occupational safety, hospitality sector, Ergonomic risks and housekeeping staff. These keywords help in identifying relevant studies from different contexts.

Study Period Justification

The review includes studies published between 2010 and 2024. This timeframe was selected to focus on recent trends and developments in occupational health and safety within the hospitality sector. Earlier studies were not included to ensure that findings reflect the current working conditions, technological change, and updated labour policies.

PRISMA Stages of Study Selection

In the identification stage, a total of 120 studies were collected from the selected databases. The distribution of studies across various databases like Scopus, Web of Science, ScienceDirect, PubMed, and Google Scholar.

During the screening stage, duplicate entries were removed, resulting 95 unique studies. These studies were further screened based on titles and abstracts, and 45 studies were excluded due

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to lack of relevance, focus on other sectors and mismatch with the study objectives. In the eligibility stage, 50 full-text articles were examined in detail using clear inclusion and exclusion criteria. Out of these, 30 studies were excluded because of lack of proper data, studies not directly related to occupational health and were not peer- reviewed. Finally in the inclusion stage, 20 research studies were selected for data analysis and synthesis.

Inclusion and Exclusion Criteria

The selection of studies was based on well- structured criteria to maintain quality and relevance. Only academically qualified journal articles published between 2010 and 2024 were included. The studies had to focus on hotel or hospitality workers and addressing the issues related to occupational health, safety and working conditions. studies were rejected if it doesn't focus on occupational health and hospitality sector. The research articles without empirical data were removed to maintain the academic quality. The non-peer-reviewed sources like blogs, reports, and informal publication were not considered to ensure the reliability and credibility of the selected literature. These criteria are also reflected in the PRISMA flow diagram presented in the study.

Justification for Final Study Selection

The final selection of 20 studies was based on their relevance, quality, and connection to the research objectives. The limited number of studies also highlights that there is few research specifically focused on occupational health issues among hotel workers. Especially in the developing regions like India and Tamil Nadu. This highlights the importance of the present study. The selected research papers were chosen based on their research methods and reliability. The studies that used strong research design like surveys, case studies, and empirical analysis were chosen. Studies covers themes like occupational risks, ergonomic issues, mental stress, and workplace conditions were given priority to address the issues of hotel workers. The final set of selected studies includes research from both developed and developing countries, ensuring a comprehensive review.

PRISMA Flow Diagram

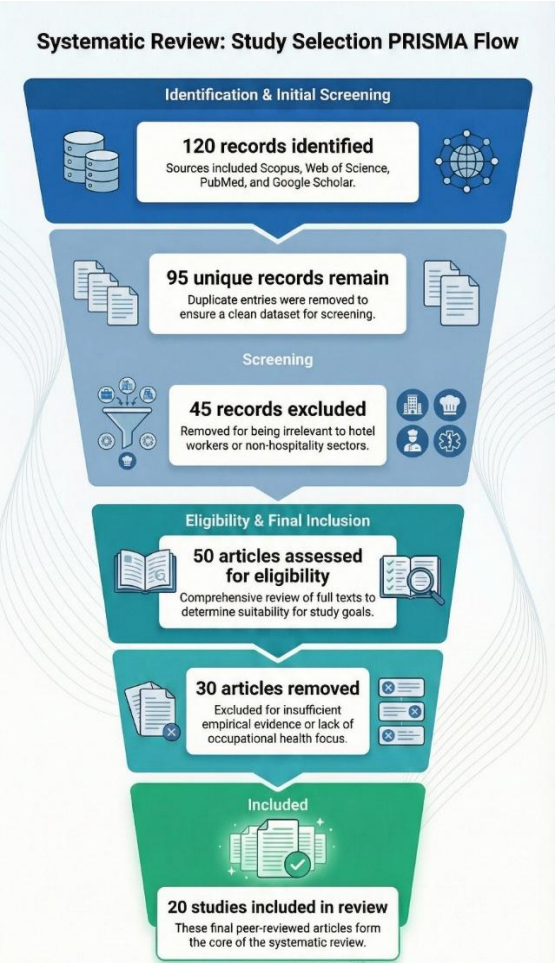


Figure 1: PRISMA flow diagram illustrating the study selection process

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Thematic Trends

Several themes emerge from the literature on occupational health among hotel workers.

Occupational Health and Safety Risks among Hotel Workers

Occupational health and safety issues among hotel workers, especially housekeeping staff, have gained more attention in recent years. Housekeepers in hotels are frequently face occupational problems such as physical strain, chemical exposure, and ergonomic problems that create serious health difficulties. A study by *Valeriya Shapoval et al. (2022)* reported common workplace problems faced by hotel housekeepers, including time pressure, exposure to cleaning chemicals, and physical strain because of excessive workloads. The study also pointed out that lack of proper equipment and limited support in workplace increase occupational health problems. Similarly, *Ambardar et al. (2017)* examined safety practices among housekeeping employees in Indian hotels and found that safety measures are often not properly followed, they observed differences in safety standards based on star classification of hotels. Several studies have also reported a high level of occupational injuries among hotel workers. *Buchanan et al. (2010)* analysed injury data from multiple unionised hotels in the United States and found that housekeeping staff experience the highest injury rates among hotel employees, particularly among Hispanic female workers.

