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**Occupational Health and Safety of women at workplace: Ideas from past literature**

**Mr. Swapnil B. Ide**

PhD Scholar, Department of  
Social Work University of Delhi,  
New Delhi

**Dr. Seema Rani**

Professor Aditi Mahavidyalaya,  
University of Delhi, New Delhi

**Dr. T.V.G.Sarma**

I/C principle. D.K. Shinde  
School of Social Work,  
CSIBER, Kolhapur

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**Abstract**

The rapid industrialisation has brought to the forefront the concept of occupational health and safety among the different classes of workers. In this context the health and safety of women workers at workplace is also bring examine closely by researchers. This is evident from vast amount of literature already published on occupational health and safety equally with regard to women workforce. As the studies are published in different national and international journals, it become difficult to comprehend the different methodologies as well as these major observations. In order to fill the research gap, in present article we attempt to review selected research studies on OHS of women.

Based on the reviews, it is observed that the authors use the cross-sectional data from respective industries and also use statistical techniques such as logistic regression, correlational analysis to test their hypothesis. At the end it is concluded that gender has become an important factor in occupational health and safety in industries.

**Keywords:** Occupational Health, Gender, Occupational risk

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**Introduction**

Occupational safety and health (OHS) refers to the practices and policies implemented to ensure the safety, health and well-being of employees in their workplace. Effective workplace safety programs aim to prevent injuries, illnesses and deaths in the workplace. However, according to the ILO, 48.5% of the global workforce and 27.6% of the agricultural workforce are now women (in low-income countries the figure is 66.5%). The labor market is still highly segregated. Women and men still work differently, and women and men may face different physical and psychological hazards and risks in the workplace. Occupational segregation of men and women can lead to false assumptions about who is and is not at risk and create barriers to employment in certain sectors.

The majority of (unpaid) work in the household is carried out by women, including cooking, cleaning, fetching fuel and water, and caring for children and adult relatives. According to data from UN Women, women do at least 2.5 times as much unpaid care and domestic work as men. In addition, women are more likely to work part-time and also do paid work. According to the Women Brain Project, the stress caused by caregiving tasks increases the risk of a number of mental illnesses as well as stress-related illnesses. For example, women are more likely than men to develop multiple sclerosis, meningiomas (brain tumors), or Alzheimer's disease.

Although women may perform the same work as men, research in occupational health and safety (OHS) tends to focus exclusively on men. Occupational Exposure Limits (OELs) are intended to protect all workers, but they should not be viewed as a clear boundary between safe and unsafe. However, they are typically based on laboratory tests and studies on men. Even medical studies that impact women are always conducted on male subjects, such as laboratory-bred mice.

The hormones and immune systems differ between men and women, which can affect the absorption of chemicals. Because women typically have thinner skin and are smaller than men, they may be safely exposed to fewer toxins. Women have a higher percentage of body fat, which can lead to the accumulation of certain chemicals, exacerbating the lower threshold of tolerance. (Criado Perez, C., 2019)

The phrase "gender neutral" may be appropriate in some contexts, but, given the over-reliance on OHS data on men, a gender-neutral approach to occupational health and safety is harmful to women. In order to make decisions that impact their health and safety at work, OHS must take an inclusive, integrated, and gender-responsive approach. This includes gathering and relying on relevant evidence and making sure that both men and women are involved in a timely manner.

The aim of this paper is to critically review the literature on the present status of occupational health and safety at workplace, focusing on the challenges women face in this field and strategies to increase gender diversity. The review aims to shed light on the importance of gender diversity in promoting timely organizational success and employee well-being.

**OBJECTIVES**

**CSIBER International Journal – CIJ**

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To identify the methodologies adopted in studies on Occupational health and safety status among women workers at workplace.

To highlight the importance of gender differences should be considered in the development of occupational safety and health (OSH) policies and prevention strategies.

