

Management Strategies for Occupational Health and Safety During Prevention Intervention Development

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Abstract

Occupational Health and Safety (OHS) professionals, including managers and advisors, often face exclusion from key organizational decision-making processes, limiting their influence on workplace safety improvements. While prior research highlights the technical aspects of OHS roles, little attention has been given to the strategic approaches professionals use to navigate organizational challenges and influence safety systems effectively. This study was conducted through in-depth interviews with twelve OHS professionals from public and private sector organizations. Participants, comprising six OHS managers and six OHS advisors, had at least six years of experience. Data collection involved semi-structured and structured interviews, where participants provided insights into their responsibilities, strategic approaches, and organizational positioning. Thematic analysis using NVIVO software categorized strategies based on existing frameworks while identifying new approaches. An impact evaluation framework with seven levels was applied to assess the effectiveness of these strategies. OHS professionals were motivated by personal experiences, a commitment to workplace safety, and the desire to drive organizational change. Their primary responsibilities included advising management, ensuring regulatory compliance, and maintaining OHS management systems. While most professionals operated at both strategic and operational levels, their focus was primarily on organizational and human-centered dimensions rather than technical aspects. Strategic approaches varied, with some relying on traditional compliance-based strategies, while others employed adaptive tactics, such as the “political reflective navigator” model, to influence workplace safety culture. The study highlights the diverse roles and strategies employed by OHS professionals to enhance workplace safety. Despite their marginalization in decision-making, those who adopt flexible, advocacy-driven strategies can exert significant influence on organizational safety practices. Future research should explore additional contextual factors affecting OHS professionals' strategic efficacy, particularly in different industry settings.

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Introduction

Occupational Health and Safety (OHS) professionals, including managers, coordinators, and advisors, frequently face exclusion from critical organizational decisions, especially those involving operational adjustments or structural changes [3,7,10,11]. This marginalization limits their capacity to shape policies or foster safer workplace conditions effectively.

Recent research on OHS roles has diverged into two streams. The first, rooted in occupational safety studies, emphasizes cataloging job responsibilities through surveys. While such work outlines technical aspects of OHS roles, including limited engagement in organizational change initiatives, it neglects the interplay of interpersonal, professional, and systemic factors affecting their strategic efficacy [1,6,8,9,13–15]. These studies often portray OHS practitioners as task-focused, with minimal involvement in design or transformation processes, offering little insight into how they navigate organizational dynamics [14].

The second perspective, emerging from ergonomics research, employs qualitative methods like case studies to explore how OHS professionals strategize to influence workplace environments. For instance, studies reveal challenges in integrating OHS priorities into decision-making forums, partly due to reliance on outdated approaches like the “regulation strategy” (enforcement via legal compliance) and the “knowledge strategy” (persuasion through data on risks and solutions) [3,7,10,12,16,17]. The former has waned in relevance following legislative shifts inspired by frameworks like the Robens Report, while the latter often hinges on ethical or economic appeals. Alternative approaches, such as the “political reflective navigator” strategy, propose a more adaptive role, blending advocacy for workplace safety (“political”), flexibility in applying diverse expertise (“reflective”), and adeptness in maneuvering organizational complexities (“navigator”) [3,7,16,17].

While OHS-focused research overlooks strategic and contextual influences, ergonomics studies highlight specialized practitioners’ tactics but underemphasize broader organizational power dynamics. This paper bridges these gaps by examining strategies employed by in-house OHS practitioners (excluding external specialists) and their effects on safety systems and workplace outcomes. It evaluates these strategies against existing frameworks [11] while identifying potential novel approaches.

Method

This research approach was employed to investigate the strategies implemented by occupational health and safety (OHS) professionals. In-depth interviews were conducted with twelve OHS professionals working in both public and private sector organizations, with most being part of large institutions (eight organizations had over 500 employees, while only two had fewer than 100 employees). The participants consisted of an equal number of male and female practitioners, each possessing a minimum of six years of experience in the field. Only three were engaged in part-time roles, while the remaining held full-time positions. The sample included six OHS managers and six OHS advisors. Tables 1 and 2 illustrate the demographic details of practitioners working in public and private sector organizations, respectively. Each participant was assigned a label indicating their industry sector.

