International Journal of Modern Trends in Social Sciences
EISSN: 2600-8777
IJMTSS
Volume 8 Issue 31 (September 2025) PP. 19-42
DOI 10.35631/IJMTSS.831002

INTERNATIONAL JOURNAL OF MODERN TRENDS IN SOCIAL SCIENCES (IJMTSS)
www.ijmtss.com

THE IMPACT OF OCCUPATIONAL SAFETY AND HEALTH (OSH) TRAINING ON FOSTERING A CULTURE OF SUSTAINABILITY IN THE WORKPLACE: A SYSTEMATIC LITERATURE REVIEW

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Article Info:

Article history:
Received date: 02.07.2025
Revised date: 24.07.2025
Accepted date: 20.08.2025
Published date: 09.09.2025

To cite this document:

Karim, H. H., Che Leh, A., Chuen, N. N. M. W., Buang, N. F., Abd Jalil, N. A., & Azizan, A. S. M. (2025). The Impact of Occupational Safety and Health (OSH) Training on Fostering a Culture of Sustainability in the Workplace: A Systematic Literature Review. *International Journal of*

Abstract:

This systematic literature review studies the impact of Occupational Safety and Health (OSH) training in developing a culture of sustainability in workplaces. It has become increasingly recognized that OSH training plays an important role for organizational sustainability and that safety procedures and practices must be part of any organisation's long-term future. However, there is relatively little literature that investigates the effectiveness of OSH training to establish sustainable behaviours and cultures at work. Therefore, in order to close this gap in research, PRISMA (Preferred Reporting Items for Systematic Reviews and Meta Analyses) guidelines were used to find and assess studies from sops and Web of Science (WoS) databases in a systematic way focusing on occupational risk factors, safety management systems, psychosocial factors, well-being of employees, and productivity outcomes. After searching, screening and assessing eligibility, there were 36 papers from the literature available that were peer reviewed and published between 2022 and 2024 that were assessed. The outcomes were divided into three themes: (1) Workplace Safety Management and Occupational Hazards, (2) Worker Training, Education, and Workplace Safety Interventions, and (3) Psychosocial Factors,

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Modern Trends in Social Sciences, 8 (31), 19-42.

DOI: 10.35631/IJMTSS.831002

Well-being, and Productivity. The results highlighted that OSH education strengthens employees' understandings of hazards and promotes sustainable safety behaviors, and leads to safety compliance, fewer incidents at work, and foster stronger psychological safety environments. Psychosocially based OSH training was positively related to employee's mental health, job satisfaction, and organizational commitment. Overall, there is clear evidence that systematically incorporating OSH training into workplace policies and culture can lead to more sustainable organizational outcomes. Future research should examine long-term effects and contextual elements that contribute to the effectiveness of OSH training across industry sectors.

Keywords:

OSH, Sustainability, Training, Wellbeing, Workplace

Introduction

In today's work environment, building a culture of sustainability has become a key goal for companies that want to succeed and act responsibly (Deloitte, 2016). Training in Occupational Safety and Health (OSH) is crucial for reaching this goal by combining safety awareness, environmental responsibility, and employee well-being into the organization's culture (McDonnell & Joyce, 2016; Miño-Terrancle et al., 2023). Well-structured OSH training programs not only reduce workplace risks but also encourage a positive attitude toward sustainability. This study looks at how OSH training affects the creation of a sustainable workplace. It highlights the impact on employee attitudes, improves compliance with safety standards, and encourages lasting changes in behavior that support sustainable development.

Workplace sustainability encompasses not only environmental factors but also social and economic aspects, commonly known as the "triple bottom line" of sustainability, which includes people, planet, and profit (Zahid, Rahman, et al., 2019; Zahid, Rehman, et al., 2019). Organizations that dedicate resources to extensive OSH training initiatives enhance this comprehensive approach by fostering safer work environments, decreasing workplace incidents, and encouraging health and wellness among workers. These initiatives result in higher productivity, lower absenteeism, and improved job satisfaction, ultimately favoring both employers and employees. Additionally, a robust safety culture strengthens corporate social responsibility (CSR) efforts, improving an organization's standing and adherence to legal and regulatory requirements.

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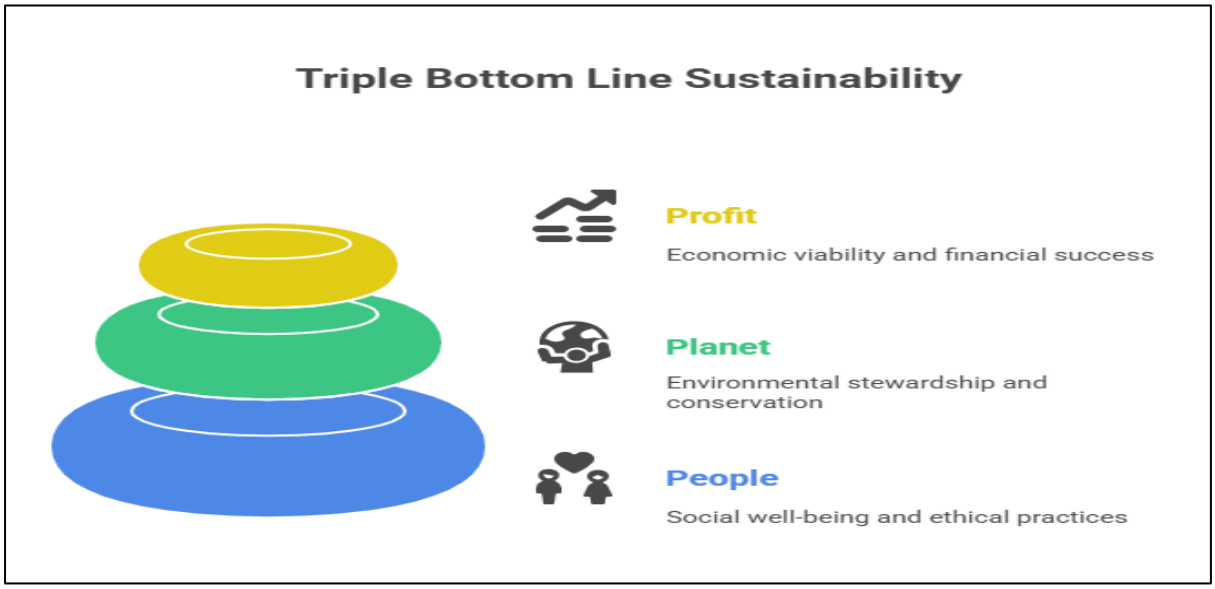

Figure 1. Triple Bottom Line Sustainability.

Integrating OSH training with sustainability objectives is crucial in high-risk industries like construction, manufacturing, and healthcare where workplace risks could result in severe consequences (Babalola et al., 2023; Kimani, 2016). Training programs that focus on assessing risk, emergency preparedness, and sustainable resource management allow workers to better understand their duties in preventing workplace injuries and limiting environmental impacts, instilling a sense of responsibility and ownership in workers, and creating a workplace culture of safety, sustainability, and efficiency.

Additionally, the growing use of technology in OSH training, such as e-learning platforms, virtual reality exercises, and AI-powered safety analysis, has transformed the way employees interrelate with safety procedures. It is proven that digital training techniques improve accessibility, facilitate immediate hazard detection, and enable customized learning experiences, rendering OSH training more efficient and attractive (Peters et al., 2023; Vukićević et al., 2021). Therefore, when paired with sustainability-oriented courses, such training can change workplace conduct, promoting energy saving, waste minimization, together with responsibility and utilize the usage of resources

Despite the clearly identified benefits of OSH training, there are still limitations to its implementation, such as manager reluctance to change, inadequate allocation of resources, and insufficient management commitment (Nkhwashu et al., 2023; Yadav et al., 2022; Yazdani & Wells, 2018). Organizations that do not prioritize OSH training may be liable to face workplace accidents, as well as reputational and economic loss as the result of noncompliance with safety regulations (Cahyaningrum, 2020; Ceylan et al., 2022). As such, a strategic approach to OSH training, which involves the participation of leadership, ongoing training and development, and employee engagement, is necessary to establish a sustainable culture.

In this article, we examine how OSH training plays a role in creating a sustainable workplace culture, by analyzing the influences it has on employee behaviour, organizational policies, and ultimately a sustainable business. In detailing case studies, how organizations can best approach the OSH training opportunity, and recommendations for policies to make OSH training work effectively for the organization, this study will serve as an indication of how

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effective OSH training is a starting point for putting sustainability into corporate strategy for positively impact employees, organizations, and society.