### RESEARCH METHODOLOGY

Various research studies focusing on the safety and health of women in the workplace were reviewed and examined. This paper conducted content and document analysis as well as reviews of the chosen studies.

Online search engines were used for thorough literature and data research. Some publications such as PubMed, Elsevier Journal Storage and Economic and Political Weekly were included in the search. The all 20 papers on the topic of occupational safety and health protection for female employees in various industries and some gendered perspectives are reviewed, which were published in renowned journals. The majority of articles focused on gender viewpoints. These articles cover a remarkably wide range of experiences, but their scope is limited.

### Content Analysis of The Literatures

**Srivastava A.K and Bihari V. (2000)** in these paper “Occupational Health for Women: A current Need” highlights the unique workplace health challenges faced by women, particularly as their labor force participation increases. It discusses how women's diverse roles as workers, mothers and housewives contribute to their health vulnerabilities and highlights the need for tailored workplace health policies. The authors show that around one in 300 women suffer from work-related illnesses, highlighting the urgent need to improve occupational health services for women. The paper argues for the development of national policies that specifically address the safety and health of women in the workplace, taking into account their specific roles and the potential conflicts arising from these responsibilities. It emphasizes the importance of linking workplace health with other sectors and promoting intersectoral collaboration to improve the effectiveness of women's health services and create a supportive workplace environment.

An article “Why do workers behave unsafely at work? Determinants of safe work practices in industrial workers” by **Garcia et al. (2004)** examines the relationship between safety climate – workers' perceptions of management's attitude towards workplace safety – and their behavior in the pottery industry in Castellon, Spain, using a cross-sectional survey of 734 production workers. A Safety Climate Index (SCI) was developed which gave an average value of 71.90 (SD 19.19), with values in smaller workplaces being significantly lower than in larger ones. Results show that lower SCI scores (SCI <50) correlate with increased unsafe behavior and noncompliance with safety regulations, highlighting the strong influence of safety climate on workers' attitudes toward safety. The authors note that understanding these organizational factors is critical to improving occupational health and safety and recommend longitudinal studies to further investigate this relationship.

According to **Martín-Fernández et al. (2008)** This study analyses the influence of work-family conflicts on the causes of minor accidents at work among working women. A survey was conducted among working women in the Madrid region who had suffered a minor accident at work in 2004. The key finding was that almost half of the women who had children felt that trying to balance work and family caused stress and fatigue, which contributed to the accident; 21% of respondents who had an accident on the way to or from work and 11% of respondents who had suffered an accident at work said family problems were a factor. Additionally, the accident impacted 50% of women; Almost a quarter of those surveyed said that their work situation had temporarily changed; and in almost one in four cases the children had to adapt their daily routine. This suggests that measures are needed to motivate men and employers to play a greater role in resolving work-family conflicts. The first result suggests that a significant proportion of respondents – regardless of economic sector or level of education – may have been suffering from work and family stress at the time of the accident. Accidents occurred more frequently on the way to and from work than at the actual workplace. The study also found that women were undermotivated at work and that this undermotivation was linked to a lack of work-life balance for many of those surveyed.

The article by **Papadopoulos G (2009)** examine the impact of workplace changes on public health, occupational health and workers' social lives. It is consistent with the World Health Organization and International Labor Office's definition of health and focuses on promoting the physical, mental and social well-being of workers. The research suggests that data on occupational diseases and accidents under flexible working arrangements is limited, highlighting the challenges in identifying and managing occupational health and safety risks. The authors point out that the competitive market can adversely affect workers' wages, conditions, and social lives, necessitating a broader approach to health and safety that goes beyond mere work capacity preservation. The study underscores the complexity involved in multi-criteria decision-making for risk assessment and prevention, particularly in a changing work environment. To effectively tackle the emerging challenges in OSH, the authors advocate for the

use of appropriate methodologies and comprehensive research that considers various parameters. They also note that cost-benefit analyses in a competitive market impose constraints that must be navigated to implement effective OSH measure

The article by **Constance J. Newman, Daniel H. de Vries, Jeanne d'Arc Kanakuze, and Gerard Ngendahimana (2011)** investigates the relationship between workplace violence and gender discrimination in Rwanda's health workforce. The research involved a random selection of 15 districts from a total of 30, with 44 healthcare facilities chosen for the study. A total of 297 health workers participated, including 205 women and 92 men. Data collection methods included focus groups, facility audits, key informant interviews, and health worker surveys, employing a utilization-focused approach.

