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Examining Workplace Safety Through Effective Leadership Styles: A Qualitative Study
of the High-Risk Private Industry

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Requirements for the degree
Doctor of Education in Organizational Change and Administration

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Dr. Robert K. JABS School of Business

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Examining Workplace Safety Through Effective Leadership Styles: A Qualitative Study
of the High-Risk Private Industry

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ABSTRACT

This qualitative study addresses the challenge faced by high-risk industries in preventing workplace safety incidents, driven by an alarming trend of preventable work deaths, rising injury costs, and a high number of medically consulted injuries. The research explores how various leadership styles can be integrated to positively influence safety culture in these industries. Integrating phenomenology with established leadership theories, safety management principles, and safety leader behaviors, the study investigates the impact of different leadership styles on safety culture and practices. Semi-structured interviews were conducted with 25 safety professionals with titles ranging from Safety Lead to Safety Vice President (VP). Research was conducted on diverse high-risk industries to gather rich insights into the safety leaders' experiences and perceptions regarding safety leadership. Findings reveal a connection between leadership styles, safety management practices, and safety leaders' behaviors, underscoring effective leadership's significance in supporting a safety culture. Conclusions drawn from the study advocate for organizational safety leaders to adopt various approaches that incorporate elements of transformational, transactional, and servant leadership to enhance safety practices and mitigate the impact of injuries and fatalities in high-risk industries. This approach allows leaders to inspire and motivate teams, prioritize safety compliance, and prioritize the well-being of employees, empowering a culture of safety and continuous improvement.

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CHAPTER 1: INTRODUCTION

The pivotal role of organizational leadership in shaping and sustaining a positive safety culture within high-risk industries is a crucial subject of inquiry and concern in organizational safety. Leadership is repeatedly implicated as having a strong influence on safety behavior, according to Conchie (2018). In a multilevel case study on all organizational levels, the study concluded that shared transformational leadership at the team level is related to higher levels of safety participation of teams (Lyubykh et al., 2022). Organizations continue operating in high-risk industries yet face the potential for catastrophic incidents; cultivating a culture that prioritizes safety and minimizes risks becomes paramount. According to the National Safety Council (2021) and the U.S. Bureau of Labor Statistics (2022), workplace injuries and fatalities have risen by 8.9% from 2020 to 2021. This study comprehensively explores the relationships between leadership and organizational safety culture in high-risk industries. Critical gaps exist in understanding how effective leadership styles contribute to a safety culture in high-risk industries. By investigating and exploring the connection between leadership styles and behaviors, this study aims to unravel how leaders influence employee attitudes, behaviors, and organizational practices related to safety.

Leadership styles, with their unique characteristics, play a vital role in shaping the safety climate of organizations (Clarke & Taylor, 2018). This research explores a range of leadership approaches and their impact on employee attitudes, behaviors, and safety practices within organizations. By analyzing the connection between different leadership styles and safety culture, this study offers valuable insights into the most effective leadership strategies for supporting a robust safety culture in high-risk environments.

Complementing the exploration of leadership styles, this research study also seeks to understand the behaviors exhibited by leaders that play a pivotal role in shaping and sustaining a positive safety culture. Leadership behaviors are instrumental in creating an environment where safety is paramount. This research similarly explores the impact of these behaviors on safety-related outcomes, employee engagement, and organizational safety performance. Practical insights are offered through this study to guide leaders in high-risk industries toward enhancing their organizations' safety culture by dissecting the relationship between leadership behaviors and safety culture.

Ultimately, the findings of this study hold the potential to inform leadership practices and contribute to the enhancement of safety cultures in high-risk industries where the stakes are high and the consequences of failure are profound. Safety has emerged as a foundational pillar for organizations, driven by a dual commitment to ensuring that employees return home safely from their workplaces and mitigating the escalating legal ramifications associated with workplace accidents and injuries. With increasing regulations comes a heightened focus on safety culture. The emphasis on employee health and safety reflects a broader recognition of the value of human capital (Rosner & Markowitz, 2020) and is creating a workplace environment that prioritizes the well-being of its workforce.