Literature Review

There is currently a growing acknowledgement that inclusion of Occupational Safety and Health (OSH) training into our work practices may be one of the necessary elements in a wider culture of sustainability. There is evidence to show that a strong safety culture improves employee welfare while aligning with the socially responsible policy goals of sustainable development, which fosters safe and healthy work environments that are crucial for social and economic development (Kabiesz & Tutak, 2024), (Kavouras et al., 2022), (Fahim, 2018; Fahim & Abdallah, 2018). A demonstrated safety culture is connected with better public health outcomes, and through reducing workplace injuries and promoting employee health protection, it contributes to long term societal welfare (Kabiesz & Tutak, 2024), (Fahim, 2018). In addition, OSH management systems can demonstrate a framework for the process of sustainable development and help advance creativity in economic, policy, and educational fields (Marhavilas et al., 2018), (Ivanov, 2024). This approach is particularly important in high-risk sectors such as construction where incident rates are high, and where the benefits of OSH systems are particularly important with regards to improved management, performance, and awareness (Kineber et al., 2023).

Further, it is also asserted that OSH's participation further reaffirms its focus on sustainable development in relation to green economy and meeting the UN Sustainable Development Goals (SDGs) (Ivanov, 2024). The nexus of OSH with green chemistry as a facet of sustainability initiatives suggests that OSH can yield complementary benefits; have shared goals of avoiding environmental and occupational risks (Schulte et al., 2013). OSH education and training have benefits in establishing a safety culture through OSH education and training is that it allows the learner to acquire the competencies and full understanding needed to proactively manage OSH issues (Kavouras et al., 2022). This proactive manner is critical on how we respond to the changing demands in workplaces resulting from the COVID-19 pandemic which had demanded new safety procedures and practices (Kavouras et al., 2022); (Marciano et al., 2024). In other words, building a safety culture through OSH education is beneficial for improving safety at work, it can also have implications for supporting sustainability targets through better health, reduced injuries, and development for accountability (Jilcha & Kitaw, 2017); (Fahim, 2018); (Fahim & Abdallah, 2018).

Training in Occupational Safety and Health (OSH) is vital for sustainability because we can only have sustainability if we have a workplace that is safe and healthy for everyone, which is the basic promise of social and economic progress. There are many ways that OSH training can be placed on curriculum to enhance an attitude to working on the safety of the workplace, which ultimately will offer students the skills and knowledge that they can go on to employ in dealing with OSH challenges that they will face in their workplace (Kavouras et al., 2022). When OSH training is limited to education and it can lead to increase in safety in a individual's locational sites but also increase the chance of bigger sustainability impacts through reducing workplace accidents, subsequently have individuals work with a safety culture (Kavouras et al., 2022), (Siegrist & Bollmann, 2022). Both of which not only stem to an individual's safety but ultimately will essential to address emerging labour market trends from the impact of COVID-19, where innovative ways to keep employees safe in multiple locations with specific professional protocols for public health. Additionally a improved critical injury and health benefit themselves or organization; either sending employees back to work via a remote model

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to offsets, in some cases absolve monitoring of workspace, or improve employee conditions with personal protective equipment that they provide. (Kavouras et al., 2022).

Incorporating OSH training into businesses not only meets corporate social responsibility (CSR) and environmental, social and governance (ESG) standards but also enhances organizational sustainability. By focusing on OSH, businesses can improve employee health, productivity, and organizational effectiveness, which will ultimately enhance their ESG profile (Mekouar et al., 2024). This encourages sustainable business practices by providing a safe and healthy workplace, which is an integral part of responsible governance and ethical business practices (Mekouar et al., 2024), (Jimenez, 2024). Additionally, OSH training can contribute to building the capacity of professionals, particularly in circumstantial environments where access to safety knowledge is limited, thereby contributing to sustainable development by ensuring that businesses understand how to comply with safety legislation and protect employees and the environment (Gasana & Hinson, 2024).

Occupational Safety and Health (OSH) training serves as a critical tool for reducing the occurrence of workplace accidents and injuries because OSH training equips employees with valuable knowledge and skills to identify and handle potential hazards. Training programs are meant to build employees' understanding of safe work practices, and a strong commitment to safe behaviors is essential to prevent workplace injuries and accidents and illness related to work. One study highlighted the need for OSH training to be integrated into formal schooling and indicated that young workers who received OSH training had significantly fewer workplace injuries than those who had not received training (Boini et al., 2017). Additionally, the introduction of interactive and immersive training methods, such as mixed reality applications, has been shown to improve the training experience by providing a more immersive and real experience of workplace hazards, which can further mitigate the risk of injuries (Li et al., 2022).

Additionally, OSH training involves not just sharing knowledge but also promoting a safety culture within organizations. Commitment to safety by leadership and the fostering of a prevention culture are essential elements that enhance training initiatives. Transformational leadership, highlighting the significance of safety and health, has been recognized as a crucial element in developing a robust safety culture that promotes risk prevention and management (Miño-Terrancle et al., 2023). Additionally, the efficacy of training is improved when it is integrated into a comprehensive strategy that encompasses legislative actions, enforcement, and engineering controls, as these factors collaborate to establish a safer workplace (Dyreborg et al., 2022). In summary, OSH training is an essential part of the overall approach to decreasing workplace accidents and injuries, enhancing both employee well-being and organizational efficiency.

Leadership is decisive in improving occupational safety training through prevention through the development of safety culture, and their compliance with safety law. Many researchers have established that mandatory OSH training for executives helps create effective OSH management systems; for example, Dahl et al., (2022) noted that the compliance with occupational safety law could increase significantly through OSH training for executives in Norway. In leadership to arrange safety in strong emphasis means thinking about safety in their communications and actions, using methods including training, it has been found to develop improved occupational safety behavior that reduce injuries. The implicit method of leadership with an emphasis on just safety, is more effective compared to standard leadership behaviour,

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because it specifically emphasizes how to go towards safety action and compliance (Molnar et al., 2018).

Unquestionably, transformational leadership, which requires different approaches to energize and engage employees to meet safety goals phenomenon, plays a significant role in enhancing occupational safety. Transformational leadership can positively impact safety culture and prevention culture, which will help lower hazards and accidents in have workplaces (Miño-Terrancle et al., 2023). In fact, transformational leadership has the potential to increase safety engagement and safety commitment. Transformational leaders also cultivate a positive safety culture which influences the association between leadership and safety behaviours (Clarke, 2013), (Draghici et al., 2022). Context-specific training programs which result in transformational leadership through transformational and transactional leadership may result in higher safety outcomes by addressing compliance and safety engagement (Clarke, 2013). Overall, the most consequential form of leadership in developing a proactive safety culture and reducing accidents in the workplace is safety-focused leadership through training and transformative engagement.

Research Question

Research questions are paramount in a systematic literature review (SLR), as they create the foundation and structure for the entire review process. They guide the scope and focus of the SLR, helping to consider what studies to include or exclude, and will potentially help keep the review focused and tailored to the specific area of interest. Clearly defined research questions ensure that the literature review is structured and systematic so that all relevant studies related to key aspects of the topic are included. This will minimize the risk of bias and offer a more complete perspective on the emerging evidence.

Furthermore, research questions help to categorize and organize data collected from the included studies because they provide structure for analyzing findings and synthesizing outcomes toward significant conclusions. They provide clarity and focus because they help eliminate ambiguity and keep the review centered on specific issues - which narrows the focus of the review to make findings more relevant and actionable. In addition, clearly defined research questions enhance the transparency and reproducibility of the review by providing information that allows other researchers to replicate the process used to confirm results, or expand the review into related fields. Research questions ultimately ensure that the review is aligned with the study's overall objectives, whether it be identifying gaps in the literature, evaluating the effectiveness of interventions, or exploring trends in a specific area - hence they provide the basis for a comprehensive and targeted systematic literature review that is relevant and useful.

Establishing the Research Questions (RQs) is the very importance task in the business planning phase and also the most significant aspect of any SLR, as it informs the whole review methodology (Kitchenham, 2007). Because our SLR seeks to recognize and assess what progress has occurred in.... Simon et al'.s(2017) proposed framework PICo, a mnemonic approach has been utilized for the purpose of developing research questions particularly in qualitative research (Lockwood et al., 2015). The PICo represents Population, Interest, and Context. Below describes the importance of each of these:

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1. Population (P): This refers to the group or participants of interest in the study. It specifies who the research is focused on, such as a specific demographic, patient group, or community.

2. Interest (I): This represents the main focus or phenomenon of interest in the study. It could be a particular experience, behavior, intervention, or issue that the research aims to explore or understand.

3. Context (Co): This defines the setting, environment, or specific context in which the population and interest are situated. It might refer to geographical location, cultural or social settings, or any other relevant backdrop for the research.

Using the PICo framework facilitates the systematic and organized development of research questions by breaking down the primary components of the research into three parts. By using the PICo framework, you will ensure your research is purposeful and your questions are explicit relative to your study so that you can effectively search for relevant literature or plan a study. This research addressed the three questions:

1. What occupational risk factors most significantly influence employee safety behaviours and compliance within safety management frameworks aimed at promoting sustainability?

2. How effective are OSH training and educational interventions in shaping workers' attitudes towards adopting practices that support a sustainable workplace culture?