The findings revealed that 39% of healthcare professionals reported experiencing workplace violence in the previous year, with patterns of victimization and violence perpetration being closely tied to gender. The study identified that negative stereotypes, pregnancy-related discrimination, the "glass ceiling," and family responsibilities significantly impacted female health workers, contributing to a hostile work environment. Conversely, the presence of gender equality was associated with a reduction in violence against health workers. The authors argue that tackling gender inequality should be a priority in research and policy development regarding workplace violence. By concurrently addressing these issues, it is anticipated that workplace safety and equity in the health sector will improve, leading to enhanced employee retention, productivity, and the overall enjoyment of human rights at work. The article emphasizes the importance of stakeholder engagement in the research process to ensure that findings effectively.

The research article titled "Occupational Safety and Health in India: Now and the Future" by **Shyam Pingle (2012)** examines the current state and future requirements of occupational safety and health (OSH) in India. With a population exceeding 1.2 billion, 63.6% of whom are of working age, a significant portion (over 90%) is engaged in the informal economy, primarily within agriculture and services, while less than 10% are employed in the organized sector. The article identifies several OSH challenges, including a large workforce in the unorganized sector, the availability of cheap labor, low public health spending, inadequate implementation of existing legislation, and a shortage of trained OSH professionals. Key occupational health risks mentioned include accidents, pneumoconiosis, musculoskeletal injuries, chronic obstructive lung diseases, pesticide poisoning, and noise-induced hearing loss. The existing legal framework, primarily the Factories Act (1948) and the Mines Act (1952), provides guidelines for worker safety but mainly covers the organized sector, leaving the unorganized sector largely unregulated. Pingle emphasizes the urgent need for legislation to extend OSH coverage to all sectors, increased awareness among stakeholders, the development of OSH infrastructure, and the integration of occupational health into primary healthcare systems. The article concludes with optimism for improvement in OSH standards in India, driven by the emergence of a younger, educated workforce and increasing awareness influenced by globalization, serving as a call to action for enhanced legislative measures and awareness campaigns to improve worker safety and health.

The research article "Occupational Health and Safety in Small Scale Mining: Focus on Women Workers in the Philippines" by **Jinky Leilanie Lu (2012)** highlights the health and safety conditions faced by women in the small-scale mining sector, which serves as a significant source of income in various developing countries, including the Philippines. Using secondary data from governmental organizations such as the Department of Labor and Employment and the Mines and Geosciences Bureau, as well as information from non-governmental organizations, the study examines the occupational safety and health conditions specific to women in mining. The findings reveal that women in this sector encounter numerous challenges, including the need to balance work and home responsibilities, exposure to harmful chemicals like cyanide and mercury during gold extraction, and respiratory issues due to dust from minerals. The labour-intensive nature of mining work, combined with the absence of a social safety net, forces women to work longer hours under dangerous conditions. The article advocates for the adoption of gender-sensitive practices to improve women's occupational health and safety in small-scale mining. It emphasizes the need for women to access alternative, environmentally sustainable employment opportunities to achieve long-term development goals. Furthermore, any policy response must prioritize gender equality and equity, recognizing the diverse roles women play in both public and private spheres, as these factors significantly impact societal stability. Overall, the study calls for targeted interventions to enhance the safety and health of women workers in the mining industry.

**Doret Botha and Freek Cronje (2015)** investigate the perceptions surrounding the safety and health of women working in core mining roles. Motivated by the lack of published information on the specific health and safety issues faced by women in the mining industry, the study employs a mixed-methods research design, incorporating both quantitative and qualitative approaches.