Background of the Problem

In recognizing the persistent challenge high-risk industries face in preventing workplace incidents, recent data reveals an 8.9% increase in fatal work injuries, according to 2021 National Safety Council (2021) data. This data emphasizes the pressing need to enhance safety measures. In the most recent publications of data, there were 5,190 fatal work injuries in high-risk industries in 2021, up 8.9%. Since 2011, the number of preventable work deaths has increased

by over 14%, while the death rate per 100,000 workers has increased by 3% National Safety Council (2021). The total comprehensive cost of preventable injuries paid by employers in 2021 was \$767.32 Billion National Safety Council (2021).

There were 4,2600,000 medically consulted injuries in 2021. From 2021 to 2022, overexertion and bodily reaction had the most days away with restricted time (DART) cases at 1,001,440, followed by contact with objects and equipment with 780,690 cases, falls, slips, trips with 674,100 cases, and exposure to harmful substances or environments with 658,240 cases National Safety Council (n.d.). Notably, 96.3% of the total exposure to harmful substances or environments cases (634,080 of the 658,240 total DART cases) involved at least one day away from work. According to data from the National Council on Compensation Insurance (2021), the most costly lost-time workers' compensation claims by cause of injury result from motor-vehicle crashes, averaging \$89,152 per workers' compensation claim that occurred in 2020 and 2021. The escalating trend in preventable work deaths, rising economic costs, and a high number of medically consulted injuries underscore the urgency of examining how leadership styles influence safety culture to reduce workplace incidents and fatalities. In these industries, safety is not simply a regulatory requirement but a moral and operationally significant position. The critical role of leadership in shaping and maintaining a positive safety culture is undeniable. Nevertheless, our understanding of how leadership styles and behaviors influence safety culture remains incomplete Abeje and Luo (2023). In manufacturing, the extensive multi-enterprise study by Abeje and Luo (2023) emphasizes a fundamental discovery, highlighting the substantial influence of safety culture on safety performance.

The significance of safety culture has become increasingly evident for organizations in high-risk industries, acknowledging its crucial impact on employee welfare and financial

stability. Leadership is at the forefront of supporting this culture. High-risk industries, such as manufacturing and construction, face daily threats of catastrophic incidents. Established in 1971, the Occupational Safety and Health Administration (OSHA) has played a pivotal role in enhancing workplace safety through comprehensive guidelines. The introduction of the Occupational Safety and Health Act in 1970 significantly reduced workplace injuries and fatalities. In the year of its implementation, the workforce experienced approximately 14,000 fatalities, equating to around 38 fatalities per day. Over the subsequent 47 years, the impact of the Act became evident, with a significant decline in these numbers. By 2017, the recorded deaths had diminished to 5,147, reflecting an average of approximately 14 fatalities per day (U.S. Bureau of Labor Statistics, 2022). In most recent publications of data, there were 5,190 fatal work injuries in high-risk industries in 2021, up 8.9 % from 2020, and an injury rate of 1.7 per 100 full-time workers whose cases involved days away from work, job restriction, or transfer of work due to a work-related injury.

The Occupational Safety and Health Administration (OSHA), as a response to the pressing need for comprehensive workplace safety regulation, plays a pivotal role in safeguarding the well-being of American workers. Born out of a historical context marked by hazardous industrial conditions and a lack of protective measures for laborers, OSHA emerged to address the power imbalances and challenges workers face in the evolving landscape of an industrialized nation. The legislative milestones of the 1930s, particularly the Occupational Safety and Health Act of 1970, signify a commitment to prioritizing the safety of workers and ensuring their protection against occupational hazards. Despite encountering opposition and political shifts, OSHA remains a cornerstone institution dedicated to creating and enforcing safety standards. Its purpose extends beyond mere regulatory oversight, aiming to support a

robust safety culture that transcends compliance, thereby contributing to the continuous improvement of workplace safety conditions across the United States.

Organizational safety efforts must shift from a reactive to a proactive approach. According to Clarke and Taylor (2018), “there is increasing evidence to suggest that leaders need to use a combination of leader behaviors to improve safety successfully” (p 314). Different leadership styles bring unique qualities and outcomes, and by only adhering to minimum compliance standards, organizations remain susceptible to serious incidents. The interplay between leadership and safety culture in high-risk industries is complex. A comprehensive understanding of leadership's impact on safety culture is lacking (Lyubykh et al., 2022). To address this gap, organizations must move beyond compliance focus and make leadership-focused safety an integral part of their identity. In suggesting future research avenues, Curcuruto and Griffin (2023) suggested: “trying to understand to what extent the perception of safety empowering and monitoring supervision styles is effectively shared by the members of the team” (p. 10).