3. In what ways do psychosocial well-being factors influenced by OSH practices contribute to enhancing employee productivity and fostering a sustainable organisational culture?

Material and Methods

The systematic literature review, which is a qualitative used method, was conducted in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines that present a structured method to foster transparency, consistency, and methodological rigor during the review process (Page et al., 2021). The review was divided into four stages: identification, screening, eligibility, and inclusion. The identification stage involved selecting two key databases, the Web of Science and Scopus, as they provided reliable and easily accessible high-quality research coverage. The screening phase included removing duplicates and screening the titles and abstracts against what was determined as the inclusion and exclusion criteria. Any research that passed through this stage then underwent a full review to assess its eligibility in the eligibility stage.

In the most recent stage, relevant data was collected from the selected studies in a structured way that documented elements such as study design, sample characteristics, methods, and key findings. We made a concerted effort to include empirical studies, and especially research that used randomised designs as these being less prone to bias, and are often the best mechanism for creating strong levels of evidence, tend to be present. The structured process provided confidence that the synthesis of results consisted of trusthworthy, high quality research and started to develop sufficient, strong evidence base to inform solid conclusions and next steps for further research and practice.

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Identification

This research utilized key phases of the systematic review methodology to gather a substantial body of pertinent literature. The procedure began with choosing keywords, then identifying associated terms through dictionaries, thesauri, encyclopaedias, and earlier studies. All pertinent terms were recognized, and search queries were created for the Web of Science and Scopus databases (as illustrated in Table 1). The first stage of the systematic review yielded 306 articles pertinent to the research subject from the two databases.

Table 1
The Search String

Scopus	**TITLE-ABS-KEY training AND (workplace OR sustainability) AND safety AND health AND occupational) AND ALL (employee OR wellbeing) AND (LIMIT-TO (PUBYEAR , 2024)) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (LANGUAGE , "English")** **Date of Access: February 2025**
WoS	training AND (workplace OR sustainability) AND safety AND health AND occupational (All Fields) and 2024 (Publication Years) and Article (Document Types) and English (Languages) and Public Environmental Occupational Health (Web of Science Categories) and English (Languages) **Date of Access: February 2025**

Screening

During the stage of screening, potentially relevant research items are assessed to ensure they are aligned to the research question or questions. It is during this phase that research participants are often selected via Malaysian e-learning. It is at this juncture that identical documents are eliminated. Ninety-one of the two hundred and thirty-five (235) publications reviewed were left for further analysis based on specific inclusion and exclusion criteria (see Table 2). The literature acted as the main criterion because it is the main source of important insights. These were book series, book reviews, meta-syntheses, meta-analyses, conference proceedings, and components which were excluded from the latest research. The review included only publications in English, from the year 2022 to 2024). Five publications were rejected because they were duplicates.

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Table 2
The Selection Criterion in Searching

Criterion	Inclusion	Exclusion
Language	English	Non-English
Time line / Years	2022 - 2024	< 2022
Literature type	Journal (Article)	Conference, Book, Review
Publication Stage	Final	In Press
Subject Area	Training, OSH, Workplace Sustainability	Besides OSH training, workplace sustainability

Eligibility

During the third phase, referred to as the eligibility phase, 66 articles were readied for assessment. At this stage, the titles and essential content of every article were meticulously reviewed to confirm they satisfied the inclusion criteria and corresponded with the current research goals. Thus, 30 articles were eliminated as they did not meet criteria due to being out of field, insignificant titles, unrelated abstracts to the study's objectives, or lack of access to full texts based on empirical evidence. Consequently, there are 36 articles left for the forthcoming review.

Data Abstraction and Analysis

A comprehensive analysis method was utilized to assess and combine results from research employing different quantitative research approaches. The goal was to determine important themes and subthemes related to the field of occupational safety and health. The analysis commenced with gathering data, which laid the groundwork for thematic evolution. A total of 36 chosen publications were analyzed to gather statements and information relevant to the review's focus, as shown in Figure 2.

The authors examined the research methodologies and results of all studies to identify patterns and significant findings. Themes were developed together using the evidence, by facilitating ongoing conversations between co-authors about interpretations and consistency. In addition, the authors engaged in maintaining a reflective journal to note analytical reflections, developing ideas, and analytic challenges throughout the analytical process. Any inconsistency in the evolution of themes was addressed with discussions amongst team members to ensure a systematic and organized analysis based upon the reviewed literature.

Quality of Appraisal

Following the guidance by Kitchenham in 2007 after identifying primary studies (Primary studies are the original research articles, papers or documents that form the basis of the systematic review after selecting them. These studies will serve as the key sources of evidence that will be examined, quality assessed, and either quantitatively or qualitatively compared to answer the research questions set out for the review; we need to assess the quality of research it offers and compare them quantitatively. We will use the quality assessments framework from Anas (Abouzahra et al., 2020) which includes six QAs, for our systematic literature review

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(SLR). For assessing each QA or criterion three types of assessments can be made: "Yes" (Y) with a score of 1 when the QA is comprehensively satisfied; "Partly" (P) with a score of 0.5 when the QA is partially satisfied but some shortcomings exist; "No" (N) with a score of 0 when the QA is not satisfied at all.

QA1. Is the purpose of the study clearly stated?
QA2. Is the interest and the usefulness of the work clearly presented?
QA3. Is the study methodology clearly established?
QA4. Are the concepts of the approach clearly defined?
QA5. Is the work compared and measured with other similar work?
QA6. Are the limitations of the work clearly mentioned?

The table outlines a quality assessment (QA) process used to evaluate a study based on specific criteria. Three experts assess the study using the criteria listed, and each criterion is scored as "Yes" (Y), "Partly" (P), or "No" (N). Here's a detailed explanation:

1. **Is the purpose of the study clearly stated?**

This criterion checks whether the study's objectives are clearly defined and articulated. A clear purpose helps set the direction and scope of the research.

2. **Is the interest and usefulness of the work clearly presented?**

This criterion evaluates whether the study's significance and potential contributions are well-explained. It measures the relevance and impact of the research.

3. **Is the study methodology clearly established?**

This assesses whether the research methodology is well-defined and appropriate for achieving the study's objectives. Clarity in methodology is crucial for the study's validity and reproducibility.

4. **Are the concepts of the approach clearly defined?**

This criterion looks at whether the theoretical framework and key concepts are clearly articulated. Clear definitions are essential for understanding the study's approach.

5. **Is the work compared and measured with other similar work?**

This evaluates whether the study has been benchmarked against existing research. Comparing with other studies helps position the work within the broader academic context and highlights its contributions.

6. **Are the limitations of the work clearly mentioned?**

Each expert assesses the study based on these criteria individually and collectively the scores are added by all the experts to determine the grade. For a study to be eligible for the next stage, the overall mark (total from all three experts) needs to exceed 3.0. This threshold is the minimum acceptable mark, ensuring that only research that meets a certain quality threshold are eligible to go to the next stage.

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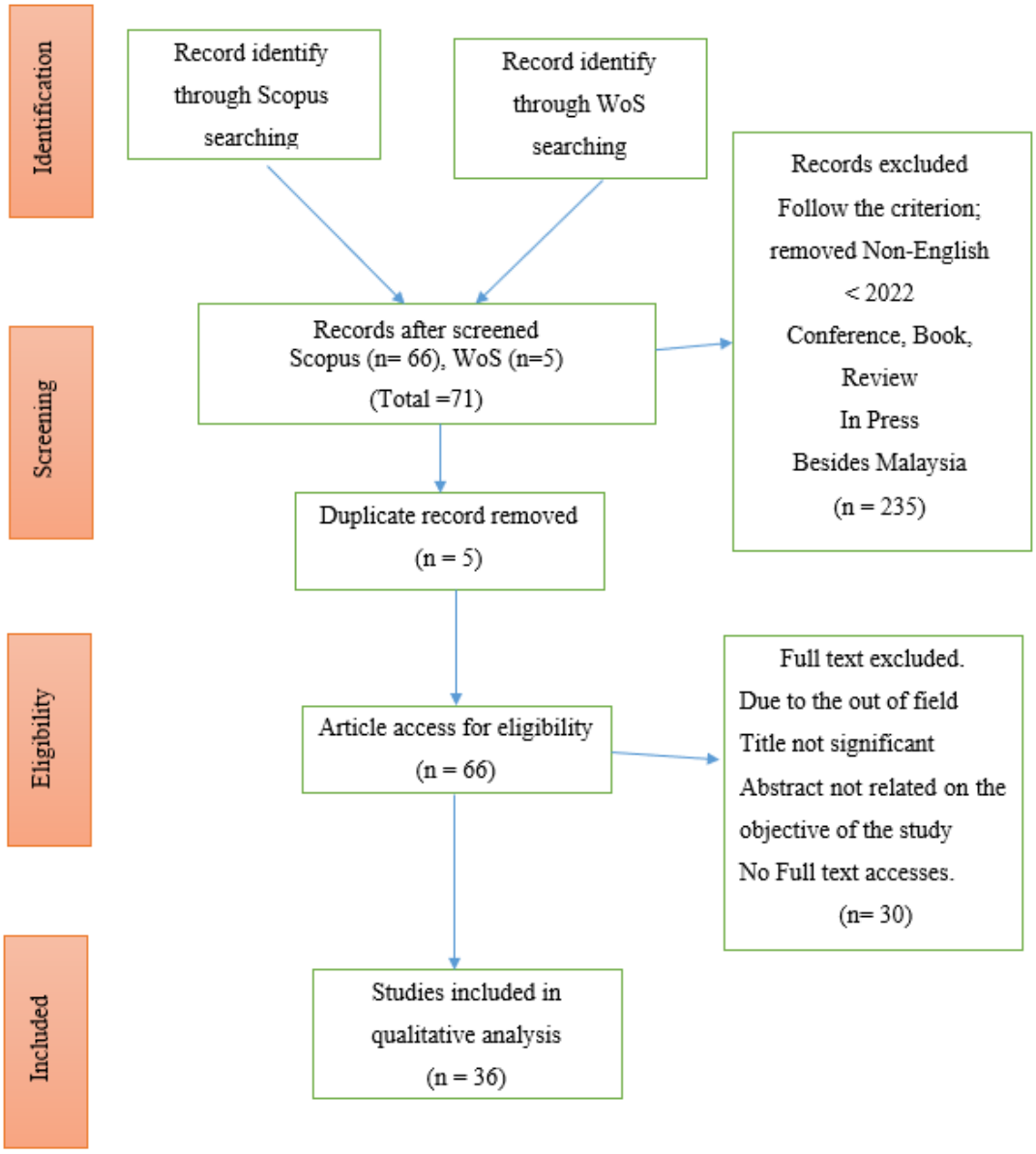