Quantitative data was collected through a structured questionnaire, while qualitative insights were gathered from interviews with individuals and groups. The findings highlight several critical factors that must be considered to ensure the health and safety of women in core mining positions, including physical work capacity, anthropometry and body composition, the adequacy of personal protective equipment, considerations for pregnant workers, and the implementation of security measures. The research emphasizes the necessity of advancing the health and safety of women to retain them in the mining workforce while fulfilling essential industry functions. It concludes with actionable recommendations aimed at addressing the health and safety concerns of women in core mining activities, which can be utilized and implemented by various stakeholders within the mining industry.

**Gizem Akalpa et al. (2015)** investigates the perceived risk factors affecting female employees in the Turkish metal industry, assess their perceptions of safety culture regarding occupational illnesses and accidents, and explore their beliefs about fatalism related to occupational risks. The study is motivated by the need for scientific data to enhance protective measures for women working in this sector, where female employment is notably low. The researchers employed a simple random sampling method to select women employed in the metal industry, collecting data through survey forms specifically designed for this study. A total of 1,750 women participated, with a 61 percent return rate resulting in 582 usable surveys after data cleaning. The findings reveal that female workers in the metal industry perceive various safety risks and exhibit beliefs related to fatalism concerning occupational accidents.

The authors emphasize the importance of raising awareness about the challenges faced by women in this industry, as they belong to a specific risk group. They argue that effective safety behaviour can be fostered by ensuring employees adhere to company policies designed to protect their well-being. The study advocates for a collaborative approach between employers and employees to address workplace health and safety issues, highlighting the role of interdisciplinary ergonomists in promoting individual and organizational welfare. By implementing reward and punishment systems for compliance with safety protocols, the study suggests that occupational illnesses and accidents can be significantly reduced, benefiting both workers and companies.

The research paper "Work Related Health Issues Faced by Women in India" by **N. Savitha and Prasanth M (2016)** reviews various studies concerning the health risks encountered by working women in India across multiple industries, including textiles, construction, leather, banking, and call centers. The authors note a significant gap in research regarding workplace health risks, particularly concerning violence and sexual harassment faced by women in these sectors. The paper discusses how different hazards impact female workers and the safety measures they adopt to protect their health. It highlights that the availability and accessibility of jobs for women serve as important indicators of economic and social inclusion. However, women workers often face poor working conditions, unfair labour practices, low wages, and exposure to various occupational hazards. The authors emphasize that existing laws are the primary source of guidance for the majority of working women in India. They advocate for the necessity of integrating workplace safety and health considerations into policies at all levels, recognizing these as critical issues that require attention to improve the overall well-being of women in the workforce. Overall, the study calls for increased awareness and action to address the health and safety challenges faced by women workers in India.

The research article by **Izaskun Larrieta-Rubín de Celis et al. (2016)** presents a novel management strategy for integrating occupational health and safety (OHS) with a gender perspective within corporate social responsibility (CSR). The study aims to assess how well gender considerations are incorporated into OHS management practices in Spanish businesses recognized for their commitment to gender equality (GE). To gather empirical data, the authors conducted an online survey in 2013 targeting management team members responsible for CSR, gender, and diversity in these companies. The findings reveal that while the companies have moderately developed various OHS practices, there are notable exceptions. Specifically, policies designed to prevent, prohibit, and penalize sexual harassment in the workplace received a high implementation score (4.38), as did support provisions for victims of gender-based violence (3.81).

This paper addresses a significant research gap concerning women, OHS, and CSR by proposing a management strategy that transcends biological differences and focuses on a set of actionable practices. It highlights the need for a more comprehensive approach to managing OHS with a gender perspective, thereby advancing the conversation around women's occupational health and safety within the context of corporate social responsibility.