Similarly, *Abune et al. (2020)* reported a high rate of occupational injuries among hotel workers in Ethiopia, their study identified important factors such as low education, lack of experience, shift work, and sleep problems as major reason for the injuries. These studies clearly show that hotel workers are exposed to serious occupational injuries in their working environment. Earlier studies also support these findings. *Chela-Alvarez et al*. (2022) studied hotel housekeepers in Spain and found common problems such as musculoskeletal disorders, repetitive strain injuries, psychological stress, heavy workload, and lack of proper support for safety measures. Jeevan *Vignesh and Williams* (2026) analysed occupational health risks among hotel workers globally and identified multiple problems affecting them. The study highlighted significant exposure to ergonomic risks, chemical hazards, and psychosocial stress factors, particularly among hotel workers. It also discussed long-term health problems and identified gaps related to socio-economic conditions and labour protection. The authors also observed the influence of organisational practices and policy limitations in affecting workplace safety. the study underlined the need of improving safety standards and providing proper training to decrease workplace injuries in the hospitality sector.

Ergonomic and Chemical Exposure Risks

Hotel housekeeping work generally involves continues physical activities such as lifting mattresses, pushing heavy carts, bending, and standing for long hours. This works often cause body pain and musculoskeletal problems. *Mammen et al. (2022)* studied ergonomic problems among low-wage hotel housekeepers in Orlando and reported that workers frequently experience pain due to repetitive work and cleaning process. The study also showed that longer cleaning hours increase the possibility of physical strain. Chemical exposure is another important concern in the hospitality sector. *Nan Lin et al. (2021)* analysed hotel housekeepers' exposure to volatile organic compounds (VOCs) and found that workers are exposed to harmful chemicals like chloroform and formaldehyde present in cleaning products. The study observed that prolonged exposure may create serious long-term health problems, including a higher risk for cancer. These findings indicate the importance of improving ventilation and reduce the use of harmful chemicals in hotel workplace.

Similarly, *Apostolopoulos et al. (2013)* reviewed occupational health risks faced by hotel cleaners and identified several issues such as chemical exposure, physical strain, and poor working conditions. The study suggested that better safety measures and strong workplace policies are necessary to protect hotel workers from occupational health risks.

Psychosocial and Workplace Stress Factors

Apart from physical risks, hotel workers are also face serious psychosocial problems in their work environment. A study by *Hsieh et al. (2023)* examined the challenges faced by immigrant hotel housekeepers and found that heavy workload, time pressure, workplace discrimination, and lack of support from the management negatively affect their mental health and overall well-being. The study also emphasised the need for better workplace policies and awareness programs to deal with these issues. Recent research by *Garcia-Buades et al. (2024)* also highlights the mental stress faced by hotel housekeepers. The study found that many workers suffer from high job stress and poor health conditions. It identified Factors such as fast work pace, imbalance between work and personal life, emotional pressure, and lack of proper leadership support were identified as major reason for stress and reduced well-being among workers. Similarly, *Sonmez et al. (2016)* examined the working conditions of Latina hotel housekeepers and found that they often face both physical and emotional stress due to heavy workloads and low wages. The study also showed that issues like immigration status and poor socio-economic conditions make their situation even more difficult.

Socio-Economic Conditions of Hotel Workers

The socio-economic background of hotel workers has strong influence on their occupational health. Many hotel housekeepers belong to low-income groups and employed under unstable working conditions. A study by *Sonmez et al. (2016)* found that Latina hotel housekeepers receive low wages while also facing a high risk of injuries and difficult working conditions. Because of these financial limitations workers often have limited access to healthcare and other social security benefits. previous studies indicate that job insecurity is a continuous to affect many workers among hotel workers. *Apostolopoulos et al. (2013)* observed that low income and lack of job stability contribute significantly health inequalities among hotel cleaners. *Park et al. (2017)* reported that workers

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working in small establishments, including hotels and restaurants frequents experience workplace safety problems. This largely results from inadequate workplace facilities, poor safety measures and greater exposure to ergonomic hazards.
Similarly, Valeriya *Shapoval et al. (2022)* studied immigrant hotel housekeepers in the United States, discussed major problems such as heavy workloads, exposure to physical risks, job insecurity, and severe work-related stress. These issues are associated with insecure employment conditions and negatively influence the overall well-being of workers.