Figure 2. Flow Diagram of the Proposed Searching Study [1].

Result and Finding

Background of the research selected as mentioned in Table 3, the performance in primary studies selection is evaluated as a result of the quality evaluation. The quality evaluation shows that the majority of papers reviewed were overall quality, with overall ratings mainly in the range of 83.3 - 91.7 percent. The overall values clearly indicate strong adherence to good standards of overall study quality, in terms of explicit study aims (QA1), show applicability (QA2), established method (QA3), and clearly articulated concepts (QA4).

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Several of the articles highlighted a common shortcoming in the limited comparisons to analogous studies (QA5) that led many to receive partial scores. Certain studies only indicated some consideration of limitations (QA6), and pointed things out as another area that could be a focus of improvement for future work in the area. Recommendations for improving future work included demonstrating more appropriate comparisons to existing research and ensuring limitations were explicitly defined and considered.

Table 3
Quality Assessment Summary

PS	QA1	QA2	QA3	QA4	QA5	QA6	Total Mark	Percentage (%)
PS1	Y	Y	P	Y	N	P	4.0	66.7%
PS2	Y	Y	Y	Y	Y	P	5.5	91.7%
PS3	Y	Y	Y	Y	P	Y	5.5	91.7%
PS4	Y	Y	Y	Y	N	P	4.5	75.0%
PS5	Y	Y	Y	Y	P	Y	5.5	91.7%
PS6	Y	Y	Y	Y	P	Y	5.5	91.7%
PS7	Y	Y	Y	Y	P	P	5.0	83.3%
PS8	Y	Y	Y	Y	N	Y	5.0	83.3%
PS9	Y	Y	Y	Y	P	P	5.0	83.3%
PS10	Y	Y	Y	Y	P	P	5.0	83.3%
PS11	Y	Y	Y	Y	P	P	5.0	83.3%
PS12	Y	Y	Y	Y	P	Y	5.5	91.7%
PS13	Y	Y	Y	Y	P	Y	5.5	91.7%
PS14	Y	Y	Y	Y	P	Y	5.5	91.7%
PS15	Y	Y	P	Y	P	P	4.5	75.0%
PS16	Y	Y	Y	Y	P	Y	5.5	91.7%
PS17	Y	Y	Y	Y	P	Y	5.5	91.7%
PS18	Y	Y	Y	Y	P	P	5.0	83.3%
PS19	Y	Y	Y	Y	P	P	5.0	83.3%
PS20	Y	Y	Y	Y	P	Y	5.5	91.7%
PS21	Y	Y	Y	Y	P	P	5.0	83.3%
PS22	Y	Y	Y	Y	P	Y	5.5	91.7%
PS23	Y	Y	Y	Y	P	Y	5.5	91.7%
PS24	Y	Y	Y	Y	P	Y	5.5	91.7%
PS25	Y	Y	Y	Y	P	Y	5.5	91.7%
PS26	Y	Y	Y	Y	P	Y	5.5	91.7%
PS27	Y	Y	Y	Y	P	Y	5.5	91.7%
PS28	Y	Y	Y	Y	P	P	5.0	83.3%
PS29	Y	Y	Y	Y	P	Y	5.5	91.7%
PS30	Y	Y	P	Y	P	P	4.5	75.0%
PS31	Y	Y	Y	Y	P	Y	5.5	91.7%
PS32	Y	Y	Y	Y	P	Y	5.5	91.7%
PS33	Y	Y	Y	Y	P	Y	5.5	91.7%
PS34	Y	Y	Y	Y	P	Y	5.5	91.7%
PS35	Y	Y	Y	Y	P	Y	5.5	91.7%
PS36	Y	Y	Y	Y	P	P	5.0	83.3%

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The validation process is important in maintaining reliability and validity within the field to refine the themes derived from the review process. This included validation by experts including the lead author, co-author, and an external expert of the domain. The validation process was an opportunity to assess the clarity, relevance, and appropriateness of each subtheme. Any inconsistencies found during the development of the themes were resolved sameness of opinions. Additional validation was provided by experts in the safety and health management field who reviewed the themes generated from the purposes of the research and providing feedback in a useful way to improve the focus and organization of the themes. Based on their feedback, the themes were revised to improve the accuracy and consistency of the thematic structure.

Occupational Risk Factors and Safety Management

Unidentified developments in the latest and emerging work, likewise related to environmental jobs, do pose occupational risk as there is risk of exposure to all new technologies and unknowns. (Vitale et al., 2024) in asserting that the introduction of new production techniques in green jobs has brought risks not present in traditional work-related areas added that new risks need to be addressed through specific and detailed strategy through preventative efforts along with detailed assessments to maintain employee safety. Similarly, (Chapman et al., 2024) were able to find that safety in the equestrian sector has serious deficiencies, and with first responders able to point to areas of deficiency in training and areas where dedicated safety protocols do not exist for the industry, they suggested developing a structured Health, Safety and Welfare (HSW) management system developed specifically aimed at high-risk activities, which address a risk assessed HSW framework. (Vu Gia et al., 2024) have identified the importance of management skills and employee obligations as pertinent contributors adversely affecting the industry for effective occupational safety and hygiene risk assessments. Again, need to provide focused safety approaches and guidance on abiding spectrum of legislation.

Various researchers identified demographic characteristics, work settings, and organizational characteristics, as important variables relating to workplace injuries. (Said Obeidat et al., 2024) cited age, gender, hours, trust in management, as well as workplace identification with coworkers as the most relevant attributes. Injured workers aged 65 years old and older had significantly lower reported rate of nonfatal injuries and, as such, developed specific safety plans suited for different workforce demographics. (Wassif et al., 2024) drew strong associations between workplace injuries reported by kitchen staff in relation to their age, education and job title. Occupational illnesses were particularly prevalent and emphasized the need for organized preventative measures such as regular health checks and mandatory safety training. (Asiedu et al., 2024) similarly confirmed that informal employment, inadequate health and safety training, and dissatisfaction with current safety training programs contributed significantly to increased rates of injury, emphasizing the critical importance of safety training and of employing effective safety programs.

Human factors, such as personal attitudes and organizational behavior, were recognized as key contributing factors to workplace hazards. Human factors that specifically influence violations of workplace safety noted in the findings of Ikhwanuddin & Djunaid (2024) include internal employee characteristics of accepting risk, normalizing small accidents, and the rational judgment employees make regarding taking risks. Their research supports noted larger emphasis on leadership in safety culture and providing behavior training programs. Oni et al. (2024) furthered supported the premise with documentation from the Malaysian construction industry that identified a number of factors including lack of training, lack of supervision,

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employee's mental health and poor attitudes, and poor safety were the overriding characteristics contributing to routine accidents. In the same vein, Shabani et al. (2024) identified the great importance of safety audits and supported maintaining safety audits, while explaining how safety audits find risks beforehand with a proactive, timely, and systematic way of preventing occupational disease and accident.