Statement of the Research Problem

The problem addressed in this study was the challenge faced by high-risk industries in preventing workplace safety incidents. While the role of leadership in shaping safety culture is acknowledged in the literature, there exists a critical gap in understanding how different leadership styles can collaboratively contribute to improving safety. The escalating trend in preventable work deaths, rising injury costs, and a high number of medically consulted injuries underscore the urgency of examining how leadership styles influence safety culture to reduce workplace incidents and fatalities.

Purpose Statement

The purpose of this qualitative study was to explore how various leadership styles can be integrated to positively influence safety culture in high-risk industries.

Research Questions

The research questions are:

1. How do various leadership styles contribute to the development of a positive safety culture in high-risk industries?
2. What is the correlation between leadership behaviors and the occurrence of preventable work injuries and fatalities in high-risk industries?
3. How can organizational safety leaders leverage different leadership styles to enhance safety practices and mitigate the impact and costs associated with injuries and fatalities?

Significance of the Problem

The significance of this problem is underscored by the magnitude and gravity of adverse events occurring within current industry practices. In high-risk industries, the potential for catastrophic incidents is immense, and these incidents can have far-reaching consequences. From life-altering injuries to loss of life, the human toll is immeasurable, leaving a lasting impact on affected individuals and their families. These incidents also translate into substantial economic costs, direct expenses related to accidents and injuries, and potential legal liabilities and reputational damage.

Such incidents disrupt regular business operations beyond the immediate human and financial costs. Downtime, investigations, and recovery efforts divert valuable resources and hinder productivity. The disruptions ripple through the supply chain, affecting other

organizations and stakeholders. Workplace accidents erode employee morale and engagement, potentially leading to increased turnover, absenteeism, and decreased productivity.

The significance of addressing safety concerns is evident in light of these consequences. Enhancing safety practices and culture is not only a moral imperative but also an operational necessity for organizations operating in high-risk environments. It ensures employees return home safely, mitigates legal and financial risks, and safeguards the organization's reputation.

This research's significance lies in its offerings of insights and recommendations for enhancing safety practices, reducing adverse events, and ultimately creating a safer, more secure working environment in high-risk industries. By addressing the problem at its core, this study aimed to contribute to the well-being of employees and the long-term success of organizations while preventing the potentially catastrophic consequences of continued safety shortcomings.

Definitions

Culture: “Culture itself is the shared values, goals, attitudes, and practices that characterize an institute or organization” (Ross, 2015, p. 553).

High-risk industries: The “High Risk” establishments include, but are not limited to, manufacturing, grocery stores, agriculture, construction, transportation, warehousing and storage, performing arts, and retail (Occupational Safety and Health Administration [OSHA], 2023).

Incident rates: A quantitative measure that reflects the frequency and severity of safety-related events, accidents, or incidents within an organization assistance (Occupational Safety and Health Administration [OSHA], 2023)

Occupational Safety & Health Administration (OSHA): Congress created OSHA to assure safe and healthful conditions for workers by setting and enforcing standards and providing

training, outreach, education, and compliance assistance (Occupational Safety and Health Administration [OSHA], 2023).

Safety culture: The ingrained beliefs, attitudes, and behaviors within an organization that collectively emphasize the importance of safety and guide decision-making to prevent incidents and ensure the well-being of employees Abeje, M., & Luo, F. (2023)

Safety performance: How effectively an organization maintains a safe work environment, prevents accidents, and promotes a safety-focused culture, including incident rates, compliance, and safety records Hinze, J., Hallowell, M., & Baud, K. (2013).

Servant leadership: According to Greenleaf (2002), a “servant leader is servant first. It begins with the natural feeling that one wants to serve, to serve first” (p.15).

Transactional leadership: A leadership approach in which someone values order and structure, focusing on safety results.

Transformational leadership: a leadership approach that inspires profound positive changes in individuals, with the primary objective of enhancing safety outcomes and promoting a culture of safety within an organization.

Workplace safety: “The process of protecting employees from related illness and injury” (Occupational Safety and Health Administration [OSHA], 2023).

