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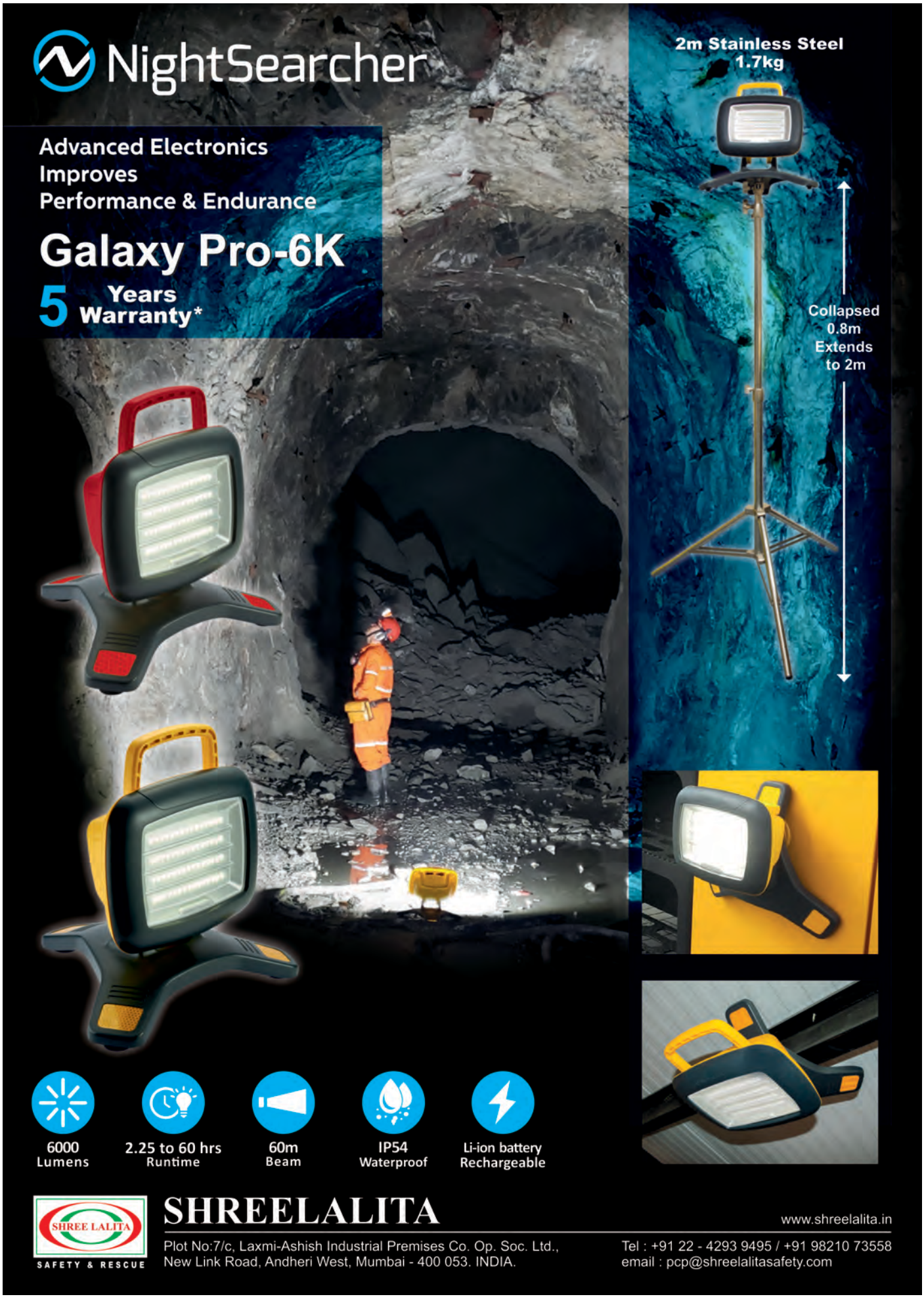
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# EDITORIAL



*Workplace stress has emerged as a critical public health concern, significantly impacting employees physical and mental well-being, organisation productivity and overall economic growth. The World Health Organisation (WHO) and International Labour Organisation (ILO) recognise occupational stress as contributor to the rising burden of mental health disorders worldwide, and underscore work-related stress as one of the most challenging occupational health issues, affecting millions of employees across the globe.*

*The rapid economic growth and increasing competitions across various sectors have intensified the pressure on employees. Various studies reveal alarmingly high levels of workplace stress among Indian employees. A significant proportion of corporate employees, experience unacceptable stress levels, leading to a cascade of detrimental effects on their well-being and productivity.*

*Workers have the right to a safe and healthy working environment. Unsafe working environments create risk factors for mental health. These are known as psychosocial risks and may be related to any aspect of the design or management of work, including job demands and job control, workload and work pace, organizational culture, career development, job security, interpersonal relationship at work and home-work interface, etc. Protecting and promoting mental health at work is about strengthening capacities, building awareness and providing opportunities for recognizing, preventing and acting early on mental health conditions at work. It requires a multifaceted approach that encompasses effective leadership, policy interventions and technological advancements. Leaders play a pivotal role in creating a supportive and transparent environment where employees feel valued and understood. By fostering open communication, providing regular feedback and showing empathy, leaders can alleviate stress and build a resilient workforce.*

*I am happy to present the Jan-Mar 2025 issue of the Industrial Safety Chronicle focusing on* ***"Mental Health & Wellness at Workplace"*** *In this issue, the readers will find various interesting articles contributed by our esteemed experts. These include workplace stress management: a roadmap to employee well-being, approach to wellness interventions at workplace, mental health – emerging challenge at workplace, challenge of maintaining work-life balance, digital wellbeing, collective flourishing: A new imperative for the modern workplace, mental health & wellness at workplace - HR perspectives, healthy nutrition – A key to optimum physical & mental wellbeing, occupational health & medical examination of employees, etc.*

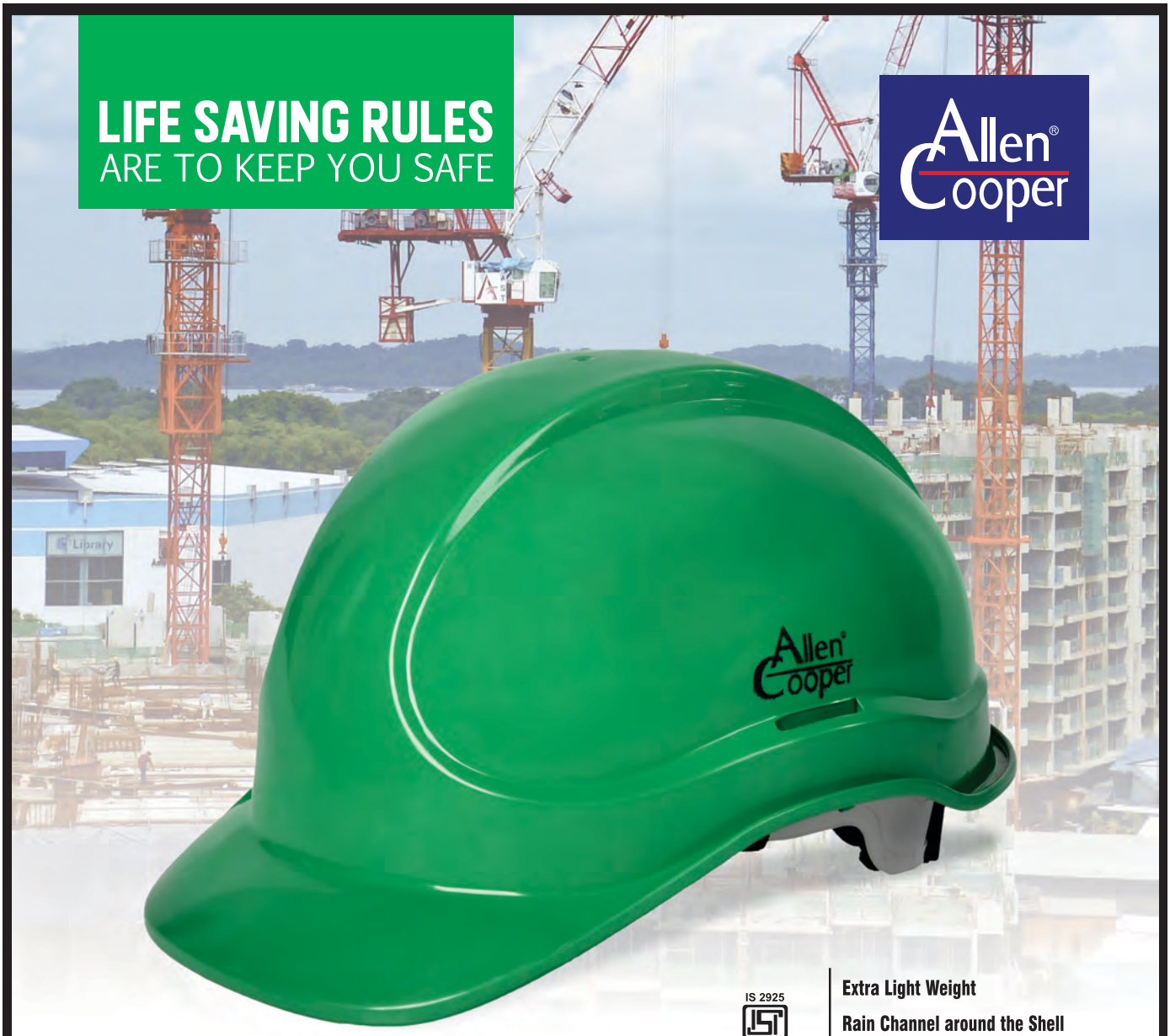
*I hope readers will find this issue informative and useful.*



***Dr. Lalit R. Gabhane***
***Director General & Chief Editor***

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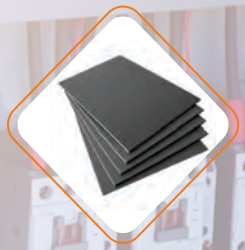
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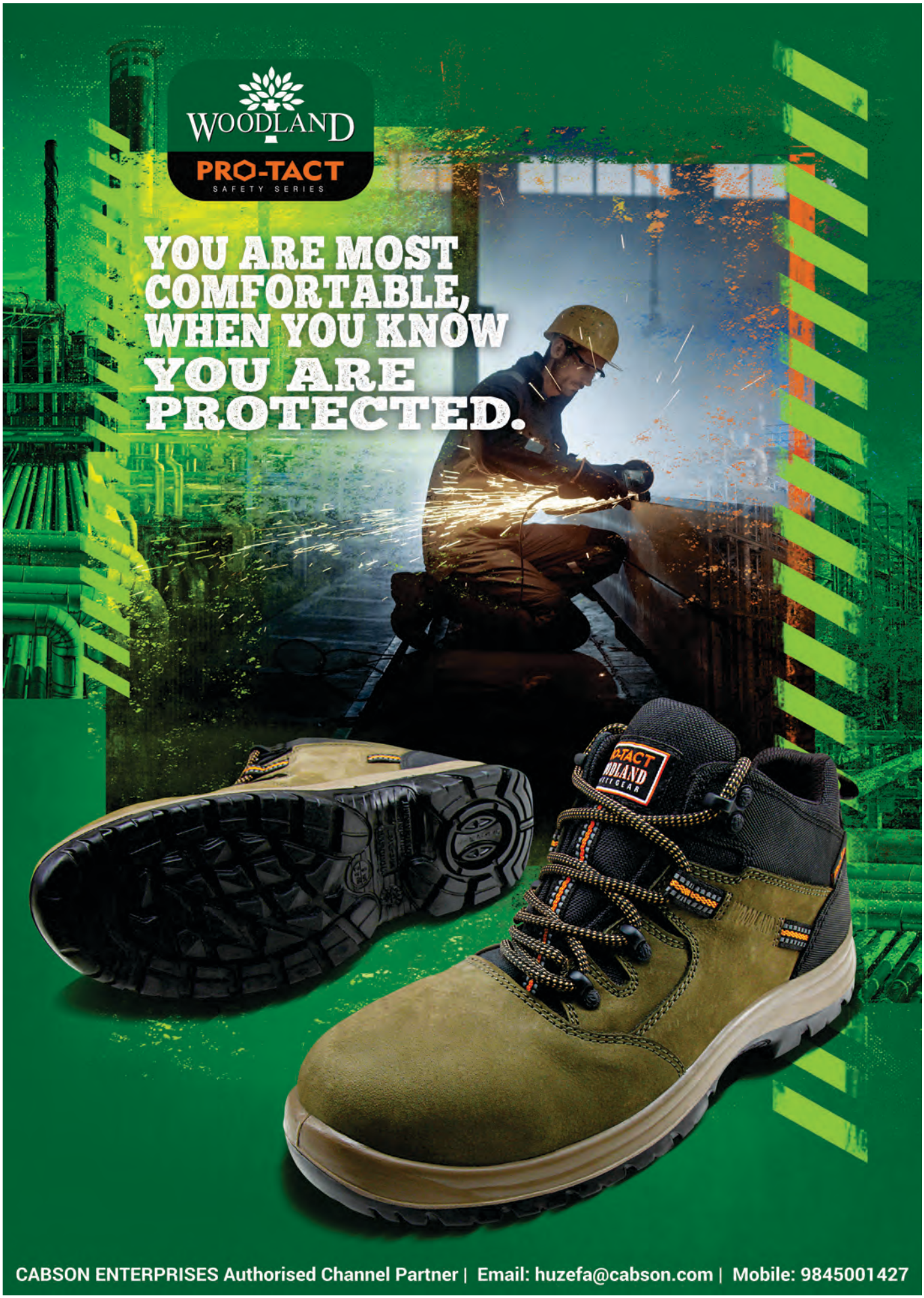





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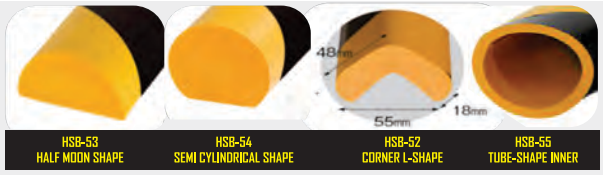
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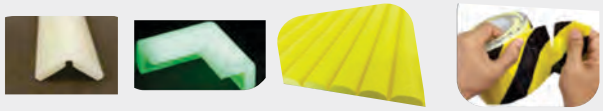



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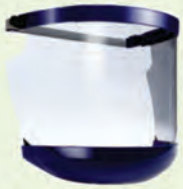
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# WORKPLACE STRESS MANAGEMENT: A ROADMAP TO EMPLOYEE WELL-BEING

Dr. MONALISHA SAHU, MD, Associate Professor & Head, Department of Occupational Health, AIIHPH, Kolkata, Ministry of Health & Family Welfare, Govt of India, Email: drmonalisha@outlook.com

## 1 Introduction

Workplace stress has emerged as a critical public health concern, significantly impacting employees' physical and mental well-being, organizational productivity, and overall economic growth. The World Health Organization (WHO) recognizes occupational stress as a major contributor to the rising burden of mental health disorders worldwide, placing it alongside conditions like depression and anxiety as a significant public health challenge. The International Labour Organization (ILO) further underscores the gravity of the situation, highlighting work-related stress as one of the most challenging occupational health issues, affecting millions of employees across the globe.

In India, the rapid economic growth and increasing competitiveness across various sectors have intensified the pressure on employees. Studies consistently reveal alarmingly high levels of workplace stress among Indian workers. A significant proportion of corporate employees, estimated to be nearly 80%, experience significant stress levels, leading to a cascade of detrimental effects on their well-being and productivity. This pervasive issue manifests in various forms, including anxiety, depression, burnout, and a range of physical ailments such as cardiovascular diseases, musculoskeletal disorders, and gastrointestinal problems.

## 2 The Human Toll: A Multifaceted Impact

The impact of workplace stress extends far beyond individual discomfort. It has profound consequences for individuals, organizations, and society as a whole:

**i) Individual Level:**

**a) Physical Health Deterioration:** Chronic stress weakens the immune system, making individuals more susceptible to infections. It can significantly increase the risk of cardiovascular diseases such as heart attacks and strokes by elevating blood pressure and heart rate. Musculoskeletal disorders, including back pain and headaches, are frequent companions of prolonged stress.

**b) Mental Health Crisis:** Anxiety disorders, depression, and burnout are increasingly prevalent among stressed employees. These conditions can significantly impair an individual's ability to function effectively, both at work and in their personal lives. Sleep disturbances, insomnia, and difficulties in concentrating are common manifestations of chronic stress, further exacerbating mental health challenges.

**c) Social Strain:** Stress can significantly strain personal relationships. Individuals may experience irritability, difficulty communicating, and social withdrawal. Family life can suffer, leading to marital discord and strained relationships with children.

**ii) Organizational Impact:**

**a) Decreased Productivity and Efficiency:** Stressed employees are significantly less productive. They may experience difficulty concentrating, making decisions, and completing tasks efficiently. This can lead to errors, delays, and ultimately, decreased output and lower quality of work.

**b) Increased Absenteeism and Presenteeism:** High stress levels can lead to increased absenteeism as employees take sick leave to cope with stress-related health issues. However, the impact often extends beyond physical absence. "Presenteeism," where employees are physically present at work but unable to function effectively due to stress, is a significant concern. This phenomenon leads to decreased productivity, reduced engagement, and a decline in overall workplace performance.

**c) High Employee Turnover:** High levels of stress can contribute to high employee turnover. Stressed employees are more likely to seek new jobs, leading to significant costs for organizations in terms of recruitment, training, and loss of valuable skills and expertise.

**d) Damaged Company Reputation:** High employee turnover and negative employee reviews can severely damage a company's reputation, making it difficult to attract and retain top talent.

**iii) Economic Consequences:**

The economic costs of workplace stress are substantial. These costs encompass:

**a) Healthcare expenditures:** Increased healthcare costs due to stress-related illnesses and their associated treatments.

**b) Lost productivity:** Reduced output, absenteeism, and presenteeism translate to significant economic losses for organizations and the national economy.

c) **Employee turnover costs:** The costs associated with recruiting, hiring, and training new employees to replace those who have left due to stress-related issues.

d) **Reduced innovation and creativity:** Stress can hinder creative thinking and innovation, impacting a company's ability to compete in the global market.

These economic costs have a significant impact on national economies and can hinder overall economic growth.

The COVID-19 pandemic has significantly exacerbated the issue of workplace stress. The abrupt transition to remote work, increased workload, job insecurity, fear of infection, and the constant uncertainty surrounding the pandemic have significantly increased stress levels for many employees. The pandemic has highlighted the critical need for organizations to prioritize employee well-being and implement comprehensive strategies to address workplace stress.

Furthermore, the pandemic has accelerated the adoption of new technologies in the workplace, which can both exacerbate and mitigate stress. While technologies like remote work and communication tools have offered flexibility and increased accessibility, they have also blurred the lines between work and personal life, leading to increased "always-on" pressures.

## 3 Understanding Workplace Stress

Workplace stress arises when job demands exceed an individual's capacity to cope. Common stressors include excessive workload, long working hours, job insecurity, lack of control, workplace conflicts, and poor work-life balance. Prolonged exposure to stress can result in serious consequences such as hypertension, cardiovascular diseases, depression, and decreased job satisfaction.

Understanding the root causes of workplace stress is fundamental to effectively addressing it. Stress is not merely a response to external pressures; it is a complex interplay between an individual's perception of demands and their perceived ability to meet those demands. This perception is influenced by various factors including personal resilience, coping mechanisms, and external support systems.

## 4 Types of Workplace Stress

Workplace stress can be categorized into several types, each with its own unique triggers and impacts:

- **Acute Stress**

  This is the most common form of stress that results from immediate pressures or perceived threats. It is short-term and can be thrilling in small doses but exhausting if it becomes frequent. Examples include meeting tight deadlines or resolving sudden conflicts.

- **Episodic Acute Stress**

  When acute stress becomes a frequent occurrence, it leads to episodic acute stress. Individuals experiencing this type of stress often feel overwhelmed by their responsibilities and may display a constant state of worry or urgency.

- **Chronic Stress**

  Chronic stress results from prolonged exposure to stressors and can have debilitating effects on mental and physical health. This type of stress is often linked to ongoing issues such as job insecurity, toxic work environments, and unsatisfactory job roles.

- **Psychological and Physical Effects**

  The impact of workplace stress extends beyond the immediate emotional response. It can lead to a range of psychological issues, including anxiety, depression, and burnout. Physiologically, chronic stress contributes to serious health problems such as hypertension, cardiovascular diseases, and metabolic syndromes.

## 5 Identifying Stressors

Recognizing the specific stressors in the workplace is the first step in managing and reducing stress. Common stressors include:

- Excessive Workload: High demands and unrealistic expectations can lead to feelings of inadequacy and constant pressure.
- Lack of Control: Employees who feel they have little control over their tasks or decisions may experience higher stress levels.
- Inadequate Support: Poor management support and lack of resources can exacerbate stress.
- Workplace Conflicts: Interpersonal conflicts and a lack of team cohesion can create a hostile work environment.
- Poor Work-Life Balance: Inability to balance personal and professional life leads to stress spillover into both domains.
- Lack of Career Advancement: Limited opportunities for growth and career development can lead to frustration and stress.
- Uncertainty and Change: Frequent organizational changes, such as restructuring or mergers, can cause uncertainty and stress among employees.
- Poor Physical Work Environment: Inadequate lighting, noise, and poor ergonomic conditions can contribute to physical discomfort and stress.
- Job Insecurity: Fear of job loss or instability in employment can cause significant stress and anxiety.
- Inadequate Compensation: Feeling underpaid

or unfairly compensated for the amount of work done can lead to financial stress and dissatisfaction.

## 6 Addressing Workplace Stress

Addressing workplace stress requires a comprehensive and multi-faceted approach that involves a concerted effort from organizations, individuals, and policymakers.

i) **Organizational Interventions:**

**Organizational Interventions: Effective Measures to Reduce Workplace Stress**

Organizational interventions play a crucial role in mitigating workplace stress and fostering a healthier work environment. These interventions are designed to address systemic issues within the workplace and create a supportive atmosphere that enhances employee well-being and productivity.

a) **Promote a Positive Work Culture:** A positive work culture is foundational to reducing stress. By fostering open communication, inclusivity, and respect among employees, organizations can create an environment where employees feel valued and supported. Encouraging teamwork and collaboration not only builds a sense of community but also helps to distribute workloads more evenly, reducing individual stress. Celebrating employee achievements and recognizing their contributions can boost morale and motivation. Additionally, creating a culture of psychological safety, where employees feel comfortable expressing their concerns and seeking support, is essential for promoting mental well-being.

b) **Implement Flexible Work Arrangements:** Flexible work arrangements are highly effective in alleviating stress. Options such as remote work, flextime, and compressed workweeks can enhance work-life balance by allowing employees to manage their personal and professional responsibilities more effectively. Providing employees with the flexibility to adjust their work schedules to accommodate personal and family commitments can reduce commuting stress and contribute to overall job satisfaction.

c) **Workload Management:** Effective workload management is critical in preventing burnout and excessive stress. Organizations should implement fair workload distribution, set realistic deadlines, and avoid excessive overtime. By ensuring that workloads are manageable and aligned with employees' capacities, organizations can help maintain productivity while safeguarding employees' mental health.

d) **Comprehensive Support Systems:** Establishing comprehensive support systems within the workplace is another crucial intervention. This can include providing access to mental health resources, such as counseling services and stress management programs. Regular training and workshops on coping mechanisms and stress reduction techniques can empower employees to manage stress more effectively. Additionally, having a robust employee assistance program (EAP) can offer confidential support for personal and professional issues, further enhancing employees' well-being.

e) **Employee Recognition and Award System:** Implementing a comprehensive employee recognition and award system can significantly enhance workplace morale and motivation. Recognizing and rewarding employees for their hard work and achievements fosters a culture of appreciation and respect. Awards can be given for various accomplishments, such as meeting targets, demonstrating exceptional teamwork, or contributing innovative ideas. Regular recognition events and award ceremonies can create a sense of pride and accomplishment among employees, encouraging them to strive for excellence. Additionally, a well-structured recognition and award system can promote healthy competition, drive performance, and reinforce positive behaviours that align with the organization's values and goals.

## 7 Individual Strategies:

Individual strategies are vital in reducing workplace stress, empowering employees to take proactive steps towards maintaining their mental and emotional well-being.

a) **Develop Healthy Coping Mechanisms:** To effectively manage stress, individuals can adopt healthy coping mechanisms that promote relaxation and resilience. Practices such as mindfulness, meditation, and deep breathing exercises can help individuals remain calm and focused, even in high-pressure situations. Engaging in regular physical activity, whether it's exercise, yoga, or simply taking a walk, releases endorphins and improves overall mood, contributing to a healthier mental state. Maintaining a balanced diet and ensuring adequate sleep are also essential components of stress management, as they provide the energy and mental clarity needed to tackle daily challenges. Furthermore, developing strong social support networks and engaging in meaningful social interactions can provide emotional comfort and reduce feelings of isolation.

b) **Time Management and Prioritization:** Effective time management and prioritization are crucial individual strategies that can alleviate workplace stress. Setting realistic goals and priorities allows individuals to focus on the most important tasks, reducing the overwhelm that comes with trying to do everything at once. Learning to say "no" to excessive demands is a powerful skill that protects one's time and energy, ensuring that they are not overburdened. Utilizing time management techniques, such as the Pomodoro Technique, can improve focus and efficiency, helping individuals make the most of their work hours. Scheduling regular breaks throughout the workday is also important to prevent burnout, as it provides opportunities to rest and recharge.

c) **Fostering healthy work habits:** Fostering healthy work habits is essential for maintaining both physical and mental health in the workplace. Encouraging employees to take regular breaks away from their desks can help reduce physical strain and mental fatigue. Implementing ergonomic workstations can prevent musculoskeletal issues and enhance comfort, leading to better posture and overall health. Additionally, promoting a culture of open communication where employees feel comfortable discussing their health concerns can lead to early intervention and support. Offering wellness programs, such as on-site fitness classes or health screenings, can further contribute to a healthier workforce. By prioritizing health and encouraging healthy habits, organizations can create an environment where employees thrive, feel valued, and are better equipped to handle workplace challenges.

**Figure 1.**

**Seven Step Management Process Aimed at Reducing Workplace Stress and Promoting Employee Well Being**




## 8 Leadership and Managerial Role:

Leadership and managerial roles are pivotal in shaping a work environment that mitigates stress and fosters well-being. Effective leaders understand the profound impact their actions and decisions have on their team's morale and productivity. By embodying a supportive and empathetic leadership style, managers can create a culture of trust and openness where employees feel valued and heard. This involves not only listening to employee concerns but also taking proactive steps to address them, thereby demonstrating a genuine commitment to their welfare. Managers should prioritize regular and meaningful communication, ensuring that employees are well-informed about organizational changes, goals, and expectations. This transparency helps alleviate uncertainty and reduces stress caused by ambiguity.

Moreover, leaders can play a significant role in promoting work-life balance by encouraging employees to take time off when needed and by respecting boundaries between work and personal life. They should recognize and celebrate achievements, providing positive reinforcement that boosts self-esteem and motivation. Implementing flexible work arrangements, such as remote work options or adjustable schedules, can also contribute to reducing stress by accommodating individual needs and preferences.