Investigating fatal work-related cases, particularly involving high-risk workers, provides useful information for prioritizing prevention methods. Kearney et al. (2024), studied documents related to landscaping and tree-care industries, and reported that most fatal events were of electrocution, falls, or machinery incidents. Alarmingly, more than half of the companies involved had no safety plans, and many did not provide adequate training to workers, suggesting an immediate need for effective safety plans and mandatory training sessions targeting high-risk processes.

The literature consistently suggests that systematic, individualized, proactive approaches to occupational safety management reduce workplace hazards and injuries. Major elements include personalized risk assessments (Vitale et al., 2024; Vu Gia et al., 2024), effective safety education/training (Chapman et al., 2024; Wassif et al., 2024; Asiedu et al., 2024), consideration of the demographic and organizational context (Said Obeidat et al., 2024; Wassif et al., 2024; Asiedu et al., 2024), behavioral methods (Ikhwanuddin & Djunaid, 2024; Oni et al., 2024), ongoing safety assessments (Shabani et al., 2024), and the definition of relevant industry related safety regulations (Chapman et al., 2024; Kearney et al., 2024).

Workplace Safety Training, Education, and Interventions

The validity of occupational safety and health (OSH) training is repeatedly identified as a main element to development towards enhanced safety awareness, behavioural change and even compliance with safety regulation in various work environments. To illustrate this point Okun et al. (2024) state that short training sessions are useful for young employees to improve their safety awareness and safety perspectives. The results revealed significant gains in employees comprehend of occupational safety as soon as they finished the training which presented options to develop short interventions to educate young employees. Similarly (Dalyan et al., 2024) reported that alternative evaluation criteria, such as hazard detection posters, significantly improved participants safety performance when compared to conventional assessment criteria. (Asaithambi et al., 2024) found these results further supported, where organised safety workshops and education, improved safety awareness and level of risk perception in healthcare professionals working in diagnostic environments.

Targeted and customized safety training designed for specific employment groups easily enhances workplace safety compliance, and improves health outcomes. Afework et. al (2024) showed that trained small metal industry workers had way higher safety compliance than those that did not receive training. The authors reported training was the strongest predictor of compliance with safety protocols, indicating a clear relationship between targeted training programs and compliance with safety protocols. Similar to this, Rodriguez et al. (2025) provided evidence indicating that mobile-learning platforms can educate agricultural workers regarding vaccine preventable infectious disease. The research indicated that digital approaches to delivery promote understanding, which implies that due to large geographical concerns creative training options are suitable for infrequent or distant employee groups. Furthermore Kawakami (2024) provided support for this position by noting that collective training

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arrangements completed with local trade unions had greatly improved safety outcomes in informal workplaces in South Asia.

Additionally, participating in growth-minded training in leadership or management roles led to meaningful impacts beyond immediate safety improvements and broader psychosocial concerns affecting work environments. (Mohr et al., 2024) presented programmatic evidence of supportive leadership training being an approach for dealing with the social isolation and mental health issues of the highest-risk military members. Findings indicated a resulted lower feeling of loneliness for military members, and, and increased supportive action from leaders decreasing a variety of psychosocial concerns from specialized trainer for supervisors. Also, (Brown et al., 2024) provided programmatic evidence of numerous successfully executed Total Worker Health® (TWH) interventions in Mexico, reporting occupational safety professionals with higher competencies to advocate for a more integrated basis approach to worker's wellbeing. Lastly, (Fraboni et al., 2024) presented evidence of an effective train-the-trainer framework in homecare organizations that significantly impacted the hazards of human errors by addressing key human performance factors including fatigue, distraction and safety culture.

Despite the overall positive results of various OSH training programs, some training methodologies demonstrated varying or limited success, particularly when addressing systemic challenges within an organization. In a recent study by Dastur et al. (2024), training in virtual communication reduced occupational stress for emergency technicians but only had a limited effect on reducing workplace violence. This suggests that the training may be less effective according to specific desired outcomes and the complexity of workplace interactions. Besides the relational factors Dastur et al. (2024) state that Asaithambi et al. (2024) and Dalyan et al. (2024) suggest that training practices should continually be assessed and adjusted to meet employees' educational backgrounds and actual job experiences, with ongoing adaptation and motivation strategies to reinforce behavioural change interventions in safety practices at work.

In conclusion, OSH training programs reliably result in improvements in safety knowledge, attitudes, adherence, and overall psychosocial aspects of the workplace. Their success largely relies on the meticulous customization of content, techniques, and continuous assistance within each particular occupational setting.

Psychosocial Factors, Well-being, and Productivity

Psychosocial factors in the workplace are directly connected to workers' well-being, productivity, and organizational performance. (Lari, 2024) states that the intervention work that solved occupational health (OHS) issues in a workplace in the UAE resulted in increased productivity of the employees in that workplace by creating a positive workplace climate and an understanding of the well-being of employees tied to making the OHS improvements employees began to appreciate. These improvements also related employees' perception of OHS directly to increased satisfaction and productivity overall. (Çevik Taşdemir et al., 2024) found in the Turkish textile industry that a supportive safety environment generated chiefly by explicit management instructions and expectations can bring about improvements in workers' productive energy. This directly relates organizational safety climate to improvement in productivity and organizational performance. (Kumar et al., 2024) confirm that improved working conditions and increased job satisfaction derived through clearly communicated OHS measures increase safety performance, as essential climate impacts on productivity through safety performance in underground coal miners.

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Workplace health promotion (WHP) and psychological safety initiatives have consistently been shown to reduce occupational stress, psychological injuries, and negative social interactions at work. Yang et al. (2024) identified a direct association between WHP service utilization and a reduction in depressive symptoms and concluded programs that provided mental health supports (e.g., occupational safety training), and physical health programs (e.g., sports or fitness facilities) were more impactful than others. Even though Lützerath et al.'s (2024) study was conducted in German nursing homes, the findings clearly indicated WHP interventions (e.g., team building, relaxation techniques) played a supporting role in reducing work-related stress and increasing employees' feelings of value and satisfaction. Similarly, Palathoti et al. (2024) researched the Flealthcare industry in Oman and documented how occupational stress from work overload and workload negatively impacted employees' psychological wellbeing, indicating a need for proper design of the work environment and stress management training to create healthy improvements in mental health and job performance.

Management styles, leadership actions, and workplace culture play important roles in shaping workers' psychosocial health and safety conditions. Tripney Berglund et al. (2024) provided a longitudinal example of these effects when they illustrated that managerial practices around psychosocial risk training and leadership coaching significantly improved psychosocial safety climate, including factors like management support, prioritization, and engagement to influence workplace psychosocial health. (Halliday et al., 2024) highlighted the need for organizations to develop their health, safety and wellbeing programs as part of the overall organization strategy to effectively manage psychosocial risk and foster resilience. Similarly, (Joyce et al., 2024) highlighted that companies with good organizational systems and customized management support for the workplaces of employees with intellectual disabilities, positively impacted employee wellbeing; a clear demonstration of how managerial actions influence psychosocial health.

Understanding safety practices at work and being able to communicate effectively, are key factors to enable positive psychosocial environments and sustaining them. Hon et al. (2024) a study in the manufacturing sector in Ontario, found that communication gaps, especially barriers related to jargon and languages, limited workers' understanding of safety practices. The findings indicated that communication strategies that worked for the worker were very effective in improving their workplace safety culture. Memon et al. (2024) once again noted that health care workers' in Pakistan had limited recognition of safety signage and emphasized the importance of ongoing trial training, for effective hazard awareness communication to improve workers' safety awareness. Backhaus et al. (2024) found in Italy, that a decline in OHS services awareness in the respondents corresponded with an increase in negative interpersonal experiences, such as workplace bullying, making the case for why OHS awareness is vital to enabling positive psychosocial work environments.

The incorporation of technology and digitisation also seems important factors that require a positive contribution to psychosocial health within employment situations. (Gan & Seah, 2024) presented the case of Singapore, showing how a variety of digital solutions have improved employee productivity, working conditions, and safety through better training and hazard reporting. (Emery et al., 2024) placed emphasis on health and safety together in the context of integrated health and safety measures, radiation safety being one such evidenced measure, based within wider organisational wellness approaches, showing how comprehensive technology and management methods significantly enhance employee well-being. Supporting

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these findings, (Hayes-Mejia & Stafström, 2024) indicated that an effective and supportive work culture was the greatest contributor to happiness and well-being for seafarers, demonstrating the need for systematic safety protocols, such as organised technical safety measures to positively influence psychosocial outcomes.

The examined studies collectively demonstrate that effectively executed occupational health measures, psychosocial safety strategies, managerial backing, transparent communication, and technological advancements greatly boost employee well-being, lower workplace stress, and markedly enhance overall organizational productivity.