Organization of the Study

In Chapter 2 of this study, I aim to dive into the literature on workplace safety and its multiple elements and extensively review the relevant literature, exploring existing research on leadership styles, behaviors, and their effect on safety culture in high-risk industries. Chapter 3 outlines the research methodology, detailing the approach, data collection methods, and analysis techniques employed in the study. Chapter 4 presents the research findings and their implications

for safety leadership. Chapter 5 concludes the study with a summary of key insights, practical recommendations, and avenues for future research, ultimately contributing to enhancing safety cultures within high-risk industries.

CHAPTER 2: REVIEW OF THE LITERATURE

Introduction and Purpose

Leadership's crucial role in shaping and sustaining a positive safety culture in high-risk industries cannot be overstated. These organizations constantly confront the looming threat of catastrophic incidents, prioritizing safety. This literature review explores the relationship between leadership and safety culture within high-risk industries, aiming to shed light on the interesting dynamics that contribute to a safer working environment. This literature review seeks to understand how leaders within high-risk organizations champion safety comprehensively. It explores a spectrum of leadership styles and behaviors that substantially influence safety culture, employee attitudes, behaviors, and organizational practices.

The knowledge derived from this literature review is poised to empower high-risk industries to cultivate safety cultures that are resilient and responsive to the profound consequences of failure. To provide a clear roadmap for the ensuing sections of this review, I focus on two fundamental dimensions. In the first section of my literature review, I cover the background and historical creation of the Occupational Safety & Health Administration and its impact on safety culture. I dive into leadership styles, including transformational, transactional, and servant leadership. Each type exhibits distinct traits capable of leaving a lasting imprint on the safety climate within organizations.

I include leaders' behaviors throughout the various leadership styles, which are indispensable in nurturing and perpetuating a safety-conscious culture. The review pays particular attention to the significance of effectively empowering communication and modeling safe practices in establishing a work environment where safety takes precedence. This

framework guides our exploration of the various aspects of leadership's contribution to safety culture in high-risk industries, and my findings may serve as a compass for leaders and organizations in their quest for a safer operational work environment.

Search Description

A description of how the search was conducted, including the keywords used for the searches and the databases accessed, is provided. Keywords used in the online Annie Gabriel CBU library for my literature review consisted of effective communication strategies, inspirational safety, leadership styles in safety, OSHA, safety, safety empowerment, safety engagement, safety leadership, safety styles, safety theories, servant leadership, transactional safety, transformation safety, workplace safety, and workplace safety qualities were utilized.

Additional resonating terms and phrases included employee safety, hazard prevention, organizational safety culture, risk management, safety compliance, safety communication, safety performance, safety regulations, safety training, worksite safety, leadership impact, safety behavior, safety interventions, and similar critical resonating words. The search strategy extended beyond a single database, with OneSearch as a valuable starting point. Subsequent exploration involved more specific databases, including Business Source Premier, PsycINFO, and Dissertations Abstracts. This approach aimed to capture various scholarly resources, building upon the literature review with insights into the different elements of workplace safety and the influential role of leadership styles on the safety culture.

Theoretical Framework

The theoretical framework of this dissertation integrates phenomenology with vital elements from established leadership theories, safety management principles, and organizational behaviors. Drawing inspiration from the foundational work of Bass (1985) and Burns (1978) on

transformational and transactional leadership, the study explores the various leadership styles and their profound impact on safety cultures in high-risk industries. Within this framework, the phenomenological approach is adopted to uncover the essence of individuals' lived experiences, adding a nuanced dimension to understanding how leadership styles influence workplace safety (Creswell, J. W., & Poth, C. N. (2016)).

The transformational leadership model, featuring components like idealized influence and inspirational motivation, takes center stage in the theoretical framework. This model is explained in detail, highlighting how it significantly improves safety performance and creates a positive safety environment. The theoretical framework further extends to transactional leadership, highlighting leaders' capacity to uphold safety standards through contingent rewards, incentives, educational training, and the strategic use of performance indicators to monitor success. Additionally, insights from servant leadership theories are seamlessly woven into the framework, underscoring leaders' commitment to meeting the needs of others and supporting secure work environments. Throughout this comprehensive theoretical framework, critical theorists such as Burns (1978), Bass (1985), Greenleaf, R. K. (1997), and others are explicitly cited. This provides a robust foundation for the study and offers a thorough understanding of these theories' development, evolution, and continued relevance in the specific context of safety cultures within high-risk industries.