Another crucial aspect is the professional development of employees. Managers should invest in training and development opportunities that not only enhance skills but also empower employees to take control of their career paths. This investment shows employees that the organization is invested in their long-term success, which can significantly reduce job-related anxiety and stress.

By fostering a culture of collaboration and mutual support, managers can also address stressors related to interpersonal dynamics. Encouraging teamwork and providing platforms for employees to share their ideas and feedback can strengthen relationships and create a more cohesive work environment. Additionally, leaders should model stress management techniques themselves, such as

taking breaks, practicing mindfulness, and managing their workload effectively. This sets a precedent for employees to follow suit and adopt similar practices.

Supportive leadership is at the heart of a stress-free work environment. Managers play a crucial role in creating a supportive atmosphere by exemplifying empathy and actively listening to employee concerns. By providing regular feedback, both positive and constructive, and offering guidance and support, managers can build trust and morale within their teams. Additionally, training and development are essential for equipping managers with the skills necessary to identify and address stress among their team members. Providing training on stress management, conflict resolution, and effective communication ensures that managers are well-prepared to handle challenging situations and support their employees effectively.

Clear communication is another fundamental aspect of a healthy work environment. Ensuring clear communication channels and providing regular feedback to employees helps in defining roles and responsibilities, and setting realistic expectations. This reduces ambiguity and allows employees to focus on their tasks with confidence. When employees are well-informed and understand their roles, they are more likely to feel secure and less stressed about their job performance and expectations.

Overall, the role of leadership in preventing workplace stress cannot be overstated. Through empathetic, transparent, and proactive management, leaders can cultivate a work environment where stress is minimized, and employees feel empowered, supported, and motivated to excel.

## 9 Policy Interventions:

Policy interventions play a crucial role in mitigating workplace stress by providing a structured and regulated approach to employee well-being. Legislation and regulations aimed at addressing workplace stress and mental health can set clear limits on working hours, ensure the promotion of safe and healthy working conditions, and mandate adequate breaks for employees. Such policies not only protect workers from overexertion but also create an environment where they can thrive without compromising their health.

Public awareness campaigns are equally important as they educate both employers and employees about the significance of managing workplace stress. Through targeted public health campaigns and educational programs, these initiatives can foster a culture of awareness and proactive stress management, encouraging individuals to seek help and adopt healthier work practices.

Additionally, promoting research and innovation in the field of workplace stress can lead to the development and implementation of cutting-edge stress management interventions. By supporting research on the causes and effects of workplace stress, and by encouraging the creation of innovative tools and strategies, policymakers can ensure that organizations are equipped with effective methods to address and alleviate stress. Together, these policy interventions create a comprehensive framework that not only addresses the symptoms of workplace stress but also tackles its root causes, ultimately leading to a healthier, more productive workforce.

## 10 Technological Interventions:

Technological interventions have revolutionized the way organizations can address and mitigate workplace stress, leveraging various innovations to create a healthier work environment. One significant benefit is the facilitation of remote work options, which can reduce the stress of commuting and offer employees greater flexibility to balance their professional and personal lives. Advanced communication tools like video conferencing, instant messaging, and collaborative platforms make it easier to maintain connectivity and ensure clear communication, thus reducing misunderstandings and the stress associated with them. Furthermore, access to mental health resources has been greatly enhanced by technology, with numerous online platforms offering counseling, therapy, and stress management programs.

Stress management apps and mindfulness tools, which can be easily accessed via smartphones, provide employees with convenient ways to practice relaxation techniques, track their stress levels, and receive timely reminders to take breaks. Additionally, virtual reality-based interventions offer immersive experiences that can significantly reduce stress by providing virtual environments for meditation, relaxation, or even simulated practice for stressful tasks. By integrating these technological solutions, organizations can proactively support their employees' mental well-being, making stress management an integral part of the workplace culture.

## 11 Conclusion

In conclusion, addressing workplace stress requires a multifaceted approach that encompasses effective leadership, policy interventions, and technological advancements. Leaders play a pivotal role in creating a supportive and transparent environment where employees feel valued and understood. By fostering open communication, providing regular feedback, and showing empathy, leaders can alleviate stress and build a resilient workforce.

Policy interventions are equally essential, as they

provide a structured framework to ensure the well-being of employees. Enforcing regulations that limit working hours, mandate breaks, and promote healthy working conditions can significantly reduce stress levels. Public awareness campaigns and educational programs further reinforce the importance of mental health, encouraging both employers and employees to adopt healthier work practices. Moreover, continued research and innovation in the field of workplace stress are vital in developing new strategies and tools to address this ever-evolving challenge.

Technological interventions have transformed the way organizations manage stress, offering a plethora of solutions to support employee well-being. Remote work options, advanced communication tools, and access to online mental health resources empower employees to balance their personal and professional lives more effectively. Stress management apps, mindfulness tools, and virtual reality-based interventions provide convenient and innovative ways for employees to cope with stress and maintain their mental health.

Together, these approaches create a comprehensive strategy to tackle workplace stress. By prioritizing mental health, organizations not only enhance the well-being of their employees but also boost productivity, job satisfaction, and overall performance. As the global workforce continues to evolve, it is imperative for organizations to remain proactive in their efforts to address workplace stress. This holistic approach ensures that employees are equipped with the necessary resources and support to thrive in their roles, leading to a healthier, more motivated, and engaged workforce.

Ultimately, the concerted efforts of leadership, policymakers, and technological innovators will pave the way for a future where workplace stress is effectively managed, and the mental well-being of employees is prioritized. By cultivating a culture of awareness, support, and continuous improvement, organizations can create an environment where employees not only succeed but also flourish.

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# APPROACH TO WELLNESS INTERVENTIONS AT WORKPLACE

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## Introduction:

Workplace health in India started as a welfare and liaison activity. When the Industry started making profits, it felt the need for having goodwill in the society and project a human and caring face. A temple and a dispensary were the hallmarks in large and successful industries. However, the Bhopal gas disaster in 1984, led to the realization of major gaps in occupational safety, health, environment in the industrial sector. Ultimately, it led to the revision, tightening and implementation of the statutory provisions at the workplace with focus on health of the employees and safety at the workplace.

However, the progressive managements soon realized the advantages of having healthy and engaged workforce to ensure higher productivity. In the new era, heralded by the emergence of Knowledge industry and Service sector facilitated by the information technology revolution, employees became the main resource and their health and wellbeing gained importance.

## What is Wellness?

Wellness is also defined as a holistic integration of physical, mental and spiritual well-being, fuelling the body, engaging the mind, and nurturing the spirit. Wellness is a healthy balance of the mind, body and spirit that results in an overall feeling of well-being. It is also a condition of being in maximum physical and behavioural health. Further, the workplace acts as a cohort providing the opportunity to inculcate long term healthy habits. Wellness at workplace plays an important role in having healthy, engaged and productive employees.

## Objectives of Wellness

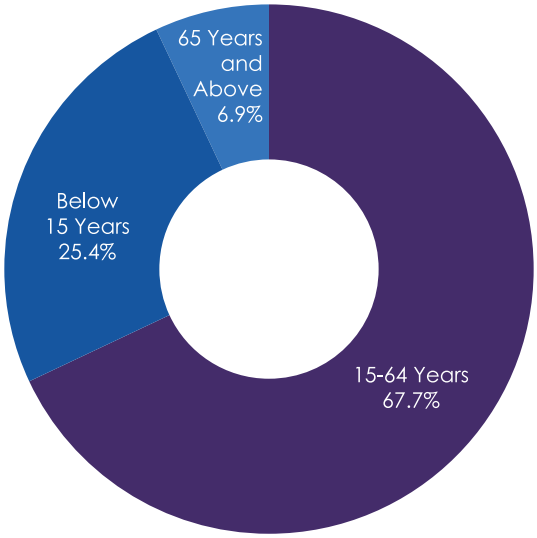
Wellness programs aim to create a healthier, happier workforce while benefiting organizations through increased engagement and reduced costs. The objectives may be summarised as follows:

1. Address health priorities
2. Encourage physical, mental, and emotional well-being.
3. Improve the overall health of employees and reduce risk factors
4. Promote work-life balance.
5. Provide safe and healthy work environments
6. Design health benefits and health promotion programs.
7. Enhance productivity and workplace culture.
8. Reduce healthcare and absenteeism costs.
9. Support business continuity
10. To prevent / reduce lifestyle-related diseases among employees.

Progressive industries focus on primary prevention. They engage in wellness promotion and targeted interventions to benefit the employees and the enterprise.

## Demography / Workforce in India

Indian population was 1.21 billion in 2011 census (current estimate 1.43 billion+), Median age is 28.4 years, Working age group 67% and increasing (1 billion by 2030). India had 474 million workers, 377 million rural, 137 million urban (NSSO survey 2011). India has largest and youngest population in the world today. The proportion of the working age population is rising and is around 67% currently. Workforce distribution is Agriculture & allied sector 49%, Manufacturing 22% and Services sector 27%. Workforce in Agriculture is declining and in Services is increasing. Participation of females in workforce is steadily increasing.




Source: https://www.globaldata.com/data-insights/macroeconomic/india-population-distribution-in-by-age/

India has multigenerational workforce comprising of a mix of Generation X and the Generation Y. The new age employees are younger, educated, have access to information. They are materialistic with focus on today. Most of them stay away from family influence in course of their employment and are in a hurry. However, behavioural safety may be an issue. It has been observed that as the nations develop, infectious diseases decline in frequency and severity, life expectancy increases, Infant mortality declines and chronic diseases become increasingly prevalent. Further, the agriculture and manufacturing sector

decreases whereas the service industry increases.

## Health challenges in Indian workplaces

A recent study published in the Lancet (2023) shows the overall weighted prevalence in Indian population. It found that the prevalence of diabetes was 11·4, prediabetes 15·3%, hypertension 35·5%, generalised obesity 28·6%, abdominal obesity 39·5% and dyslipidaemia 81·2%. Heart disease, Respiratory disease and Stroke are the top three causes of death in India according to a recent report in NDTV. Thus, the main health challenges today include non-communicable diseases. Life style issues play an important part in causation of these diseases.

Mental health issues are also on the rise globally and also in India. The Gallup 2024 State of the Global Workplace report sheds light on the state of mental wellness among employees in India. It states that nearly 90% of Indian employees report suffering, and over 40% feel sad. The Gallup report highlights a concerning trend: a significant percentage of Indian employees are experiencing high levels of stress, anxiety, and burnout. Data reveals that only 21% of employees feel engaged at work, while a staggering 47% report daily stress. A study by Deloitte (2022) reveals that nearly 80 per cent of the Indian workforce faces some degree of mental health issues, yet a mere 20 per cent seek professional help.

**EXTENT TO WHICH CERTAIN HEALTH RISKS AND ISSUES DRIVE WELLNESS STRATEGY-BY REGION**

| | Africa / Middle East | Asia | Australia | Canada | Europe | Latin America | United States |
|---|---|---|---|---|---|---|---|
| Stress | 1 | 1 | 1 | 1 | 1 | 2 | 6 |
| Physical activity / exercise | 4 | 3 | 3 | 3 | 2 | 1 | 1 |
| Nutrition / Healthy Eating | 4 | 7 | 1 | 5 | 5 | 3 | 2 |
| Work / Life Issues | 4 | 2 | 3 | 2 | 3 | 12 | 10 |
| High Blood Pressure (Hypertension) | 4 | 10 | 10 | 8 | 10 | 4 | 5 |
| Chronic Disease (e.g. Heart Disease, Diabetes) | 2 | 9 | 9 | 7 | 13 | 5 | 3 |
| Workplace Safety | 9 | 4 | 6 | 6 | 4 | 6 | 11 |
| Depression / Anxiety | 8 | 13 | 7 | 4 | 7 | 9 | 9 |
| High Cholestrol (Hyperlipidemia) | 12 | 11 | 11 | 9 | 12 | 7 | 7 |
| Tobacco use / Smoking | 11 | 5 | 13 | 11 | 8 | 10 | 8 |
| Psychosocial Work Environment | 10 | 8 | 14 | 12 | 6 | 8 | 15 |
| Obesity | 15 | 14 | 8 | 14 | 14 | 11 | 4 |
| Sleep / Fatigue | 16 | 12 | 5 | 9 | 11 | 14 | 14 |
| Personal Safety | 13 | 6 | 12 | 13 | 9 | 13 | 13 |
| Infectious Diseases / AIDS / HIV | 3 | 17 | 16 | 17 | 18 | 16 | 17 |
| Maternity / Newborn Health | 18 | 15 | 18 | 16 | 16 | 15 | 12 |
| Substance use | 14 | 18 | 15 | 15 | 15 | 18 | 16 |
| Public Sanitation | 17 | 16 | 17 | 18 | 17 | 17 | 18 |

Source: Buck Consultants Working Well: A Global Survey of Health Promotion and Workplace Wellness strategies, 2014.

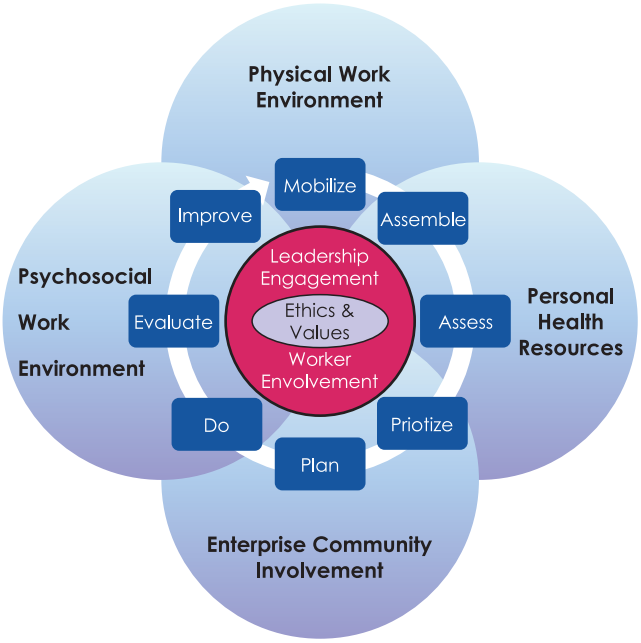
## WHO Healthy Workplace Model

International Labour Organization (ILO) has developed 'The Decent Work' model whereas American National Institute for Occupational Safety & Health (NIOSH) has formulated 'Total Worker Health perspective'. World Health Organisation (WHO) proposed a healthy workplace framework and model in 2010. It states that "A healthy workplace is a place where everyone works together to achieve an agreed vision for the health and well-being of workers and the surrounding community. It provides all members of the workforce with physical, psychological, social and organizational conditions that protect and promote health and safety. It enables managers and workers to increase control over their own health and to improve it, and to become more energetic, positive and contented".

A healthy workplace is one in which workers and managers collaborate to use a continual improvement process to protect and promote the health, safety and well-being of all workers and the sustainability of the workplace by considering the following, based on identified needs:

- health and safety concerns in the physical work environment;
- health, safety and well-being concerns in the psychosocial work environment including organization of work and workplace culture;
- personal health resources in the workplace; and
- ways of participating in the community to

improve the health of workers, their families and other members of the community.




## Basic components of Workplace Wellness

Following are important steps while implementing workplace wellness programs in any workplace:

1. Health Risk Assessment
2. Physical Activity Promotion
3. Stress Prevention / Mitigation - Employee Assistance Programs
4. Healthy Nutrition
5. Ergonomics

## Developing Health Risk Assessment

This is first and foremost step before implementing any workplace wellness program. While health check-up is a statutory requirement in factories with hazardous exposure, there is no such requirement in other workplaces. It should include not only the risk based preventive physical health checks but an addition of emotional health (stress) assessment is also important. Personal habits of the employees affect the development of non-communicable diseases and should be included. Thus a complete health risk assessment is very useful. Confidentiality needs to be maintained and the data should be anonymised to get better compliance.

## Physical Activity Promotion

This is perhaps the most important step in the current inactive lifestyle of the employees, more so in the offices and service sector. With increasing automation and use of information technology, the requirement of physical work is decreasing in almost all workplaces. Then there are long working hours and sedentary work. This has resulted in increasing prevalence of overweight and obesity even in young population.

Innovative strategies need to be devised to encourage employees to take up / increase their physical activities. Health education emphasizing the role of lack of physical activities in the development of diseases is important. However, appropriate promotional strategies such as Gamification need to be devised.

## Healthy Nutrition

Nutrition plays a very important role. With both spouses working, patronising outside food has become prevalent. Fast food is tasty and tempting but unhealthy. There is also an impression that healthy food is tasteless. Hence proper nutrition education is necessary. Physical activities without healthy nutrition will not be effective in preventing and controlling overweight/obesity.

## Stress Prevention / Mitigation (Employee Assistance Programs)

Given increasing competition & high aspirations of the individuals, work life balance takes a back seat and there are high levels of stress, depression among employees. They also tend to fall victim to addictions due to peer pressure and a false notion that it gives relief from stress. Further, there is a stigma for mental health issues. This prevents employees from seeking professional help. Unabated stress and lack of support leads to self-harm / suicides. While causes of stress may be related to workplace issues or personal issues, both affect the employee performance adversely. Therefore, easy availability and accessibility of Employee Assistance Programs including counselling is necessary.

## Ergonomics

Ergonomics is essential is ensuring productivity and preventing various musculosketal symptoms such as aches and pains which ultimately progress to diseases. Ergonomic furniture including proper chair, work desk, computer / laptop etc. are important in any workplace.

Depending on the health risk assessment, one or more of the following risk based additions may be considered in a given workplace.

- Health Education
- Women Wellbeing Programs
- Reproductive health
- Driving Safety
- Adult Vaccination
- Sleep / Rest Management especially for employees in shift duties.

## Employee Engagement

Employee Engagement is an important factor to ensure productivity and achieve business results. It also helps to control absenteeism & presenteeism, raises employee morale and ultimately helps to attract and retain employees in the enterprise. There are different approaches in different industries / sectors to ensure

employee engagement, workplace wellness is a great way to engage the employees in all enterprises.

However, in case of younger employees, we need to seek new ways of employee engagement, talking their language to catch their attention. We need to devise innovative approaches, providing incentives & recognition. While yoga may interest elder employees, Zumba and not exercises, will attract younger employees. Celebrity chef endorsement and not bland diet will attract the interest of younger employees. 'High Tech and High Touch' could be the new approach for the Gen Y population.

## Leadership Engagement

For driving health as a value in the organization, leadership engagement is essential and hence their buy-in should be the first step before embarking on a wellness plan. Leadership support is vital in prioritizing health in the organization and in creating the health culture. It would also help in defining health related roles within organization. Managers need to prioritize employee health, promote the health culture and become Health Mentors in the organization. Employees need to Prioritize own health, adopt and propagate the health culture and become Health Champions inspiring each other.

## Workplace Health & Productivity Linkage

Health and business performance are interrelated. A healthy workplace will not only lead to early detection & prevention of illness and prevention of complications of existing diseases among key employees but also leads to successful business performance. Healthy workplaces improve employee health and productivity, reduces health care costs and helps in employee retention.

Literature reports and studies reveal that smokers miss more than 50 days per year costing employers billions of dollars and diabetes creates more than 15 million work days of absence. Meta-analysis shows corporate wellness on average reduces sick leave absenteeism by 28%, healthcare costs by 26% and workers compensation claims by 30%. It also shows that employees who participate in wellness programs are more likely to be loyal to their employer.

Two important studies support this view. Berger et al, (Journal of Occupational Environmental Medicine 2003) indicate that for every $ spent on medical / pharma cost, there is loss of 2.30 $ in health related productivity loss while Loeppke et al – (Journal of Occupational Environmental Medicine 2009) report that Illness & disability caused loss of 8.6% work hours.

Employee population health can be linked to a company's marketplace performance, according to a study published today by HealthNEXT. The study found that companies that have been recognized for their outstanding approaches to health and safety by the American College of Occupational Medicine's (ACOEM) Corporate Health Achievement Award outperformed the S&P 500 for the 15 year period 1997-2012, and the 13 year period 1999-2012. The hypothesis was tested against four model scenarios, each tracking a $10,000 investment in a portfolio of award-winning companies. Corporate Health Achievement Award winners were shown to outperform the S&P 500 in every scenario, with excess annual returns ranging from 3.03% to 5.27%, depending upon portfolio construction.

These results suggest that real path to savings is not dropping health benefits, but rather improving them. Thus, corporate focus on health and safety is good business. Employee health is directly linked to the bottom line.

## Case Studies

The author will like to share two case studies related to wellness interventions with different approaches from his experience.

## Fitness incentives

While analysing the annual medical check up data in a manufacturing industry, the medical team observed that the Fire & Security department employees had significant 'Overweight' population. Paradoxically, these very departments needed top fitness & agility among its employees to handle emergency situations. On careful investigation and study, it was found that the frequency of such emergencies was very low leading to complacency.

A program with fitness incentives was developed for these employees, the amount of incentive depending on the fitness level of the employees. Fitness tests were conducted twice a year thus encouraging employees to make efforts to achieve and maintain high level of fitness throughout the year. Sports and fitness facilities were made available to these employees. Low calorie healthy diet menu was made available in the industrial canteen and nutrition awareness drive was conducted in the residential colony to cover family members / spouses of employees. The fitness culture spread to other departments also though they were not a part of this program.



## Enticing tech savvy 'youngsters' - High Touch High Tech

This initiative was undertaken in a large transnational knowledge industry on a pilot basis by the health department itself. The staff of the health and safety teams in various countries were organized as separate teams. All team members received a wearable (then newly introduced in the market). The best performing team was entitled for recognition. While each individual had live access to own data, the aggregate step count of each team was available at the backend and was shared on a monthly basis in anonymised form. This created a 'healthy' competition with team members encouraging each other and undertaking various outdoor activities. This was also supplemented by other measures like standing meetings etc., to develop a culture of active lifestyle. The best team was recognised in the annual meeting.




## Conclusion

The key to success in attaining Workplace Wellness is enabling employees, buy-in and involvement of managers and connecting with the business need. Workplace wellness Improves engagement & productivity, leads to monetary savings and improves the quality of life of the stakeholders. Integrating occupational health with workplace wellness is the most efficient and effective way to achieve excellence in occupational health.

It is important to adapt to local context and needs while developing wellness initiatives at workplace. Strategies need to change between Large Vs Small enterprise, developed Vs developing countries depending on the organizational mindset. The wellness leaders should develop as the thought leaders and conscience keepers for the health culture in the organization.

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# MENTAL HEALTH – EMERGING CHALLENGE AT WORKPLACES

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## Introduction: The Silent Revolution in the Workplace



Imagine a workplace where employees don't just survive, they thrive. A place where creativity flows, collaboration feels effortless, and productivity soars. Sounds like a utopia, right? But what if this vision is closer to reality than we think? The secret lies in one often-overlooked factor: **mental health**.

In today's hyper-connected, always-on work culture, mental health has become the silent battleground. Employees juggle relentless deadlines, mounting expectations, and the constant pressure to adapt, often at the expense of their well-being. While companies have long prioritized physical safety, mental health has been relegated to the shadows. But the tide is turning.

The World Health Organization (WHO) reveals a staggering truth: depression and anxiety drain the global economy of $1 trillion annually in lost productivity. This isn't just a personal crisis, it's a business emergency. Employees grappling with mental health challenges often face burnout, absenteeism, and presenteeism (showing up but not fully functioning).

On the flip side, organizations that champion mental wellness reap the rewards: higher engagement, lower turnover, and a workforce that's not just productive but passionate.

This article isn't just about raising awareness, it's about sparking a revolution. We'll explore how a holistic and a comprehensive approach to mental health can transform workplaces into sanctuaries of well-being, innovation, and success.

## The Purpose of This Article: A Roadmap to Transformation

This article isn't just a call to action, it's a roadmap. We'll dive deep into the root causes of workplace stress, explore the employer's role in fostering a culture of well-being, and provide actionable strategies for building mental wellness programs that work.

Through real-world case studies and data-driven insights, we'll show how organizations can move from reactive measures (like crisis counselling) to proactive solutions (like mindfulness programs and flexible work policies). Ultimate goal is to create a workplace where mental health isn't just an afterthought but a foundation of success.

## Why Workplace Mental Health Matters: The Business Case for Happiness

Let's cut to the chase: happy employees aren't just a nice-to-have, they're a must-have asset. Research shows that employees who feel mentally well are far more productive. That's not a marginal gain; it's a game-changer. But the benefits don't stop there. Companies that invest in mental health programs see a fourfold return on investment (ROI) through reduced healthcare costs and increased efficiency.

Think of mental health as the invisible engine driving your organization. When it's well-oiled, everything runs smoothly. When it's neglected, the entire system sputters. Poor mental health leads to disengagement, conflicts, and a toxic work culture. When employees feel valued and supported, they are empowered to bring their A-game to the workplace. This leads to increased innovation, effective collaboration, and a willingness to challenge the status quo.

The message is clear: mental health isn't just a moral obligation; it's a strategic advantage.

## The Global Shift: Mental Health as a Workplace Priority

In recent years, the global workforce has undergone a profound transformation in its understanding of mental health. No longer relegated to the sidelines, mental well-being is now recognized as a critical component of workplace success. Organizations such as the International Labour Organization (ILO) and the World Health Organization (WHO) are at the forefront of this movement, advocating for a paradigm shift in how employers address mental health. The ILO's 2022 report on mental health in the workplace highlights the urgent need for psychologically safe environments, emphasizing that employees should not have to choose between their well-being and their work. Similarly, the ISO 45003:2021 standard provides a comprehensive framework for managing psychological risks, offering organizations a roadmap

to create healthier, more supportive workplaces.

This change is about creating a workplace where employees feel truly valued, heard, and supported, not just about following rules or avoiding legal trouble. Companies across the spectrum, from innovative Indian startups to Fortune 500 giants, are beginning to recognize that mental health is not just a peripheral concern but the very foundation of a resilient, future-ready workforce. By addressing mental health proactively, organizations are not only enhancing individual well-being but also unlocking the full potential of their teams.

**The Holistic Approach: Building a Workplace That Thrives**

A holistic approach to workplace mental health integrates well-being into the core of organizational culture, recognizing it as a strategic investment that drives productivity, innovation, and long-term growth. By prioritizing mental health, companies foster resilience, engagement, and loyalty, reducing absenteeism and turnover while enhancing collaboration and creativity. This shift underscores the vital link between employee well-being and sustainable business success in a dynamic work environment.

## Work: Opportunity and Risk for Mental Health

Workplaces hold immense power—they can either enhance or undermine mental health for all individuals, regardless of whether they have a pre-existing mental health condition. On one hand, decent work provides more than just income; it offers structure, fosters positive relationships, and instils a sense of purpose and achievement. For individuals with severe mental health conditions, employment can promote recovery, boost self-esteem, and improve social functioning. Safe and healthy work environments are not only a fundamental right but also lead to better performance, higher productivity, improved staff retention, and reduced workplace tension (WHO, 2022).

On the other hand, poor working conditions, unemployment, job insecurity, and workplace discrimination pose significant risks to mental health. Unemployment and financial instability are known risk factors for suicide attempts, while discrimination based on race, gender, disability, or other social characteristics exacerbates stress and worsens existing mental health conditions. People with severe mental health conditions often face violations of their right to work and are more likely to be underpaid (WHO, 2022).

