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An Examination of Occupational Stress and Health Risks among Employees in the Garment Industry of Tirupur.

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Abstract

This research investigates the occupational stress and health hazards encountered by workers in the Garment Industry, which is marked by intense work conditions and extended hours. Significant stressors identified include stringent deadlines, monotonous tasks, and job instability, all of which contribute to diminished job satisfaction, increased absenteeism, and elevated turnover rates. The study utilized a convenience sampling method, a non-probability sampling technique where participants are chosen based on their availability and proximity to the researcher. Data collection involved a structured questionnaire employing a five-point Likert scale, enabling participants to express their levels of agreement or disagreement with various statements. The researchers provided essential recommendations aimed at mitigating occupational stress and health risks, including the enhancement of ergonomic practices, improvements in workplace cleanliness, optimization of the working environment, and the promotion of mental health resources.

Keywords: Copies strategies, employee well-being, ergonomics, occupational stress, health risks and workplace safety

Introduction

The garment industry plays a crucial role in the economies of numerous developing nations, such as India, by providing employment opportunities for millions of individuals. Nevertheless, this sector is fraught with various occupational health and safety (OHS) hazards that can adversely impact the well-being of its workforce. Employees in garment manufacturing

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facilities frequently encounter exposure to harmful chemicals, including dyes, solvents, and finishing agents. Extended contact with these substances can result in respiratory ailments, skin disorders, and other long-term health complications. The repetitive nature of the work, combined with inadequate ergonomic practices, can lead to musculoskeletal disorders. Furthermore, the operation of heavy machinery introduces risks of injuries, including cuts, bruises, and even amputations. The noisy conditions prevalent in many factories, where machinery generates excessive sound levels, can contribute to hearing impairment and heightened stress. Insufficient ventilation in these workplaces can worsen the effects of chemical exposure, leading to poor indoor air quality and exacerbating respiratory problems and other health issues. Many garment factories are situated in substandard buildings, which increase the likelihood of fires and structural collapses. Workers often lack training in emergency protocols, further elevating the risks. Additionally, long working hours, meager wages, and job insecurity contribute to stress and mental health challenges among employees. Instances of bullying and harassment may also occur, fostering a detrimental work environment. This study underscores the widespread health risks associated with the garment industry and proposes strategies for their mitigation.

Industry profile

The domestic apparel and textile sector in India plays a significant role in the nation's economy, accounting for approximately 2.3% of the Gross Domestic Product, 13% of industrial output, and 12% of total exports. India holds a 4% share in the global textile and apparel trade. As one of the foremost producers of cotton and jute worldwide, India also ranks as the second-largest producer of silk, with 95% of the global hand-woven fabric originating from the country. Currently, India's textile exports stand at $36 billion, with projections indicating a rise to $100 billion by the year 2030. This industry is the second-largest employer in India, providing direct jobs to around 45 million individuals and an additional 100 million in related sectors. By 2030, India aims to achieve a textile production value of $250 billion and export figures of $100 billion. The domestic apparel and textile industry contributes 2% to the national GDP and represents 7% of the industrial output in monetary terms. Furthermore, India commands a 4.6% share in the global textile and apparel market, alongside a 10.5% share of the country's overall export portfolio.

Reviews of Literature

Aishwarya Jaju, Jikku Susan Kurian, and P. Ravikanth (2018) conducted a study aimed at investigating the health, safety, and welfare initiatives for employees at Hindustan Coca-Cola Pvt. Ltd. The research provides a comprehensive analysis of the effects on productivity following the introduction of these measures. The findings indicate that a majority of employees expressed satisfaction with the health and safety protocols established by the company. Furthermore, the study suggests that the implementation of robust disciplinary procedures by the Coca-Cola Company would facilitate adherence to its policies and enhance the maintenance of health, safety, and welfare standards within the organization.