Review of Research

Workplace Safety

Workplace safety is an overarching concern demanding continued attention and improvements in the complex world of high-risk industries. The significance of developing and sustaining a robust safety culture within these environments cannot be overstated, not merely as

a regulatory obligation but as an ethical imperative. The average industrial workplace has several hazards and risks threatening workers' safety Elliott, K. S. (2020).

According to the U.S. Bureau of Labor Statistics' Census (2022) of Fatal Occupational Injuries (CFOI), the vast majority of deaths and injuries that occur in the workplace are preventable. Safety leadership is difficult because we can do many things right, only to have our workers and supervisors miss the hazards. A Certified Safety Professional, Forck (2012) asserted that “safety leadership is difficult because we can do many things right only to have our workers and supervisors miss the hazards” (p. 34).

Implementing comprehensive industrial safety measures is paramount to protect employees from injury and death. Employee perception of safety, also known as the "climate" of an organization, denotes the collective views held by employees regarding the endorsed health and safety procedures, practices, and behaviors in the workplace (Haas et al., 2019). Past investigations within high-risk industries have highlighted the significance of comprehending employees' perceptions of the workplace. This encompasses organizational and personal factors, providing valuable insights into their knowledge, motivation, and performance related to health and safety. Moreover, these studies underscore that as H&S knowledge, motivation, and behaviors enhance, there is a corresponding decrease in incidents (Haas et al., 2019).

Legal Framework

The legal framework governing workplace safety is a cornerstone in ensuring the well-being of employees and maintaining organizational compliance. This framework establishes the foundation for regulatory measures to create safe and healthy work environments. In looking at the legal landscape, it is imperative to understand the broader context in which workplace safety

regulations operate. This involves an exploration of crucial legislations, such as the Occupational Safety and Health Act (OSH Act), that lay the groundwork for comprehensive safety standards. ‘

Literature in occupational safety and health management underscores the pivotal role of legislation, the implementation of established rules, and adherence to standards in shaping working conditions. This involves their seamless integration into existing management systems and continual alignment with socio-economic and technological changes. Examining the impact of the legal framework and standards on the health and safety system is crucial for effective management, as evidenced by a survey conducted among 202 employees in the Southeastern Serbian textile industry. Utilizing the SPSS software, the study revealed a significant connection between the importance of the legal framework, adherence to standards, and the overall management of the health and safety system. The findings emphasize the efficacy of implementing safety laws, standards, and procedures as a means to enhance employee safety and advocate for the application of these methods in managing the work environment and processes effectively (Stefanović & Mladenović-Ranisavljević, 2022).

History and Background of Occupational Health and Safety

The growing focus on government regulation can be attributed, in part, to the substantial increase in regulations during the 1970s, and this period witnessed the emergence of numerous regulations, coinciding with the establishment of various agencies, including the Occupational Safety and Health Administration and the Environmental Protection Agency as it relates to the safety of employees. The establishment of the Occupational Safety and Health Administration (OSHA) in the United States is deeply rooted in the historical context of labor struggles and the transformation from an agricultural rural to an industrial society. The nation underwent a rapid shift following the Civil War as it transitioned into an industrial powerhouse. This

transformation, however, brought with it hazardous working conditions and a stark power imbalance between laborers and business owners. Workers found themselves in difficult situations as industries grew, often without protection or recourse (Rosner & Markowitz, 2020)

The 1930s marked a significant turning point in the involvement of the federal government in occupational safety. Labor movements gained momentum during this time, advocating for improved working conditions, shorter work hours, and safer workplaces. These efforts culminated in the passage of key legislation, including the Mine Safety and Health Act of 1969 and, most notably, the Occupational Safety and Health Act of 1970 (OSHA). OSHA's establishment was a landmark in labor rights and workplace safety history. The aftermath of World War II brought about new challenges and opportunities for worker protection. The massive mobilization of women into heavy industries during the war underscored the need for enhanced safety measures, especially as they faced increased workloads and longer hours. The 1960s and 1970s witnessed a surge in labor activism, ultimately leading to the passage of key legislation, including the establishment of OSHA in 1970 (Rosner & Markowitz, 2020).

Despite its legislative achievements, OSHA has had to contend with several challenges. Opposition from industries, antiregulatory movements, and shifts in political landscapes have posed significant obstacles. Nevertheless, OSHA remains a crucial institution dedicated to ensuring safe workplaces and protecting the well-being of American workers. Creating a regulatory framework for employers is fundamental in advancing continuous improvements to enhance employee safety and cultivate a thriving safety culture.