**Psychosocial Risks in the Workplace** - Psychosocial risks in the workplace arise from various factors related to job design, organizational culture, work environment, and career development opportunities. These risks include:

- **Skill-Job Mismatch:** Underutilization of employee skills or insufficient skills to meet job demands.
- **Excessive Workloads:** High work demands, unrealistic work pace, or chronic understaffing.
- **Unsustainable Work Hours:** Prolonged, irregular, or inflexible working hours that disrupt work-life balance.
- **Lack of Autonomy:** Limited control over job design, decision-making, or workload management.
- **Poor Physical Work Conditions:** Unsafe or substandard working environments that contribute to stress or discomfort.
- **Adverse Organizational Culture:** Workplace cultures that tolerate or enable negative behaviours, such as inclusivity or lack of respect.
- **Inadequate Social Support:** Limited support from colleagues or supervisors, or authoritarian management styles.
- **Workplace Violence and Harassment:** Exposure to bullying, harassment, or other forms of violence.
- **Exclusion:** Practices or behaviours that marginalize individuals.
- **Role Ambiguity:** Unclear job roles or responsibilities leading to confusion and stress.
- **Career Development Issues:** Inadequate promotion opportunities, over-promotion, or lack of investment in professional growth.
- **Job Insecurity and Financial Strain:** Precarious employment, inadequate compensation, or lack of financial stability.
- **Work-Life Conflict:** Conflicting demands between work and personal or family responsibilities.

Psychosocial risks are prevalent across all sectors but are particularly acute in high-stress roles such as healthcare and emergency services. Vulnerable groups, including low-paid workers, migrants, gig workers, and informal labourers, are disproportionately affected. Over 50% of the global workforce operates in the informal economy, where lack of regulatory protections, unsafe working conditions, and long hours further exacerbate mental health challenges (ILO, 2015; WHO, 2022).

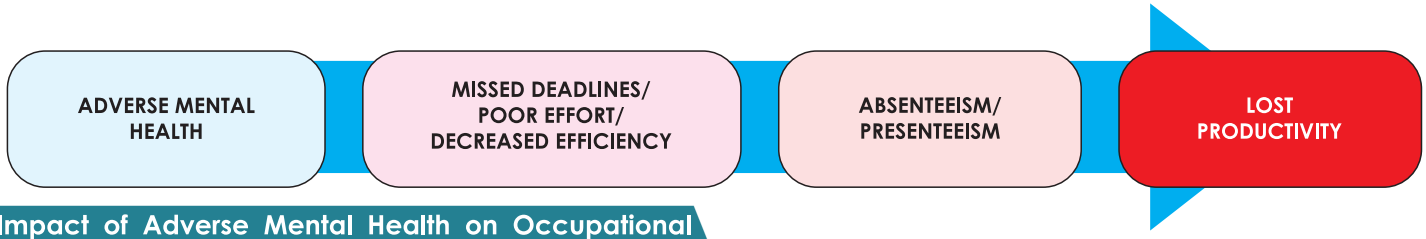
Workers in these roles often face a combination of psychosocial risks, such as job insecurity, inadequate social support, and exposure to violence or harassment, which significantly undermine their mental health and overall quality of life.

**Global Challenges and Emerging Risks** - Recent transformations in the world of work—driven by technological advancements, climate change, globalization, and demographic shifts—have introduced new psychosocial risks. The COVID-19 pandemic accelerated these changes, disrupting labour markets, increasing financial instability, and reshaping work structures. Remote work, automation, and e-commerce have created both opportunities and challenges, with many workers facing job loss,

reduced earnings, and heightened stress. Conflicts and crises further exacerbate these issues, disrupting livelihoods and mental well-being (WHO, 2022).

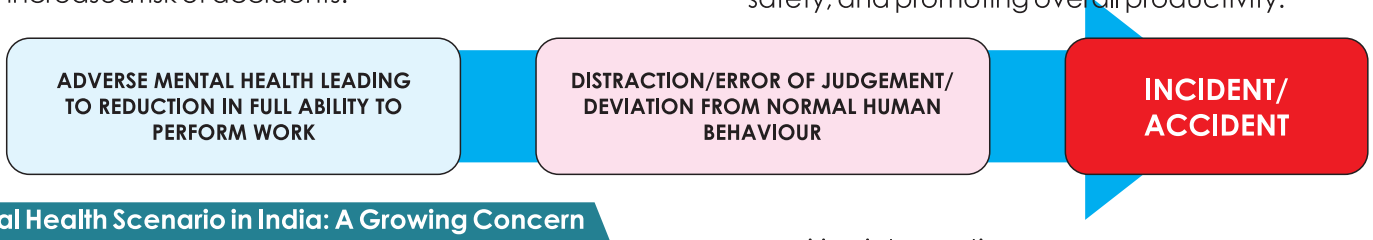
## Impact of Adverse Mental Health on Productivity

Adverse mental health can significantly reduce focus, energy, and motivation, leading to decreased productivity. Chronic stress, anxiety, or depression often result in missed deadlines, errors, and difficulty completing tasks efficiently.




## Impact of Adverse Mental Health on Occupational Safety

- Mental health is closely linked to workplace errors and accidents, as psychological well-being significantly influences cognitive functioning, decision-making, and overall job performance.
- Employees experiencing mental health challenges, such as stress, anxiety, or depression, often exhibit reduced concentration, impaired judgment, and slower reaction times.
- These cognitive impairments can lead to mistakes in tasks, lapses in attention, and poor problem-solving, particularly in high-stakes or complex work environments. For instance, in industries requiring precision, such as manufacturing, even minor errors due to mental fatigue or distraction can have severe consequences, including compromised safety and operational failures. Furthermore, chronic stress or burnout can exacerbate these issues, creating a cycle of declining performance and increased risk of accidents.
- The relationship between mental health and workplace safety is further compounded by the impact of psychosocial stressors, such as excessive workloads, lack of autonomy, or poor organizational support.
- These factors not only contribute to mental health deterioration but also heighten the likelihood of human error and unsafe behaviours. For example, employees under significant stress may overlook safety protocols or fail to communicate effectively, increasing the risk of accidents.
- Additionally, mental health issues can lead to absenteeism or presenteeism, where employees are physically present but mentally disengaged, further elevating the potential for errors.
- Addressing mental health in the workplace through supportive policies, stress management programs, and a positive organizational culture is therefore essential to reducing errors, enhancing safety, and promoting overall productivity.




## Mental Health Scenario in India: A Growing Concern

India, home to 18% of the global population, faces a significant burden of mental health issues. According to the World Health Organization (WHO), the country's mental health challenges account for 2,443 disability-adjusted life years (DALYs) per 10,000 population, with an age-adjusted suicide rate of 21.1 per 100,000 people. The economic impact of mental health conditions is staggering, with estimated losses of USD 1.03 trillion between 2012 and 2030.

## Prevalence of Mental Health Disorders

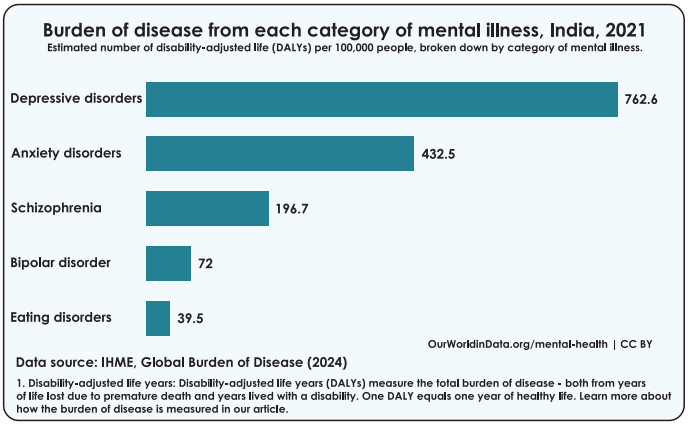
- The National Mental Health Survey (NMHS) 2015-16, conducted by NIMHANS, revealed that 10.6% of India's adult population suffers from mental disorders, with a lifetime prevalence of 13.7%.
- National studies further indicate that 15% of adults in India experience mental health issues requiring intervention.
- Urban areas report a higher prevalence (13.5%) compared to rural regions (6.9%), highlighting the varying impact across different demographics.

## The Treatment Gap

- Despite the high prevalence, a significant treatment gap persists. Between 70% and 92% of individuals with mental health disorders do not receive adequate care due to factors such as lack of awareness, societal stigma, and a severe shortage of mental health professionals.
- India currently has only 0.75 psychiatrists per 100,000 people, far below the WHO recommendation of at least 3 per 100,000. This gap underscores the urgent need for increased resources, awareness, and systemic reforms to

address the growing mental health crisis in the country.

Addressing these challenges requires a multi-faceted approach, including reducing stigma, improving access to care, and investing in mental health infrastructure. By prioritizing mental well-being, India can not only alleviate the suffering of millions but also unlock its full social and economic potential.




Data Source: Global Burden of Disease Study 2021, Institute for Health Metrics and Evaluation (IHME)
Picture Source: Our World in Data

## Spotting the Silent Struggles: Signs of Mental Health Challenges at Work

When mental health struggles arise, they often manifest in subtle yet noticeable ways. Recognizing these signs early can make a significant difference in supporting colleagues and fostering a compassionate workplace culture.

### Physical Indicators of Mental Health Struggles

While mental health issues are often invisible, they can surface through physical changes. These signs may include:

- Everlasting Fatigue/Burnout: Employees may appear drained, even after adequate rest, and struggle to muster energy for their tasks.
- Frequent physical health issues: Recurring colds, headaches, or other physical complaints can sometimes be linked to stress or emotional strain.
- Sleep disturbances: Insomnia, oversleeping, or irregular sleep patterns may signal anxiety, depression, or burnout.
- Change in eating habit: Loss of appetite, overeating, or irregular meal patterns.
- Changes in appearance: A noticeable decline in personal grooming, sudden weight fluctuations, or a generally untidy appearance might indicate underlying struggles.

### Emotional Signs of Mental Health Struggles

Emotional changes often reflect an employee's internal state and can be subtle yet telling. It may include:

- Increased irritability or negativity: Employees may become overly critical, express frustration frequently, or react strongly to minor issues, indicating underlying stress or anxiety.
- Heightened sensitivity: They might take feedback personally or become unusually defensive, suggesting emotional vulnerability.
- Mood swings: Sudden shifts in mood, from seeming fine one moment to visibly upset the next, can signal emotional instability.
- Expressions of hopelessness: Phrases like "What's the point?" or "Nothing matters" may hint at feelings of despair or depression.

### Behavioural Signs of Mental Health Struggles

Behavioural changes are often more visible and can directly impact work performance and interactions. These may include:

- Declining performance: Missed deadlines, frequent errors, or a drop in productivity may indicate difficulties in coping with workload or mental health challenges.
- Social withdrawal: Avoiding team activities, skipping meetings, or isolating themselves from colleagues can be a sign of emotional distress or burnout.
- Difficulty focusing: Struggling to concentrate, appearing distracted during conversations, or making uncharacteristic mistakes may reflect mental fatigue or anxiety.
- Changes in communication: Reduced participation in discussions, abrupt or curt responses, or avoiding eye contact can signal discomfort or disengagement.
- Loss of motivation: A noticeable dip in enthusiasm, lack of initiative, or reluctance to take on new tasks may suggest a loss of interest or energy.
- Increased absenteeism: Frequent sick days, arriving late, or leaving early without explanation may indicate an attempt to avoid stressors at work.

## Timeline of Mental Health Initiatives in India

The timeline outlines significant developments in mental health services in India, particularly through the integration of mental health support into primary healthcare systems. Key milestones include the launch of the National Mental Health Programme (NMHP) in 1982 and the District Mental Health Programme in 1996, which aimed to expand community mental health services. The Mental Healthcare Act of 2017 replaced the outdated 1987 Act, ensuring the right to mental healthcare and decriminalizing suicide. The National Health Policy of 2017 recognized mental health as a priority. During the COVID-19 pandemic, the KIRAN Helpline was launched in 2020, followed by the

National Tele Mental Health Programme (Tele MANAS) in 2022, providing 24/7 tele-mental health support. The Tele MANAS app was launched in 2024, integrating self-care resources and direct consultation services, while the National Suicide Prevention Strategy (NSPS) was introduced in 2023 to reduce suicide rates. These efforts reflect a growing commitment to addressing mental health issues at various levels of healthcare in India.

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**Mental Health Services integrated into Ayushman Bharat - Health & Wellness Centers (HWCs)** to provide mental health support at primary are levels.

**2024**

**Tele MANAS App launched,** intergrating self-care resources, stress management tools and direct consultation services.

**2024**

**Tele MANAS expanded** with more centers and video consultation services introduced.

**2023**

**National Suicide Prevantion Strategy (NSPS)** launched to reduce suicide mortality by 10% by 2030.

**2022**

**KIRAN Helpline merged into Tele MANAS** to steamline digital mental health services

**2022**

**National Tele Mntal Health Programme (Tele MANAS)** launched to provide free, 24/7 tele-mental health support.

**2022**

**KIRAN Helpline (1800-599-0019)** launched to provide mental health support during COVID-19

**2020**

**Rights of persons with Disabilities Act, 2016** came into full force, enhancing rights and protections for individuals with mental illness

**2018**

**National Health Policy (NHP), 2017** recognized mental health as a priority and integrated it into primary healthcare.

**2017**

**The Mental Healthcare Act, 2017** replaced the outdated Mental Health Act of 1987, ensuring the right to mental healthcare and decriminalizing suicide.

**2017**

**National Mental Health Survay (NMHS)** conducted by NIMHANS to assess the prevalence and treatment gap of mental disorders in India

**2015-16**

**District Mental Health Programme (DMHP)** introduced under NMHP to expand community mental health services.

**1996**

**National Mental Health Programme (NMHP)** launched to integrate mental health into primary healthcare.

**1982**

## Building Resilience: Strategic Solutions for Mental Health in the Workplace

A comprehensive approach to mental health in the workplace involves not only addressing adverse mental health conditions but also actively promoting emotional and psychological well-being. Below are some innovative and practical solutions that organizations can implement to create a supportive and mentally healthy workplace:

- **Inclusion of Mental Health Assessment in Periodic Health Check-ups:** Regular mental health screenings during periodic health check-ups can help identify early signs of stress, anxiety, or depression, enabling timely intervention and support.
- **Sleep Hygiene Training and Programs:** Poor sleep is closely linked to mental health issues. Offering training and programs on sleep hygiene can help employees improve their sleep quality, leading to better mental and physical health.
- **Self-Help Apps and Digital Tools:** Encouraging the use of mental health apps for mindfulness, stress management, and emotional regulation can empower employees to take charge of their mental well-being.
- **Anger Management and Emotional Wellness Training:** Workshops on anger management and emotional intelligence can help employees manage stress, resolve conflicts, and build healthier relationships at work.
- **Time Off for Wellness and Family Care:** Offering dedicated time off for wellness or family care can help employees manage personal and family-related stressors without compromising their job security.
- **Mindfulness Breaks and Exercises:** Incorporating mindfulness breaks, meditation sessions, or breathing exercises into the workday can help employees recharge and reduce stress levels.
- **Narrative Apps and Storytelling Platforms:** Use of narrative/storytelling apps can promote empathy, social connection, and a sense of community in the workplace.
- **Mental Health Escape Rooms:** Interactive activities like mental health-themed escape rooms can educate employees about mental health challenges in an engaging and collaborative way.
- **Happy Workplace Programs:** Initiatives focused on creating a positive work culture, such as team-building activities, recognition programs, and social events, can boost morale and foster a sense of belonging.

*Picture extracted from : Ministry of Health and Family Welfare. (n.d.). https://pib.gov.in/PressNoteDetails.aspx?NoteId=153716&ModuleId=3®=3&lang=1*

- **Digital Detox Programs:** Encouraging employees to take breaks from digital devices can reduce burnout and improve focus, creativity, and mental clarity.
- **Learning New Skills – Language/Art:** Providing opportunities for employees to learn new skills, such as a new language or art, can enhance cognitive function, reduce stress, and promote personal growth.
- **Anonymous Confession Platforms:** Providing a safe and anonymous space for employees to express their concerns or struggles can foster a culture of openness and reduce stigma around mental health issues.
- **Preventive Mental Wellness Initiatives:** Leveraging technology like AI chatbots for mental health support, offering mental health first aid training, and using virtual reality (VR) for relaxation can provide innovative ways to address mental health proactively.

By integrating these solutions, organizations can create a holistic mental health strategy that not only addresses adverse mental health conditions but also promotes a culture of well-being, resilience, and productivity. A mentally healthy workplace benefits both employees and employers, leading to higher engagement, reduced absenteeism, and a more positive organizational climate. Investing in mental health is not just a moral imperative but also a strategic business decision that drives long-term success.

## Conclusion

The future of work is not just about technological advancements or innovation, it's about humanity. Prioritizing mental health allows organizations to create cultures where employees don't just work; they thrive. This shift is more than a trend, it's a movement that starts with each of us. Whether you're a leader, manager, or team member, you have the power to drive meaningful change. Together, we can build workplaces that not only navigate today's challenges but also seize tomorrow's opportunities. Effective interventions should focus on redesigning work to ensure fair workloads and flexibility, fostering positive cultures rooted in respect and inclusivity, clarifying roles to reduce ambiguity, investing in professional growth, strengthening support systems, promoting work-life balance, and protecting vulnerable workers.

By addressing psychosocial risks and embedding mental well-being into organizational culture, we can create workplaces that are productive, compassionate, and resilient. Let's move beyond making mental health a buzzword, let's make it a cornerstone of how we work. When we invest in mental well-being, we're not just building better workplaces; we're building a better world for everyone.

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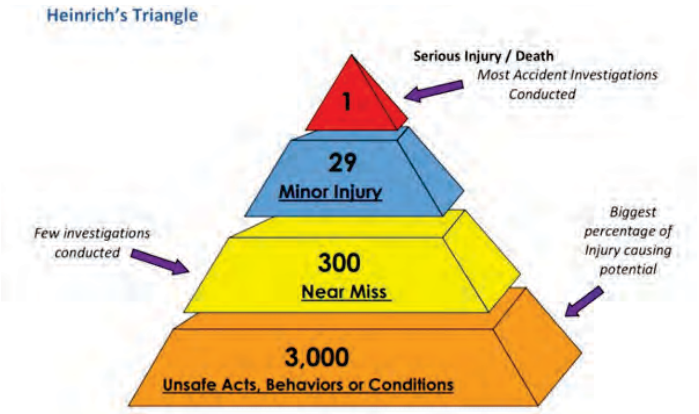



# THE CHALLENGE OF MAINTAINING WORK – LIFE BALANCE

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A 25-year-old IIT plus IIM boy working with a top consulting firm committed suicide in Mumbai in February 2024. A 26-year-old Chartered Accountant girl working with one of the top consulting firms in Pune committed suicide due to heavy & unbearable work pressure. Life was lost to work. This news created waves. There were reactions from all corners. What we need is response and not just reactions. The response would be to achieve work-life balance.

The extreme incidences draw reactions. But like Heinrich's triangle, below the extreme incidence lies number of incidents with lesser distress. We need to address these incidents of distress which is caused due to unhealthy work-life balance.




Work – Life Balance is a personal experience. Sometimes people may get confused. 60% of global workers say they have an excellent work-life balance but at the same time 77% note that they have experienced burnouts at their current job.

## Definition

Work-life balance is the amount of time you spend working compared to the time you spend pursuing things outside of work, measured in hours, enjoyment, or mental energy.

Your work-life balance depends not only on how much time you spend physically at work but also on the energy, focus, and attention that work demands when you're not in that office chair.

I am a practising psychologist. A 70-year-old lady was referred to me due to her psychosomatic symptoms. Her majority of physical ailments were due to stress. She was staying with her husband and daughter who is a single mother and grandson. She felt that the daughter was not paying attention, not giving enough time to parents and her own son. The daughter was not showing respect to parents, when they have done so much for her. There was conflict and the atmosphere at home was adversely affected. Even the daughter was under stress.

This lady and her husband both worked in the factory. Both joined as worker and retired as supervisors. The daughter is working with one of the major software companies. Parents had physical work. They didn't think about the work once their shift was over till the next day. They could give time and focus on family responsibilities. The daughter works with her mind and creativity. She has to think about the work, attend calls even after coming home. Parents didn't understand this change in nature of work. It was creating conflict and distress at home.

On paper a person may be working 5 days a week, which means 40 hours a week. The week is 168 hours. If we minus 56 hours of sleep and then minus 40 hours of work, then one is left with 72 hours for oneself. If the job keeps one engaged after coming home, awake at night or interfering with one's ability to enjoy at restaurants, malls, and family functions then the balance is disturbed.

**Fight for 8 hours work shift.**






The industrial revolution created factories. It gave rise to non-agricultural, non-artisan labour class after 1800. The working conditions and working hours were hazardous. The agricultural labour and artisans were scattered. The industrial workers worked in large numbers at the same place. They interacted daily. They could get organized. Around 1850, the workers were working 70 hours a week. After lots of struggle, from May Day i.e. 1st May 1986 the legal labour day was considered as 8 hours. In 1919 it was accepted by ILO i.e. International Labour Organisation.

India's legalised 8 hour working day came with the 1946 Amendment to the Factories Act of 1934 – a result of the Bill introduced by Dr Babasaheb Ambedkar as Labour Member in the Viceroy's Executive Council.

## Concept of work-life balance

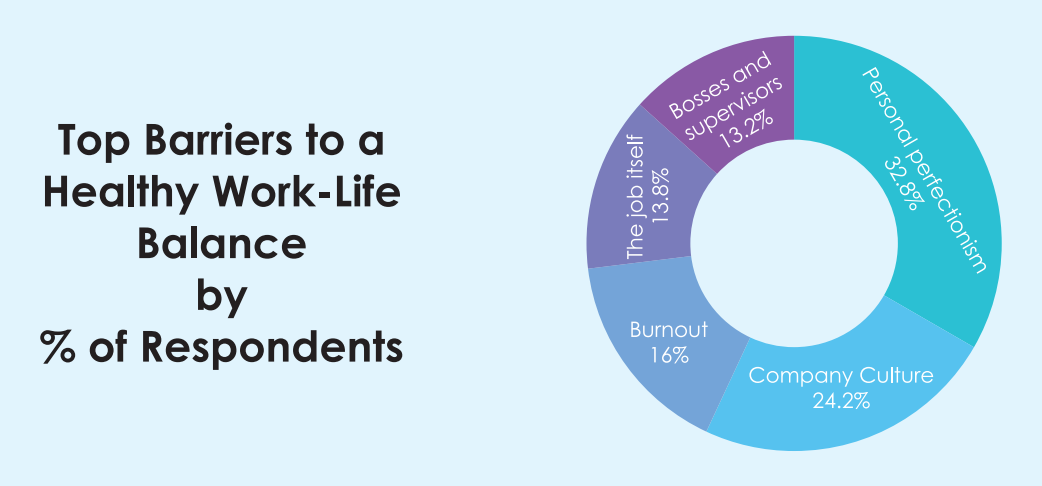
The specific expression "work-family balance" was first used in UK in late 1970s to define an individual's stability between work life and personal life. It changed over the years and became work-life balance.

Alwin Toffler published book titled "future Shock" in 1980. He wrote that in the fast-changing world a person will have to play multiple roles. People will have to prepare themselves for it or they will experience distress.

Earlier the role divisions were very clear. In the family the role of a mother and father were defined. They did not overlap. There was hierarchy at the workplace. Now in urban nuclear family with single child, the father has to become father of the child, brother of the child and even friend of the child. It is not easy to balance these roles. Females were traditionally handling multiple roles at home, now there are additions as they are working professionally. Women are managing professions which were earlier managed only by men. Multi-tasking is a must in modern times at work. People play multiple roles in their personal as well as professional life.

The technological development is helping reduce the gender gap. As the roles are less defined by the gender, the work-life spill over happening more. People experience apprehension about their life issues during work hours. This intrusion of personal life on their work life makes them feel guilty. At the same time, they are worried about their job during their family hours. They are not comfortable.

**The current state of work-life balance: 2023 to the present**




## Employees point of view globally

- 60% of employees around the world report having a healthy work-life balance
- Of people with a poor balance, 67% say some aspect of work or culture creates the imbalance
- 33% of employees with a positive work-life balance plan to stay in their current jobs
- 33% say that personal perfectionism drives their work-life imbalance
- 26% of salaried employees work outside business hours
- 73% of workers believe work-life balance is a core factor in choosing a job, behind only salary
- 57% to 61% say that a negative work-life balance will stop them from taking a job offer
- 48% of people would leave a job if it prevented them from enjoying their life
- 30% of people say they are performing the bare minimum at work due to an imbalance

## Work-life balance in the United States

- 48% of workers call themselves "workaholics"
- 66% skip one meal per day due to working hours
- 60% of US workers say they don't have boundaries between work responsibilities and life
- 33% of employed US adults work on a typical Saturday
- 72% believe a healthy work-life balance is crucial
- 78% of women say this balance is essential to career choices, compared to 67% of men
- 25% of employees say they never or rarely take days off from work
- 62% say they check work email outside of work

hours.

- A bad work-life balance is the 2nd most common reason they would be willing to turn down a job
- 79% believe that flexible working options would allow for a better work-life balance.
- Workers in the US tie with East Asia for the highest daily stress levels
- The US is ranked 53rd out of 60 on a global list of countries for work-life balance

## European perspectives on work-life balance

Globally, Europe leads in creating a good work-life balance. According to Remote's global rankings, Spain, France, Denmark, Norway, Netherlands, UK, Sweden, Germany, Belgium, Finland, Austria, and Greece are all in the top 20 best countries to work and live in.

**Statistical highlights**

- European employees are toward the low end of global stress levels and daily anger
- Europeans are generally optimistic about their current job climate and rank among the lowest in terms of intent to leave their current work
- Spain is ranked as the second-best country in the world for work-life balance in part due to its statutory annual leave and short workweek
- France ranks third due to its minimum wage, annual leave, and existing culture of free time
- The Netherlands ranks high in work-life balance, with just 0.4% of employees working long hours
- Only 3% of employees in Italy work 50 or more hours per week, while the average worker devotes 16.5 hours to personal care and leisure, more than any other OECD country
- Just 1% of workers in Denmark work more than 50 hours in a week
- Danish Flexi jobs and special agreements for older workers can reduce stress and workload without impacting pension or pay in many cases
- German workers spend an average of 65% of their day on leisure and personal care, leading to a higher work-life balance
- German parents using the country's leave policy to work part-time while taking care of children rate their life balance very high
- 25% of workers in the UK say their jobs make it hard to meet personal commitments, while 54% say it makes it difficult for them to relax.
- Countries with government-sponsored care and entertainment services for children have workers scoring higher work-life balances

## 70 hours a week and 90 hours a week remark

There were some instancense of a work-life debate of 90/70 hours of work in a week. The focus should be on improving the productivity and not on increasing the number of hours at work. In fact, work-life imbalance will reduce the productivity.

In India people stay late in the office to demonstrate their loyalty or portray that they are sincere and dedicated employees.