In their review titled "Gender Issues on Occupational Safety and Health," **Sorrentino et al. (2016)** examine the progress made and the persistent challenges regarding gender disparities in occupational safety and health (OSH) within Italy. The authors note that while Italy has enacted new legislation that aligns with European provisions



and promotes gender equality in the workplace, significant obstacles remain in the effective implementation of these laws. They highlight the scarcity of measurements regarding women's occupational exposure, indicating a need for innovative approaches to establish a clear connection between occupational exposure and risk factors specific to women. The authors suggest that susceptibility analyses should consider hormonal time frames to better understand environmental interactions at work.

Furthermore, **Sorrentino et al. (2016)** emphasize the importance of enhancing gender sensitivity in the collection and analysis of sex-disaggregated data on occupational diseases and injuries. They argue that addressing health disparities between men and women in the workplace requires systematic collection, management, and analysis of such data. This approach is essential for planning, monitoring, and assessing the effectiveness of preventive measures and policies related to OSH.

The study "The Need for Detailed Gender-Specific Occupational Safety Analysis" by **Fernanda Cruz Rios, Wai K. Chong, and David Grau (2017)** aims to highlight the disparities in workplace injury rates between male and female employees. The authors argue that for regulations and policies to effectively address gender disparities in health and safety, there is a pressing need for gender-specific data analyses.

The paper reviews previous public data on both fatal and nonfatal injuries to illustrate the necessity of incorporating gender considerations into occupational safety and health assessments. It points out that the reported numbers of workplace injuries for men and women may not accurately reflect the actual situation, as both employers and employees often fail to report certain non-fatal injuries. Additionally, female employees in nontraditional occupations may hesitate to report harassment and injuries due to fears of job loss or the desire to prove their value to supervisors and colleagues by not raising safety concerns.

**Simone De Sio et al. (2017)** investigates the quality of working life among employees in a shared workspace, focusing on gender differences in exposure to psychosocial risks and perceived well-being. The research highlights the importance of considering gender, as mandated by European Commission regulations. A sample of 144 office workers was selected, comprising 33 females and 74 males, with a structured working schedule from 8:30 a.m. to 5:15 p.m. Participants completed an anonymous clinical medical history questionnaire that included only age and job seniority, ensuring a homogeneous sample through stratified random sampling. The study utilized the HSE-IT questionnaire developed by the Health and Safety Executive to evaluate psychosocial risks.

The findings revealed that the overall Cronbach's alpha coefficient for the HSE-IT questionnaire was 0.876, indicating good reliability. The male sample scored slightly higher (0.885) than the female sample (0.830). Results indicated that office workers experience job-related stress, particularly in the "Relationships" domain, which was viewed negatively across all groups, with women scoring the lowest. The authors emphasize that individual traits, particularly gender, should be integral to risk assessments regarding the quality of working life, underscoring the need for tailored approaches to address the specific psychosocial risks faced by male and female employees. The authors emphasize the importance of public organizations, particularly in the U.S., conducting further research that examines occupational safety data through a gender-specific lens. They advocate for the systematic recording of gender-specific data by industry and occupation within the Department of Labor to better inform policies and improve workplace safety for all employees.

In **Curtis et al. (2018)** examine the health and safety challenges faced by women in the construction industry, which remains predominantly male despite an overall increase in women's workforce participation. The authors highlight that the physical and psychological risks affecting tradeswomen are not well-documented, particularly in the context of a hazardous work environment characterized by hostility and discrimination. Using a holistic approach to health, the researchers considered the influences of both home and workplace environments, as well as the social experiences of women. Nearly 300 workers from Washington State participated in the study, comprising 198 tradeswomen and 93 tradesmen. The authors employed logistic regression to analyze the relationship between psychosocial exposures and stress and injury outcomes, alongside descriptive statistics to compare gender-based exposures.

