

Significant Impacts of Occupational Health Factors on Different Worker Groups

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Occupational health is a critical concern in today's diverse workforce, where workers across various sectors encounter unique challenges that can significantly impact their well-being. Occupational health and safety have become increasingly important as various industries grapple with unique challenges posed by workload, work environment, and ergonomic risks.

This article synthesizes recent studies highlighting the significant impacts of these factors on different worker groups, particularly focusing on women in coastal fishing, librarians, corporate employees, and industrial workers. From coastal women involved in fishing households to librarians dealing with static postures, each group faces distinct ergonomic hazards and stressors. The demands of their roles can lead to physical fatigue, emotional distress, and increased risks of musculoskeletal disorders.

Coastal women, often categorized as a marginalized group with limited educational opportunities, play a crucial role in fishing households. Their heavy workloads in fish processing can lead to significant work fatigue, necessitating attention from industry owners to improve working conditions and time management (Syamila and Ma'rufi, 2024). Recognizing and addressing the physical and mental toll of their labor is essential for their well-being and productivity.

Librarians at Universitas Airlangga face ergonomic hazards due to static postures, which can lead to musculoskeletal disorders (MSD). This study found a correlation between work posture, body mass index (BMI), and MSD complaints, particularly in the neck, shoulders, and back areas. The findings suggest the need for ergonomic

workstation redesigns to enhance comfort and reduce health risks (Nugraha *et al.*, 2024).

High-altitude flight poses serious risks, including hypoxia, which can compromise crew performance. A study conducted at the dr. Saryanto Health Institute of Aeronautics and Space emphasizes the importance of understanding hypoxia symptoms and managing Time of Useful Consciousness (TUC) to ensure safety during flights (Putri *et al.*, 2024).

Occupational dermatitis remains a significant concern across various industries, highlighting the need for improved occupational health strategies. By addressing the complexities of Personal Protective Equipment use and fostering a culture of safety and awareness, workplaces can better protect their employees from skin conditions and other health issues. Prioritizing occupational health is not just a regulatory requirement; it is essential for promoting worker well-being and enhancing overall productivity (Alayyannur, Al Hakim and Sari, 2024).

Moreover, industries such as textiles and agriculture present specific safety and health risks due to environmental factors like noise pollution and pesticide exposure. The complexity of these issues is compounded by factors such as work stress and emotional eating, which can further detract from employees' overall health.

Weaving workers in the textile industry face health risks from noise pollution caused by machines. Research highlights that while earmuffs provide protection against noise, they can paradoxically lead to increased complaints of hearing loss and stress. Alternatives, such as installing sound-absorbing materials, may offer better solutions for improving workplace comfort and reducing stress (Setyawan *et al.*, 2024).

In Sukorambi Village, research indicates a link between pesticide exposure and Mild Cognitive Impairment (MCI) among vegetable farmers. The study reveals that the frequency of pesticide spraying

correlates with higher MCI rates, particularly among farmers' wives, underscoring the need for safer agricultural practices (Fidiyaningrum, Sujoso and Indrayani, 2024).

In the corporate sector, emotional eating has emerged as a significant issue among Kalla Group employees, exacerbated by a monotonous and static work environment. The study indicates that gender has the strongest correlation with emotional eating, followed by exercise habits and work stress. Implementing regular exercise programs in the workplace could mitigate stress and curb emotional eating (Irwansyah *et al.*, 2024).

Fatigue is a common ergonomic hazard for farmers, impacting their health and productivity. An innovative study shows that providing regular stretching, healthy snacks, and rest periods can significantly reduce occupational fatigue among rice farmers. Education on ergonomic hazards also plays a vital role in prevention (Aswin, Rini and Hidayati, 2024).

Water treatment plants use hazardous chemicals, necessitating comprehensive dermal risk assessments. The findings suggest that while certain chemicals pose high toxicity risks, implementing control measures can mitigate health hazards for workers in ammonia and urea production facilities (Rahmawati and Tejamaya, 2024).

In addition, the Covid-19 pandemic has underscored the importance of effective health strategies, as vaccination rates and safety protocols have become crucial for protecting workers. The need for a strong safety culture is evident, especially in high-risk environments such as hospitals and industrial settings, where accidents and health complications can have severe consequences.

The effectiveness of Covid-19 vaccinations has been under scrutiny, with studies indicating that two doses of the Covishieldtm vaccine significantly reduce moderate to severe cases. While not providing complete immunity, vaccinations play a crucial role in mitigating severe disease progression (Verma *et al.*, 2024).

Gojek, a leading online transportation service in Indonesia, focuses on safety riding practices to minimize traffic accidents. The study reveals correlations between drivers' knowledge, work fatigue, and safety practices, underscoring the need for continued education and support (Azizah *et al.*, 2024).

Increasing workplace accident rates call for robust Occupational Safety and Health (OSH)

programs. A recent study outlines a conceptual framework for analyzing OSH investments, emphasizing the importance of prioritizing safety controls to enhance workplace safety and reduce accidents (Sudiarno and Maharani, 2024).

Major industrial accidents stress the need for a robust safety culture. A study illustrates the critical role safety culture plays in preventing accidents across various sectors, advocating for comprehensive management strategies to enhance workplace safety (Ismail, Ramli and Prasetya, 2024).

At Dr. Soebandi Regional Hospital, safety behavior among clinical pathology assistants has improved, attributed to effective supervision and training. This emphasizes the importance of fostering a strong safety culture to minimize work accidents in clinical settings (Octaviani, Hartanti and Indrayani, 2024).

To address these multifaceted challenges, it is essential for organizations to implement comprehensive occupational health strategies. By focusing on ergonomic improvements, safety practices, and fostering a culture of health, industries can create a safer and more supportive work environment. This proactive approach not only safeguards workers' health but also enhances overall productivity, making it a vital consideration for sustainable workplace development.

The diverse challenges faced by various worker populations highlight the pressing need for improved occupational health strategies. By addressing ergonomic hazards, enhancing safety practices, and fostering a culture of health and well-being, industries can better protect their workers and enhance productivity. Prioritizing these issues is essential for sustainable workplace environments.

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