Discussion and Conclusion

Research related to occupational health and safety stresses that targeted approaches are active to understand new risks induced from technology changes, especially in developing sectors like green industries. Effective safety procedures require distinctive training, unique legislation appropriate to the sector, and detailed risk assessments to mitigate injury in workplaces. Factors like age, sex, education, and profession have an impact on demographics causing differences in safety outcomes. There is a strong interest in and arrive at an obviously differentiated set of safety practices per sub-section of employees. Experienced employees tend to report injury rates that are lower than less experienced employees indicating a need for differentiated safety practices. Features of the workplace, such as overtime, confidence in management, co-worker support, and worker satisfaction with existing safety practice, substantially impact safety experiences in the workplace stressing the importance of actionable organizational effort.

There are many influential behavioural factors which affect compliance and safety outcomes that encompass risk tolerance, acceptance of minor events, intentional risk-taking, poor supervision and mental health. With the promotion of leadership, to positively influence behavioural change, fulfill a strong safety culture can ultimately look to reduce human-related risk. We also see safety inspection undertaken regularly, as they regularly confirm unsafe conditions and practices and are able to respond and ultimately limit work-ready accidents from consistently being part of the risk process. The evidence from major events shows that industry does insufficiently, if at all, on safety processes, does not reward for the right behaviours, does not provide sufficient training, and does not sufficiently clarify safety policies in sectors with high risk. As such we require effective and tailored occupational safety programmes and plans that include sound training and clear structures for safety inspections personalized for demographics, behavioural safety approaches, and clarity around safety policies (for sectors) to produce output with an outcome effect on improving safety at work.

There is a significant increase in safety awareness action and compliance following occupational safety and health training. Straightforward, brief, and general occupational safety and health training has the potential to improve safety knowledge amongst a younger cohort of workers; while small and brief educational interventions to increase safety awareness can be undertaken seriously. Furthermore, newer and more innovative evaluations such as hazard identification posters, compared to traditional evaluations, can improve safety performance. More structured workshop programs, particularly for health care workers, have the potential to increase risk situations awareness and safety understanding substantially. In addition, focusing and directing safety training interventions for a specific group of workers can improve safety compliance in occupational safety and health guidance, which indicates targeted education interventions can happen with significant impact on safety compliance and outcomes. As well, online learning to provide safety training to employees, who have frequent distances or

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employed as casuals, improves safety awareness and awareness, and many possibilities for more creative educational interventions. Evaluations and practical development of developmentally fair training that included local unions, were rated as very high in effectiveness for informal sector type work (e.g., labour, hairdressers) that do not usually provide training; also reinforcing training to be more effective and engaging with local stakeholders will improve the outcomes and effectiveness of training.

Specific training to improve leadership and supervision in work settings will enhance both the immediate safety environment, and wider influence of psychosocial issues including mental health and social isolation. Leadership training is significantly more helpful for eliminating adverse psychological issues of loneliness, particularly within high hazard contexts, and wellness interventions are better for improving the psychosocial and mental health of employees more broadly. While impact is an important success marker for training programs on OSH, a few distinct types of OSH training programs have only moderate ability to address systemically and complex issues, such as incidents of workplace violence. This implication suggests that in some cases, together HR and OSH measures may need to be more expansive, in order to address other related contextual issues. Therefore, continuing evaluations of how the training and interventions should change, which includes to distinct jobs, types of workers, and type of workplace, will be important going forward.

Lastly, psychosocial elements in the workplace have a significant impact on employee well-being, efficiency, and overall organizational effectiveness. Enhanced workplace safety measures boost work conditions, fostering higher satisfaction and efficiency. Well-defined safety protocols and encouraging leadership will definitely boost morale of employees and efficiency at work. Focused measures, including mental health support, stress management training, and health enhancement initiatives, greatly diminish workplace stress and relational issues. Therefore, efficient management practices and transparent communication strategies, enhanced by digital technologies, together will boost psychosocial health, workplace safety, and organizational efficiency.

Funding Statement
This study was supported by funding by Open University Malaysia under the Internal Research Fund (Grant No.: OUM-IRF-2024-029)

Conflicts of Interest
The authors declare that they have no conflicts of interest to report regarding the present study.

Acknowledgements
The authors would like to acknowledge and extended gratitude to Open University Malaysia (OUM) who granted this research grant scheme.

References
Afework, A., Tamene, A., & Tafa, A. (2024). Compliance with Standard Occupational Health and Safety Measures and Associated Factors Among Small-Scale Metal Industry Workers in Central Ethiopia. *Risk Management and Healthcare Policy*, *17*, 399–409. https://doi.org/10.2147/RMHP.S455967

Asaithambi, A., Subramanian, P. B. S., & Parthasarathy, C. R. (2024). A Study on Work Safety for Employees in Diagnostic Services – Recommendations to Improve Work Safety.

International Journal of Modern Trends in Social Sciences
EISSN: 2600-8777
IJMTSS
Volume 8 Issue 31 (September 2025) PP. 19-42
DOI 10.35631/IJMTSS.831002

Asian Journal of Pharmaceutical and Clinical Research, *17*(9), 108–111. https://doi.org/10.22159/ajpcr.2024v17i9.50359

Asiedu, M. T., Opoku, D. A., Ayisi-Boateng, N. K., Osarfo, J., Sulemana, A., Mohammed, A., Amissah, J., Ashilevi, J., Mate-Kole, A., Opoku, F. A., Yankson, I. K., & Nakua, E. K. (2024). Prevalence and associated factors of occupational injuries in an industrial city in Ghana. *PLoS ONE*, *19*(3 March). https://doi.org/10.1371/journal.pone.0301339

Babalola, A., Manu, P., Cheung, C., Yunusa-Kaltungo, A., & Bartolo, P. (2023). A systematic review of the application of immersive technologies for safety and health management in the construction sector. *Journal of Safety Research*. https://doi.org/10.1016/j.jsr.2023.01.007

Backhaus, I., Dragano, N., Di Tecco, C., Iavicoli, S., & Hoven, H. (2024). Trends in negative interpersonal relationships at work and awareness of occupational safety and health services: a 2014-2019 trend analysis. *Journal Of Occupational Health*, *66*(1).

Boini, S., Colin, R., & Grzebyk, M. (2017). Effect of occupational safety and health education received during schooling on the incidence of workplace injuries in the first 2 years of occupational life: a prospective study. *BMJ Open*, *7*.

Brown, C. E., Jaramillo, D., Tenney, L., Schwatka, N. V, Goering, M. G., Hernandez, K. V, Shapiro, D. C., Van Dyke, M., Rice, S., Barnoya, J., Avila, M. H., Reyna, R. V, Beltran, R. A. R., Ornelas, G. A. R., Montealegre, C. G., & Newman, L. S. (2024). Integration of *Total Worker Health*® Training for Occupational Health and Safety Professionals With Efforts to Promote Worker Health, Safety, and Well-being in Mexico. *Journal Of Occupational And Environmental Medicine*, *66*(5), 388–394.

Cahyaningrum, D. (2020). Pengaruh Program Keselamatan dan Kesehatan Kerja. *Jurnal Pengetahuan Laboratorium Pendidikan, 2 (1) 2020, 35-40, e-ISSN: 2634-25IX.*

Çevik Taşdemir, D., Caner Akin, G., & Durmaz, Y. (2024). The effect of safety climate in workplaces on productive organizational energy of employees: a research in textile industry. *International Journal of Quality and Reliability Management*, *41*(1), 42–59. https://doi.org/10.1108/IJQRM-09-2022-0272

Ceylan, H., Kaplan, A., & Bekar, M. (2022). High-Risky Sectors in Terms of Work Accidents in Turkey. *Uluslararası Muhendislik Arastirma ve Gelistirme Dergisi*. https://doi.org/10.29137/umagd.937910

Chapman, M., Fenner, K., Thomas, M. J. W., & Thompson, K. (2024). Stakeholder Views on the Potential Benefits and Feasibility of an Equestrian Industry-Specific Health, Safety and Welfare Management System. *Animals*, *14*(23). https://doi.org/10.3390/ani14233450

Clarke, S. (2013). Safety leadership: A meta-analytic review of transformational and transactional leadership styles as antecedents of safety behaviours. *Journal of Occupational and Organizational Psychology*, *86*, 22–49. https://doi.org/10.1111/J.2044-8325.2012.02064.X

Dahl, Ø., Rundmo, T., & Olsen, E. (2022). The Impact of Business Leaders' Formal Health and Safety Training on the Establishment of Robust Occupational Safety and Health Management Systems: Three Studies Based on Data from Labour Inspections. *International Journal of Environmental Research and Public Health*, *19*. https://doi.org/10.3390/ijerph19031269

Dalyan, O., Dalyan, H., Mehmet, P., Öztürk, Ö. F., & Canpolat, E. (2024). The effect of alternative measurement and evaluation techniques on safety performance in employee training. *Sigma Journal of Engineering and Natural Sciences*, *42*(4), 1016–1022. https://doi.org/10.14744/sigma.2024.00056

International Journal of Modern Trends in Social Sciences
EISSN: 2600-8777 IJMTSS
Volume 8 Issue 31 (September 2025) PP. 19-42
DOI 10.35631/IJMTSS.831002

Dastur, S., Zandi, M., & Karimian, M. (2024). The Effect of Virtual Self-Management Training in Communication Skills on The Level of Violence and Occupational Stress of Emergency Technicians at Shahid Beheshti University of Medical Sciences In 2021. *Journal Of Health And Safety At Work*, *14*(1 WE-Emerging Sources Citation Index (ESCI)).