To ensure diversity in professional backgrounds, half of the participants were recruited through a national professional safety organization, while the remainder were identified using a snowball sampling method. The interviews, each lasting approximately two hours, were structured into two components:

- Semi-structured segment: This portion explored participants' professional backgrounds, job responsibilities, goals, obstacles faced, organizational positioning, and interactions with various stakeholders.
- Structured segment: Participants were provided with a predefined list of OHS-related tasks (9), a framework categorizing OHS responsibilities into strategic and operational levels across three dimensions—organizational, technical, and human (4), and an impact evaluation model (5).

During the structured segment, participants were asked to complete tables and task lists while providing specific examples. A mixed-method interview approach was chosen to examine OHS strategies from multiple perspectives, as it was anticipated that participants might find it challenging to articulate their strategic approaches.

All interviews were transcribed and processed using a qualitative data management software (QSR NVIVO 9), followed by thematic analysis (2). The coding framework included categories such as job roles, personal objectives, collaboration, impact, and strategic approaches, including those outlined by Brun & Loiseau (4). Initially, transcripts were analyzed and coded by the researcher, with the strategy component further categorized into predefined strategic models described by Hasle and Sørensen (11) as well as new strategies identified during the interviews.

The impact of these strategies on OHS management and workplace conditions was documented using an Excel spreadsheet, drawing from both the structured tables and impact-related coding in NVIVO. The evaluation framework included an impact hierarchy with seven levels:

- **Level 1:** Increased awareness among relevant stakeholders
- **Level 2:** Shift in attitudes towards workplace safety
- **Level 3:** Enhanced organizational approaches to workplace safety
- **Level 4:** Improvements in production processes in relation to safety
- **Level 5:** Reduction of workplace hazards, including accident risks
- **Level 6:** Decrease in incidents and occupational health disorders
- **Level 7:** Overall improvement in employee health, including reduced absenteeism (5)

Results

Occupational Health and Safety (OHS) professionals expressed diverse motivations for pursuing roles as internal advisors or managers. While some cited a single driving factor, most highlighted multiple reasons. Key motivations included:

- Personal experiences witnessing work-related injuries or illnesses affecting colleagues or family members.
- A strong interest in fostering safe and supportive work environments.
- A desire to drive organizational change.

Beyond these core motivations, some professionals emphasized their passion for workplace safety, an affinity for working with regulatory frameworks, and a belief in OHS as a key contributor to both employee well-being and business efficiency. Others found fulfillment in the challenge of implementing meaningful change.

One OHS practitioner in the social services sector articulated their motivation as follows: "I genuinely enjoy engaging with people, and it is rewarding to know that my efforts contribute to ensuring a safe work environment." Similarly, a professional from the manufacturing industry stated: "I appreciate the ability to influence workplace culture. In an organization of roughly 2,000 employees, a single individual can make a significant impact, and that opportunity to drive change is what excites me."

Overall, the primary motivations among OHS professionals were the aspiration to enhance workplace safety, support employees, and implement effective change.

The specific responsibilities of OHS professionals did not strictly correlate with job titles, such as OHS manager or advisor. In several cases, professionals in advisory roles assumed managerial duties, particularly if they were centrally positioned within the organization, worked collaboratively with regional OHS advisors, or were the sole OHS representative in their workplace.

A central aspect of their role was providing guidance to management, expressed in various ways, such as:

- Offering support and recommendations to leadership.
- Coaching managers on effective hazard control.
- Training management teams in risk mitigation strategies.
- Encouraging and assisting leadership in managing OHS matters.
- Developing structured plans to enhance workplace safety and ensure compliance.

These varied descriptions likely reflect differences in strategic approaches to advising leadership. Notably, most professionals emphasized their role in supporting middle and frontline management, with only a minority explicitly stating they worked directly with employees.

Another critical responsibility was overseeing and maintaining OHS management systems, which included policy development, system implementation, and preparation for regulatory audits. While all professionals highlighted this aspect of their role, two individuals in advisory positions noted that monitoring systems fell under their manager's purview. A shared priority among all professionals was ensuring that safety systems met compliance standards and passed external audits.