Milestones

The historical foundation of workplace safety is anchored in a timeline marked by pivotal events and regulations that have shaped the contemporary landscape of occupational health, from

the early labor movements of the late 19th century advocating for improved working conditions. Despite the recognized history of intense labor-management conflicts in the United States, the impact of striker fatalities on the early American labor movement remains a subject of debate. One study explores the consequences of such violence on strike frequency, union membership, and Socialist Party affiliation. The findings suggest that fatalities among strikers and sympathizers had detrimental effects, dampening strike activity, impeding union growth, and influencing the trajectory of the American labor movement during its foundational years (Lipold & Isaac, 2022).

Amidst the backdrop of historical labor conflicts and escalating concerns for workplace safety, the 1970 formation of the Occupational Safety and Health Administration (OSHA) in the United States marked a pivotal moment. The tumultuous history of labor disputes and the recognition of the dire consequences of workplace injuries set the stage for the establishment of OSHA, reflecting a paradigm shift toward prioritizing and regulating occupational safety (Lipold & Isaac, 2022). Against the backdrop of persistent labor conflicts and escalating concerns for workplace safety, the Occupational Safety and Health (OSH) Act of 1970 emerged as a landmark piece of legislation in the United States. Shaped by a history of labor struggles and growing awareness of the severe consequences of workplace hazards, the OSH Act represented a transformative commitment to ensuring the health and safety of American workers. Enacted with bipartisan support, this legislation laid the foundation for the creation of the Occupational Safety and Health Administration (OSHA), signifying a pivotal moment in the nation's approach to occupational safety regulation (Jensen et al., 1973)

The Occupational Safety and Health Act of 1970 mandated the Secretary of Labor to establish the use of labels and other necessary warning devices to ensure that employees are

adequately informed about all the hazards to which they may be exposed. This directive emphasized the pivotal role of clear communication in promoting workplace safety, setting the stage for subsequent regulatory advancements in hazard communication, thus creating the Hazard Communication Standard (HCS) of 1983 (Dubé, 1985).

More recent legislative changes come the Safety Management Systems of the 21st Century. “This is a businesslike approach to safety as a systematic and efficient process for managing safety and related risks in an industry,” asserted (Pujari, 2022, p. 6). The Occupational Safety and Health Act of 1970 laid the foundation for significant developments in safety management systems as we entered the 21st century. With a growing emphasis on comprehensive approaches to workplace safety, contemporary safety management systems have evolved to address dynamic challenges and support a proactive safety culture. This progression reflects a commitment to continuous improvement, aligning with creating safer and healthier work environments for all (Pujari, 2022).

Employee Rights and Protections

Workplace safety legislation safeguards the rights of employees. It ensures workers are entitled to a safe working environment, free from hazards that may harm their health or well-being. Legal provisions often empower employees to report safety concerns without fear of retaliation. Although OSHA regulations do not cover many existing occupational hazards in the health care workplace, workers can rely on the OSHA General Duty Clause, also known as “5(a)(1)” of the Occupational Safety and Health Act of 1970, which states that each employer shall furnish to each of his employee's employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees (de Castro, 2005).

The General Duty Clause, as enforced by OSHA inspectors, requires meeting specific criteria for citing an employer. Firstly, the employer must have failed to uphold a hazard-free work environment. Secondly, the hazard in question must have been recognized by the employer. Thirdly, the identified risk should be causing or have the potential to cause death or serious physical harm. Finally, OSHA inspectors need to establish that there is a feasible and effective method available to address the identified hazard. These criteria collectively ensure that employers are held accountable for maintaining safe working conditions, and the General Duty Clause serves as a tool to enforce these standards (de Castro, 2005).

An additional protection suitable for the employees is the "right to know," which refers to the entitlement of workers to be informed about potential hazards and risks associated with their workplace conditions, especially concerning exposure to toxic substances. According to Bayer (1986), this right is rooted in the belief that employees have the fundamental right to be aware of any potential threats to their health and safety while performing their job duties. It encompasses information about hazardous materials, chemicals, or substances in the workplace and details on associated risks and necessary safety precautions.