India changed its economic policy in 1991. The number of women getting into employment has increased. The rate of urbanisation has increased considerably. The studies after 1990 shows that following factors are affecting the work-life balance

- Nature of work
- Spousal support
- Child-care arrangements
- Type of family structure
- Perception of family environment
- Attitude towards wife's employment
- Extent of involvement in work or family

The studies have shown that women are more susceptible to stress due to work-life imbalance. It is due to

- Lack of clarity in division of domestic responsibilities
- Lack of spousal and social support
- Inadequate child-care arrangements
- Difficulty in commuting to workplace

## Urbanisation and modern lifestyle

The increase in urbanisation has changed the family structure and social support. These changes are making it more challenging to maintain the work-life balance.

An unmarried girl working in software company is staying with her mother and sister. Sister is suffering from severe psychological disorder. Monday to Friday mother takes care of sister. This girl at times stays late in the office to avoid facing the situation. The girl wants to relax on weekend, but the mother says I am exhausted, now you look at your sister for 2 days. The girl and the mother both are exhausted.

A couple has a 13-year-old son who is ADHD. He faces lots of challenges in his impulsivity, interpersonal relations and in studies. The couple keeps on getting lots of complaints from different quarters. He needs at least 2 years of rigorous therapy support in form of occupational therapy, remedial therapy, medication, and counselling. Both have to work to meet expenses and pay the EMI. They don't have anyone to take him for these therapies. There is no support system.

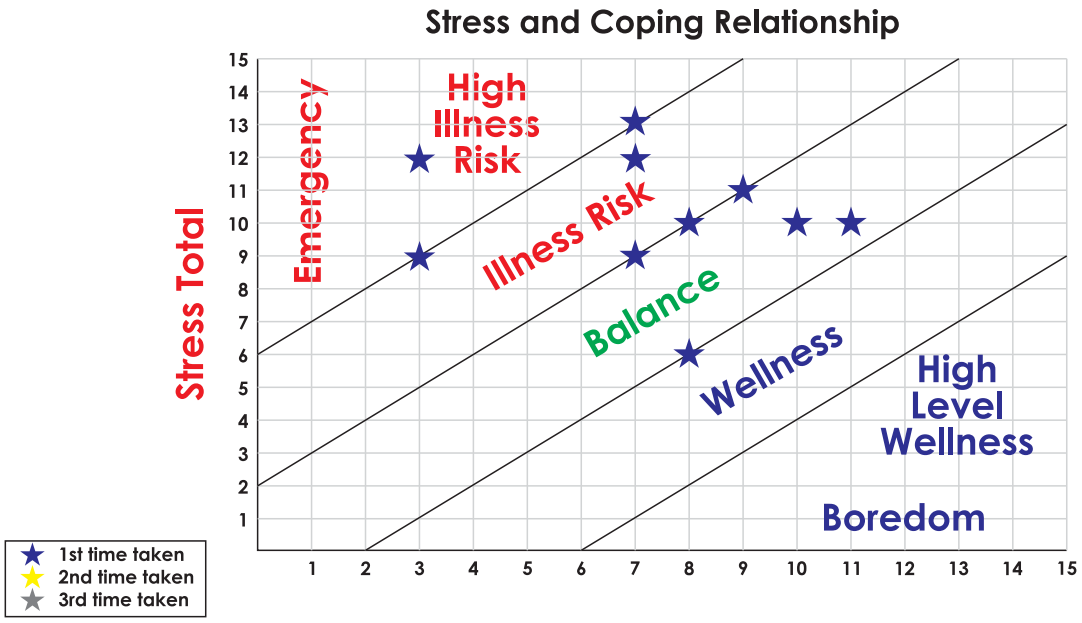
## Impact of poor work-life balance

A poor work-life balance significantly impacts our daily lives. It makes just about everything worse, from your personal life and job satisfaction to physical and mental health.

To put some numbers behind that, let's look at the data:

- 40% of people say a poor work-life balance "ruins" the time they spend with friends and family
- As people work longer hours, their performance decreases and can increase the risk of mistakes or injury
- Work risks associated with overwork increase significantly after 50 hours per week
- Working more than 55 hours leads to a 35% risk of a stroke and a 17% higher risk of death from some heart diseases
- Working more than 50 hours per week is linked to increased risks for anxiety and depression
- An imbalance creates a significant risk of burnout, and these employees are 2.6 times more likely to be actively seeking a different job
- The top self-reported issues with a work-life imbalance are loss or harm to family relationships (49%), loss of friendships (47%), and health issues (38%)

Dr. Richard Rahe- Stress, coping and health




## Balancing is an active process

Work-life balance is not static, but it is a dynamic process. It should be reinvented with passage of time as per the life stage of a person. It is quite clear that long working hours are not healthy for employees as well as for the organization. But many professionals have certain deep-rooted beliefs and habits around work hours. Even after realizing that the job is demanding, exhausting, they still feel that working long hours is necessary for their professional success.

In order to achieve balance, one needs to question the beliefs, increase self-awareness, redefine the role. This should be done regularly after a certain time. It can be done as follows:

1. **Pause, introspect and denormalise.**

   What is causing stress? How are they impacting my personal life? What am I prioritizing? What am I sacrificing?

2. **Understand your emotions and your emotional needs**

   Do I feel energized, satisfied? Or do I feel angry, sad? How is the situation making you feel?

3. **Resetting priorities**

   How long can I go on like this? Is it necessary? Identifying the true priorities. How do I look at myself?

4. **Find out the alternatives**

   What can you do differently at work and in life to align with the priorities? You may have to experiment with it. It will take time.

5. **Actual implementation of change**

   It is important to communicate your effort with others. Then take the action.

## Judicial use of technology

The connectivity increased exponentially due to the internet after 1990. In mid-1990's pager came on the scene. The office staff, like peons, delivery persons used to go outside the office. They used to get some free time for themselves. They were annoyed because of the pager as they were getting messages to contact office frequently. They could not get the rest. This was the beginning. Blackberry, the office phone brought email on the mobile phone. You are working even during travel.

The whatsapp group has made life of Government employees hell. You are supposed to be available 24 x 7. In Government nothing is planned, everything is urgent. I want it immediately. This has affected the work-life balance. The work from home facility can be useful. It should not treat the employee as bonded labour.

## The hybrid work culture

The facility to work remotely or work from home can help in work-life balance. It saves commute time, it gives flexi time.

ILO has released a technical brief about Healthy & Safe Telework at Geneva 2021. According to it, when properly organized and supported, telework may have positive impacts on workers' physical and mental health and social well-being. However, when the health and safety risks of teleworking are not prevented and workers cannot make healthy choices while teleworking, such work can have significant negative impacts on health. The general principles embedded in the Occupational Safety and Health Convention (49) – that is, the need to assess and manage risks, and the hierarchy of controls – should apply to telework. Current trends suggest that telework will continue to grow as an integral part of the world of work. By mitigating physical and mental health risk factors, and promoting safe, healthy behaviours and wellbeing, we can protect all workers, regardless of where they conduct their work.

## How can HR initiate achieving the work-life balance?

The organisation can plan policies, benefits and services to achieve the balance. The policies can cover formal and informal ways of working like part-time work, Flexi-time work and managing leave schedule like parental or family care leave. The benefits include compensations to protect against loss of earnings, payment of medical expenses or sponsoring a vacation. The services include on site or near site childcare, medical facilities and counselling for psychological issues. Today□s organizations are all about working with 24*7 and stress will be involved with work and mental stability will be a prime concern for employers so as how to make people work efficiently.

## Initiatives by companies

I have been working as a trainer with corporates. Many companies have organised programmes to help their employees to deal with work-life balance. Owen's corning arranged programme on pre-marital counselling for their employees. Cipla, IBM organised parenting workshops. Siemens organised workshop on lifestyle management. Currently the young employees are after quick money. They are getting trapped in online loan apps. So now the companies want programmes to tackle this challenge.

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# DIGITAL WELLBEING

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It was the beginning of year 2015! When I was to shift back from Bengaluru to Mumbai, after completing my assignment. I took a seemingly drastic step of discarding my TV set and not going for a new one. And it was a great relief. So much more time was available to me, that I patted my back for the decision. Now cut to 2025, I still do not have the TV set. But the extra time that I had gained has just evaporated as I would be spending so much time on my smartphone. And I don't play games on my mobile! Is it happening to you too?

World Health Organisation has defined health as physical, mental and social wellbeing and not merely an absence of disease and deformity. In today's scenario, our wellbeing has four important aspects; physical, mental, emotional and social wellbeing.




(https://digitalcapability.jiscinvolve.org/wp/files/2019/09/defining-digital-wellbeing.png)

Today, we live in a digital world. Everything we do has a digital element to it. We use digital devices at school, at work, and in our day-to-day lives, because they simply make everything easier to do. And the technology is developing very fast both in terms of software such as ChatGPT and Artificial Intelligence and hardware such as devices like smart mobile phones. Almost every quarter, we see a new and advanced version of the device as well software. With advent of digital technology, more and more things, from banking, education to shopping are now available online.

This brings us to the important factor in shaping our mental health – Digital Wellbeing!

## What is digital wellbeing?

Digital well-being is a concept that describes how digital technology impacts people's mental, physical, and social health. It also refers to the practices that can help people use technology in a healthy way. Digital wellbeing considers the impact of technologies and digital services on our mental, physical and emotional health. Digital wellbeing does not have focus only on the individual but should also include a broader societal and institutional perspective. It should help people use technology in a healthy way.




(https://swgfl.org.uk/topics/digital-wellbeing/)

Thus, digital wellbeing is the impact of different technologies on our mental, emotional and even physical health. It's about maintaining a healthy relationship with technology, where we understand how technology can enhance our experience of the world, instead of detract from it. Digital wellbeing is also understood to mean having the capacity to look after our personal health, safety, relationships and work-life balance in digital settings.

In this way, technologies can actually help us:

- pursue our personal goals (e.g. fitness, maintaining a healthy diet, meditation, etc.);
- participate in social and community activities (e.g. through social media, organising events, participating in charities and local news);
- learn and add to our skill set - through taking online courses, researching new topics and staying on top of world news.

Digital wellbeing incorporates the idea of human beings that now live in an information society, using technologies positively to support both mental and physical health. In today's digital era, cultivating awareness of Digital Wellness is vital for our technology-driven society. It safeguards both our mental and physical well-being and fosters a harmonious relationship between humanity and technology, ensuring a brighter and more balanced future. Digital Wellness emphasizes a healthy balance between

online and offline life, promoting responsible screen time management, digital literacy, and ethical online conduct.

By prioritizing Digital Wellness, we can also mitigate the adverse effects of technology, such as cyberbullying and addiction, and ensure that our digital experiences enhance our life rather than detract from it. Digital wellness has a significant impact on interpersonal relations and academic performance. It promotes healthy communication, prevents conflicts and enhances relationships. On the other hand, it improves focus, encourages effective learning, and supports work-life balance, leading to better performance. As we navigate this ever-evolving digital landscape, embracing Digital Wellness becomes an essential pillar for a healthier, more equitable, and sustainable world.

## How digital technology can negatively impact our well-being?

With more and more things from work to leisure going digital our exposure to screen has multiplied exponentially. Further, the devices that we work on are getting increasingly smaller in size.

This leads to Eye strain, poor posture, and ergonomic issues such as neck and shoulder pain, repetitive strain injuries in hands and elbow etc.

The blue light from computer screens also has an effect on our sleeping hormone, melatonin, so using screens too much at night can lead to trouble with sleeping. Thus, excessive use of digital devices can cause Sleep issues.

Spending too much time on digital devices and the internet can get in the way of more healthy behaviours like spending time in nature, exercising, sleeping or spending time with friends and family members. This then leads to higher stress or lower mood, and problems with social connectedness.

Negative online experiences can affect how we feel about ourselves, our relationships with others, our thoughts and opinions and our perspective of the world in which we live. It's important we use digital technology in a way which enhances our wellbeing, and being aware of the potential threats it poses. Social media can be overwhelming. Sometimes we can think our online presence is more important than enjoying real life. Too often we compare our 'behind the scenes' with other person's 'highlights reel'. Also, social media platforms tend to be less moderated meaning that people can post certain content we might find upsetting.

FOMO - The 'fear of missing out' - This refers to feeling as if others are having more fun, experiencing better things, or living better lives than you are. It is not just feeling as if there are other things you could be doing at this moment, but it involves a sense of helplessness that you are missing out on something fundamentally important that others are experiencing right now. It can make us feel boring, or uninteresting, and can lead to lower self-esteem unless we are maintaining a solid and consistent online presence.

Aside from experiencing increased feelings of loneliness, FOMO can lead to greater involvement in unhealthy behaviours. Interestingly, FOMO acts as a trigger for increased use of social media sites like Instagram and Facebook, although it is often made worse by such increased use.

It further leads to Higher stress, lower mood, and social isolation. Sensitive individuals start comparing own online presence to others' highlight reels and videos and may develop inferiority complex. Another important effect is being exposed to upsetting content on social media as everyone has free access. There is so much of content and its basic objective is to hook you be it TV serials or OTT platform. Many students and young adults are getting addicted to online games. Further the social media has exploded encroaching on our post work quality time. And it is threatening the traditional family and societal values adversely. 'India's Got Latent' controversy is just one disturbing episode.

## Warning signs of excessive device use



(https://www.buzzrx.com)

- Symptoms of eye strain - eye watering, tired or aching eyes, blurred vision, double vision, dry eyes, eye redness or headaches
- Muscular discomfort - Tension, discomfort, or pain in neck, shoulder and/or back
- Spending more time communicating with others digitally than face-to-face such as on WhatsApp, Facebook etc.
- Feeling anxious when one does not have access to digital devices such mobile phone / computer.
- One starts comparing oneself to others.
- Difficulty in sleeping or have disruptions in sleeping pattern
- Reduction in face-to-face conversations with friends and family
- Feeling disconnected from those closest to oneself
- Using the internet is preventing us from getting other things done in the offline world

## How can digital well-being help?

Digital health and wellness is important due to a link between increased technology use and mental health issues, including attention issues and behaviour problems. In the workplace, excessive technology usage has also been associated with burnout, suggesting employers should adopt tools and

practices that moderate technology usage to promote healthier life and work. In addition to mitigating these negative outcomes, focusing on digital wellbeing in the workplace offers benefits for both businesses and employees.

Building a digital work environment that allows users to access corporate resources on bring your own devices, from anywhere, and more helps support employee wellness. Allowing employees to use a device they're comfortable with will help them get more done. Building an IT infrastructure that can deliver applications anywhere can also help support digital wellness by enabling users to work anywhere, at anytime. Flexibility is often a deciding factor for employees when choosing a role.

**Stronger employee engagement and higher productivity:** By promoting digital wellness through digital workspace technologies that encourage focus and reduce distraction, organizations can reduce worker exhaustion and improve employee engagement and productivity.

**Improved employee satisfaction:** Many employees identify better work-life balance as essential to job satisfaction, and digital wellness is an important element of this balance. By adopting digital wellbeing practices like unplugged whitespace time and flexible work arrangements, organizations can improve satisfaction in their workforce.

**Better health outcomes:** A lack of attention to digital wellness can lead to tech addiction, which is associated with higher stress levels and anxiety. If workers face burnout from excessive use of technology, they are more likely to take sick days and be less confident at work. By focusing on digital wellbeing, employees can alleviate these risks and enjoy better mental and physical health outcomes.

Digital wellness helps balance screen time, reduce distractions, create healthy habits and fosters healthy relationships.

**Employee Wellness Solutions for Work from Home**




https://www.hifives.in/employee-wellness-ideas-for-work-from-home/

1. **Ergonomic Workspace Solutions**
   One of the most significant physical wellness issues faced by 'Work from Home' employees is body stiffness and pain caused by uncomfortable and improper chairs and workstations. Hence, organizations should choose to partially or fully finance ergonomic furniture for their 'Work from Home' employees to address this common health issue.
2. **Virtual Fitness Sessions**
   Virtual fitness sessions through live streaming or pre-recorded. These fitness sessions can range from Yoga, Pilates, Zumba, and other forms of workouts either in an online group format or individually on-demand.
3. **Digital Wellness Platform**
   Organizations may invest in a digital wellness platform that provides employees with various articles, videos, tips, and other resources related to health, fitness, and nutrition.
4. **Wellness Contests and Rewards**
   Organizations could consider instituting wellness-related rewards to encourage employees to participate in various fitness activities. This could be through integration with various fitness bands or devices that employees might use. Gamified leaderboards, contests, and rewards for winners can further motivate employees to participate in fitness activities. Though generally for wellness, this initiative can be fun and exciting for the employees.
5. **Virtual Counselling and Support**
   Work-from-home employees' mental and emotional wellness is paramount to organizations. Webinars with well-known wellness experts and counsellors to build awareness about mental health and access to EAP (Employee Assistance Program) services are very beneficial.

## How can we help children develop healthy digital habits?



Children can be guided from a young age in their decisions relating to online behaviours. Leading by example is a really important aspect of this, as they are constantly learning from the behaviours and attitudes they're seeing around them. We can help children learn to limit screen time, avoid using devices at bedtime and take a discerning approach to content we view online. Encouraging open conversations will also enable children to approach trusted adults with any concerns they have regarding online content or online relationships.

Some further tips and advice for encouraging children's digital wellbeing:

Talk to your child about how it makes them feel when they're online; communicating with your child about their online lives in key. It's good to talk about the

positive aspects of the internet, whilst also discussing what to do if they're feeling pressured or unhappy while online.

Always remind your child that they can come to you with any concerns, and make sure you let them know that you'll not be angry or judgemental when they do.

Help your child to strike a balance between online and offline time, ensuring they're getting stuck in with outdoor activities, hobbies and social events.

Encourage your child to look out for the warning signs and understand that being online too long can negatively affect them. Whether it's getting sore eyes, an achy neck, or that they're mind starts to feel overwhelmed. Remind them to take regularly breaks, whether they're online for school work or entertainment, it's equally important to give your eyes a break.

Set boundaries and use wellbeing tools together. Most technical divides actually have a digital wellbeing section, which you can look at together. You can also set screen limits, put parental locks on most social and entertainment platforms. Many households set boundaries like limiting screen time an hour before bed. This helps with getting a good quality sleep, and can help children learn discipline and boundary-setting for their future lives.

You should help your child stay critical online, reminding them to check information in more than one place and/or talk to someone they trust if something doesn't feel right. During PSHE and Citizenship lessons, they'll usually learn about fake news, and Photoshopped images. They'll learn about sharing personal information online, and talking to strangers. These are all topics that you can also tackle in your own time, either before or after they've learned about them in school.

Although the topic of digital wellbeing can feel like a big and scary topic to approach with your child, you don't need to be an expert to support their online lives. The most important thing is that you communicate openly and honestly, and answer any questions they have.

## Tips to Practice Digital Wellness

Practicing digital wellness means prioritizing self-control. It means using digital devices with intention, in order to bring the most benefit our physical and mental health, our relationships, our learning, safety, and work-life balance.

- Set time limits on digital device use... and keep them! Setting reminders or alarms can help!
- Follow the 20-20-20 rule. Take breaks to reduce eye strain after every 20 minutes of screen time, take a 20-second break to look at something at least 20 feet away. Computers can be programmed to facilitate this. Software is also available.
- Remember your posture! Be kind to your spine! Remember to keep a good posture.
- Set an internet bed-time. Using the phone or digital technology before sleeping can have negative impacts on your sleeping pattern too. Activating 'do-not-disturb' settings after certain times to ensure that you are not disturbed by anything that is not urgent. Try reading a book before bed instead.
- Change your focus - Take some time away from digital devices every once in a while, and remember to live your real life: read books, engage in physical activity, spend more time time outside or with your friends and family, and try some relaxation techniques!
- Set and keep 'gadget free' times when you are not using your digital devices. You can manage your notifications so that they only distract you when you can be distracted, or you can try deleting one smartphone app for a while and see how it feels.
- Seek positive digital content - Follow websites or social media accounts that make you feel good, keep you interested and share positive content. Remember that you can restrict certain types of content from popping up on your feeds.
- Ground yourself in reality - Remember that people's lives are much more complicated than what they show online. Remember that not all social media is real. Occasionally, scroll through your own profile and think about how you come across – does your own life look a lot better than your experience of it?
- Find your crowd - Whatever your hobbies and passions are in life, you will most likely find others who enjoy doing the same thing. Being part of a positive online community can boost your mental health. Meanwhile, reduce connections with people who make you feel bad about yourself and your life. Yes, it is that easy.
- It is also important to maintain healthy habits with optimal physical activity, balanced nutrition and undisturbed sleep.

## Conclusion

Today we live in the digital era where there are grave risks to our health. By understanding the risks in the digital world, modifying our lifestyle, controlling our behavior and following the useful tips, we can achieve our digital wellbeing at work, home, for our children and continue to enjoy a healthy life.

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# COLLECTIVE FLOURISHING: A NEW IMPERATIVE FOR THE MODERN WORKPLACE

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## 1. Introduction

Workplace success has traditionally been measured by efficiency, productivity, and financial performance. However, in today's rapidly changing world, a new definition of success is emerging—one that prioritizes human thriving, purpose, and long-term sustainability. Organizations that once focused solely on output are now realizing that true success lies in how well people, businesses, and societies flourish together *(World Economic Forum, The Future of Jobs Report 2025, 2025)*.

Consider this: A leading tech firm known for its innovative culture was struggling with burnout among its engineering teams. Despite offering generous perks like catered meals and on-site gyms, productivity was declining, and attrition rates were soaring. A shift occurred when leaders decided to prioritize well-being at a systemic level—redesigning work processes to reduce overload, fostering psychological safety, and empowering teams to make decisions. Within months, engagement soared, innovation increased, and the company regained its competitive edge. This is the power of Collective Flourishing in action.

As a physician, well-being expert, and architect of leadership and organizational change, I have observed firsthand the limitations of conventional approaches to workplace wellness. This experience has led me to pioneer the concept of Collective Flourishing—a model where organizations create conditions that allow both individuals and businesses to thrive synergistically. It is about designing purpose-driven, high-trust, and high-impact environments where well-being is not a perk but the foundation of sustainable performance, innovation, and engagement. My purposeful leadership is the essence of the Synergy Holistic framework.

Collective flourishing aligns with broader discussions on workplace flourishing, which emphasize the importance of positive emotions, engagement, relationships, meaning, and accomplishments (PERMA model) for creating a thriving environment. Gallup's research highlights that employees who are engaged and thriving are more likely to have higher levels of well-being and better performance outcomes *(Gallup, State of the Global Workplace Report, 2024)*.

This concept also resonates with the idea of collective flourishing in other contexts, where social connections and collective purpose empower individuals to thrive together (Templeton World Charity Foundation, Collective Flourishing: Leading and Innovating Connected and Empowered).

In essence, Collective Flourishing means work becomes an enabler of human thriving rather than a source of stress and depletion. It creates regenerative cultures where success is measured not just by productivity but by how well individuals, teams, and organizations grow together, while positively impacting society and the environment.

However, the current paradigm of individual wellness programs is woefully inadequate. We are facing an unprecedented crisis of burnout, disengagement, and mental health challenges in the workplace. Traditional approaches treat the symptoms but fail to address the root causes: toxic work environments, lack of autonomy, and a fundamental disconnect between organizational values and employee experiences. To truly thrive, organizations need a new imperative—Collective Flourishing.

## 2 Why the Current Approach to Well-Being is Failing

For decades, organizations have invested in wellness programs that focus primarily on individual well-being rather than addressing systemic workplace factors. Meditation apps, resilience training, and gym memberships—while beneficial—fail to address the deeper issues that drive burnout, disengagement, and poor performance.

- Reactive, Not Proactive – Traditional well-being programs put the responsibility on individuals rather than fixing the root causes of workplace stress.
- Siloed Initiatives – Wellness remains an HR function rather than an integrated, leadership-driven business strategy.
- Lack of Psychological Safety & Inclusion – Many workplaces still operate in high-pressure environments with low autonomy and minimal employee voice.
- Burnout from Excessive Workplace Demands – Workplace demands (e.g., toxic behaviors, lack of job security) are significant predictors of burnout (McKinsey & Company, Reframing Employee Health, 2023).

**Exhibit:**

*Drivers of Burnout vs. Predictors of Well-Being (Source: McKinsey, Reframing Employee Health, 2023)*

**Burnout Factors:**

- Toxic workplace behavior

- Role ambiguity
- Role conflict
- Unsustainable workload

**Enablers of Holistic Health:**

- Meaningful work
- Psychological safety
- Job autonomy

**Key Findings:**

- Workplace demands are seven times more predictive of burnout than enablers (McKinsey, Reframing Employee Health, 2023).
- Enablers are 14 times more predictive of holistic health than demands (McKinsey, Reframing Employee Health, 2023).

Deloitte's "Human Capital Trends" report highlights that well-being is a critical factor in attracting and retaining talent, with 90% of employees considering it important when choosing an employer *(Deloitte, 2024 Global Human Capital Trends)*.

Organizations that fail to address structural well-being enablers—such as leadership behaviors, job design, and inclusion—experience higher attrition, lower engagement, and reduced productivity. This highlights the urgent need for a systemic shift toward Collective Flourishing.

Research indicates that workplace demands are seven times more predictive of burnout than enablers, while enablers are 14 times more predictive of holistic health than demands (McKinsey & Company, Reframing Employee Health, 2023).

## 3 Defining Collective Flourishing

At its core, Collective Flourishing is the purposeful integration of well-being, leadership, and performance within an organization's DNA. It acknowledges that employees thrive when workplaces are built on trust, purpose, psychological safety, equity and belonging. As the architect of this concept through my Synergy work, I define Collective Flourishing as a transformational paradigm shift in workplace well-being. It redefines how organizations approach sustainable success by positioning well-being as an interdependent, systemic, and strategic process—not merely an individual pursuit or a series of isolated perks. Collective Flourishing at work means creating a regenerative culture where work itself becomes an enabler of human thriving and organizational performance.

**Collective Flourishing:**

- Goes beyond the traditional focus on individual wellness programs to address the root causes of workplace stress and disengagement.
- Integrates well-being into every aspect of the organization—from leadership behaviors and team dynamics to work structures and business strategies.
- Recognizes the interconnectedness of individuals, teams, and systems, creating a synergistic effect that enhances both employee well-being and organizational outcomes.
- Measures success not just by financial metrics but by how well individuals, teams, and the organization as a whole grow together, while positively impacting society and the environment.
- It's about being a catalyst for positive change.
- Emphasizes the importance of an integrated, systemic approach, rather than fragmented wellness initiatives, to foster resilience and long-term growth.
- Prioritizes the creation of inclusive and equitable work environments.
- Fosters deep engagement.

Unlike traditional wellness initiatives that address individuals in isolation, Collective Flourishing takes a systemic approach, embedding well-being into:

- Leadership behaviors that foster trust and empathy.
- Team dynamics that promote collaboration and psychological safety.
- Work structures and policies that support work-life integration.
- Business strategies that align with ethical and societal impact.

Research from Oxford University highlights the direct link between employee well-being and productivity, with happier employees being more productive and innovative (Oswald, A. J., Proto, E., & Sgroi, D. (2015). Happiness and productivity. Journal of Labor Economics, 33(4), 789-822.).