Regulatory compliance was another frequently cited duty. Professionals described their role as identifying potential regulatory gaps and preventing legal penalties—an approach that aligned with their broader goal of mitigating workplace hazards. One professional explained: "Essentially, my role is to protect the organization from legal action by ensuring compliance with labor regulations. If safety measures were insufficient to the point of attracting legal scrutiny, it would likely mean someone had already suffered a serious injury. So, our focus is both on avoiding penalties and preventing harm."

the key responsibilities of OHS professionals within the framework proposed by Brun and Loiseau (4), classifying their tasks based on strategic and operational levels and across three dimensions: organizational, technical, and human. The data indicate that professionals predominantly operated within the organizational dimension, followed by human-centered responsibilities, while relatively few focused on the technical aspects of OHS. Additionally, their work spanned both strategic and operational levels, with the exception of one professional in the service and cleaning sector, who operated solely at the operational level.

In summary, OHS professionals primarily focused on advising and supporting management, ensuring compliance with legal regulations, maintaining and implementing OHS management systems, and facilitating the successful completion of regulatory audits. Their approach aligned closely with regulatory and knowledge-based strategies, while their emphasis on system maintenance and compliance audits suggested the presence of an "audit-driven strategy."

The influence of OHS practitioners on workplace safety and health management can be assessed using an impact ladder, which combines practitioners' self-evaluations and detailed examples provided during interviews.

At the foundational levels of impact, all OHS practitioners contributed to the first three rungs:

- Enhancing knowledge among key stakeholders (Rung 1) – This was primarily achieved by conducting training sessions and providing guidance to frontline supervisors and safety representatives.
- Shaping attitudes and behaviors (Rung 2) – A common theme among responses was that frontline managers started to recognize their responsibility for safety practices, inspections, and hazard identification. Following training, many began proactively engaging OHS professionals for assistance. However, only a handful of cases demonstrated a notable shift in perspectives or actions among senior management or workers.
- Strengthening workplace safety strategies (Rung 3) – Practitioners played an essential role in refining and integrating OHS management frameworks. Their efforts improved system functionality, incorporated safety protocols into other organizational structures (such as contractor oversight), and optimized operational processes like risk assessment before task execution. Additionally, they contributed to return-to-work programs and transformed OHS committees from ineffective discussions into proactive planning units, ensuring dedicated safety coordinators had the necessary support and resources.

Fewer practitioners had an impact at higher levels of the ladder:

- Influencing operational or workflow adjustments (Rung 4) – Seven professionals managed to bring about modifications in work environments, with some changes being minor—such as upgrading seating arrangements and optimizing workstation setups—while others were more substantial, including workspace reconfigurations that minimized manual labor or improved safety in areas with vehicle traffic. In some instances, practitioners participated in the planning of new equipment or facilities. However, in one case, despite efforts to introduce safety enhancements in a new distribution center, the failure to secure proper climate control led to temperature-related challenges during extreme weather conditions.
- Reducing harmful exposures (Rung 5) – There were three cases where practitioners contributed to measurable reductions in exposure risks. One example involved minimizing the occurrence of workplace threats, another focused on decreasing chlorine gas leaks, and the third case highlighted accident risk mitigation through improved safety barriers and reduced physical strain from lifting and carrying tasks.
- Lowering injury rates and absenteeism (Rungs 6 & 7) – Five practitioners reported an impact at this level, with two providing concrete examples of reducing lost-time injuries and sick leave through improved injury management strategies. However, only one example directly addressed modifications to working conditions by restructuring change processes and adjusting job roles for returning employees. Two other practitioners described significant reductions in accident frequency and lost workdays, both exceeding 50%. Their success was largely attributed to training managers in hazard control and ensuring proper implementation of corrective actions following incident investigations. Notably, both had been part of their organizations for extended periods (two and six years, respectively) before these improvements were observed.

This analysis highlights the varying degrees of impact OHS professionals have across different aspects of workplace safety, with greater influence at the foundational levels and more limited effects at the higher rungs of the impact ladder.