Joseph Okumu Otsyulah (2016) conducted a study examining the relationship between Occupational Health and Safety Practices and organizational productivity, specifically focusing on the Mumias Sugar Company in Kenya. The research was grounded in the systems theory of accident causation and utilized a conceptual framework. A descriptive survey design was employed for the study. Primary data were gathered through questionnaires, while secondary data were sourced from employees of the sugar company, as well as from online resources and libraries. To ensure the reliability and validity of the instruments, test-retest methods were

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applied. The data collected were analyzed and presented using graphs and tables. The findings indicated that organizations must prioritize the creation of safe working environments to achieve optimal productivity. The researcher recommended that employees stay informed about new developments in occupational health and safety through various media, including radio, television, newspapers, and journals, to enhance their understanding of current trends. Additionally, it was suggested that employees establish an occupational health and safety committee to address their needs effectively.

Dr. G. Yoganandan and G. Sivasamy (2015) conducted a study examining health and safety protocols within Chettinad Cement Corporation Limited, located in Karur. The primary objective of this research was to assess how the welfare initiatives implemented by the employer influence the health and both physical and mental productivity of the workforce. The findings indicated that the organization should consider enhancing employee salaries, implementing effective strategies to mitigate air pollution resulting from manufacturing activities, and adopting additional measures such as afforestation and the installation of air filtration systems.

Praveen Kumar M, Mugundhan.K, and Visagavel.K (2014) in their study focused on Occupational Health & Safety In Textile Industry. This paper examined to promote Health and safety to the workers in India. The presented study has demonstrated the hazards and risk involved in the spinning and ginning industries. The main hazards are noise, dust, fire and electrical hazards are found. Thus, immediate action must be taken to control these hazards to save workers health and promote safety to worker.

Scope of the Study

The research seeks to investigate the levels of occupational stress and health risks faced by employees in the Garment Industry. It also aims to pinpoint specific areas for enhancement, with the goal of fostering employee performance, thereby contributing to increased productivity and improved morale within the workplace.

Objectives of the study

1. The objective is to investigate the demographic characteristics of the workforce.
2. The aim is to identify the sources of organizational stress experienced by employees in the garment sector.
3. The focus is on analyzing the effects of occupational stress on the health risks faced by employees.
4. The intention is to explore the correlation between the workplace environment and the health risks encountered by employees.
5. The study seeks to evaluate the findings and provide actionable recommendations to alleviate these issues.

Research Methodology

Research methodology refers to the systematic and logical framework employed to investigate a research problem and derive outcomes.

Research Design

The researcher utilized a descriptive research design, which is characterized by specific objectives that lead to clear conclusions. This study aims to illustrate the occupational stress and health risks faced by employees in the Garment Industry in Tirupur.

Source of Data

Primary Data

Primary data is defined as information collected directly by the researchers for a specific inquiry, and it is original in nature.

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Secondary Data

Secondary data consists of information that has been previously gathered by others for different purposes. This type of data can be obtained from various sources, including journals, magazines, and websites.

Sampling Design

This study employed a convenience sampling method, which is a non-probability sampling technique. In this approach, subjects are selected based on their easy accessibility and proximity to the researcher. To gather data from employees, the researcher utilized a structured questionnaire featuring a five-point Likert scale, allowing respondents to indicate their level of agreement or disagreement with specific statements.

Sampling Size

The researcher collected data from one hundred and fifty employees working in the Garment Industry in Tirupur for this investigation.

Limitation of the Study

The study recognizes that the accuracy of the data may be influenced by biases inherent in self-reported information, and the concentration on a single industry may restrict the generalizability of the findings.

Data Analysis Techniques:

Once the data has been compiled, it is essential to utilize appropriate tools and methodologies for data analysis. The research encompasses percentage analysis and means score analysis.