Health Risk Factors and Chronic Diseases among Hotel Workers

In addition to occupational injuries, hotel workers are also affected by lifestyle-related health problems. *Gawde et al. (2016)* studied life-style related factors for chronic diseases among hotel employees and reported that many workers use tobacco and alcohol, have low levels of physical exercise, and does not consume enough fruit and vegetables. The research also analysed that overweight and obesity were more frequently observed among workers in departments such as food preparation and security. This observation suggests that the nature of work environment and stress associated with hotel jobs can increase long-term health complications. Therefore, workplace- level health programmes are necessary that encourage healthier daily practices along with better occupational safety measures to improve workers health conditions.

Organisational Practices and Industry Challenges

Previous research has discussed the organisational practices and structural issues within the hotel industry. A study by *Umasuthan et al. (2018)* discussed major issues faced by the hotel sector in Sri Lanka, such as shortage of skilled workers and reduced employee motivation.
Similarly, *Shamil et al. (2014)* analysed human resource practices in the Sri Lankan hotels and observed that these practices differ depending on the ownership and type of hotel. Environmental and sustainability aspects have become important areas of discussion in recent studies. *Wickramasinghe et al. (2016)* studied environmental management practices in Sri Lankan hotels and found that most hotels give high focus on energy management, while practices related to waste and water management are comparatively limited. In addition, *Nagendra Kumar et al. (2020)* analysed the financial sustainability of hotel companies in Sri Lanka and reported that many hotels face financial difficulties even though tourism demand is increasing. *Nugraha et al. (2024)* conducted a case study in Indonesia focusing on occupational health and safety management in hotels. This study highlighted problems such as poor safety management systems, human error, lack of proper training, and the need for better enforcement of safety regulations.

3. DISCUSSION

The findings of this review show that hotel workers are exposed to a different type of occupational health and safety risks, including ergonomic, chemical, and psychosocial hazards. Among these musculoskeletal disorders are found to be the most common issue among housekeeping staff. This is mainly due to repetitive works, improper body postures and physically demanding tasks. These results are similar to earlier studies that highlight a high level of workplace injuries in labour-intensive service sectors.
From a theoretical viewpoint, these results can be explained using occupational health and labour process theories. These theories explain how that work environments with high physical demands, low worker control and poor organisational support frequently result in health-related problems produce adverse health outcomes. The continuation of such conditions in the hospitality sector indicated deeper structural problems such as informal employment, poor enforcement of labour laws, and cost-cutting practices followed by hotel management. In developing countries like India, these problems become more severe due to socio-economic factors such as low wages, lack of social security and poor awareness about occupational safety practices.
In comparison with developed nations, where stronger labour laws and workplace standards are followed, hotel workers in developing regions face high occupational risks and have inadequate access to health protection measures. The review also identifies important research gaps in existing literature. Although many studies focus on physical and ergonomic risks, there is limited attention has been given to long-term health effects, mental health issues, and the role of organisational practices in improving worker well-being. Additionally, there is a lack of region-specific studies, especially in Tamil Nadu. This indicates the need for more detailed research and policy-based studies in this area.

Policy Implications and Future Research

From the perspective of labour welfare and workplace safety, the study indicates that stronger occupational health measures are necessary in the hospitality sector. Many workers continue to face physical strain due to poor ergonomic conditions, excessive workloads and lack of proper protective equipment. Therefore, the employers must improve workplace practices by ensuring the proper availability of safety equipment, reducing excessive work pressure and introducing regular health check-up systems for employees. At the same time the role of government remains important in monitoring the labour law implementation and providing safe work conditions within the hotels. The study also suggests that future research should focus more on socio-economic and psychological aspects affecting the workers' health. Factors such as low income, job insecurity, long working hours and work-related stress significantly affect the well-being of employees in the hospitality sector. Greater attention to these issues may help policymakers and employers create healthier and more sustainable working environments.

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4. CONCLUSION

Occupational health and safety problems continue to affect employees working in the hospitality sector, particularly housekeeping staff who are regularly involved in physical activities. Housekeeping workers often perform repetitive tasks such as lifting, bending, prolonged standing and handling chemicals which expose them to various occupational health risks. The literatures of the study indicate that many hotel workers experience musculoskeletal pain, workplace injuries, chemical related health issues and psychological stress arising from work pressure. Lack of safety measures, absence of proper protective equipment and excessive workload conditions make these workers more vulnerable to long-term health complications Apart from physical risks, hotel workers also experience psychosocial issues like job stress, discrimination, and low wages. Organisational problems such as weak human resource practices and inadequate safety policies, also contribute to poor working conditions in the hospitality sector. Even though earlier studies have provided valuable insights about occupational health issues among hotel workers, there is still a need for more research. The future studies should focus on socio-economic conditions, the economic impact of health risks, and long-term policy measures. Improving occupational safety practices, providing better working conditions and implementing effective health policies are essential to protect the well-being and productivity of hotel workers.

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