Strategies Employed by OHS Practitioners

A large portion of strategies adopted by occupational health and safety (OHS) practitioners tend to be reactive rather than proactive, primarily responding to workplace incidents, injuries, and potential hazards. However, there were indications of proactive approaches, as practitioners aimed to establish preventive systems to mitigate risks and enhance work environments. Several practitioners (3) provided instances where they contributed to the integration of new technology or transitions to new facilities. One practitioner shared an experience where they played a role in guiding the implementation of organizational changes. However, in two cases related to facility transitions, OHS practitioners faced resistance and were unable to implement the safety measures they proposed. Their arguments were built on their technical expertise, predicting challenges that might arise and suggesting solutions. In one instance, management rejected an air conditioning system installation due to cost concerns. In another, despite warnings, management proceeded with a tile flooring design that later led to multiple slips on rainy days. Given that leadership was largely focused on compliance with regulations, one OHS practitioner introduced a “lessons learned” register to prevent similar issues from recurring (1).

To enhance existing work and production systems, most practitioners (7 out of 10) engaged top management by presenting OHS performance metrics. Their reports included accident and injury rates, lost work time due to injuries, compliance with OHS audits, and regulatory updates. A few also provided positive indicators such as improvements in workstation ergonomics and refresher training sessions. Their primary goal was to secure management’s endorsement for future OHS initiatives. Their arguments revolved around both financial implications and ethical considerations. One practitioner explained their approach as follows: “I aligned the health and safety plan with workforce capability, the organization’s objectives, and financial targets” (2). When practitioners obtained executive support, they leveraged it to strengthen their influence over middle and lower management. In cases where national leadership was unresponsive but the organization had an overseas headquarters, practitioners used directives from the parent company to reinforce OHS measures across all levels of management (3).

Practitioners made significant efforts to encourage middle management to take responsibility for OHS in their respective departments. This included overseeing workplace hazards, ensuring proper reporting of incidents, and facilitating injured employees’ return to work. Various approaches were used to guide managers, such as collaborating with them on hazard assessments, incident documentation, and procedural guidelines. In some instances, practitioners demonstrated the correct procedures and then allowed managers to implement them. In cases where managers had limited experience or were overwhelmed, practitioners sometimes completed safety reports on their behalf. The choice of approach was influenced by the manager’s level of expertise and the availability of OHS practitioner resources at the time (4).

In a few cases, practitioners employed strategies to make middle managers’ safety performance visible to senior leadership and OHS committees. This involved tracking corrective actions, conducting mandatory safety audits, and using centralized reporting systems. One practitioner described their approach: “I regularly review the database of outstanding corrective actions and ensure that managers are reminded of their responsibilities” (5). OHS audits were commonly used as a guiding tool, with some practitioners structuring committee meetings around specific audit focus areas each month. One practitioner explained: “Instead of conducting a rushed annual self-assessment, we decided to break the audit into monthly focus areas, allowing managers and committees to tackle different aspects systematically” (6). This approach, termed the “audit strategy,” allowed OHS professionals to drive a structured and continuous safety agenda.

Interestingly, none of the practitioners explicitly referred to using a regulatory enforcement strategy, which may suggest a preference for relying on their expertise and the comparatively less confrontational requirements of OHS audits (7).

Collaboration with OHS committees and representatives was a key aspect of practitioners’ strategies. They played a major role in shaping committee discussions and utilized these platforms to provide guidance. The OHS representatives were considered valuable stakeholders and were engaged in different ways. In some workplaces, they functioned as local OHS coordinators, receiving information and direction from

practitioners. In others, they acted as intermediaries between OHS practitioners and managers. In one instance, the OHS representatives were closely aligned with a trade union that had significant influence, including blocking the enforcement of protective eyewear and excluding contract workers from OHS meetings. To navigate such challenges, one practitioner engaged external consultants to work on projects prioritized by union leaders, fostering better cooperation (8).

A common theme across practitioners was the need to tailor their strategies based on the specific stakeholders they engaged with. One OHS professional summarized this by saying: “Promoting health and safety requires strong advocacy. You have to market and sell it effectively. Different audiences require different approaches” (9). When asked how they determined the right strategy, another practitioner responded: “It’s mostly trial and error. You learn through discussions, understanding the workplace culture, and assessing risk tolerance levels” (10).