Analysis and Interpretation

Demographic Factors of the Employees

Table No.1

Demographic Factors		No. of Respondents	Percentage
Age	Below 25 years	40	27
	25-30 years	30	20
	31-35 years	50	33
	above 35 years	30	20
Gender	Male	82	55
	Female	68	45
Marital Status	Married	63	42
	Unmarried	87	58
Spouse Working	Working	42	66
	Not - Working	21	34
Number of Family Members	Above 4 years	53	35
	Below 4 years	97	65
Income Level (per Month)	Below Rs.10,000	50	33
	Rs 10,001-20,000	50	33
	Above Rs. 20,000	50	33
Education Level	Graduates	45	30
	SSLC	42	28

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	HSC	42	28
	Others	21	14
Working experience	Below 2 years	50	33
	3-4 Years	25	17
	Above 4 years	75	50
	Total	150	100

Source: Primary Data

Interpretation:

Table No. 1 outlines the demographic characteristics of the workforce. Among the employees, 55% are male and 45% are female. The age distribution indicates that 33% fall within the 31-35 age bracket, 27% are under 25 years old, and 20% are categorized as being between 25-30 years old, with an equal percentage of 20% for those over 35 years. In terms of marital status, 58% of the employees are unmarried, while 42% are married. A significant 66% of employees have spouses who are employed, suggesting a prevalence of dual-income households, whereas 34% have non-working spouses.

The family size data reveals that 65% of employees belong to families with fewer than four members. Income distribution is relatively uniform, with 33% of employees earning below Rs.10,000, another 33% earning between Rs.10,001 and Rs.20,000, and the remaining 33% earning above Rs.20,000. Regarding educational attainment, 30% of employees hold graduate degrees, while 28% possess SSLC and HSC qualifications each, and the remaining 14% are classified as literate. In terms of work experience, 50% of employees have more than four years of experience, 33% have less than two years, and 17% have between three to four years of experience.

Health Care Facilities Provided By The Organization

Table No.2

Health care facilities	Mean Score	Rank
Pre-placement examination	4.16	3
Periodic health checkup	4.12	4
Constant presence of doctor or nurse	4.17	2
Primary treatment and free medication	4.31	1
Health insurance	4.03	5
Maternity leave	3.94	6
Day care center	3.86	8
Compulsory use of cap, mask and apron	3.79	9
Canteen facility	3.9	7

Source: Primary Data

Interpretation:

Table No. 2 presents the average scores for a range of health care facilities. The highest-rated facility is Primary Treatment and Free Medication, achieving a mean score of 4.31, which signifies its high value among employees. In second place, the Constant Presence of Doctor or Nurse has a mean score of 4.17, highlighting its significance for continuous health support. Pre-placement Examination ranks third with a score of 4.16, underscoring its importance in health evaluations.

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Periodic Health Checkup is positioned fourth with a score of 4.12, indicating its relevance as well. Health Insurance follows in fifth place with a score of 4.03, reflecting its essential role in providing health coverage. Maternity Leave is ranked sixth at 3.94, while the Canteen Facility, with a score of 3.90, holds the seventh position, marking them as important yet less critical compared to the leading facilities. The Day Care Centre is in eighth place with a mean score of 3.86, and the Compulsory Use of Cap, Mask, and Apron ranks ninth at 3.79, suggesting these options are of lower priority.

Health Problems Faced by the Employees

Table No.3

Health Problems	Mean Score	Rank
Headache or shoulder pain	2.04	13
Back pain	3	4
Joint pain	3.63	3
Eye strain	3.63	2
Hearing problem	2.64	7
Gastroenteritis	2.45	8
Chest pain	2.71	6
Breathing difficulty	2.85	5
Skin disease	2.11	11
Tuberculosis	2.08	12
General weakness	3.64	1
Jaundice	2.32	10
Insomnia	2.37	9

Source: Primary Data

Interpretation:

Table No. 3 presents the average scores associated with various health issues reported by individuals. The most pressing concern identified is General Weakness, which has an average score of 3.64, suggesting it is regarded as the most critical health problem. Following closely, Eye Strain and Joint Pain both receive a score of 3.63, underscoring their relevance as prevalent health issues among respondents. Back Pain is positioned fourth with an average score of 3.00, indicating it is also a significant concern. Breathing Difficulty ranks fifth with a score of 2.85, while Chest Pain is sixth with a score of 2.71. Further down the list, Hearing Problems are ranked seventh with a score of 2.64, and Gastroenteritis occupies the eighth position with a score of 2.45. Lastly, Skin Disease and Tuberculosis are among the least concerning health issues, with scores of 2.11 and 2.08, respectively, reflecting their perception as less critical health challenges.