The findings revealed that tradeswomen were significantly more likely than their male counterparts to report work-related injuries in the previous year (31% versus 18%) and to experience high levels of perceived stress. Notably, ten out of twelve identified psychosocial exposures were associated with either injuries (such as sexual harassment, overcompensation, bullying, isolation, and gender and age discrimination) or stress (including job strain and harassment), with a pronounced impact on women.

The author conclude that the construction industry is insufficiently addressing the health and safety needs of tradeswomen. The study underscores the importance of recognizing various exposures—such as discrimination,

excessive compensation demands, and challenges related to work/life balance—that significantly affect the well-being of employees. The results emphasize the need for targeted interventions and highlight the complex interplay between gender, psychosocial exposures, and occupational risks in the construction trades.

In the study "Occupational Health Hazards among Women Workers in Healthcare Industry: An Analysis," **Jayaselvi (2020)** investigates the occupational health hazards and overall health status of women workers in the healthcare sector in Thoothukudi, Tamil Nadu. The research involved a sample of 120 unorganized female workers, selected through random sampling, and utilized statistical tools such as the Chi-Square test, frequency tables, and cross-tabulation to analyse the data. The findings indicate a significant correlation between occupational health hazards and the health status of the participants. Many women reported experiencing fever related to their jobs, with an average self-reported health status. Interestingly, those who suffered from malarial illness described their health as generally good. However, the study revealed that a considerable number of participants experienced nausea for various reasons, and those with body pain reported extremely poor health, suggesting that chronic pain severely impacts their overall well-being.

The author emphasizes the persistent health risks faced by healthcare professionals, noting that while some health issues are preventable, chronic occupational diseases pose significant challenges. The study concludes that improving the health and safety conditions for female workers in healthcare is crucial for enhancing their well-being, which in turn can positively influence the country's economic growth. The author advocates for increased government focus on ensuring that women workers have access to essential safety measures in their workplaces to mitigate these health hazards.

**Mustari et al. (2020)** examines the implementation of occupational health and safety (K3) protections for female workers in Makassar City. The research utilizes three types of legal materials: primary legal materials in the form of labor legislation, secondary legal theory and principles, and tertiary legal materials from law journals and articles. Data was gathered through the examination of documents and conducting interviews.

The authors highlight that women workers require specific K3 protections due to their unique biological characteristics, particularly reproductive functions. This necessity for special protection is underscored by Article 7 of the Covenant on Economic, Social, and Cultural Rights. However, the study points out a prevalent misconception among employers that "affirmative action" or special protections are limited to rights such as maternity leave, menstruation leave, and abortion.

Despite the legal framework in place, which includes Law No. 13 Tahun 2003 concerning workforce protections, the study reveals that there are still gaps in the actual implementation of K3 protections for women workers. The authors note that local labor inspectors are tasked with monitoring compliance and addressing violations of work norms, yet challenges remain in ensuring that all aspects of occupational health and safety are adequately enforced for female employees.

In their literature review, **Tejamaya et al. (2021)** seek to create a model for an occupational safety and health management system (OSHMS) specifically designed for micro, small, and medium enterprises (MSME) in Indonesia. The study systematically reviews existing research to identify key factors that influence the successful implementation of OSHMS in these enterprises. Utilizing an exploratory approach, the authors employed the "AND" strategy to search multiple online databases, focusing on a combination of keywords related to the target population and exposure variables as outlined in the PROSPERO Approach. The selection of literature followed the PRISMA flowchart methodology, and the quality of the evidence was assessed using the Critical Appraisal Skill Programme (CASP) checklist to evaluate the risk of bias.

From the review of 37 relevant papers, books, online resources, and local articles, the authors identified critical elements essential for the implementation of OSHMS in MSMEs. These elements are categorized into three groups: downstream factors (including OSH training, commitment, risk management, and communication), middle stream factors (such as third-party support), and upstream factors (highlighting the role of government). This comprehensive analysis provides valuable insights for enhancing occupational health and safety practices within Indonesia's MSME sector.