## 4 What Does Collective Flourishing Look Like in Practice?

- A workplace where employees feel psychologically safe and valued
- Leaders who embody and model well-being
- High-performing teams that collaborate with a shared sense of purpose
- Organizations that commit to regenerative cultures, sustainable impact, and ethical responsibility
- Organizational systems where work supports human thriving

In essence, Collective Flourishing means work becomes an enabler of human thriving rather than a source of stress and depletion. It creates

regenerative cultures where success is measured not just by productivity but by how well individuals, teams, and organizations grow together, while positively impacting society and the environment.

Flourishing fuels business success: Companies that integrate well-being into their core strategy experience higher engagement, lower burnout, and improved innovation (World Economic Forum & McKinsey). Collective flourishing is the next evolution of workplace well-being – Moving beyond individual wellness programs to a systems approach fosters long-term resilience and growth. Leadership is the driver of transformation: Sustainable well-being starts with conscious leadership, cultural alignment, and systemic change embedded into organizational DNA. According to McKinsey & Company, addressing workplace demands is 7x more impactful in reducing burnout, while prioritizing enablers of holistic health is 14x more impactful in building overall well-being (McKinsey & Company, Reframing Employee Health, 2023).

## 5 Introducing the Synergy Holistic Framework

To guide organizations toward Collective Flourishing, the Synergy Holistic framework ensures that well-being is embedded into every level of the organization. This framework is not a quick fix but rather a transformative strategy that recognizes the interconnectedness of individuals, teams, and systems. The heart of the Synergy Holistic Framework lies in purposeful leadership, which creates an organizational climate and culture where employees can do and be their best.

Flourishing organizations begin with flourishing individuals. Self-awareness, vitality, and a sense of agency are essential, but they must be supported by organizational conditions—not left as an isolated pursuit.

## 6 Why the Future of Work is 'Collective Flourishing'

Organizations that prioritize well-being enhance both employee experience and business performance:

- Well-being and performance have an integrated relationship: Investing in well-being initiatives will generate substantial economic value (World Economic Forum, The Future of Jobs Report 2025, 2025).
- According to the World Economic Forum, investments in workplace well-being could generate as much as $11.7 trillion in economic value (World Economic Forum, The Future of Jobs Report 2025, 2025).
- Addressing systematic stressors reduces burnout-related productivity losses and attrition costs.

There is a strong relationship between employee engagement and the application of an integrated strategy. Gallup's research demonstrates that organizations with high levels of employee engagement achieve better outcomes in customer satisfaction and profitability (Gallup, State of the Global Workplace Report, 2024).

## 7 The Role of AI in Enabling Collective Flourishing

AI is no longer just a productivity tool—it is an enabler of human potential. When used strategically, AI can accelerate the shift to Collective Flourishing by optimizing workflows, enhancing decision-making, and creating more flexible, human-centered work environments. AI can help analyze employee well-being trends, automate administrative tasks, and provide personalized support to employees, thereby fostering a more inclusive and supportive workplace culture.

Exhibit:

AI Tools for Collective Flourishing

- Predictive Analytics: AI can analyze data to predict and prevent burnout, identifying early warning signs and recommending interventions.
- Personalized Well-being Programs: AI-driven platforms can offer tailored wellness initiatives based on individual needs and preferences.
- Virtual Coaching: AI-powered virtual assistants can provide real-time guidance and support for stress management and emotional intelligence.

By leveraging AI in this way, organizations can create a more sustainable and resilient workforce, where technology enhances human potential rather than replacing it.

## 8 The Call to Action: Building the Future of Work

Organizations that fail to integrate well-being into their leadership and operational models will struggle with attrition, disengagement, and declining performance in the years ahead. The organizations that prioritize collective flourishing will emerge as the market leaders of the future—fostering resilient, high-performing, and deeply engaged teams.

## 9 The Synergy Holistic Framework: A Strategic Blueprint for Thriving Workplaces

The Synergy Holistic framework ensures well-being is embedded into every level of the organization, moving from isolated interventions to a fully integrated business strategy:

- Transform (Self)
  - Key Focus Areas:
    - Cultivating self-awareness and emotional intelligence
    - Promoting resilience and stress management
    - Fostering a sense of purpose and meaning
    - Encouraging personal growth and development
  - The Collective Flourishing Shift:
    - From "Stress Management" as an individual

responsibility to leaders actively creating environments that reduce workplace stressors.

- From self-improvement in silos to shared learning and collective empowerment that strengthens teams.

- Perform (Teams)
  - Sustainable performance is built on trust, collaboration, and well-being. Flourishing teams do not thrive by accident—they are intentionally designed through leadership, culture, and inclusion.... Key Focus Areas:
    - Building psychological safety and trust
    - Promoting effective communication and collaboration
    - Fostering inclusivity and diversity
    - Encouraging shared leadership and accountability
  - The Collective Flourishing Shift:
    - From high-performing teams that risk burnout to teams that thrive through collaboration, psychological safety, and shared energy renewal.
    - From productivity-focused teamwork to purpose-driven, human-centered teamwork that fosters deep engagement.
- Reform (Systems)
  - The challenges of workplace well-being cannot be solved through fragmented wellness initiatives. While individual and team-level interventions are essential, they are not enough to create lasting change. Organizations must move beyond isolated well-being efforts and embed systemic transformation across leadership, culture, and structures, ensuring it is not a program but a business imperative.
  - Key Focus Areas:
    - Integrating well-being into business strategy
    - Transforming leadership behaviors and practices
    - Redesigning work structures and policies
    - Cultivating a culture of well-being
  - The Collective Flourishing Shift:
    - From well-being as a perk to well-being as a core business strategy.
    - From individual wellness programs to integrated organizational transformation.

## 10 The Opportunity Gap: The Business Cost of Inaction

Despite overwhelming evidence supporting workplace well-being, most businesses still treat it as a secondary concern. This results in a disconnect between leadership priorities and employee realities.

- Key Findings from Davos & McKinsey Research:
  - Significant financial losses occur due to absenteeism from preventable chronic conditions.
  - Substantial productivity losses are seen globally due to presenteeism (McKinsey & Company, Reframing Employee Health, 2023).
  - Companies that neglect psychological safety and job autonomy face considerable challenges with burnout.
  - A large percentage of employees do not believe their organization prioritizes well-being beyond token programs.
  - Companies that embed well-being into leadership and systems experience considerable gains in employee engagement and performance.

## 11 Bridging the Opportunity Gap

To close the well-being gap, organizations must shift from isolated interventions to structural transformation, ensuring that well-being is embedded in how work gets done. Addressing both burnout symptoms and holistic health leads to thriving, high-functioning workplaces.

Most well-being interventions focus on individuals—yet research from McKinsey confirms that burnout is largely driven by team and systemic workplace factors.

Collective flourishing is the missing link—organizations must move from wellness perks to integrated well-being transformation.

## 12 A Systemic Approach: The Four Levers of Organizational Well-Being

To effectively promote well-being, organizations need a systemic approach that considers four key levers (McKinsey & Company, Reframing Employee Health, 2023):

- Individual: Empowering employees to take ownership of their well-being while ensuring the right conditions for support.
- Job: Designing work that provides autonomy, clarity, and purpose to prevent burnout and enhance engagement.
- Team: Fostering psychological safety, trust, and open communication within teams to create a supportive environment.
- Organizational: Implementing systemic changes in leadership behaviors, policies, and cultural expectations to prioritize well-being at all levels.

## 13 Embedding Well-Being into Organizational DNA

A flourishing organization is built on a conscious culture where leadership, values, and daily behaviors align. Many organizations struggle because their stated values do not match employees' lived experiences. To create an authentic culture of well-being, organizations must actively shape the workplace experience by integrating well-being into values, performance management, and leadership development.

Gallup's research consistently demonstrates that organizations with a strong culture of well-being outperform their peers in key metrics such as employee engagement, customer satisfaction, and profitability (Gallup, State of the Global Workplace Report, 2024). For example, organizations in the top quartile for employee engagement achieve 23% higher profitability than those in the bottom quartile.

Deloitte's "Human Capital Trends" report highlights the importance of designing work around well-being to attract and retain talent in today's competitive labor market (Deloitte, 2024 Global Human Capital Trends). 90% of employees say that well-being is an important factor when choosing an employer.

Aon's "Global Well-being Survey" reveals that companies with comprehensive well-being programs experience lower healthcare costs and reduced absenteeism (Aon, 2023 Global Wellbeing Survey). These organizations also see a 28% reduction in sick leave.

- Key Strategies for Building a Flourishing Culture and Systems:

  By making culture a living, evolving aspect of the organization rather than a static statement, companies can foster an environment where people feel connected, valued, and empowered to contribute their best work.

- Transforming Workplace Systems for Flourishing

| Traditional Workplace Mindset | Flourishing Workplace Shift | Key Strategies |
|---|---|---|
| Well-being is an individual responsibility. | Well-being is a shared, collective responsibility. | Implement programs that promote social connection and support, foster a culture of empathy, and ensure equitable access to resources. |
| Work-life balance is a personal challenge. | Work-life integration is supported and encouraged. | Offer flexible work arrangements, encourage employees to disconnect, and promote work-life boundaries. |
| Leaders prioritize productivity over people. | Leaders prioritize both people and productivity. | Develop leadership skills in empathy, communication, and support; hold leaders accountable for promoting well-being. |
| Leaders prioritize productivity over people. | Leaders prioritize both people and productivity. | Develop leadership skills in empathy, communication, and support; hold leaders accountable for promoting well-being. |
| Culture is fixed and unchangeable. | Culture is dynamic and continuously evolving. | Regularly assess and adapt the culture to ensure it supports well-being, values diversity, and promotes psychological safety. |
| Systems and policies are rigid and inflexible. | Systems and policies are adaptable and employee-centric. | Design policies that support autonomy, flexibility, and well-being; regularly review and update policies based on employee feedback. |

However, Collective Flourishing is not just about improving employee well-being—it's about creating a more sustainable, equitable, and human-centered world of work. By prioritizing well-being, organizations can attract and retain top talent, increase innovation, and enhance their reputation as socially responsible employers.

Collective Flourishing is not just a nice-to-have—it's a strategic imperative for success in the 21st century.

The journey to Collective Flourishing is not a destination but a continuous evolution—a commitment to weaving well-being into the very fabric of our organizations. It demands a courageous reimagining of leadership, a deep respect for human potential, and an unwavering dedication to creating workplaces where everyone can thrive.

The evidence is undeniable: prioritizing well-being is not simply a feel-good initiative; it's a strategic imperative for sustainable success. Organizations that embrace Collective Flourishing will not only attract and retain top talent but also unlock unprecedented levels of innovation, resilience, and performance.

The time for incremental change is over. The future of work hinges on our ability to create workplaces where individuals, teams, and organizations flourish together.

The choice is clear: Will you lead the way?

We invite you to embark on this transformative journey. Start by:

1. Assessing your organization's current state of well-being using the Synergy Holistic Framework. Identify the gaps and opportunities for improvement.
2. Engaging your leadership team in a conversation about the power of Collective Flourishing and its potential impact on your business.
3. Taking bold action to implement systemic changes that prioritize well-being at every level of your organization.

Together, let us build a future where work is not a source of stress and depletion but a catalyst for collective flourishing.

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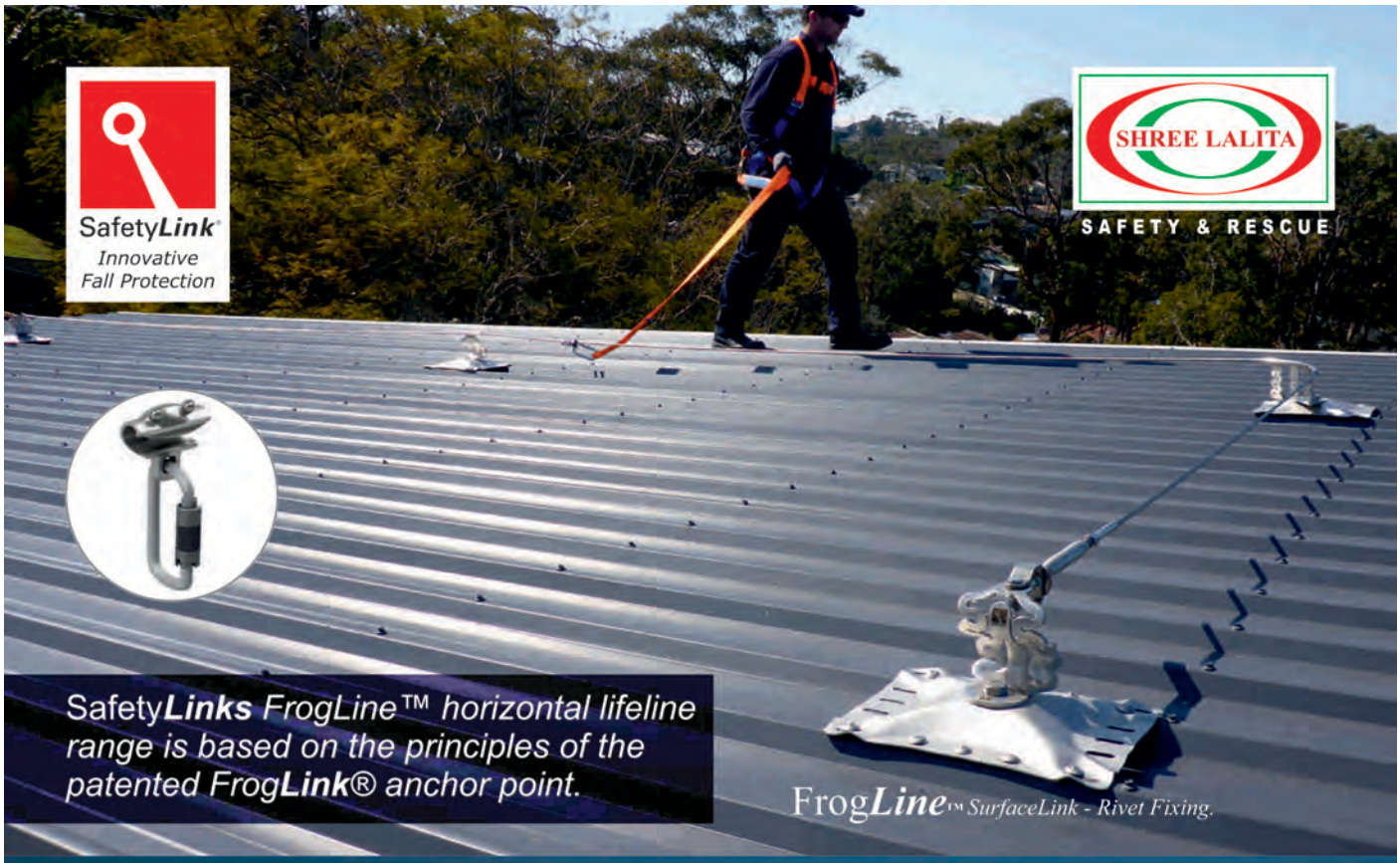
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# MENTAL HEALTH & WELLNESS AT WORKPLACE - HR PERSPECTIVE

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## Introduction

Mental Health is no longer a silent issue in our life. According to various studies, it shows depression and anxiety cost the global economy $1trilion annually in lost productivity. As organizations strive for higher productivity and employee engagement, addressing mental health not only benefits employees but also enhances overall organisational performance. This is where HR plays a crucial role.

HR professionals must play an important role in promoting mental health by implementing policies, creating a supportive culture, and providing necessary resources.

HR teams should assess the effectiveness of mental health initiatives through perception surveys, feedback sessions, and analysing employee retention and productivity levels. Regular evaluation by an external help ensures employees' needs are met. According to HBR (April 2024).

There are five strategies an HR can implement to improve mental health at workplace.

1. **Start with the work:** Todays' workplace mental health involves tackling how, why, and where we work. So, get specific and focus on the work and as an HR it is us, who can better support the employees involved. Like return-to-work mandates, blanket policies for employee mental health rarely succeed and are not realistic given the varied ways we work today.
2. **Do not Rely on Outsiders to Drive Behaviour Change:** Sometimes, companies rely on outside experts or a well-being consultant, to help their employee's mental health, without considering the internal wellness team or their immediate managers. As a Human Resource Manager, need buy-in from day-to-day decision-makers within business units.
3. **Foster Conversations Across Generations and Genders:** Every generation at work struggles with their mental health; it is not just young people who want to talk about their feelings, men want to share their emotions at work but might feel more stigma than women. It is also crucial to make sure men are visible and talking. Finally, give generations their own spaces to share: Mental health is an inclusive conversation, but it can be helpful to offer people who share lived experiences.
4. **Be Patient and Prepare to Invest in What Matters:** Becoming a more mentally healthy organization is a commitment to change the fundamentals, and it starts with leadership. Psychologist Emily Anhalt says organizations must embrace this reality: "This will not be a quick and easy thing. This is a forever journey that you must decide is worth your while."
5. **Walk the Talk:** Leaders also need to "do the work" of getting in touch with how their own emotions colour their work lives. And they carry immense power to destigmatize mental health conversations and how those actions are impacting them.

   Fostering a positive work environment and making mental health resources available can also help attract top talent to the organization.

HR plays a crucial role in mental health and awareness in the workplace. Such as,

1. **Creating a Supportive Work Environment**
   - Promoting a culture where mental health is openly discussed and destigmatized.
   - Encouraging work-life balance and flexibility to reduce stress.
   - Ensuring managers are trained to recognize mental health concerns and support employees.
2. **Developing Policies and Resources**
   - Implementing mental health policies that protect employees from burnout and harassment.
   - Providing Employee Assistance Programs (EAPs) for confidential counselling.
   - Offering wellness programs such as mindfulness sessions, mental health days, and stress management workshops.
3. **Training and Awareness**
   - Conducting mental health awareness campaigns.
   - Training managers and employees on recognizing early signs of stress, anxiety, and depression.
4. **Providing Access to Support Services**
   - Partnering with mental health professionals for workplace counselling.
   - Ensuring employees have access to therapy, coaching, or helplines.
5. **Monitoring and Addressing Workplace Stressors**
   - Identifying and mitigating workplace stressors like workload, conflicts, or toxic culture.
   - Encouraging regular feedback and check-ins

on employee well-being.

6. **Legal Compliance**
   - Ensuring compliance with labour laws and mental health regulations.
   - Protecting employees from discrimination due to mental health conditions.

   HR should take a proactive role in normalizing mental health discussions, ensuring support structures are in place.

   HR professionals said burnout was the number one challenge to employee engagement. In a time of economic uncertainty and the prospect of recession, many are trying to do more with less. And people are feeling stretched. (HR Exchange Network)

In 2024, employee mental health and wellness remained critical concerns for organizations worldwide. Key findings from various studies include:

**Prevalence of Mental Health Challenges:**

- A survey by the National Alliance on Mental Illness (NAMI) found that 15% of employees aged 18-29 rated their mental health as "somewhat poor." Entry-level employees were less likely to report their mental health as "very good" compared to executive-level employees (35% vs. 48%).
- According to the World Health Organization (WHO), poor working environments, including excessive workloads and low job control, pose significant risks to mental health.

**Impact on Younger Employees:**

- Mental Health America's 2024 Work Health Survey revealed that 71% of Generation Z employees and 59% of Millennials reported unhealthy work health scores, indicating poorer overall work health compared to older generations.

**Workplace Stress and Burnout:**

- A survey by the Employee Benefit Research Institute (EBRI) indicated that concern about mental well-being slightly decreased in 2024, with workers rating their level of concern an average of 5.5 out of 10, compared to 5.8 in 2023.

**Suggestions:**

**Developing Mental Health Policies:** Establishing clear guidelines on mental health support, including leave policies, accommodations, and anti-stigma initiatives.

1. **Encouraging Open Communication:** Creating safe spaces where employees feel comfortable discussing their mental health without fear of judgment or retaliation.
2. **Providing Access to Resources:** Offering Employee Assistance Programs (EAPs), counselling services, and wellness programs.
3. **Training Managers and Employees:** Leaders should go through some program or workshops, to recognize mental health issues and supporting colleagues who are in distress.
4. **Ensuring Work-Life Balance:** If possible, promote flexible work arrangements, reasonable workloads, and healthy work hours to reduce stress and burnout.

**Conclusion:**

In conclusion, this research interprets the vital role that Human Resources (HR) plays in fostering employee well-being and mental health, through strategic initiatives such as wellness programs, mental health awareness campaigns, and supportive workplace policies.

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# HEALTHY NUTRITION- A KEY TO OPTIMUM PHYSICAL AND MENTAL WELLBEING

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As the saying goes, "You are what you eat," and indeed, the foods we consume profoundly impact our overall health and well-being. Wellness is a state of good health that is achieved by practicing healthy habits on a daily basis. Health, wellness, and nutrition are intricately intertwined aspects of our daily lives, each contributing to our overall well-being.

As nutritionists, we believe that nourishing our bodies with the right nutrients is not just about preventing illness but also about fostering a lifestyle that promotes long-term vitality, good health, and wellness. The National Institute of Wellness considers wellness to be "an active process through which people become aware of, and make choices toward, a more successful existence." This definition allows a better understanding of wellness. The World Health Organization defines wellness as "the optimal state of health of individuals and groups."

Health, according to the World Health Organisation (WHO), is a condition of a person's body or mind or a state of being well, or complete emotional, physical, mental, and social well-being, free from illness, and a resource for living a full life along with the ability to recover from illness and other problems.

"Good nutrition creates health and wellness in all areas of our existence. All parts are interconnected." - T. Colin Campbell

There is a vital connection! Wellness, health, and nutrition are intricately linked, forming a dynamic triangle that supports overall well-being.

1. **Nutrition influences Health:** A balanced diet provides essential nutrients, vitamins, and minerals that maintain physical health, prevent diseases, and support optimal functioning.
2. **Health impacts Wellness:** Good physical health lays the foundation for emotional, mental, and spiritual well-being. When health is compromised, it can affect overall wellness.
3. **Wellness affects Nutrition:** A person's wellness mindset and habits, such as stress management and self-care, can influence their food choices and nutrition.




Understanding the interconnectedness of wellness, health, and nutrition, we can take a holistic approach to achieving optimal well-being

## Health: Adding Years to Your Life and Life to Your Years!

Good health is very important at all stages of life. The first 1,000 days of life – the period from conception to a child's second birthday – is a critical time for development. Maternal health, both physical and emotional, wellness, and nutritional status before, during, and after pregnancy is critical to the early development of the baby. The requirements for positive health include the achievement of optimal growth and development during childhood and adolescence, physical growth and maintenance, mental/cognitive ability, and immunity.

## Wellness: A Harmony Between Mind, Body, and Spirit!

Wellness goes beyond the absence of disease—it is a holistic state of physical, mental, and emotional health. Achieving wellness requires a balance of various lifestyle components, including physical activity, mental clarity, and adequate sleep, all of which are supported by sound nutrition. As nutritionists, we view food not only as fuel but also as medicine. The body is a complex system that requires a variety of nutrients in appropriate amounts to function optimally. This is where the role of balanced nutrition comes into play.




## Health Versus Wellness

To understand the significance of wellness, it's important to understand how it's linked to health. Health is often used interchangeably with wellness, yet, the two concepts have different origins. The WHO defines health as "the state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." Health has its determinants, which consist of social, physical, and economic environments, as well as individual

characteristics and behaviors. Achieving stability and enhancing health requires a combination of the best



lifestyle choices, where we begin to see the overlap between wellness and health.

## Role of Nutrition

Humans need a wide range of nutrients to lead a healthy and active life. The required nutrients for different physiological groups can only be derived from a well-balanced diet. Our performance is directly tied to our diet. We are what we eat! The amount of each nutrient needed for an individual depends on age, body weight, and physiological status.

## What is a Balanced Diet?

A balanced diet is important for growth and maintenance of health. A balanced diet provides all the nutrients in required amounts and proportions. We




need to consume a variety of foods to remain healthy. There are more than 40 different kinds of nutrients in food that comprise a balanced diet.

ICMR's My Plate for the Day is a dietary guideline that recommends the proportions of food groups to




| Food groups (2000 Kcal) | Foods to be consumed raw weight (g/day) | % of Energy from each food group/ day | Total E from each food group/ day (Kcal) | Total protein from each food group/ day (g) | Total fat from each food group/ day (g) | Total Carbs from each food group/ day (g) |
|---|---|---|---|---|---|---|
| Cereals (incl. nutricereals) | 240 | 40 | 800 | 18 | 4 | 162 |
| Pulses* | 90 | 17 | 240 | 21 | 3 | 41 |
| Milk/ Curd (ml) | 300 | 10 | 200 | 10 | 12 | 18 |
| Vegetables* green leafy vegetable (GLV) | 350 | 5 | 100 | 4 | 1 | 17 |
| Fruits# | 150 | 5 | 100 | 1 | 1 | 20 |
| Nuts & Seeds | 30 | 11 | 217 | 6 | 12 | 6 |
| Fats & Oils$ | 27 | 12 | 243 | - | 27 | 0 |
| Total | 1187 | 100 | 2000 | 60 | 60 | 264 |

consume to meet nutritional needs. The guidelines are based on the National Institute of Nutrition's (NIN) recommendations.

## The Impact of Nutrition on Mental Wellness

In recent years, the connection between nutrition and mental health has gained considerable attention. A balanced diet does more than just fuel the body—it can also have a profound effect on cognitive function, mood, and stress management. Nutrients such as omega-3 fatty acids, B-vitamins, and magnesium have been linked to improved brain health and mental



clarity. Research suggests that a diet high in processed foods and refined sugars can have detrimental effects on mood, leading to symptoms of anxiety and depression.

### The Role of Lifestyle Factors in Health and Wellness

While nutrition is crucial, it is not the only factor that determines health and wellness. Physical activity, adequate sleep, and stress management also play integral roles. Regular exercise supports cardiovascular health, boosts energy levels, and enhances mood through the release of endorphins. Managing stress through relaxation techniques, mindfulness, or even a balanced work-life routine can reduce the negative impact of chronic stress on both the body and mind.

### The Role of Nutrition in the Workplace

Nutrition plays a significant role in productivity, mental clarity, and overall well-being at work. When employees maintain a balanced diet, it directly impacts their energy levels, focus, and ability to perform tasks efficiently. Proper nutrition contributes to a positive work environment, boosts energy, reduces



fatigue, and enhances mental clarity and focus.

**The Current Nutrition Scenario in India**

India is in developmental transition and is facing the dual burden of malnutrition – undernutrition and overnutrition. The last National Family Health Survey (NFHS) - 4 indicates a slight decline in undernutrition, with a prevalence of stunting as 38.4% and wasting as 21.5%. Simultaneously, the burden of overnutrition has increased to about 20% in adult men and women.

**Modern Malnutrition: A Silent Emergency!**

Remember, our brain is not immune to nutritional deficits!

Start with small changes within each dimension and take it one day at a time – we don't have to run a marathon or go on a restrictive diet to implement wellness into our everyday lives!