The objective is to empower employees with knowledge that enables them to make informed decisions, take appropriate precautions, and contribute to maintaining a safe and healthy work environment. Various regulations, such as those established by occupational safety agencies like OSHA, often mandate employers to provide this information and ensure that employees know potential workplace hazards Bayer (1986),

Compliance and Accountability

To provide a comprehensive understanding of the safety landscape within various high-risk industries, the Occupational Safety and Health Administration (OSHA) regularly conducts

inspections of worksites and identifies the most frequently cited standards. This information is crucial for employers to address recognized hazards, thereby preventing injuries, illnesses, and fatalities in the workplace. Figure 1 below illustrates the Top 10 Frequently Cited Standards for Fiscal Year 2022 (October 1, 2021, to September 30, 2022). These standards cover a range of areas such as fall protection, hazard communication, ladders, respiratory protection, scaffolding, control of hazardous energy, powered industrial trucks, fall protection training, eye and face protection, and machinery and machine guarding. Understanding the common citations enables employers to proactively address safety concerns and enhance workplace conditions through various training and educational training (Occupational Safety and Health Administration, 2023).

Figure 1

Top 10 Most Cited Standards



A significant number of these accidents and violations occur due to choices made by workers that directly affect their safety. Shortcuts, lack of communication, lack of training, and

peer influences are some of the factors that influence safety in the workplace for high-risk industries (Elliott, 2020).

Culture

In the organizational landscape, safety culture is the bedrock for supporting a secure and healthful workplace. When examining the purpose of a sound safety culture, it is vital to examine its pivotal role in shaping attitudes, behaviors, and performance within high-risk industries, which appears to be a critical component in the overall success of the culture. In manufacturing enterprises, managing safety risks is a strategic challenge with potential impacts on employee well-being and business success. One study, based on a quantitative research methodology involving 368 respondents from five large-scale industrial manufacturing enterprises, explores the influence of safety culture and climate on safety performance. Using techniques such as structural equation modeling, growth paths, and correlation matrix through SPSS, the study established a causal relationship, revealing that safety culture significantly impacts safety performance, followed by safety climate (Abeje & Luo, 2023).

Measuring and enhancing safety performance in construction increasingly relies on safety culture as a proactive strategy. Despite its growing importance, there is a universally accepted industry definition for safety culture, and the distinction between safety culture and safety climate remains unclear (Q. Chen & R. Jin, 2013). Q. Chen and R. Jin (2013) asserted that “the current research gaps include a lack of exploration into the development of safety programs to enhance safety culture and climate, limiting our ability to assess the effectiveness of such programs” (p. 3).

Management Commitment

Despite the increased emphasis on enhancing governance practices, there remains a significant opportunity for directors to assist management teams in cultivating organizational culture. In one survey involving over 1,300 executives in the United States and Canada, Greene (2022) unveiled that less than half perceived the board as a contributor to their culture's effectiveness.

The research exposed a substantial disparity between awareness and action, with 92% of executives acknowledging that enhancing their culture would boost firm value. Yet, only 16% believed their culture had reached an optimal state. Moreover, over two-thirds concurred that "leadership should dedicate more time to the culture." (Greene, 2022, p. 3)

The study discusses that while decisions about organizational structure often require trade-offs, effective cultures compensate for these compromises by encouraging people to do what's right for the business (Greene, 2022). One study states, "According to social learning theory, individuals in positions of power can significantly influence the behaviors of others" (Tucker et al., 2016, p. 1228). This study suggests that CEOs indirectly impact frontline injuries through collective social learning experiences involving top management teams (TMT), supervisors, and frontline employees. Based on data from 54 organizations, the research supports the idea that a CEO-driven TMT safety climate positively influences the broader organizational safety climate, reducing employee injuries through supervisory support for safety. The findings have theoretical and practical implications for workplace safety research and practice (Tucker et al., 2016).

Supervisor Commitment

In one study aimed to explore the influence of frontline supervisors on workplace safety culture, Bahn (2013) advocates for an increased emphasis on formal supervisory training.

Drawing on two studies conducted in 2006 to 2008 and 2011, which involved interviews with 28 Managers and Occupational Health and Safety Managers in the construction industry in Western Australia, as well as a case study of a safety change process for an underground mine, the research emphasizes the pivotal role of supervisors as direct line managers. The safety practices they prioritize significantly impact overall safety levels on worksites. Despite this, supervisory training is limited, highlighting the urgent need to improve frontline supervision techniques (Bahn, 2013).