In the article "The Role of Women in Occupational Health and Safety Management: A Gender Perspective," **Mubita, Milupi, and Monde (2023)** investigate the specific risks and hazards faced by women in the workplace, the challenges they encounter in occupational safety and health management, and propose strategies for enhancing their involvement in these areas. The authors conducted a comprehensive review of existing studies on women's health and safety at work, employing document analysis and content reviews to identify and analyze the unique risks women face. The findings reveal a significant gender gap in occupational health and safety management

positions, indicating that despite progress in gender equality, women remain underrepresented in leadership roles within this sector. This disparity is attributed to systemic barriers and societal gender biases that limit women's participation and advancement in traditionally male-dominated fields.

The article highlights that the presence of women in management roles related to occupational health and safety positively influences workplace safety outcomes and organizational performance. Research suggests that women bring valuable perspectives, skills, and problem-solving approaches to these positions, which enhance decision-making processes, foster diverse opinions, and create a more inclusive work environment. These factors collectively contribute to improved risk management and safety protocols in organizations.

**In Arshitha SJ & Murugan K (2024)** study aim to identify the safety and health factors that affect the job performance of women employees, analyse the safety measures implemented by organizations, determine the influence of occupational health and safety (OHS) on job performance, identify health hazards faced by women in the IT sector, and examine employees' perceptions towards OHS.

Utilizing a descriptive research design, the study finds that OHS procedures significantly impact the job performance of women workers in the IT industry. The null hypothesis was accepted, as the significant value ( $p = 0.306$ ) was greater than the threshold of 0.05, indicating negligible differences between work experience and safety measures. The authors conclude that organizations can enhance job performance by fostering a secure, supportive, and inclusive work environment that addresses the specific challenges faced by women in the sector, ultimately optimizing their contributions to organizational success.

### MAIN OBSERVATIONS

Based on the review of the selected articles, we present the main observations from the studies on OHS with reference to women.

There is an urgent need for comprehensive and culturally sensitive occupational health services personalized to the specific needs of working women, particularly in agriculture and the informal sector. It emphasizes the importance of prevention, health promotion and protection, while highlighting the need for improved data collection on occupational health to provide effective guidelines and standards.

There is a strong influence of safety climate on employees' attitudes towards safety. Understanding organizational factors is critical to improving occupational health and safety and recommends longitudinal studies to further investigate this relationship.

Almost half of the women who had children felt that balancing work and family caused stress and fatigue, which contributed to the accident. Measures are needed to motivate men and employers to become more involved in resolving work-family conflicts. Women were undermotivated at work and, for many of those surveyed, this undermotivation was related to a lack of work-life balance.

Identifying and addressing occupational safety and health (OSH) risks presents significant challenges, especially within a competitive market that adversely impacts workers' wages, working conditions, and social well-being. A holistic approach to health and safety is essential, one that emphasizes the overall welfare of employees instead of solely concentrating on their ability to work.

Negative stereotypes, discrimination related to pregnancy, the "glass ceiling," and family responsibilities contributed to a hostile work environment for female health workers. Conversely, greater gender equality was associated with reduced violence against health workers.

The emergence of a younger, better-educated workforce and a growing awareness influenced by globalization have raised hopes for improving occupational safety and health (OSH) standards in India. Stronger legislative measures and awareness campaigns aimed at enhancing worker safety and health are being implemented as a result of this circumstance.

The improvement of women's safety and occupational health in small-scale mining through the implementation of gender-sensitive practices. It highlights how important it is for women to have access to environmentally friendly, alternative work options in order to meet long-term development objectives. Gender equality and equity must also be given top priority in any policy response, acknowledging the variety of roles that women play in the public and private domains, since these aspects have a big influence on the stability of society.

A number of important factors need to be taken into account in order to guarantee the health and safety of women working in core mining positions. These include physical work capacity, body composition and anthropometry,

the suitability of personal protective equipment, pregnant workers' needs, and the application of security measures. promoting women's health and safety in order to keep them working in mining and enable them to perform vital industry tasks.