Employees' opinion about reasons for health risk

Table No.4

Reasons	Mean Score	Rank
Dirty	3.65	1
Separate toilet not present	2	6
Noise pollution	3.6	3
Inadequate Lighting	3.41	5
Drinking water	3.61	2
Inadequate ventilation	3.05	4

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Source: Primary Data

Interpretation:

Table No. 4 presents the mean scores associated with various factors affecting employee well-being. The factor identified as the most significant concern is Dirty, which received a mean score of 3.65. This indicates that it is the foremost issue for employees. Following closely is Drinking Water, with a score of 3.61, underscoring its vital role in health and comfort. Noise Pollution ranks third with a score of 3.60, indicating that excessive noise is also a significant concern. Inadequate Ventilation is positioned fourth with a mean score of 3.05, suggesting it is regarded as a noteworthy issue. Inadequate Lighting is ranked fifth with a score of 3.41, indicating it is perceived as less critical than the top concerns. Finally, Separate Toilet Not Present is rated the lowest, with a score of 2, suggesting it is the least urgent issue among those evaluated.

Coping Strategies to mitigate them from Health Issues in Future

Table No.5

Coping strategies	Mean Score	Rank
Counseling	3.79	1
Wearing mask	3.73	2
Silencer	3.17	4
Proper house keeping	3.72	3

Source: Primary Data

Interpretation:

Table No. 5 illustrates the average scores associated with various coping strategies aimed at alleviating occupational stress and health risks in the future. Counseling emerges as the most highly regarded strategy, achieving a mean score of 3.79, which underscores its significance in managing occupational stress. Following closely, the use of masks receives a mean score of 3.73, highlighting its critical role in ensuring health safety. Proper housekeeping is also recognized for its importance, with a score of 3.72, indicating that maintaining cleanliness is essential for effective coping. Lastly, the implementation of silencers ranks fourth, with a mean score of 3.17, suggesting its relevance in mitigating noise pollution within the workplace.

Results of the Study

A significant portion, specifically 55%, of the workforce comprises male employees. Among them, 33% belong to the age bracket of 31 to 35 years, indicating a predominantly youthful demographic. Furthermore, 58% of the employees are unmarried, and 65% report having fewer than four family members, suggesting a trend towards smaller family units. Income distribution is relatively balanced, with 33% of employees earning below Rs. 10,000, between Rs. 10,001 and Rs. 20,000, and above Rs. 20,000, each category representing an equal share. Additionally, 30% of the workforce holds a graduate degree, while half of the employees possess more than four years of experience, reflecting considerable tenure within the organization. The primary health concerns reported by employees include general weakness, eye strain, joint pain, and back pain. The organization provides primary treatment and free medication to address these issues. However, employees have expressed concerns regarding inadequate cleaning and drinking water facilities. Most employees believe that counseling and hygiene practices are essential strategies for managing occupational stress.

Conclusion and Recommendations

The apparel sector encounters considerable occupational stress and health hazards that impact the well-being and productivity of its workforce. Factors such as elevated demands, extended

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working hours, job instability, and hazardous working conditions contribute to both physical and psychological health challenges. Essential recommendations involve the enhancement of ergonomic practices, the improvement of workplace cleanliness, the optimization of the working environment, and the promotion of mental health resources. By prioritizing the well-being of employees and facilitating counseling sessions, organizations can alleviate stress and enhance health outcomes, ultimately benefiting both the workforce and overall organizational effectiveness.

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