Deloitte. (2016). Economic Effects of ridesharing in Australia. *Computers in Human Behavior*.

Draghici, A., Dursun, S., Bașol, O., Boatca, M., & Găureanu, A. (2022). The Mediating Role of Safety Climate in the Relationship between Transformational Safety Leadership and Safe Behavior—The Case of Two Companies in Turkey and Romania. *Sustainability*. https://doi.org/10.3390/su14148464

Dyreborg, J., Lipscomb, H., Nielsen, K., Törner, M., Rasmussen, K., Frydendall, K., Bay, H., Gensby, U., Bengtsen, E., Guldenmund, F., & Kines, P. (2022). Safety interventions for the prevention of accidents at work: A systematic review. *Campbell Systematic Reviews*, *18*. https://doi.org/10.1002/cl2.1234

Emery, R. J., Gutierrez, J. M., & Zwick, M. K. (2024). A Compendium of Radiation Safety Practices That Can Complement Organizational Worker Well-being Initiatives. *Health Physics*, *127*(4), 539–542.

Fahim, A. (2018). 1614a Safety culture: an avenue to a sustainable, safe workplace. *Occupational and Environmental Medicine*, *75*. https://doi.org/10.1136/OEMED-2018-ICOHABSTRACTS.852

Fahim, A., & Abdallah, A. (2018). 1614 Occupational health promotion, safety and wellbeing: a sustainability perspective. *Occupational and Environmental Medicine*, *75*. https://doi.org/10.1136/OEMED-2018-ICOHABSTRACTS.851

Fraboni, F., Morandini, S., Zappalà, S., Guglielmi, D., Mariani, M. G., De Angelis, M., & Pietrantoni, L. (2024). Occupational safety in homecare organizations: the design and implementation of a train-the-trainer program. *Home Health Care Services Quarterly*, *43*(2), 87–113. https://doi.org/10.1080/01621424.2023.2292193

Gan, W. H., & Seah, B. Z. Q. (2024). Adopting a "Digital First" Mindset for Workplace Safety and Health in Singapore. *Journal of UOEH*, *46*(1), 55–65. https://doi.org/10.7888/JUOEH.46.55

Gasana, J., & Hinson, A. (2024). O-032 Hybrid Learning and Occupational Health and Safety (OHS) Capacity Building To Protect The African Workers, The Environment, and The Health of The Community. *Occupational Medicine*. https://doi.org/10.1093/occmed/kqae023.0509

Halliday, B., van der Laan, L., & Raineri, A. (2024). Prioritizing Work Health, Safety, and Wellbeing in Corporate Strategies: An Indicative Framework. *SAFETY*, *10*(1). https://doi.org/10.3390/safety10010018 WE - Emerging Sources Citation Index (ESCI)

Hayes-Mejia, R., & Stafström, M. (2024). Wellbeing and Happiness and Their Association With Working Conditions at Sea: A Cross-sectional Study Among the Global Workforce of Seafarers. *Inquiry (United States)*, *61*. https://doi.org/10.1177/00469580241256349

Hon, C. Y., Fairclough, C., & Randhawa, J. (2024). Perception of occupational health and safety in the manufacturing sector: a qualitative evaluation. *International Journal Of Occupational Safety And Ergonomics*. https://doi.org/10.1080/10803548.2024.2435707

International Journal of Modern Trends in Social Sciences
EISSN: 2600-8777
IJMTSS
Volume 8 Issue 31 (September 2025) PP. 19-42
DOI 10.35631/IJMTSS.831002

Ikhwanuddin, R. Y., & Djunaid, Z. (2024). Employees' Internal Factors Leading to Rule-breaking Acts at the Workplace. *Indonesian Journal of Occupational Safety and Health*, *13*(3), 275–283. https://doi.org/10.20473/ijosh.v13i3.2024.275-283

Ivanov, I. (2024). SS19-03 Occupational Health, Sustainable Development and The Green Economy: A Perspective From The WHO. *Occupational Medicine*. https://doi.org/10.1093/occmed/kqae023.0139

Jilcha, K., & Kitaw, D. (2017). Industrial occupational safety and health innovation for sustainable development. *Engineering Science and Technology, an International Journal*, *20*, 372–380. https://doi.org/10.1016/J.JESTCH.2016.10.011

Jimenez, D. C. C. (2024). O-258 Beyond Compliance: Lessons From OSH Strategies Within The CSR Framework in The Corporate Sectors of Colombia. OSH: Occupational Ssafety and Health CSR: Corporate Social Responsibility. *Occupational Medicine*. https://doi.org/10.1093/occmed/kqae023.1089

Joyce, A., Campbell, P., Crosbie, J., & Wilson, E. (2024). Workplace Structures and Culture That Support the Wellbeing of People with an Intellectual Disability. *International Journal of Environmental Research and Public Health*, *21*(11). https://doi.org/10.3390/ijerph21111453

Kabiesz, P., & Tutak, M. (2024). Developing a Culture of Safety for Sustainable Development and Public Health in Manufacturing Companies - A Case Study. *Sustainability*. https://doi.org/10.3390/su16177557

Kavouras, S., Vardopoulos, I., Mitoula, R., Zorpas, A., & Kaldis, P. (2022). Occupational Health and Safety Scope Significance in Achieving Sustainability. *Sustainability*. https://doi.org/10.3390/su14042424

Kawakami, T. (2024). Participatory Training Activities in South Asia for Promoting Safety and Health in Informal Economy WorkplacesdRoles of Trade Unions and Employer Organizations. *Ssafety and Health at Work*, *15*(4), 500–506. https://doi.org/10.1016/j.shaw.2024.09.002

Kearney, G. D., Romano, N., & Doub, A. (2024). Fatal injuries among landscaping and tree care workers: Insights from NIOSH and state-based FACE reports. *Journal of Safety Research*, *91*, 393–400. https://doi.org/10.1016/j.jsr.2024.10.005

Kimani, J. G. (2016). The status of occupational safety and health and effectiveness of contractor management programs at Kenya Breweries. *Hasliza-Good for Research in Future*.

Kineber, A., Antwi-Afari, M., Elghaish, F., Zamil, A., Alhusban, M., & Qaralleh, T. J. O. (2023). Benefits of Implementing Occupational Health and Safety Management Systems for the Sustainable Construction Industry: A Systematic Literature Review. *Sustainability*. https://doi.org/10.3390/su151712697

Kitchenham, B. (2007). Guidelines for performing systematic literature reviews in software engineering. *Technical Report, Ver. 2.3 EBSE Technical Report. EBSE*.

Kumar, A., Senapati, A., Bhattacherjee, A., Ghosh, A., & Chau, N. (2024). A practical framework to develop and prioritize safety interventions to improve underground coal miners' safety performance. *Work-A Journal Of Prevention Assessment & Rehabilitation*, *77*(2), 697–709. https://doi.org/10.3233/WOR-230172 WE - Social Science Citation Index (SSCI)

Lari, M. (2024). A longitudinal study on the impact of occupational health and safety practices on employee productivity. *Safety Science*, *170*. https://doi.org/10.1016/j.ssci.2023.106374

International Journal of Modern Trends in Social Sciences
EISSN: 2600-8777 IJMTSS
Volume 8 Issue 31 (September 2025) PP. 19-42
DOI 10.35631/IJMTSS.831002

Li, C. H. J., Liang, V., Chow, Y., Ng, H.-Y., & Li, S.-P. (2022). A Mixed Reality-Based Platform towards Human-Cyber-Physical Systems with IoT Wearable Device for Occupational Safety and Health Training. *Applied Sciences*. https://doi.org/10.3390/app122312009

Lockwood, C., Munn, Z., & Porritt, K. (2015). Qualitative research synthesis: Methodological guidance for systematic reviewers utilizing meta-aggregation. *International Journal of Evidence-Based Healthcare*, *13*(3), 179–187.

Lützerath, J., Bleier, H., Gernert, M., & Schaller, A. (2024). Implementing workplace health promotion in nursing – A process evaluation in different care settings. *BMC Nursing*, *23*(1). https://doi.org/10.1186/s12912-024-02272-6

Marciano, F., Cocca, P., & Stefana, E. (2024). Safety Role and Contribution to Industrial Sustainability. *Sustainability*. https://doi.org/10.3390/su16020485

Marhavilas, P., Koulouriotis, D., Nikolaou, I., & Tsotoulidou, S. (2018). International Occupational Health and Safety Management-Systems Standards as a Frame for the Sustainability: Mapping the Territory. *Sustainability*. https://doi.org/10.3390/SU10103663

McDonnell, K., & Joyce, J. (2016). Working together to tackle psychosocial risks: A challenge for the OSH profession. *ASSE Professional Development Conference and Exposition 2016*.