**NUTRITION is a SCIENCE and ART of Eating!**

**Tips for good Nutrition, Health and wellness!**

1. *Nurture positive relationship!!* Connecting with friends or loved ones is a great way to help improve your physical and mental health. Take 10 minutes out of your day to call someone you've been thinking about. This is a great way to connect and catch up with the people that matter the most to you.
2. *Keep your health on Track!!* Even 20 or 30 minutes of daily exercise can have a positive impact on your overall sense of well-being and help improve your mood. Reduce sitting and screen time. Don't know, when and where to start? Try a brisk walk on your lunch break or opt for the stairs instead of the elevator when you can.
3. *Get enough good sleep!!* A good amount of quality Sleep, 7-9 hrs/day must be a priority. Consider your sleep hygiene. Avoid caffeine, include quiet and calm activities before going to bed, and wake up at the same time every day.
4. *Avoid stress, Be positive!!* Yoga and meditation is advisable to avoid and overcome stress, the healthy ways to manage your stress.
5. *Eat Right: Not less, not more!!* Important is lack of awareness for right food choices.
6. *Nutrition matters!!* Eat Healthy meals and Limit unhealthy foods! By adding wholesome ingredients to your plate, you'll be taking steps towards becoming a healthier you. Avoid junk. Some food for thought: pack an apple or guava or any fruit and some raw veggies in your bag to keep as a handy snack. This may help you avoid vending machines or fast food when you're on the go. You can also carry handful of nuts.
7. *Feed your cells!!* Fuel your body sensibly with big three nutrients- carbs, proteins and Fats for optimal performance. Prevention is always better than cure.
8. *Never skip Breakfast, the first meal of the day!!* Don't skip meals! Golden rule for breakfast is a combination of high protein with high fibre recipes.
9. *Have your meals at regular intervals!!* Have protein foods in each meal. Changing portion sizes is a good strategy.
10. *Eat Local, Eat Seasonal!!* Always go for seasonal and local foods.
11. *Eat the rainbow!!* Have all seven colours of vegetables and fruits in daily diet. Don't Drink fruit, eat it!
12. *Ensure Food sanitation and food safety!!* Ensure hygiene, safe and clean foods. Proper Washing of fruits and vegetables is must before cutting to remove dirt, pesticides and microorganisms.
13. *Go Traditional!!* Use plenty of wide variety of herbs and spices. Prefer homemade and traditional diets. Don't eat anything your great-grandmother wouldn't recognize as food."- Michael Pollan
14. *Hydrate, Hydrate and Hydrate!!* Stay Hydrated, Drink water and limit sugary beverages.
15. *Avoid packaged foods!!* Avoid processed foods, canned foods, preserved foods, fried foods, outside restaurant or hotel foods, fast foods. Unhealthy, empty calories give no nutrition.
16. *AAJ SE THODA KUM- Oil, Sugar, and Salt!!* Avoid Refined foods! Avoid 3 whites-Maida, Sugar, Salt.
17. *Feed your gut bacteria!!* Good ways to improve gut health is eating fermented foods, probiotics like curds and sauerkraut and eating plenty of fibre which serves as a prebiotic or a food source for your gut bacteria.
18. *Eat wide variety of nutritious foods!!* Improve the nutritive value of food by using combination of different foods, sprouting or germination, Fermentation, Supplementation according to specific needs of an individual.
19. *Be aware of Nutrient Robbers!!* Stay away from tobacco and smoking. Go easy on alcohol. Avoid commercial foods, food additives, food preservatives. Avoid excessive intake of Tea, Coffee and Cocoa.

20. *Choose fortified foods!!* Food fortification is the process of adding Vitamins and minerals to food to improve its nutritional value.

21. *Food Labelling!!* Read food labels carefully!! It gives you the information about food packaging, shelf life, storage instructions, Nutritive value, Nutrient content, ingredients, allergens, etc.

22. *Don't go for fad diets!!* Give importance to body composition, more muscles, less fat.

23. *Mindfulness isn't difficult, we just remember to do it.!!* Practicing mindfulness is good for the body and mind, helps with focus and also changes the brain. Take a moment right now to consider your own mind and how you are feeling. Mindful eating means being fully attentive to what you buy, prepare, serve and consume. The more you tap into your own thoughts, the more you may become aware of how you react to stressful events. By adding wholesome ingredients to your plate, you'll be taking steps towards becoming a healthier you.

    Some food for thought: Pack an apple and some raw veggies in your bag to keep as a handy snack. This may help you avoid vending machines or fast food when you're on the go.

24. *Are you absorbing the nutrient you eat?* Bioavailability addresses metabolism, absorption and utilization of food by the body? Key is Variety and combination of healthy food from all the food groups.

25. *Plan and prepare Meals!! Seek professional Guidance!!* Therapeutic Nutrition is a modification of a regular diet to fit the nutrition needs of a particular individual. Therapeutic diets are designed to prevent or control a disease condition such as Hypertension, Obesity, diabetes, Cancer etc or to meet increased requirements as in the case of pregnancy or malnutrition. Nutritional requirements vary based on age, gender, level of physical activity, body weight and body mass index. MNT, Medical Nutrition Therapy includes the assessment Nutritional diagnosis, interventions, monitoring, and evaluation of estimated disease. It is a powerful preventive measure.

## Common Myths about Nutrition

**1. Here are some common myths about diet:**

1. *Detox diets cleanse the body:* Detox diets and juice cleanses are popular, but studies show they have few benefits and can be harmful. Your body is already equipped with its own detoxification systems- the Liver and Kidneys.
2. *Low-fat foods are healthier:* Low-fat products often contain added sugar to make up for lost flavor, which can lead to weight gain.
3. *Certain foods burn fat:* No foods burn fat.
4. Diabetes is caused by eating too much sweet food: Diabetes occurs when there is an impairment in the secretion and/or function of insulin. Soy causes Breast cancer: this is a myth.
5. *Carbohydrates are bad, can cause weight gain:* Carbohydrates from whole grains and fruits are important for a healthy body. When eaten in the right amounts, they won't lead to weight gain.
6. *Dairy is essential for strong bones:* Calcium is important for strong bones, but dairy is not essential.
7. *Supplements are unnecessary:* Supplements can be helpful if you have a deficiency or don't have access to natural sources of vitamins, minerals, and fiber.
8. *All fat is bad:* Animal fats, which are more saturated, are linked to cardiovascular disease. But the healthier MUFA-monounsaturated and PUFA- polyunsaturated fats found in fish, avocados, olives and olive oil, eggs, nuts and seeds can lower your risk of cardiovascular disease and death. Full-fat products cause weight gain: Although all types of fats are high in calories, fats "stay in the stomach longer," Fung says, "so you are satisfied for longer and you don't reach for a snack as quickly." Healthy fats, like found in Nuts and seeds are vital for brain function and hormone regulation.
9. *Fresh produce is healthier than frozen:* Frozen produce tends to be picked at the peak of ripeness, and studies show that frozen foods have as many vitamins and antioxidants as fresh ones, and in some cases even more. What's more, the longer you store fresh produce, the more of its nutritional value it loses, research shows.
10. *Gluten-free foods are healthier:* Gluten is a protein found in grains including wheat, barley and rye. People with celiac disease must eliminate gluten from their diets to prevent damage to their intestinal tracts and other parts of their bodies. And for those with gluten sensitivity, eliminating gluten can help with symptoms of bloating, diarrhoea or abdominal pain, according to Harvard Medical School.

## Recommended Dietary Allowances (RDA)

RDA are the average daily nutrient intake levels sufficient to meet the nutrient requirements of nearly all (97-98%) healthy individuals in a particular life stage and gender group. RDA for Indians (ICMR,2020]

## SUMMARY OF RDA FOR INDIANS - ICMR- NIN, 2020

| Age Group | Category of work | Body Wt (kg) | Protein (g/d) | Dietary Fiber* (g/d) | Cal cium (mg/ d) | Magnes ium (mg/d) | Iron (mg/ d) | Zinc (mg/d) | Iodine (µg/ day) | Thiamine (mg/d) | Ribo flavin (mg/d) | Niacin (mg/d) | Vit B6 (mg/d) | Folate (µg/d) | Vit B12 (µg/d) | Vit C (mg/ d) | Vit A (µg/ d) | Vit D (IU/ d) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Men | Sedentary | 65 | 54.0 | 30 | 1000 | 440 | 19 | 17 | 140 | 1.4 | 2.0 | 14 | 1.9 | 300 | 2.2 | 80 | 1000 | 600 |
| | Moderate | | | 40 | | | | | | 1.8 | 2.5 | 18 | 2.4 | | | | | |
| | Heavy | | | 50 | | | | | | 2.3 | 3.2 | 23 | 3.1 | | | | | |
| Women | Sedentary | 55 | 46.0 | 25 | 1000 | 370 | 29 | 13.2 | 140 | 1.4 | 1.9 | 11 | 1.9 | 220 | 2.2 | 65 | 840 | 600 |
| | Moderate | | | 30 | | | | | | 1.7 | 2.4 | 14 | 1.9 | | | | | |
| | Heavy | | | 40 | | | | | | 2.2 | 3.1 | 18 | 2.4 | | | | | |
| | Pregnant woman | 55 + 10 | +9.5 (2nd trimester) +22.0 (3rd trimester) | - | 1000 | 440 | 27 | 14.5 | 220 | 2.0 | 2.7 | +2 | 2.3 | 570 | +0.25 | +15 | 900 | 600 |
| | Lactation 0-6m | | +17.0 | - | 1200 | 400 | 23 | 14.1 | 280 | 2.1 | 3.0 | +5 | +0.26 | 330 | +1.0 | +50 | 950 | 600 |
| | 7-12m | | +13.0 | | | | | | | | 2.9 | | +0.17 | | | | | |
| Infants | 0-6 m* | 5.8 | 8.0 | - | 300 | 30 | - | - | 100 | 0.2 | 0.4 | 2 | 0.1 | 25 | 1.2 | 20 | 350 | 400 |
| | 6-12m | 8.5 | 10.5 | - | 300 | 75 | 3 | 2.5 | 130 | 0.4 | 0.6 | 5 | 0.6 | 85 | 1.2 | 30 | 350 | 400 |
| Children | 1-3y | 12.9 | 12.5 | 15 | 500 | 90 | 8 | 3.3 | 90 | 0.7 | 1.1 | 7 | 0.9 | 120 | 1.2 | 30 | 390 | 600 |
| | 4-6y | 18.3 | 16.0 | 20 | 550 | 125 | 11 | 4.5 | 90 | 0.9 | 1.3 | 9 | 1.2 | 135 | 2.2 | 35 | 510 | |
| | 7-9 y | 25.3 | 23.0 | 26 | 650 | 175 | 15 | 5.9 | 90 | 1.1 | 1.6 | 11 | 1.5 | 170 | 2.2 | 45 | 630 | |
| Boys | 10-12y | 34.9 | 32.0 | 33 | 850 | 240 | 16 | 8.5 | 100 | 1.5 | 2.1 | 15 | 2.0 | 220 | 2.2 | 55 | 770 | 600 |
| Girls | 10-12y | 36.4 | 33.0 | 30 | 850 | 250 | 28 | 8.5 | 100 | 1.4 | 1.9 | 14 | 1.9 | 225 | 2.2 | 50 | 790 | 600 |
| Boys | 13-15y | 50.5 | 45.0 | 43 | 1000 | 345 | 22 | 14.3 | 140 | 1.9 | 2.7 | 19 | 2.6 | 285 | 2.2 | 70 | 930 | 600 |
| Girls | 13-15y | 49.6 | 43.0 | 36 | 1000 | 340 | 30 | 12.8 | 140 | 1.6 | 2.2 | 16 | 2.2 | 245 | 2.2 | 65 | 890 | 600 |
| Boys | 16-18y | 64.4 | 55.0 | 50 | 1050 | 440 | 26 | 17.6 | 140 | 2.2 | 3.1 | 22 | 3.0 | 340 | 2.2 | 85 | 1000 | 600 |
| Girls | 16-18y | 55.7 | 46.0 | 38 | 1050 | 380 | 32 | 14.2 | 140 | 1.7 | 2.3 | 17 | 2.3 | 270 | 2.2 | 70 | 860 | 600 |

* Adequate Intake (AI) Note: For adequate intake of Biotin and Pantothenic acid, refer to the text on summary of recommendations

## Conclusion

In conclusion, nutrition is the foundation of health and wellness. The foods we eat not only fuel our bodies but also support optimal physical and mental health. A balanced, nutrient-rich diet, when combined with a healthy lifestyle that includes regular physical activity and stress management, can significantly improve overall well-being.

As a nutritionist, our approach is not to promote restrictive diets or temporary solutions but to encourage sustainable, informed choices that support long-term health and vitality. By embracing a balanced diet and making mindful lifestyle choices, individuals can cultivate a life of wellness, free from the constraints of chronic illness and imbalance.

***Stay healthy! Stay Safe!***

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# OCCUPATIONAL HEALTH & MEDICAL EXAMINATION OF EMPLOYEES

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**"What is Your Occupation?" - Dr. Bernardino Ramazzini**

A 35-year-old man was visiting the hospital with complaints of pain, redness, dryness and burning of eyes. He gave history of similar complaints 4-5 times in last one year for which he had visited the hospital.

The patient was a "toddy tapper". Lime is added to the sap to prevent it from fermenting. The worker's eyes were exposed to lime due to nature of his work. If during the initial visit, if the doctor asked this patient, one simple question; **"What exactly is the nature of your work?"** the doctor would have arrived at an accurate diagnosis. Simple instructions to avoid exposure of eyes to lime would have prevented the recurrence.

Dr. Bernardino Ramazzini, a 16th Century Italian physician asked this million-dollar question to his patients. He also urged his colleague doctors to ask this question.

## History of Occupational Health

That exposure to hazards at workplace can adversely affect the health was known for more that 2000 years. Hippocrates known as "father of Medicine" was first to recognize toxic effects of lead in fourth century B.C. Ping, a roman scholar in first century A.D. described a protective mask made from bladder which was used by workers in dusty trade. Dr. Ramazzini in his book "De MORBIS ARTIFICIUM DIATRIBA" written in 1700 A.D. accurately described occupational diseases due to many types of jobs such as chemist, metal diggers, cobblers, bakers, wool workers, brick makers and many more. First legislation "The health and moral of Apprentices Act, 1802" related to OHS was passed in United Kingdom. Many enlightened individuals have contributed to our knowledge of the subject.

## What is Occupational Health?

World Health Organization definition states "Health is a complete state of physical, mental and social well-being and not merely absence of disease or infirmity".

In line with the above, Occupational Health may be defined as "Promotion and Maintenance of the Highest Degree of Physical, Mental and Social Well-being of Employees in All Occupations at All Locations".

## What is Occupational Disease?

International Labor Organization definition says "Occupational disease" covers any disease contracted as a result of an exposure to risk factors arising from work activity. There are certain diseases are categorized as Notifiable diseases under the Factories Act,1948 and the Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Central Rules, 1998. The management has to report any notifiable diseases detected at the worksite to authority. The list of Notifiable disease are follows:

**List of notifiable diseases in SCHEDULE III under the sections 89 and 90 of the Factories Act,1948**

1. Lead poisoning, including poisoning by any preparation or compound of lead or their sequelae.
2. Lead tetra-ethyl poisoning.
3. Phosphorus poisoning or its sequelae.
4. Mercury poisoning or its sequelae.
5. Manganese poisoning or its sequelae.
6. Arsenic poisoning or its sequelae.
7. Poisoning by nitrous fumes.
8. Carbon bisulphide poisoning.
9. Benzene poisoning, including poisoning by any of its homologues, their nitro or amido derivatives or its sequelae.
10. Chrome ulceration or its sequelae.
11. Anthrax.
12. Silicosis.
13. Poisoning by halogens or halogen derivatives of the hydrocarbons of the aliphatic series.
14. Pathological manifestations due to—
    (a) radium or other radio-active substances;
    (b) X-rays.
15. Primary epitheliomatous cancer of the skin
16. Toxic anaemia.
17. Toxic jaundice due to poisonous substances.
18. Oil acne or dermatitis due to mineral oils and compounds containing mineral oil base.
19. Byssinosis.
20. Asbestosis.
21. Occupational or contact dermatitis caused by direct contract with chemicals and paints. These are of two types, that is, primary irritants and allergy sensitizers.
22. Noise induced hearing loss (exposure to high noise levels).
23. Beryllium poisoning.
24. Carbon monoxide.
25. Coal miners' pneumoconiosis.
26. Phosgene poisoning.
27. Occupational cancer.

28. Isocyanates poisoning.
29. Taxic nephritis.

**List of Notifiable Occupational Diseases in SCHEDULE II under the RULE 230 (A) of the Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Central Rules, 1998**

1. Occupational dermatitis.
2. Occupational cancer.
3. Asbestosis.
4. Silicosis.
5. Lead poisoning including poisoning by any preparation or compound of lead or their sequelae.
6. Benzene poisoning, including poisoning by any of its homologues, their nitro or amino derivatives or its sequelae.
7. Occupational asthma.
8. Pesticide poisoning.
9. Carbon monoxide poisoning.
10. Toxic jaundice.
11. Toxic anaemia.
12. Compressed air illness (Caissons disease).
13. Noise induced hearing loss.
14. Isocyanates poisoning.
15. Toxic nephritis.

## What are the characteristics of Occupational Diseases?

- They take a long time to develop (except effects of poisoning at high concentrations)
- The exposed employees do not have any symptoms initially
- Most of the occupational diseases are not curable once permanent damage has taken place
- Most of the occupational diseases are preventable
- Many times, it is difficult to establish an occupation as a cause

There is no occupation without a hazard. But we can say on the positive note that it is possible to prevent occupational diseases because the hazards can be identified or known, can be measured and mitigation measures can be implemented. Some of the known occupational diseases include pneumoconiosis, occupational dermatitis, noise induced hearing loss, occupational cancers etc.

## What are various Occupational Hazards?

Employees are exposed to hazards at workplace. They can be classified as physical, chemical, biological, mechanical, ergonomic and psycho-social. It will be beyond scope of this article to discuss every hazard and its health effect in detail. Hence, an overview is given below.

### A. Physical Hazards

Physical hazards include heat, cold, noise, vibration, atmospheric pressure, illumination, non-ionizing radiation and ionizing radiation. Exposure to physical hazards can be easily measured and controlled.

**Table 1: Summary of Physical Hazards**

| S.No. | Hazard | Health Effects | Mitigation Measures |
|---|---|---|---|
| 1 | Heat | • Prickly heat<br>• Physical fatigue<br>• Heat cramps<br>• Heat exhaustion<br>• Heat syncope<br>• Heat stroke | • Monitoring by Wet Bulb Globe Temperature index<br>• Proper ventilation<br>• Shelters<br>• Work Rest cycle<br>• Proper clothing<br>• Adequate safe drinking water<br>• Training of supervisors to identify early symptoms of heat stress |
| 2 | Cold | • Trench foot<br>• Frost bite<br>• Hypothermia | • Temperature monitoring<br>• Shelters<br>• Work Rest cycle<br>• Proper clothing<br>• Training of supervisors to identify early symptoms of frost bite and hypothermia |

| S.No. | Hazard | Health Effects | Mitigation Measures |
|---|---|---|---|
| 3 | Noise | • Temporary hearing loss<br>• Permanent hearing loss (NIHL)<br>• Non-auditory effects such as fatigue, stress like response, interference with communication | • Engineering measures such as isolation of process, shields, machine maintenance, proper base fixing etc.<br>• PPEs such ear plugs, earmuffs<br>• Periodic audiometry |
| 4 | Illumination Insufficient or excessive light | • Eye strain<br>• Fatigue<br>• Headache<br>• Stress<br>• Accidents<br>• Lower productivity | • Illumination monitoring<br>• Legal compliance<br>• Appropriate lighting system<br>• Measures to reduce glare<br>• Eye check-up |
| 5 | Vibration | • Musculoskeletal diseases<br>• Joint problems<br>• White fingers (in localized exposure) | • Vibration measurement<br>• Proper fixing of seat<br>• Cushioning<br>• Work rest cycle<br>• Anti-vibration gloves |
| 6 | Ionizing Radiation | • Cancer<br>• Genetic damage<br>• Foetal malformations<br>• Skin ulcers | • Engineering measures<br>• Radiation measurement<br>• TLD badges for personal monitoring<br>• Regular health-check-ups |
| 7 | Non-ionizing Radiation | • Arc eyes<br>• Cataracts | • Engineering measures<br>• PPEs |
| 8 | High Altitude | • Acute mountain sickness<br>• High altitude pulmonary (Lung) oedema<br>• High altitude cerebral (Brain) pulmonary oedema | • Medical examination<br>• Training<br>• Acclimatization<br>• Oxygen supplementation |
| 9 | Deep sea diving | • Barometric trauma<br>• Decompression sickness<br>• Osteonecrosis | • Medical examination<br>• Training<br>• Gradual ascent<br>• Supervision |

**B. Chemical Hazards**

It has been estimated that more than 80000 chemicals are in use today in industries and commerce. Workers can be exposed to chemicals in various forms such as dust, powder, liquid, gas, aerosol, mist, fumes and smoke. The chemicals enter the body through inhalation, ingestion and skin absorption. Inhalation is the most common source of exposure as lung surface area is about 100 cubic m.

As can be seen from table II, all organs and body systems can be affected to various degrees. The adverse effects are dependent on properties of the chemical, concentration, particle size (in case of dusts), duration of exposure, severity of exposure and individual susceptibility. Acute exposure is easily identified, diagnosed and treated. However, it is important to identify chronic health effects (Due to exposure of low concentrations over a long period of time).

**Table II – Summary of Chemical hazards**

| S.No. | Target Organ | Mechanism | Health Effects | Mitigation Measures |
|---|---|---|---|---|
| 1 | Skin | Direct exposure of skin to various chemicals | • Chemical Burns (Due to exposure due to high concentrations)<br>• Occupational dermatitis<br>• Oil acne<br>• Skin cancer | • Engineering measure<br>• Appropriate PPEs<br>• Barrier cream<br>• Hand washing<br>• Training |
| 2 | Lungs | Inhalation of dusts, aerosols, fumes, smoke | • Acute effects due to exposure to high concentrations e.g. chlorine, ammonia<br>• Pneumoconiosis e.g. silica, coal dust, cotton, asbestos<br>• Lung cancer e.g. asbestosis, chromium<br>• Occupational asthma<br>• Lung tissue inflammation | • Occupational hygiene studies to asses exposure<br>• Engineering measures<br>• General and local exhaust ventilation<br>• Respiratory PPEs<br>• Training<br>• Periodic medical examination |
| 3 | Brain, Liver, Kidney, Heart, Bones, Endocrine system, Reproductive system, Genes | Entry of chemicals into blood stream through inhalation, ingestion and skin absorption | • Genetic damage<br>• Structural damage<br>• Functional damage<br>• Cancer<br>• Effect on developing foetus | • Occupational hygiene studies to asses exposure<br>• Engineering measures<br>• Appropriate PPEs<br>• Training<br>• Periodic medical examination |

### C. Biological Hazards

The biological hazard means exposure to living organisms such as bacteria, viruses, fungi, parasites etc. These microorganisms can enter the blood stream through inhalation, ingestion and broken skin. Animal bites such as snake, scorpion, insects, wild animals etc. maybe also considered as biological hazard if it occurs in course of the job requirement. Food safety in the canteen and cafeteria at workplace is also important as lack of it may expose the worker to food and water borne infections.

The most common occupations where employees face biological hazards are farming, construction, health care, slaughterhouses, animal labs, sewage cleaning, etc. The health effects of the entry of germs in the body are varied and depend on the virulence of the organism, dose, vaccination status, nutritional status and immunity of the person.

Some of the infections that can be attributed to workplace are anthrax, tetanus, brucellosis, Hepatitis-B, leptospirosis, SARS, Orf, Q fever and many others. It may be noted that these diseases occur in general population but more chances of exposure at workplace due to the inherent risk increases the chances of infection.

The preventive measures include engineering measures (if applicable e.g. automation in slaughter houses and sewage cleaning), appropriate PPEs, training and awareness, regular cleaning and housekeeping, provision of safe drinking water, handwashing facilities and suitable vaccination (e.g. tetanus, hepatitis-B, H1N1 influenza, Anthrax).

### D. Mechanical Hazards

The hazards include potential accident hazards at workplace such as moving parts of machinery, vehicular accidents, slips and trips, electrical shock, fall from height, fall of heavy object, collapse of structure etc. They are in domain of safety professionals, engineers and operation team. Hence, they are not discussed here in detail.

### E. Ergonomic Hazards

As more and more automation and mechanisation are being implemented in industries and workplaces, the incidence of physical and chemical hazards is coming down to some extent especially in organized sector. Musculo-skeletal problems are on the rise. The constant use of electronic gadgets such as computers, laptops, mobile phones, gaming consoles, iPod etc. are significantly contributing to the problem.

ILO Definition says "Ergonomics is application of Human Biological sciences along with Engineering sciences to achieve the optimum mutual adjustment of man and his work". It is a very complex science which involves application of various disciplines such as Anthropometry, Biomechanics, Mechanical engineering, Industrial engineering, Industrial design, Kinesiology, Physiology and last but not the least Psychology. It involves adjustment of man to machine, man to work process and man to work environment.

**Table III - Summary of Ergonomic hazards**

| Mechanism | Health Effects | Mitigation Measures |
|---|---|---|
| • Repetitive work<br>• Use of Force e.g. lifting, pulling and pushing<br>• Awkward Postures<br>• Static Posture e.g. prolonged standing or sitting<br>• Contact Stress<br>• Environment such as temperature, noise,<br>• Psycho Social e.g. boredom, anxiety, depression, poor job satisfaction | • Musculo-skeletal disorders such as affection of bones, joints, muscles, ligaments, tendons<br>• Affection of peripheral nerves<br>• Psychological effects<br>• Accident potential<br>• Low productivity<br>• Fatigue – Physical and Mental | • Good Design of workplace, work process and work environment considering potential ergonomic hazards<br>• Application of ergonomic rules<br>• Regular ergonomic evaluation<br>• Engineering measures such as automation, mechanical lifting of weights etc.<br>• Job rotations and work rest cycles<br>• Employee awareness training<br>• Training of supervisors to identify ergonomic hazard<br>• Prompt Referral of employee who exhibits early symptoms to the doctor |

It may be noted that development of ergonomic injury depends on nature of mechanism of injury, duration of exposure, severity of exposure, individual susceptibility and general physical fitness of the worker.

### Psycho-social Hazards

A sound body in a sound mind is extremely important for employee well-being, safety and productivity. Mental Health of an employee and her/his behaviour is influenced by genetics, nutrition, upbringing, experiences in early childhood, societal culture, ethnic culture, attitude and socio-economic issues. Problems and stress at workplace can significantly contribute to the mental health status of the employee. Unfortunately, the awareness of mental health issues in general population as well as all stake holders at workplace are low.