The perceptions of female employees in the metal industry regarding workplace accidents are associated with fatalism and a variety of safety hazards. By implementing reward and punishment systems for compliance with safety protocols, the study suggests that occupational illnesses and accidents can be significantly reduced, benefiting both workers and companies.

The fact that jobs are readily available and within reach for women is a significant sign of their involvement in the economy and society. Unfortunately, women in the workforce often grapple with challenging work conditions, unjust labour practices, low pay, and potential exposure to various occupational risks. The necessity of integrating workplace safety and health considerations into policies at all levels, recognizing these as critical issues that require attention to improve the overall well-being of women in the workforce.

The companies have moderately developed various health and safety practices, there are notable exceptions. In particular, policies to prevent, prohibit and punish sexual harassment in the workplace received a high implementation rating (4.38), as did support measures for victims of gender-based violence (3.81).

Italy has introduced new laws that are in line with European regulations and promote gender equality in the workplace. However, significant obstacles remain to the effective implementation of these laws. Addressing health inequalities between men and women in the workplace requires systematic collection, management and analysis of this data. This approach is essential for planning, monitoring and evaluating the effectiveness of preventive measures and policies related to occupational safety and health.

Due to the fact that both employers and employees frequently neglect to report certain non-fatal injuries, the reported numbers of workplace injuries for men and women may not be correct. Additionally, female employees in nontraditional occupations may hesitate to report harassment and injuries due to fears of job loss or the desire to prove their value to supervisors and colleagues by not raising safety concerns.

The "Relationships" domain significantly impacts both genders. Two domains—"Demand" and "Support from Managers"—were uniquely identified in the female sample. The female participants reported the lowest levels of perceived well-being.

Tradeswomen reported high levels of perceived stress and were much more likely than their male counterparts to report work-related injuries in the past year (31 percent versus 18 percent). Notably, ten of the twelve psychosocial exposures that were found were linked to either stress (including job strain and harassment) or injuries (like sexual harassment, overcompensation, bullying, isolation, and gender and age discrimination), with a particularly strong effect on women.

There is a strong relationship between the participants' health and occupational health risks. Despite having an average self-reported health status, many women reported having fevers associated with their jobs.

Women workers require specific K3 protections due to their unique biological characteristics, particularly reproductive functions. This necessity for special protection is underscored by Article 7 of the Covenant on Economic, Social, and Cultural Rights. However, the study points out a prevalent misconception among employers that "affirmative action" or special protections are limited to rights such as maternity leave, menstruation leave, and abortion.

The review identifies critical elements essential for the implementation of OSHMS in MSMEs. These elements are categorized into three groups: downstream factors (including OSH training, commitment, risk management, and communication), middle stream factors (such as third-party support), and upstream factors (highlighting the role of government).

Gender gap in occupational health and safety management positions, indicating that despite progress in gender equality, women remain underrepresented in leadership roles within this sector. This disparity is attributed to systemic barriers and societal gender biases that limit women's participation and advancement in traditionally male-dominated fields.

Organizations can improve work performance by fostering a safe, supportive, and inclusive work environment that addresses the specific challenges faced by women in the industry and ultimately optimizes their contribution to organizational success.

### **Conclusion**

The basic objectives of the paper were to explain the research situation on occupational health & safety with reference to women. The review highlights the different methodologies and observations to health and safety for women at workplace. Most of the studies found to be using cross sectional data and correlation approach to examine relation between the different variables related for the study. But all the studies agree that women required a separate strategy for reducing health and safety risk at workplace. The review also brought up the concept of safety climate index (SCI) and logistic regression in studies on occupational health and safety.

In a nutshell, the fight for a gender-sensitive approach to occupational safety and health benefits all those involved in the fight for decent work. By prioritizing these issues, organizations can foster a safe, supportive, and inclusive work environment that not only enhances the well-being of female employees but also optimizes their contributions to organizational success.



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