Mekouar, F., Agoumi, F., Kholti, E., & Kholti, A. El. (2024). O-234 Occupational Safety and Health (OSH) to Accounting and Auditor's Profession (AAP) and its Impact on Environmental, Social, Governance (ESG) Criteria. *Occupational Medicine*. https://doi.org/10.1093/occmed/kqae023.1031

Memon, M. R., Memon, H., Memon, S., Memon, S., Bhurgri, H., Baig, M. N., Khattak, O., Iqbal, A., Issrani, R., & Prabhu, N. (2024). Understanding the awareness of health and safety signs amongst health care workers in Pakistan - A cross-sectional study. *Work*, *79*(4), 2033–2044. https://doi.org/10.3233/WOR-240064

Miño-Terrancle, J., León-Rubio, J. M., León-Pérez, J. M., & Cobos-Sanchiz, D. (2023). Leadership and the Promotion of Health and Productivity in a Changing Environment: A Multiple Focus Groups Study. *Safety*. https://doi.org/10.3390/safety9030045

Mohr, C., Hammer, L., Dimoff, J., Allen, S., Lee, J., Arpin, S., McCabe, S., Brockwood, K., Bodner, T., Mahoney, L., Dretsch, M., & Britt, T. (2024). Supportive-Leadership Training to Improve Social Connection: A Cluster-Randomized Trial Demonstrating Efficacy in a High-Risk Occupational Context. *Journal of Occupational Health Psychology*, *29*(5), 299–316. https://doi.org/10.1037/ocp0000384

Molnar, M. M., Von Thiele Schwarz, U., Hellgren, J., Hasson, H., & Tafvelin, S. (2018). Leading for Safety: A Question of Leadership Focus. *Safety and Health at Work*, *10*, 180–187. https://doi.org/10.1016/j.shaw.2018.12.001

Nkhwashu, T. E., Moloko, S. M., & Zikalala, M. J. (2023). The drivers and impediments of implementing the quality improvement programmes at a government hospital in Eswatini: The registered nurses' perspective. *International Journal of Africa Nursing Sciences*. https://doi.org/10.1016/j.ijans.2023.10056

Okun, A., Guerin, R., Smith, R., Baker, D., & DiMeo-Ediger, M. (2024). Evaluation of changes in knowledge and attitude among youth after a one-hour introduction to workplace safety and health: *Safety Matters*. *Journal of Safety Research*, *89*, 306–311. https://doi.org/10.1016/j.jsr.2024.02.001

Oni, O. Z., Olanrewaju, A., & Cheen, K. S. (2024). Identifying key accident causation factors in the Malaysian construction industry. *International Journal of Occupational Safety and Ergonomics*, *30*(2), 366–377. https://doi.org/10.1080/10803548.2024.2308376

International Journal of Modern Trends in Social Sciences
IJMTSS
EISSN: 2600-8777
Volume 8 Issue 31 (September 2025) PP. 19-42
DOI 10.35631/IJMTSS.831002

Page, M. J., McKenzie, J. E., Bossuyt, P., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The prisma 2020 statement: An updated guideline for reporting systematic reviews. *Medicina Fluminensis*, *57*(4), 444–465. https://doi.org/10.21860/medflum2021_264903

Palathoti, S. R., Falqi, T. T. A., & Otitolaiye, V. O. (2024). Study on causal effects of occupational stress on healthcare workers at a selected healthcare facility in Oman. *International Journal of Occupational Safety and Health*, *14*(1), 98–106. https://doi.org/10.3126/ijosh.v14i1.50329

Peters, M., Tschöpe, T., Konheiser, S., Raecke, J., & Schnitzler, A. (2023). Development of a digital training for social and emotional competences for medical assistants in vocational education and training in Germany. *Empirical Research in Vocational Education and Training*. https://doi.org/10.1186/s40461-023-00143-z

Rodriguez, A., Douphrate, D., Reyes, A. L. P., Zavala, S., Cruz, A. V. C., Alegria, M. D., Ukaegbu, B., Keeney, A. J., Berumen-Flucker, B., Shipp, E. M., Guillot-Wright, S. P., Fernandez-Esquer, M. E., & de Porras, D. G. R. (2025). Promoting Workplace Health, Safety, and Well-Being Among Essential Agricultural Workers Through Vaccine-Preventable Infectious Diseases Training in the Rio Grande Valley. *Journal Of Agromedicine*, *30*(1), 57–67. https://doi.org/10.1080/1059924X.2024.2421249

Said Obeidat, M., Qasim Dweiri, H., & Jamil Smadi, H. (2024). Unveiling workplace safety and health empowerment: Unraveling the key elements influencing occupational injuries. *Journal of Safety Research*, *91*, 126–135. https://doi.org/10.1016/j.jsr.2024.08.013

Schulte, P., Mckernan, L., Heidel, D., Okun, A., Dotson, G., Lentz, T., Geraci, C., Heckel, P., & Branche, C. (2013). Occupational safety and health, green chemistry, and sustainability: a review of areas of convergence. *Environmental Health*, *12*, 31. https://doi.org/10.1186/1476-069X-12-31

Shabani, T., Jerie, S., & Shabani, T. (2024). A comprehensive review of safety audits: ensuring workplace safety and compliance in Zimbabwe. *Safety and Reliability*, *43*(2), 86–113. https://doi.org/10.1080/09617353.2024.2343958

Siegrist, J., & Bollmann, U. (2022). Promoting good and sustainable work in occupational health education. *Occupational Medicine*. https://doi.org/10.1093/occmed/kqac018

Systematic literature review. *Information and Software Technology*, *125*(May), 106316. https://doi.org/10.1016/j.infsof.2020.106316

Tripney Berglund, R., Kombeiz, O., & Dollard, M. (2024). Manager-driven intervention for improved psychosocial safety climate and psychosocial work environment. *Safety Science*, *176*. https://doi.org/10.1016/j.ssci.2024.106552

Vitale, E., Salvago, P., Campanella, A. F., & Cirrincione, L. (2024). A Protocol of Prevention and Protection Measures on New Occupational Risk Factors in Green Jobs in Italian Workplaces. *Sustainability (Switzerland)*, *16*(15). https://doi.org/10.3390/su16156691

Vu Gia, K., Huyen, T. N. T., Le Anh, T., Nguyen Trung, H., Nguyen Lam Kim, T., & Cao Phuoc, K. (2024). Factors affecting the implementation of labor safety and hygiene in specific enterprises: a case in Vietnam. *Cogent Social Sciences*, *10*(1). https://doi.org/10.1080/23311886.2024.2365402

Vukićević, A. M., Mačužić, I., Djapan, M., Milićević, V., & Shamina, L. (2021). Digital training and advanced learning in occupational safety and health based on modern and affordable technologies. *Sustainability (Switzerland)*. https://doi.org/10.3390/su132413641

International Journal of Modern Trends in Social Sciences
IJMTSS
EISSN: 2600-8777
Volume 8 Issue 31 (September 2025) PP. 19-42
DOI 10.35631/IJMTSS.831002

Wassif, G. O., Abdelsalam, A., Eldin, W. S., Abdel-Hamid, M. A., & Damaty, S. I. (2024). Work-related injuries and illnesses among kitchen workers at two major students' hostels. *Journal of the Egyptian Public Health Association*, *99*(1). https://doi.org/10.1186/s42506-024-00163-x

Yadav, R. N., Kumar, D., Sharma, A. K., & Virmani, N. (2022). Analysing human and system related barriers of TQM in automobile industries using fuzzy DEMATEL approach. *International Journal of Productivity and Quality Management*. https://doi.org/10.1504/IJPQM.2022.121302

Yang, X. C., Zhang, X. Y., Liu, Y. H., Liu, F. J., Lin, H. X., Chang, C., & Cao, W. (2024). Association between workplace health promotion service utilisation and depressive symptoms among workers: a nationwide survey. *Public Health*, *231*, 64–70. https://doi.org/10.1016/j.puhe.2024.03.001

Yazdani, A., & Wells, R. (2018). Barriers for implementation of successful change to prevent musculoskeletal disorders and how to systematically address them. In *Applied Ergonomics*. https://doi.org/10.1016/j.apergo.2018.05.004

Zahid, M., Rahman, H. U., Mirza, M. Z., & Memon, M. A. (2019). Workplace Sustainability in Emerging Economies : A Comprehensive Evidence from Malaysia Workplace Sustainability in Emerging Economies: A Comprehensive Evidence from Malaysia increased in business organizations. *City University Research Journal*.

Zahid, M., Rehman, H. U., Mirza, M. Z., & Memon, M. A. (2019). Workplace Sustainability in Emerging Economies: A Comprehensive Evidence from Malaysia. *City University Research Journal*.