**Table IV - Summary of Psycho-Social Hazards**

| Psychological Hazard | Adverse Health Effects | General Mitigation Measures |
|---|---|---|
| • Failure to adapt<br>• Sexual harassment<br>• Lack of job satisfaction<br>• Low wages<br>• Poor interpersonal interaction<br>• Deprivation of family life | • Stress<br>• Addictions (Though many times tension is just an excuse used for alcohol or tobacco abuse)<br>• Exposure to sexually Transmitted Diseases<br>• Malnutrition | • Inclusion of psychological hazards in HIRA document<br>• Awareness training for all<br>• Training of supervisors to identify early symptoms<br>• Zero tolerance for alcohol or tobacco use at workplace |

**Table IV - Summary of Psycho-Social Hazards**

| Psychological Hazard | Adverse Health Effects | General Mitigation Measures |
|---|---|---|
| • Inability to deal with new technology<br>• Frequent job rotations<br>• Job insecurity<br>• Changing job locations<br>• Responsibility but no authority<br>P.S.<br>This list is indicative and not exhaustive. The readers may add many more conditions depending on their experience | • Increased accident potential<br>• Sickness absenteeism | • Grievance Redressal Mechanisms at workplace<br>• Counselling facilities<br>• Sexual Harassment committee<br>P.S. Unlike other workplace hazards, psycho-social hazards are not easily measurable, and results of mitigation measures may not always be measurable and predictable |

## What are the measures for prevention of Occupational Diseases?

Prevention of occupational diseases is multi-task effort involving senior management, operations, safety personnel, environment department, HR, Occupational health physician and medical staff, union representatives, government officials and last but not the least workers themselves.

**Table V - Summary of Measures to control occupational risk exposure**

| Psychological Hazard | Adverse Health Effects | Adverse Health Effects | General Mitigation Measures |
|---|---|---|---|
| • Design of Workplace<br>• Design of Safe work Procedures<br>• HIRA (Hazard Identification and Risk Assessment) document<br>• Application of Ergonomics Principles<br>• Control of hazard at source<br>• Isolation of process<br>• General Ventilation<br>• Illumination<br>• Repair & Maintenance of Equipment<br>• Environmental sanitation | • Periodic Occupational hygiene studies<br>• MSDS<br>• Risk communication<br>• Washing Facilities<br>• Safe drinking water<br>• Nutritious food<br>• Personal Protective Equipment<br>• Statistical Monitoring<br>• Research<br>• Good Housekeeping<br>• Training<br>• Work Rest cycle<br>• Safety audits<br>• Family planning<br>• Grievance redressal mechanism<br>• Signages, warnings | • Pre-employment Examination<br>• Periodic Examination<br>• Biological Monitoring<br>• Medical & Health Care Services<br>• Immunization<br>• Counselling Services<br>• Notification<br>• Documentation & Research<br>• Health Education<br>**It is extremely important the doctor is trained in occupational health** | • Maintaining legal register<br>• Compliance of various safety and OH related provisions in various acts such Factory Act, Mining Act, BOCW Act, E.S.I.S. Act etc. |

**Medical Examination (Called Medical Surveillance as well)**

***Health is not valued till sickness comes. – Thomas Fuller***

Medical examinations are one of the important components of medical measures. It must be noted that the medical examination conducted as per occupational health principles is different from general medical check-up. These check-ups are not for general fitness but for specific fitness for the job. These are also done to comply with statutory requirement as outlined in the factory act, Mines Act, BOCW act, new OHS labour code etc.

## What are the general Principles of Medical surveillance?

- It is not a general check-up
- Occupational risk exposure assessment is the determinant and not mere exposure to a hazard

- Components of medical examinations viz. medical history taking, physical examination and investigations are in line with assessed occupational risk exposure
- The tests will be different for trades in the organization
- Legal provisions should be considered
- Unnecessary tests should be avoided
- Objective of these medical examinations are to determine fitness of the employee for specific job
- To determine that current medical condition of employee does not pose a threat to herself/himself and other employees
- Due to high incidence of diabetes mellitus and high blood pressure in Indian population, blood pressure examination and blood sugar check-up should be included in the medical surveillance for early detection of these silent killers

## What are the different determinants for Occupational Risk Profiling and Medical Examination?

***"Risk comes from not knowing what you are doing" – Warren Buffet***

Various tools and information are available to determine the occupational risk profile and medical tests to be conducted. They many include

- Work Processes & Workflow
- Process safety analysis
- HAZOP and similar studies
- Job safety analysis
- Hazard Identification and Risk Analysis results
- Industrial hygiene studies - Personal as well as Environmental - Time Weighted Average data
- Target organ damage data as per Material Safety Data sheets for all raw, intermediate and final products and toxicity studies
- Accident and injury pattern analysis
- Availability of biological markers in body fluids e.g. urine
- Availability of PPEs
- Trend analysis
- Morbidity patterns (Sickness data analysis)
- Statutory and legal requirements
- Any other relevant information

Occupational risk exposure is jointly determined by team consisting of safety professional, industrial hygienist, production team, occupational health physician and other relevant stakeholders based on the above data. Once the employees are classified in SEGs (Similarly Exposed Groups), site occupational health physician will determine what tests are to be done for each employee.

## What are the different categories of Medical Surveillance?

**Table VI – Categories of Medical Surveillance**

| | When It Is Done | Why it is done |
|---|---|---|
| **Pre-employment** | Before the employee joins the organization | • To assess the physical and mental capability of the employee for the specific job<br>• To document base line health data<br>• To recruit a fit and productive employee<br>• To reduce the economic burden on the organization<br>• To comply with legal provisions |
| **Periodic** | • At regular intervals during employment<br>• Generally, once a year<br>• Additionally, as prescribed by the law | • For early diagnosis of Occupational diseases<br>• Removal from further exposure if needed<br>• Early changes may be reversible and progression of disease may be halted<br>• Disability limitation with timely intervention<br>• Trend analysis in different SEGs<br>• To comply with legal provisions<br>• Early diagnosis of non-occupational diseases |

| Category | When It Is Done | Why it is done |
|---|---|---|
| **Pre-placement** | When the job and risk profile is changes due job change within the organization | • To assess the physical and mental capability of the employee for the changed job<br>• To comply with legal provisions if necessary |
| **Per exposure** | When the employee is exposed to any chemical or hazard due to accident | • For early detection and medical management of adverse effects of such exposure<br>• To assess the fitness of employee to return to the job |
| **Per request** | When requested by supervisor or employee | • To assess the current medical condition of employee<br>• To assess the fitness of employee to return to the job<br>• To recommend temporary or long-term job change if necessary |
| **Return to Work** | When the employee returns to work after a prolonged injury or illness | • To assess the current medical condition of employee<br>• To ensure that the injury or the prolonged illness has not hampered employee's ability to carry of the job assigned.<br>• To recommend temporary or long-term job change if necessary |
| **Exit** | When the employee leaves the organization | • To assess the current medical condition of employee<br>• To ensure that the health of the employee is not adversely affected due to employment risk exposure |

## What are some practical examples of tests conducted in medical surveillance?

- Pulmonary function tests in employees exposed to dusts toxic to lungs
- Audiometry in employees exposed to high noise or ototoxic chemicals
- Liver function tests in employees exposed to hepatotoxic chemicals
- Hearing and vision testing (including peripheral vision) testing in employees driving powered industrial vehicles such as forklift
- Hearing and vison testing (including depth perception) for overhead crane operators
- Targeted examination of Musculo-skeletal system of employees exposed to ergonomic risk
- Radiation exposure testing (quarterly) in employees exposed to ionizing radiation
- Height pass and vertigo test in employees working at height
- Stool examination and appropriate vaccination for food handlers
- Urinary phenol testing in employees exposed to benzene
- Examination of nasal septum in employees exposed to chronic chromium exposure

## Take Home Message

- Employees are exposed to hazards at workplace thus having adverse effects on their health
- Most of the occupational diseases are not curable but are preventable
- Most of the occupational hazards can be identified, measured and controlled
- Often chronic health hazards are neglected and not suitably identified
- Controlling and minimizing occupational risk exposure include engineering measures, administrative measures, medical measures and legal measures
- Doctor trained in Occupational health, trained medical staff and medical measures play a vital role
- Medical surveillance is a vital tool of early detection and management of occupational diseases
- Medical surveillance tests are specific to occupational risk profile and not for a general check-up
- The basic objective of medical surveillance to determine fitness of employee for the specific job and early diagnosis of occupational diseases
- Effective implementation of Occupational Health management system makes a good business sense in terms of safety, productivity, cost reduction and legal compliance

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# DEVELOPING PSYCHOLOGICAL SAFETY AND MENTAL WELL-BEING AS CORPORATE VALUE

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## 1 Abstract

Psychological safety and well-being is increasingly being felt crucial for Corporate India. People should not get injured physically, but also, they must not get psychologically injured. Safety consciousness for people is a culture for independence and freedom from an injury. The culture of psychological safety is all about creating an environment where people can speak up with ideas, suggestions, concerns and admit mistakes. Psychological safety and well-being often struggle to become a strong organisational value. People don't feel confident to share their challenges to management unless they feel psychologically safe. Top management and HR are not focused in the subject. It requires courage from leaders, consistency in actions, and a deep cultural shift. but employees often hesitate to challenge authority, admit mistakes, or share unconventional ideas due to fear of consequences. It is deliberate ignorance and need is not felt as of now due to lack of awareness both from employers and employees. This is an area for action. Because the organisations still reel under Monarchy. Bureaucracy is at full swing. Top management and middle management need to drive it with constant communication and confidence building at the worker level. Building positive safety and work culture is a precondition for establishing psychological safety culture. Do you have a psychologically safe workplace, top and middle managers must assess and address? It is recommended to ensure visible leader support at all organisational levels across work areas and within teams. Training interventions and individualised attention from managers are the means to enhance psychological safety. Introduce the culture of psychologically safe environments (PSE) and empower workforce to speak up for safety of each other, but the deeper insight is that let people speak up otherwise as well, for building a psychologically safe culture. It is observed that all companies have some level of psychological safety and mental health services in their plants which they must improve as suggested and discussed in this paper.

**Key Words:** Failures, Solutions, Psychological, Safety, Corporate, Culture

## 2 Introduction

Understanding and implementing psychological safety within the framework of strategic management is crucial for organizations aiming to thrive in an increasingly complex and uncertain business scenarios (Setya, et al., 2023). Psychological safety and well-being research has cropped up increasingly due to complicated nature of work in organizations. Actions on psychological safety helped reducing interpersonal risks. Four themes exist relating to psychological safety: leadership, improving the work experience, learning behaviors, and getting things done. Overall, psychological safety is becoming relevant in a global world and playing an important role in enabling organizations to learn and perform within dynamic environments (Edmondson & Bransby, 2022).

A complex relationship between the psychological safety and workers productivity throws light on the considerable influence that psychological safety has on the organisational success. It is now accepted that psychological safety, as a concept that people can communicate their mistakes, concerns, fears and thoughts without fear of humiliation, is a basic cognitive positioning that influences how employees interact with their jobs. It encourages people to work together and being open with one another that enhances problem-solving abilities and ultimately augment their productivity (Almahri & Abd Wahab, 2023).

The dynamic environment of todays' workplaces characterized by a focus on collaboration, innovations and teams' communication stands out as a critical factor for organizational success. At the centre of such communication dynamics are the concepts of psychological safety, as commonly held beliefs within teams that encourage employees to express without a fear of negative consequences. Psychological safety, recognized as a basic element for high-performing teams, is a paradigm shift in performance management and human resource practices. As organizations go through the challenges of the global markets, fostering psychological safety across teams have become more vital. There is an urgent need to rediscover multiple dimensions of psychological safety in team communications and its implications in HR practices. The spadework for positive psychological safety was laid out by Professor Edgar Schein who emphasized importance of mutual respect and trust in organizations. Dr Schein highlighted psychological safety as a facilitator for constructive dialogue and authentic expression. Amy Edmondson further underlined the role of psychological safety in fostering innovation, learning and open communication within teams. Psychological safety perceived as safety of

interpersonal interaction significantly influences team performance and communication. Importantly, empowering leaders contribute toward establishing trust which moderates the locus of control and psychological safety. Individualized attention and training interventions by managers are the tools to enhance psychological safety, particularly in professional teams where decision-making and effective communication are crucial. Psychologically safe teams empower members feel safe to share ideas, challenge norms without scare and voice opinions. This openness fosters a culture of continuous improvement and constructive feedbacks for driving problem-solving endeavours and innovations. As stated by Brené Brown, vulnerability plays vital role in this perspective facilitating deeper relationship within team members for authentic engagements. With an increase in remote work and virtual practices, psychological safety becomes more pronounced to promote inclusivity and reduce barriers in communication (Paulus, 2023).

Mental health and alcoholic issues of employees are most important in psychosocial safety, in which tools like self-observation, self-care and peer-care are of utmost importance. Field insights revealed that with caring and support, we can save people from physical injuries but more from mental injury. Psychological motivations prepare people more to provide caring to others. Such psychological change in behaviors provides smile to families, increase their happiness and morale.

The trouble is that employees are trained in safety culture but not their HODs who don't encourage psychological safety culture. How to crack power culture into positive safety culture is a concern to be addressed. HODs and bosses often dominate for production targets avoiding at-risk behaviors. They isolate employees who talk more about safety culture. Also the concerns are that the bosses don't provide adequate safety resources in terms of

In 1999, psychological safety term was originally coined at the Harvard Business School by Amy Edmondson, Professor of Leadership and Management, who defined psychological safety as a belief that no one will be humiliated for speaking up with questions, concerns, mistakes or ideas and that the team would feel safe for interpersonal risk-taking (Bennett, 2023).

## Objectives of research are to explore

- Failures and solutions to develop psychological safety and mental well-being as corporate value.
- Introducing and implementing concepts of psychological safety and well-being at workplaces.
- Sensitizing managers on this theme so that they can act as a psychological safety mentor.

## Methodology

This research is conducted over an year during January 2024 to February 2025 across 10 plants in India including 800 employees from diverse industry sectors, and the data are drawn from the official records, reviews, accidents accounts, eye witnesses, field insights, surveys, interviews, field insights, questionnaires, experts responses, recommendations. Eight themes were identified from the qualitative and quantitative data of this research. This paper is an extract from a larger research.

## Following eight themes are elaborated further as emerged out of this research.

1. Top leadership is driving the culture to ensure that people feel psychologically safe to speak up.
2. Most organizations still reel under monarchy and bureaucracy is at full swing.
3. It is deliberate ignorance and need is not felt due to lack of awareness:
4. It requires courage from leaders, consistency in actions, and a deep cultural shift.



*Figure-1: company employees at OIL undergoing psychological safety workshop*

5. Psychological safety is all about creating an environment where people can speak up.
6. Psychological safety often struggles to become a strong organisational value.
7. Employees hesitate to challenge authority, admit mistakes due to fear of consequences.
8. People don't feel confident to share their challenges unless they feel psychologically safe.

## Research Findings

Workplace psychological safety is becoming increasingly important in today's business scenario as it has demonstrated to lead toward higher employee engagement, increased productivity, and improved standards of safety performance. These advantages can lead to a more profitable and successful organization (Sewell, 2023). *But why psychological safety is not becoming an organizational value so strongly? Do people really feel psychologically safe in organizations?*

The results throw light on the existing trends of psychological safety in organisations as follows.

1. Top leadership is driving the culture to ensure that people feel psychologically safe to speak up:

   The leaders' positive behaviours predicts employees' speaking up at workplaces as their strong psychological safety initiatives (Arménio, et al., 2024). Vipin Upadhyay HSE head of Thermal observed that at management level, this is what leadership is driving to ensure that people feel psychologically safe to speak up. Workers need constant communication and confidence building. But middle management mindset is the area we need to improve. Some times, unknowingly top management also gives signal for hard action on safety violators which creates confidence deficit on what is the right or safe direction.

2. Most organisations still reel under Monarchy and Bureaucracy is at full swing:

   In Indian organisations, largely, people don't really feel safe to speak up about risks at work. As a result, many employees (approx. 70%) report feeling uncomfortable sharing ideas or concerns, and experience stress and anxiety at work, as according to Dr Ramesh from BARC in Mumbai. Dr RN Barik of IOCL emphasised that the top management and HR are not focused in the subject of psychological safety. Siva Rama Krishna Rao, HSE veteran felt that because the organisations are still under monarchy, bureaucracy is at full swing.

3. It is deliberate ignorance and need is not felt due to lack of awareness:

   Indranil Chakraborty of ThyssenKrupp, and K K SHARMA Director EHS DCM Shriram stated strongly that it is deliberate ignorance and need is not felt as of now due to lack of awareness about psychological well-being both from employers and employees. This is an area for action. The company rationale must focus to make better decisions, mature leaders are open to employees' views to address employees' concerns and challenge the status quo with for improving the situation, and receptiveness is enabled by boosting employees' psychological safety (Arménio, et al., 2024).

4. It requires courage from leaders, consistency in actions, and a deep cultural shift:

   According to Aakash Thakur, Vice President at Vardhman, psychological safety isn't becoming a strong organizational value because it demands more than policies. It requires courage from leaders, consistency in actions, and a deep cultural shift. Many organizations mistake 'open-door policies' for real openness, but employees still weigh every word before speaking. Until accountability for psychological safety is as strong as it is for business results, true safety will remain a myth.

5. Psychological safety is all about creating an environment where people can speak up:

   While the moderate levels of psychological safety climate are associated with higher performance, high levels are associated with decreasing performance (Eldor, et al., 2023). Pavan Rao, a matured safety expert, shared that the conversation, consultation and discussions with frontline are very important to know and address gaps. Often People are so busy that they don't want to come out of comfort zone and discuss. They are not aware that this is the best way to find and address gaps. While organisations must empower workforce to speak up for safety of each other, but the deeper insight is that let them speak up otherwise as well, for building a psychologically safe culture.

6. Psychological safety often struggles to become a strong organisational value:

   The complexity of today's work environment requires a deep change within organizations. Consequently, recent work practices are focusing on the inter-relationship between psychological safety, leadership, and learning behaviors of employees (Cazan, 2023).

   Mayank Joshi, EHS head from pharmaceutical company experienced that the psychological safety often struggles to become a strong organizational value due to:

   - Lack of awareness and understanding
   - Prioritizing productivity over well-being
   - Fear of vulnerability and accountability
   - Power dynamics and hierarchy

- Cultural and societal norms
- Lack of leadership commitment
- Insufficient resources and support

The success of psychological safety culture depends upon the organizational learning graph as to how it is organized, reviewed and revised by all HODs and plant heads. But the power culture restricts psychological safety culture in organizations.

7. Employees hesitate to challenge authority, admit mistakes, due to fear of consequences:

Whether people truly feel psychologically safe in organizations, the reality is mixed. Many workplaces claim to foster it, but employees hesitate to share unconventional ideas due to fear of being humiliated or challenge their bosses or authority. True psychological safety exists only where leaders actively listen, respect dissent, and make vulnerability a strength, not a weakness.

8. People don't feel confident to share their challenges to management unless they feel psychologically safe: To create safe space, we need to discuss with workers and listen actively. Active listening is an art which most of us must learn. We have created small area-wise teams of frontline employees which includes all disciplines to know gaps, discuss and arrive at solutions. We organise skip-level town-halls where CEO and head O&M discussed directly with frontline to know their challenges, action points are recorded and closed in a time-bound manner. *It is equally important to communicate to frontline the actions taken so that they are aware* (Personal Communications, 2025).

## Conclusions and Implications

Conclusions of this research indicate that

- Positive safety culture is a precondition for establishing psychological safety culture.
- Caring is a basic challenge for organisations.
- Interpersonal value for helping out employees is the key.
- Occupational health must be an organisational focus.
- Do you have a psychologically safe workplace, managers need to assess and address.
- Introduce the culture of psychologically safe environments (PSE).
- It requires courage from leaders, consistency in actions, and a deep cultural shift.

## Do employees feel psychologically safe to speak up to correct and report at-risk behaviours?

Figure - 2 reflects management's mass meetings with the workforce to speak up for safety of each other. Psychological safety intervention is an important part of the total safety culture. Most companies respond and address the psychological safety issues of the workforce, such as fears, anxieties, depression, dissatisfaction, pressures and so on. But they are dealt with in an informal ways by some sensitive and sensible managers, not as an integral part of the work system as an organisational system. Therefore it is necessary to understand it more clearly for better mental health and well-being of employees so that they feel psychologically safe at workplaces.

The psychological safety and its significance is now recoganised across industries. A crucial misconception



*Figure 2: management's mass meetings with the workforce to speak up for safety of each other*

among the corporate leaders is that psychological safety will be present in any healthy work environment, like freedom from harassment or keeping workers injury-free. In fact, psychologically safe work environments are rare. Creating psychological safety in a workplace is truly challenging and takes an unusual degree of mentoring, commitment and skill. It is a process of helping people develop new beliefs and behaviours. Building a psychologically safe work environment starts with shifting the narrative of the intervention from culture change or interpersonal skills in order to make the case that the quality of conversation matters for results. Senior executives buy into the importance of psychological safety when they appreciate its role in solving complex issues. Train both individuals and teams and incorporate visualisation. It gets easier over time because they become better at noticing positive examples in their practice of new behaviours. Normalise vulnerability at work. It's normal to experience mild anxiety as a consequence of feeling vulnerable. Practicing small acts of vulnerability reduces that anxiety. Ask executive teams to identify an important complex topic on which they had been unable to make progress, and thereby developing their skills and making progress at the same time. Focusing on performance, working at both the individual and group level, using visualisation, normalising vulnerability, and using real problems to develop skills on thorny problems comprise a powerful approach to altering the climate and capabilities of work teams. Building capabilities related to psychological safety perspective is increasingly a vital part of achieving excellence in challenging business contexts (Edmondson and Hugander, 2021).

Having psychologically safe groups can improve learning, creativity and performance within organisations. Psychological safety supports employees safety by enabling and encouraging staff to speak up about errors. Despite low levels of psychological safety in teams, there is a dearth of interventions that can be used to improve psychological safety and voice behaviours. It is recommended to ensure visible leader support at all organisational levels across work areas and within teams (O'Donovan, et al., 2020). Psychological safety (PsyS) is an important driver of teams' performance and organizations are keen to foster it. However, there is a less evidence on what drives it and how to increase it. Companies evaluated the impact of individualized attention of the managers on employees by encouraging them to hold frequent 1-to-1 meetings and to focus on mechanisms expected to increase PsyS by focusing on employees' needs and aspirations as individuals, and allowing employees to execute tasks better and remove blocks that hinder their best work. The behavior of managers changed as they increased the number of meetings. PsyS also increased the relationship and perceptions of the manager, particularly who focused on the employees' individual needs (Castro, et al., 2022).

Psychological safety, the belief that it is safe to speak up, is vital. The psychological safety improves team effectiveness and is the key to high-performing teams. Psychological safety and feeling heard were both significantly associated with lower burnout (Kerrissey, et al., 2022).

Psychological Safety, according to Professor Maslow's hierarchy, is a human need. Creating psychologically safe work environments is critical. The term psychological safety was coined by Harvard Business School professor Amy Edmondson. Establishing a climate of psychological safety allows space for people to speak up and share their ideas. For leaders, speaking out is actually less important than how we react and respond to other team members (Jiménez, 2022).

## Introduce the Culture of psychologically safe environments (PSE)

Do you have a psychologically safe workplace? Assess and address the psychological health and safety of your workplace. Measure and improve psychological health and safety at work by asking all employees about the work situations which highlight the




*Figure-3: Employees being trained for psychological safety culture*

psychosocial factors, hazards and indicators of inclusion, stress and trauma. Take action to provide insight to the levels of stress and satisfaction at work, in terms of "What went wrong?" or "How could we have prevented this?". Psychological safety is a critical concept for teams and the people that lead them (Gallo, 2023).

Companies adopt a psychological safety (PS) policy and PS observers are trained (Figure-3) to protect employees and workmen who are bullied, victimised or insulted by their managers/ fellow employees. The underlying principle of PS is that everyone at workplace has a right to respect and care from others, and organisation shall do everything possible to protect the same for creating a psychologically safe milieu.

The perception of psychological safety is shaped by the reactions of other employees in the positive /proactive behaviours. The level of psychological safety perception is low when other employees react negatively to the constructive suggestions and feedbacks of the employees. The level of psychological safety is based on interpersonal trust and support in the organization. At times, employees have felt psychologically unsafe, alienated, helpless, lonely, and so on that can be measured accurately using psychological scales (Siddiqui and Sangwan 2022).

Psychological safety is felt to be crucial for Corporate India. A survey on Diversity, Inclusion and Belonging at Indian Workplaces examined the need for psychological safety in organisations. Psychological safety refers to employees believing that they can take risks without being shamed by other members. 45% of all employers surveyed believe that psychological safety is a strong performance indicator and 47% believe, it is a crucial need since it leads to higher employee retention and engagement (Sarkar, 2023). It is vital that people of all cultures feel safe at work.

Psychological safety intervention is an important part of the total safety culture. People should not get injured physically, but also psychologically, they should not get hurt. Employees need psychological care from each other. People should not only speak up for safety, they should speak up otherwise also without the fear of getting reprimanded or being criticised. Nobody wants to feel psychologically unsafe or at-risk. What are those psychological or psychosocial risks at work, when we feel threatened or harmed?

Major question is: Is psychological safe place possible? In fact, psychologically safe work environments are rare. Maslow called it a basic psychological need that motivates everyone to fulfil. Freedom from hurt and harassment, trust, interpersonal support are the positive indicators of psychologically safe environment (PSE). Fear, pressure, burnout are the negative indicator of PSE.

How do organisations, managers, leaders respond to these situations while employees experience these positive or negative aspects of PSE? Mental wellness plays a major role in psychological safety at the workplace. How is your organization cultivating psychological safety in the workplace? And have you ever wondered what the ROI of psychological safety might be? An institution that values candour, and truth-telling, honesty where team members have each other's backing, is a sure indicator of positive psychological safety (McCarthy, 2023).

In meetings, people pick on someone or throw tantrums. In such humiliating conditions, someone must care, empathise, and speak up to save persons from psychological injury before it takes place. Coming out of our comfort zones to support people from low profile like contract people, is the true concept of psychological safety. Questions are - Who would need your psychological care or support? How do you give it everyday to people who work with you in an organisation? How do organisations improve positive psychological connect amongst employees of all cultures?

Psychological safety Observation checklist (Employees who would need care):

- Symptoms of stress, anxiety, fear,
- Personal health and safety issues
- Aggressive behaviours
- Hygiene / cleanliness
- Career/ job concerns
- Harassment/ grievances
- Interpersonal relations
- Family care/ well-being
- Daily emotional care/support
- New employees/workmen

Like in families, we abuse, blame, shout at each other or some times gang up against one member of a family, and continue hurting at psychological level, which gradually turns into a serious conflict or relationship issue. The same way, we in an organisation behave to give psychological injuries to each other that go over months and years, if not resolved or intervened in a time frame by a manager or immediate supervisor. Sometimes people do not know how to resolve, they must seek help of peers or a friend, or an Occupational Health / mental health practitioner.

People should not, get injured physically, but also, they should not get psychologically injured by their colleagues. "In my opinion, reprimanding or psychological injury amounts to an offence", opined an ex- Director of Factories of Karnataka. Pavan Rao, ex-Head HSE, SEIL emphasised that the physical injuries heal after some time whereas psychological injuries takes much longer time and need sustained top management interventions. Actions matter more than words. Employees need psychological care from each other at sites. "Prevent both physical as well as psychological injuries", take care !! "Its a great concept for social and community well-being", stated a HSE Head of IOCL. People should, not only speak up for safety, they should speak up otherwise as well, without

the fear of getting being criticised.