OHS professionals frequently collaborated with other departments such as security, facilities management, emergency response teams, and human resources. However, they often had to justify the importance of safety measures to department heads repeatedly, particularly after staff changes. One practitioner noted: “Whenever we gain alignment with a department, turnover forces us to start from scratch. A new manager comes in and questions why these safety protocols are necessary, and we have to re-educate them all over again” (11).

These examples highlight how OHS practitioners systematically analyze organizational dynamics to determine the most effective approach. They recognize that stakeholder engagement varies by situation and requires a customized strategy.

Lastly, most practitioners valued external professional networks as sources of support, shared experiences, and new safety insights. They maintained constructive relationships with labor inspectors, treating them as consultants rather than adversaries, and also sought guidance from external safety consultants specializing in injury prevention (12).

Discussion

An examination of the ten interviews reveals that OHS practitioners operate with a strategic agenda aimed at enhancing workplace conditions. Most view themselves as agents of transformation, striving to implement meaningful changes. In defining their roles, they emphasize their influence on management and their contributions to the establishment, execution, and maintenance of OHS management systems. This indicates an acknowledgment of their peripheral role in decision-making processes within the organization, aligning with perspectives from ergonomics research (3,7,10,11).

The interviewed practitioners predominantly focused on human and organizational aspects rather than technical elements. This tendency may be influenced by organizational size and the broader legislative framework governing workplace health and safety. Few of them actively participated in the adoption of new equipment or organizational restructuring, and when they did, they encountered significant challenges in swaying outcomes. Their primary approach relied on ethical reasoning, yet they struggled to persuade management to allocate additional resources or exceed regulatory safety standards. Instead, they leveraged the negative repercussions of previous managerial decisions to strengthen their stance in future negotiations.

Their efforts largely centered on refining existing workplace safety measures. While their approach was mostly reactive, they sought to foster proactive change by establishing OHS management systems. Their strategies were directed toward top, middle, and frontline management, as well as OHS representatives. To gain executive support, they presented statistical data on workplace accidents and injuries, reinforcing the importance of their initiatives. Their methodology was primarily rooted in knowledge-based strategies, with audit strategies as a secondary approach and regulatory compliance as a final measure. With backing from upper management, they aimed to exert greater influence over middle and frontline managers, ensuring adherence to OHS protocols.

In engaging with frontline managers, they employed various strategies, including training, mentorship, hands-on collaboration, and leveraging OHS representatives as intermediaries. They also made managers' OHS performance visible to top executives and safety committees. Audits served as additional leverage, compelling frontline management to address workplace safety concerns. The practitioners' overall approach was knowledge-driven, but regulatory and audit-based arguments proved more persuasive when dealing with frontline and middle management. Many relied on OHS representatives as strategic allies.

Their most significant impact was on stakeholder awareness, attitudes, and behaviors, as well as on how the organization handled OHS. Their work on system implementation and managerial advisement contributed to a shift in organizational safety culture. Some practitioners also influenced production systems by minimizing exposure risks and helping reduce workplace accidents.

The strategies employed by OHS practitioners were shaped by the organization's approach to workplace safety and OHS management. Practitioners adapted their methods based on organizational conditions, seeking support from various stakeholders and tailoring their strategies to align with those stakeholders' interests. In this capacity, they functioned as politically astute navigators, a role previously identified in research on ergonomics consultants (17). The extent of their influence depended on the organization's existing OHS maturity. A more proactive stance could be achieved if practitioners played a greater role in equipment integration and organizational change. However, this would require a shift in both organizational perspectives on OHS and the practitioners' own approaches.

To gain deeper insights into how OHS practitioners drive organizational change and workplace improvements, further research should explore stakeholder interactions with practitioners and the relationship between these interactions and OHS system maturity. Future studies could employ case study methods, incorporating stakeholder interviews and evaluations of OHS management systems.

Conclusion

The OHS practitioners in this study primarily acted as facilitators of workplace improvements. They operated as politically aware strategists, focusing on OHS system development, maintenance, and managerial advisement. Their preferred method involved a knowledge-based strategy, supplemented by audit approaches. Regulatory enforcement was used only as a last resort. Their influence was most evident in shaping stakeholder awareness and attitudes, as well as in refining how the organization managed workplace safety.

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