**How to develop psychological carers and best safety culture at company sites:**

- Develop psychological mentors in each section/ area.
- Develop positive listening skills among employees.
- Remove negative behaviors: Don't react, blame, shout, reprimand.
- Develop positive behaviors: appreciate, be a big brother and big sister.
- In the long term, aim at developing everyone as psychological carer.
- Define and help people understand what is psychological safety and psychological injury.
- Understand how do we injure or harm others psychologically with our words and actions?
- Enquire colleagues about their Wellbeing, simply asking, how are you? Can I be of any help?
- Connect with people emotionally, especially new people at workplaces. Just smiling, talking to people at dining table, etc do help connecting with them.
- Be a support unconditionally daily at least to one person without any expectation.

As per WHO, Safe and healthy working environments are not only a basic right but are also more likely to minimize stress and conflicts at work and improve work performance, staff retention, and productivity. Psychological safety truly means everyone at site actively cares that no one hurts or harms or disrespects any one at any place. On the contrary, every one finds opportunity to protect the other person, known or known, if any one in office or meeting, tries to hurt or harm with words or action. A McKinsey Global report (2020) infers that organisations that do not ensure well-being and psychological safety to their employees face the flames of a toxic ecosystem and people tend to demonstrate safety behaviours only for the fear of workplace victimisation (Umashankar, 2023). For demonstrating best HSE culture, SEIL Energy India Limited received four BBS (behaviour-based safety) awards from BESAFE (Forum of Behavioural Safety) at the 9th Annual National BBS Conference jointly organised with IIM Mumbai and supported by NSCI (The Hindu Bureau, 2025).

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# OCCUPATIONAL HEALTH AND SAFETY FROM BIOHAZARDS IN EMERGING BIO-BASED SECTORS

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## 1. Introduction

Occupational biological hazards refer to the potential risks and dangers workers face from exposure to biological agents in the workplace. These agents include bacteria, viruses, fungi, parasites, and other biological materials, which can be encountered in various industries such as healthcare, agriculture, animal farming, and research. In recent years, the rise of bio-based industries—along with the increasing use of biological processes and materials—has introduced new challenges for occupational health and safety. As biotechnology and life sciences are increasingly integrated into sectors like pharmaceuticals, biofuels, and food production, new types of biological risks are emerging. This paper explores these risks and outlines strategies for mitigating them in bio-based sectors, where biological hazards (Symbol in Fig 1) are evolving and becoming more complex.



Fig 1 Biohazard Symbol

## 2. Occupational Biological Hazards

Biological hazards in the workplace can be categorized into several distinct types based on the nature of the biological agents involved and the specific risks they pose to workers. Proper identification, assessment, and management of these hazards are crucial to maintaining a safe work environment. The primary categories of biological hazards include:

### (i) Infectious Agents and Pathogens

Historically, biological hazards have been associated with industries where workers handle infectious agents, such as healthcare settings, laboratories, and agricultural sectors. Healthcare workers, for example, are at risk of exposure to infectious bacteria, viruses, and bloodborne pathogens (e.g., HIV, hepatitis B and C) through direct contact with patients or bodily fluids. Similarly, laboratory workers may encounter dangerous microorganisms while working with clinical specimens. Pathogenic agents, including bacteria, viruses, fungi, and parasites, represent one of the most significant biological hazards in many workplaces. These microorganisms can cause a wide range of diseases, from mild infections to life-threatening conditions. Common examples include: Bacterial pathogens: Salmonella, Escherichia coli (E. coli), Mycobacterium tuberculosis; Viral pathogens: HIV, Hepatitis B and C, Influenza; Fungal pathogens: Aspergillus spp., Histoplasma, Coccidioides; Parasitic agents: Plasmodium (malaria), Toxoplasma (toxoplasmosis). Workers in healthcare, laboratory, and agricultural sectors are particularly vulnerable to exposure to these infectious agents.

Agricultural workers or those in animal farming may face exposure to allergens, such as animal dander, fur, or feathers, which can cause respiratory issues and other allergic reactions. Additionally, workers in outdoor occupations may encounter parasites carried by animals or insects, such as ticks, which can transmit diseases like Lyme disease.

### (ii) Allergens and Fungal Exposure

Certain occupations, such as construction, agriculture, or those in poorly ventilated environments, expose workers to biological materials like fungal spores. Mold exposure, for example, can lead to respiratory issues, allergic reactions, and chronic health problems. Similarly, workers involved in animal husbandry or veterinary care may be exposed to allergens that affect the respiratory system, increasing the risk of occupational asthma or other pulmonary conditions. Biological substances such as mold spores, animal dander, and pollen can trigger allergic reactions or respiratory issues, leading to conditions like occupational asthma or allergic rhinitis. These biological hazards are particularly relevant for workers in agricultural, veterinary, construction, and healthcare environments. For example: : Construction workers, particularly in water-damaged buildings, may be exposed to mold spores, which can lead to respiratory problems and workers in laboratories or animal farming may be exposed to allergens from animals, causing chronic respiratory issues.

### (iii) Biological Toxins

In some industries, particularly research labs or manufacturing facilities, workers may come into contact with biological toxins—substances produced by living organisms that can cause severe health effects. These toxins, if not handled properly, can pose significant risks to worker health and require stringent safety protocols. Some biological agents produce toxins or possess venomous properties that can cause severe health effects if not managed correctly. These can include: (a) Biological toxins: Toxins produced by certain bacteria (e.g., Clostridium botulinum), fungi, or plants, such as botulinum

toxin or aflatoxins, can have debilitating or lethal effects if workers are exposed through ingestion, inhalation, or skin contact and (b) Venomous agents: In certain industries, workers may be at risk of exposure to venom from insects, snakes, or other animals. For example, workers in agricultural fields or waste management sites may encounter venomous insects such as ticks or spiders that can transmit diseases like Lyme disease or cause allergic reactions.

**(iv) Exposure to GMOs and Bioengineered Materials**

With the expansion of biotechnology and bioengineering, workers in industries dealing with genetically modified organisms (GMOs), such as agri-biotechnology or biopharmaceuticals, face exposure to genetically altered organisms and the biological materials they produce. This includes risks related to genetic modifications in crops, livestock, and microorganisms, as well as the by-products produced during industrial processes like fermentation or bioremediation.

## 3. Emerging Bio-Based Industries and New Biological Risks

The rise of bio-based industries has introduced a host of novel occupational hazards. Industries such as biofuel production (e.g., ethanol and biodiesel), bioplastics (e.g., biodegradable polymers), and bio-based chemicals (e.g., biosurfactants) are driving the need for updated risk assessments and new safety protocols. Similarly, sectors focused on genetically engineered organisms and biopharmaceuticals—including vaccine production, gene therapies, and other biologically-based applications—present new challenges for occupational health.

For instance, in biofuel production, workers involved in fermentation processes might be exposed to bioaerosols, enzymes, or genetically modified microorganisms, which could pose respiratory or allergic risks. Similarly, in industrial fermentation (used in food production, bioengineering, or antibiotic manufacturing), the microorganisms used for fermentation may produce harmful byproducts or generate airborne biological agents, increasing the risk of exposure.

Bioremediation, a process where microorganisms are employed to clean up environmental contaminants, introduces additional risks. Workers involved in the handling of bioaerosols, bacteria, fungi, or enzymes in these settings may face inhalation or skin contact hazards if proper safety measures are not followed.

## 4. The Role of Biotechnology in Emerging Sectors

Biotechnology is transforming several industries by applying biological systems and organisms to develop new products and processes. The impact of biotechnology on occupational health is becoming more pronounced as industries increasingly use genetically modified organisms (GMOs), synthetic biology, and biotechnological applications to address global challenges in healthcare, agriculture, and environmental management.

In healthcare, biotechnology has led to the development of new vaccines, gene therapies, and personalized medicines. Agriculture has benefitted from biotechnology through the creation of genetically modified crops with enhanced resistance to pests and diseases, contributing to food security and sustainable farming practices.

In environmental management, biotechnology has facilitated innovations like bioremediation, which uses microorganisms to degrade pollutants, and synthetic biology, which designs new biological systems for various industrial applications, including waste treatment, energy production, and pollution control.

As these bio-based industries proliferate, the associated risks to workers' health are growing in complexity. Workers may encounter genetically modified organisms (GMOs), bioaerosols, and other biological agents that were previously uncommon in traditional workplaces, necessitating new safety measures.

## 5. Biological Safety Measures and Risk Mitigation

Given the diverse nature of biological hazards in emerging bio-based industries, it is crucial to implement effective risk management strategies. Biosafety plays a vital role in ensuring the safe handling of biological agents, especially in research laboratories and workplaces that involve high-risk biological materials. This is typically guided by the Bio Safety Levels (BSLs), which categorize laboratories based on the level of containment required for different types of biological agents.

In addition to BSL standards, organizations must implement workplace safety programs that include worker training, personal protective equipment (PPE), ventilation systems, and regular monitoring of biological exposure levels. Continuous risk assessments should be conducted to identify and address new or emerging biological hazards as industries evolve.

**Biosafety Levels (BSL) and Their Role in Biological Risk Management**

Biosafety is essential in controlling the risk of exposure to biological hazards, especially in laboratory and research settings where the handling of pathogens and genetically modified organisms (GMOs) is common. The Biosafety Levels (BSL) provide a standardized framework for categorizing the containment and safety protocols necessary to protect workers, the surrounding community, and the environment. There are four distinct BSLs, each designed to handle specific categories of biological

hazards. At BSL 1, the risk is minimal and the agents used are typically not known to cause disease in healthy humans. BSL 2, BSL 3, and BSL 4 laboratories deal with more dangerous agents that pose increasing levels of risk to personnel, requiring more advanced safety measures such as protective equipment, containment, and stringent protocols for waste disposal and decontamination (Fig 4).

**(i) BSL-1: Basic Laboratory Safety**

BSL-1 is the lowest containment level and is applied to laboratories handling well-characterized agents that are not known to consistently cause disease in healthy adults. Safety measures for BSL-1 laboratories include:

- Standard microbiological practices (e.g., handwashing, disinfecting surfaces).
- Minimal PPE such as gloves and laboratory coats.
- Open bench work is generally allowed.
- No special containment or facility design requirements.

**(ii) BSL-2: Moderate Risk Agents**

BSL-2 laboratories deal with agents that are associated with human disease but pose moderate risk through percutaneous, aerosol, or ingestion exposure. Key safety protocols include:

- Controlled access to the laboratory.
- PPE such as gloves, lab coats, face shields, or goggles.
- Biological safety cabinets (BSCs) may be used for work with certain pathogens.
- Waste must be decontaminated by autoclaving or another validated method.

**(iii) BSL-3: High-Risk Agents**

BSL-3 laboratories are used to handle indigenous or exotic agents that may cause serious or potentially lethal diseases through inhalation. These include agents like Mycobacterium tuberculosis or SARS-CoV-2. Key safety protocols include:

- Restricted access to authorized personnel only.
- Use of biological safety cabinets (BSCs) for all procedures involving infectious aerosols or splashes.
- Negative pressure rooms to ensure air flows into, but not out of, the lab.
- HEPA filtration of exhaust air and rigorous waste disposal protocols.
- Personnel must undergo extensive training in laboratory safety and handling of high-risk materials.

**(iv) BSL-4: Maximum Containment**

BSL-4 laboratories are designed to handle the most dangerous and exotic pathogens that pose a high individual risk of life-threatening disease, often with no available treatments or vaccines. Examples include the Ebola virus or Marburg virus. Key safety protocols include:

- Specialized facilities with air-tight, sealed rooms and stringent access controls (Fig 2).
- Personnel work in positive pressure suits (space suits) with independent air supply.
- All work is conducted in Class III biological safety cabinets or with other high containment measures.
- Exhaust air is treated through HEPA filtration, and waste is decontaminated using autoclaving or incineration.
- Continuous training and adherence to strict protocols are mandatory for all personnel.
- Only trained and licensed professionals can work with these microbes, after wearing a positive pressure personnel suit with a segregated air supply.




Fig 2: An illustration of BSL1 and BSL 4 Labs

## 6. Stepwise Strategy for Addressing Workplace Biological Hazards

To effectively manage biological hazards in the workplace, a structured, stepwise approach is essential. This strategy ensures that potential risks are identified, assessed, and mitigated systematically. The steps outlined below provide a comprehensive framework for addressing biological hazards in various work environments:

**Step 1: Identification of Potential Biological Hazards**

The first and most critical step in managing workplace biological hazards is the identification of potential risks. This involves a thorough review of the workplace environment, activities, and materials used to pinpoint biological agents that could pose a danger. Identifying these potential hazards requires input from various sources, including workplace

inspections, employee feedback, and consultations with experts in occupational health and safety.

**Step 2: Risk Assessment and Evaluation**

Once biological hazards are identified, the next step is to assess the risks associated with their presence and potential exposure. Risk assessment tools are essential for quantifying and prioritizing the identified hazards based on:

- Exposure levels: Determining how frequently and to what extent workers come into contact with biological agents. This includes evaluating the concentration of biohazards in the air, surface contamination, and direct exposure through handling.
- Frequency of exposure: Identifying the frequency of workers' exposure to hazardous biological agents, considering both routine and emergency situations.
- Health impacts: Evaluating the potential severity of health effects, including short-term and long-term consequences. This may involve considering factors such as the infectious nature of the agents, possible allergic reactions, and potential for chronic diseases.
- Risk assessment tools—such as hazard analysis matrices, safety data sheets (SDS), and biological risk assessments—are used to rank hazards in terms of their likelihood of causing harm and the severity of potential health outcomes. This assessment helps prioritize interventions and resource allocation for high-risk areas.

**Step 3: Implementation of Protective Measures and Selection of Personal Protective Equipment (PPE)**

The next step involves establishing protective measures to minimize exposure to biological hazards. A combination of engineering controls, administrative controls, and personal protective equipment (PPE) must be considered. This includes:

- Engineering controls: Implementing safety features like biological safety cabinets (BSCs), ventilation systems (e.g., fume hoods or HEPA filters), and physical barriers to contain biological agents and reduce exposure risk.
- Administrative controls: Developing workplace policies and procedures, such as limiting access to hazardous areas, establishing rotation schedules for workers, and implementing hygiene protocols like handwashing and disinfecting surfaces.
- Personal Protective Equipment (PPE): Selecting appropriate PPE for the specific risks identified, such as: Gloves (e.g., latex, nitrile) to prevent direct contact with biological materials; Face shields or goggles to protect eyes from splashes or airborne pathogens; Respirators (e.g., N95 masks or PAPR systems) to reduce the inhalation risk of bioaerosols or infectious particles; Protective clothing (e.g., laboratory coats, coveralls) to provide a barrier against contamination.
    - Training workers on the proper use, maintenance, and disposal of PPE is critical for its effectiveness.

A comprehensive table 1 identifies the probable hazards in selected biolab activities commonly employed in present biotech and bio based industries and then suggests the most appropriate Engineering, Administrative ans PPE controls.

| Biolab Activity | Possible hazard/s | Controls | | |
|---|---|---|---|---|
| | | Engineering | Administrative | Personal Protective Equipment |
| Subculturing and culturing hazardous biological samples | Needle stick - percutaneous inoculation | Safer sharps; retractable needles; puncture - resistant sharps container | No recapping; immediate disposal into sharps container | Gloves; gown or lab coat |
| | Aerosols inhalation | BSC or splash shield | Work inside BSC or behind splash shield | Face protection if not in BSC; gloves; gown or lab coat with knit cuffs |
| | Splash direct contact with mucous membranes | BSC or splash shield | Work inside BSC or behind splash shield | Face protection if not in BSC; gloves; gown or lab coat |

| Biolab Activity | Possible hazard/s | Controls | | |
|---|---|---|---|---|
| | | Engineering | Administrative | Personal Protective Equipment |
| Centrifugation | Aerosols - inhalation | BSC; removable rotors; safety cups; O - rings on buckets; plastic tubes; splash shield | Spin in BSC, or load and unload rotor in BSC; check O - rings and tubes for wear; no glass tubes; wait for centrifuge to stop before opening | Face protection if not in BSC; gloves; gown or lab coat with knit cuffs |
| Gram staining | Aerosols from flaming slides | Slide warmer | Air dry or use slide warmer | Lab coat; gloves (optional) |
| AFB smear culture | Aerosols from sputum or slide prep | Work in BSC; sputum decontaminant; slide warmer | Use slide warmer in BSC; dispose of slide in viral disinfectant | Lab coat; gloves |
| AFB culture analysis | Aerosols - inhalation | BSL - 3 laboratory optimal; BSL - 2 laboratory with BSC minimal | All work in BSC using BSL - 3 practices * | Solid - front gown with cuffed sleeves; gloves; respirator if warranted |

## 7. Protective Measures and Best Practices

In addition to the use of Biosafety Levels to manage risks, several protective measures and best practices are essential for safeguarding workers from biological hazards:

(i) Personal Protective Equipment (PPE): Utilizing appropriate PPE is fundamental to preventing exposure to biological hazards. This includes:

- Gloves: Protects against direct contact with infectious agents or biological toxins.
- Masks or respirators: Reduces the inhalation risk of bioaerosols, fungal spores, or viral particles.
- Goggles or face shields: Protects eyes from splashes or airborne pathogens.
- Laboratory coats or coveralls: Provides a barrier to protect skin and clothing.

(ii) Biological Waste Disposal

Proper disposal of biological waste is critical to prevent environmental contamination and further exposure. Adhering to BSL-specific guidelines for waste management includes:

- Autoclaving: Sterilizing biohazardous waste before disposal.
- Incineration: High-risk biological materials may require incineration to ensure complete decontamination.
- Sharps disposal: Needles, glassware, and other sharp objects must be placed in puncture-resistant containers.

(iii) Laboratory Design and Engineering Controls

The design of laboratories and workspaces plays a crucial role in minimizing biological risks. Key considerations include:

- Ventilation: The use of negative pressure rooms, HEPA-filtered air, and effective airflow control to minimize exposure to bioaerosols.
- Containment equipment: Biological safety cabinets (BSCs) and other specialized containment equipment to isolate hazardous materials from workers.
- Workspace design: Ensuring adequate space for safe handling of biological agents and proper workflow to reduce contamination risks.

(iv) Training and Education

Comprehensive training programs are essential to ensure workers are aware of the potential biological hazards in their workplace and understand the necessary protective measures. Topics should include:

- Safe handling and disposal of biological materials.
- The correct use of PPE and safety equipment.
- Emergency protocols for handling spills, exposures, or accidents.
- Ongoing refresher training to keep workers up-to-date with evolving biosafety guidelines and regulations.

Figure 3 gives a flow diagram of the process of biohazard prevention and implementation strategy.

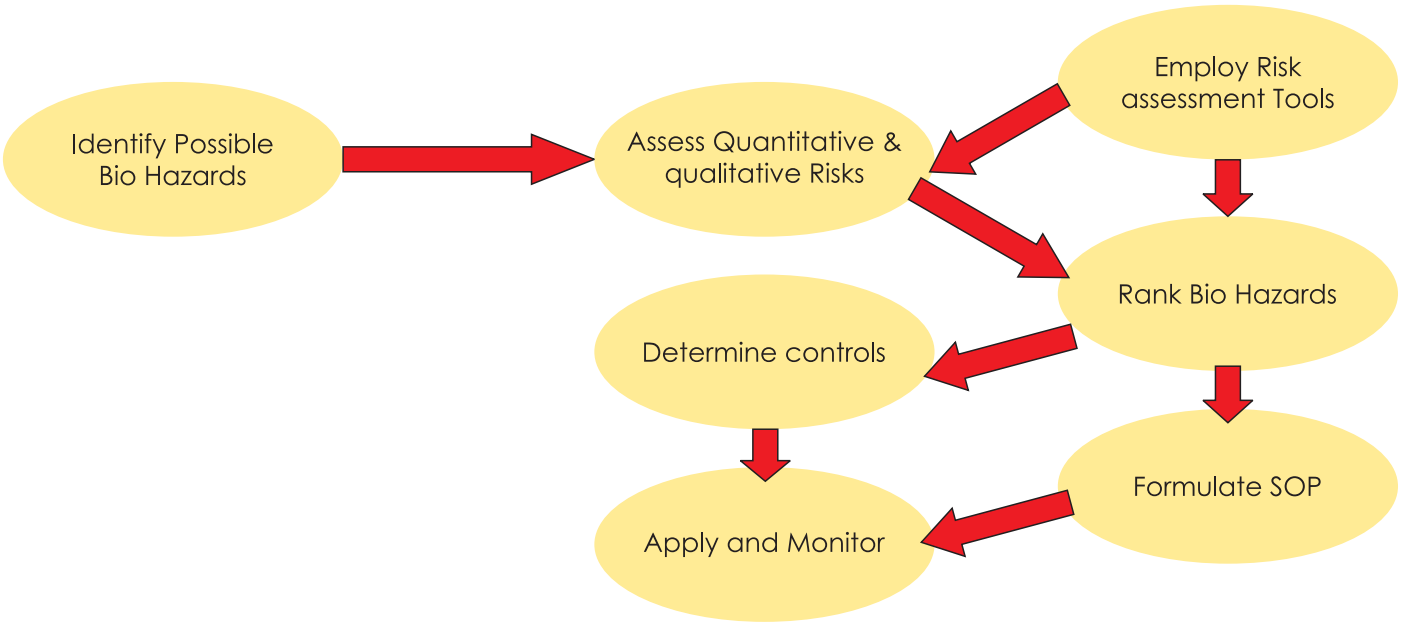
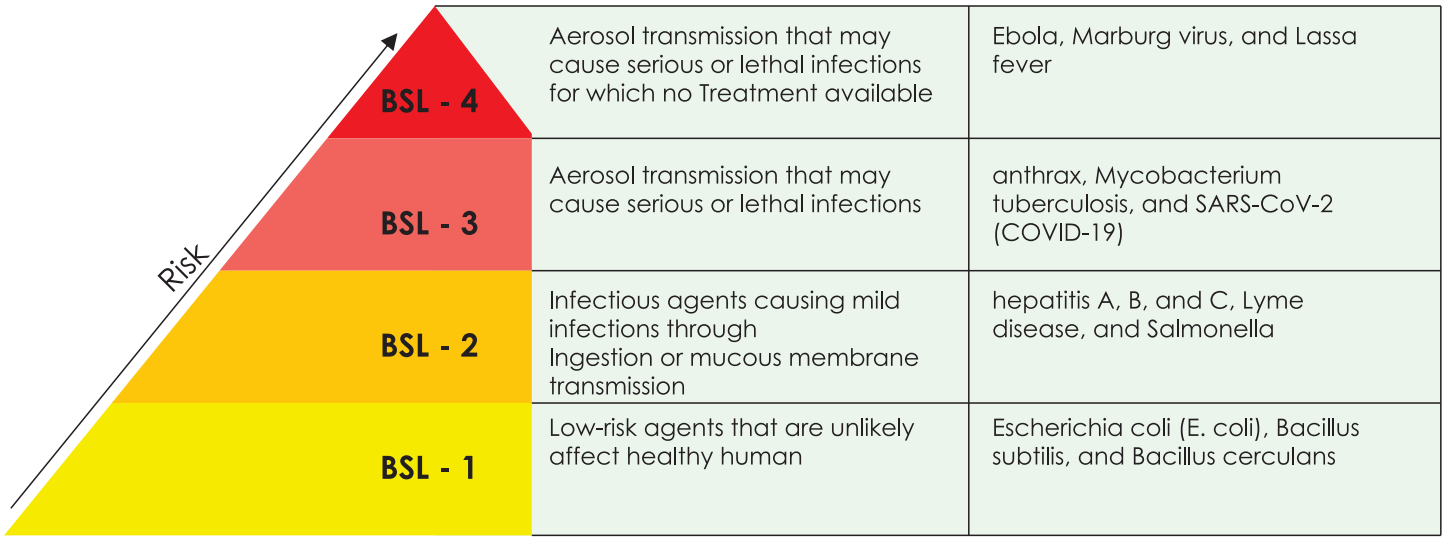



Fig 3. A schematic of process of biohazard prevention and implementation strategy

## Conclusion:

As bio-based industries continue to expand, the need for effective management of biological hazards in the workplace becomes increasingly important. Understanding the classification of biological risks, implementing appropriate biosafety levels, and adopting rigorous protective measures are essential for mitigating potential dangers to workers' health and ensuring the safe conduct of research and industrial processes. By adhering to these best practices, industries can minimize the risks associated with biological hazards and safeguard the health and safety of their workforce, the surrounding community, and the environment.




| | | |
|---|---|---|
| BSL - 4 | Aerosol transmission that may cause serious or lethal infections for which no Treatment available | Ebola, Marburg virus, and Lassa fever |
| BSL - 3 | Aerosol transmission that may cause serious or lethal infections | anthrax, Mycobacterium tuberculosis, and SARS-CoV-2 (COVID-19) |
| BSL - 2 | Infectious agents causing mild infections through Ingestion or mucous membrane transmission | hepatitis A, B, and C, Lyme disease, and Salmonella |
| BSL - 1 | Low-risk agents that are unlikely affect healthy human | Escherichia coli (E. coli), Bacillus subtilis, and Bacillus cerculans |

Fig 4 Different Bio Safety levels.

* * *



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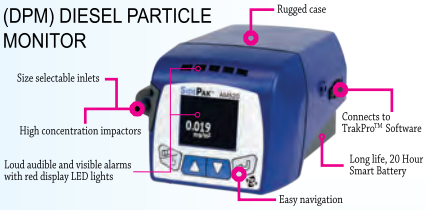
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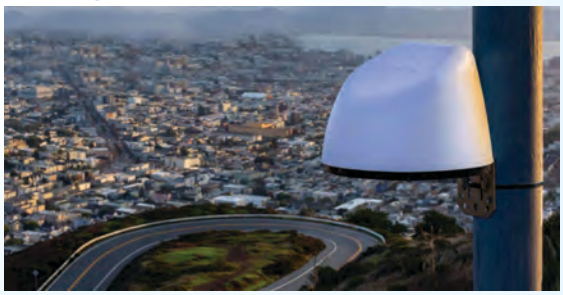
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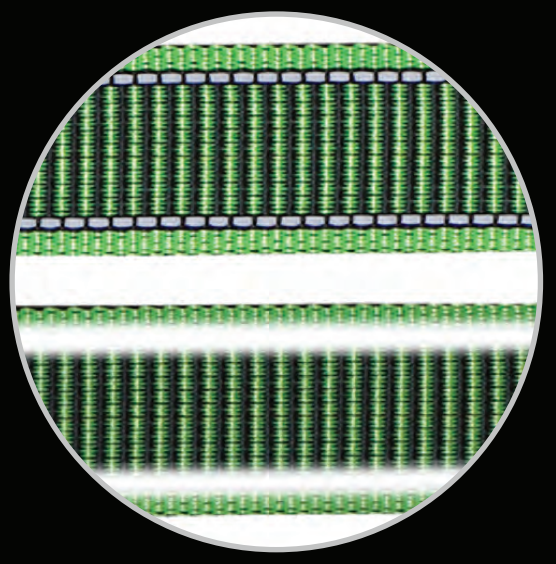
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| ECO 3 | | The Harness comes with one dorsal D-ring for fall arrest and Two Sternal D-ring on shoulder straps for fall restraint. | |
| ECO 4 | | The Harness comes with one dorsal D-ring for fall arrest. | |