Effective leadership shapes an organization's safety culture and improves health and safety outcomes. Another study focuses on the social support dimensions (emotional, informational, and tangible support) provided by supervisors and their impact on miners' safety culture perceptions and performance in a high-risk environment. Through pre- and post-interview data with 20 managers and 48 workers, the research identifies positive and negative instances of social support. Results indicate that emotional support motivates compliance and proactivity but is challenging to tailor. Informational support significantly influences miners' behaviors and is reciprocated among coworkers (Haas, 2019). “Tangible support, such as supervisor assistance, substantially impacts worker behavior” (Haas, 2019, p. 1).

Components of Workplace Safety

Safety Policies and Procedures

Workplace safety contains various essential components to support a secure and healthful environment for employees. Among these critical components, safety policies and procedures play a foundational role. These policies articulate organizations' principles and guidelines to safeguard their workforce. Combined with comprehensive safety procedures, these two serve as the cornerstone for promoting a culture of safety within the workplace.

Safety policies in the workplace serve as foundational documents outlining an organization's commitment to maintaining a secure and healthy environment for its employees. These policies typically cover a range of aspects, including hazard identification and control, emergency procedures, use of personal protective equipment (PPE), incident reporting, and compliance with regulatory standards such as those set by the Occupational Safety and Health Administration (OSHA). A well-crafted safety policy provides clear guidelines on safe work practices, risk mitigation strategies, and the roles and responsibilities of employees and management in upholding a safety culture. Additionally, it emphasizes continuous improvement through regular communication channels for reporting concerns and ongoing evaluation of safety procedures to adapt to evolving workplace conditions and potential hazards. Effective safety policies enhance employee well-being and contribute to organizational success by minimizing incidents, supporting a positive safety culture, and ensuring compliance with legal requirements (Jovevski, 2021).

Occupational safety and health policies exhibit variations across companies, influenced by the prioritization of worker protection by top management, according to Sugiyanto (2022). The study aimed to assess the impact of these policies on employee performance within the specific company under examination. Employing a Likert scale ranging from 1 to 5, the study measured worker attitudes, opinions, and perceptions regarding the K3 program's implementation. Data collection involved distributing a questionnaire to workers, and the gathered responses underwent analysis using the partial least square method. The results, derived from outer and inner model evaluations, indicated significant correlations between work environment, employee competence, top management commitment, worker communication, and employee performance (Sugiyanto, 2022).

Education and Training

Transactional leadership, characterized by a focus on structure and safety outcomes, finds a practical application in educational safety training. Through this leadership style, the literature has identified that organizations can implement targeted training programs that align with transactional principles, ensuring employees receive clear guidelines and performance expectations to enhance safety awareness and compliance. From a regulatory perspective, Agnieszka (2022) states that “in accordance with point 7 of the standard (ISO 45001 standard), an organization should ensure that workers are competent (including the ability to identify hazards) based on appropriate education, training or experience” (p. 764).

A study conducted on behalf of Barati Jozan et al. (2023) explores the effectiveness of online occupational safety and health training in preventing workplace injuries, accidents, and diseases. The review of 25 selected studies indicates that e-training interventions, delivered through various platforms, significantly improve occupational safety and health. The findings emphasize the adaptability, affordability, and knowledge enhancement potential of e-training, suggesting its promise for reducing workplace incidents and supporting a safer work environment.

OSHA Training Requirements for Employers in High-Risk Industries

The Occupational Safety and Health Act of 1970 places the responsibility on employers to establish workplaces that are safe and conducive to employee health. The expectation is that no individual should suffer injury, illness, or death while pursuing their livelihood. In alignment with its mission, OSHA is committed to safeguarding workers and preventing work-related incidents by instituting and enforcing standards, delivering training, engaging in outreach and education, and offering assistance (U.S. Department of Labor, n.d.).

Numerous OSHA standards, proven to avert workplace tragedies, explicitly include safety and health training requirements. These mandates underscore OSHA's conviction that training is integral to any adequate safety and health program, which is crucial for shielding workers from potential injuries and illnesses. Research consistently indicates that individuals new to a job face a higher risk of injuries and illnesses than their experienced counterparts (Amara, 2015). OSHA emphasizes that investing in training for workers to perform their tasks safely is a strategic investment yielding returns through reduced injuries and illnesses, elevated morale, lower insurance premiums, and enhanced overall well-being (U.S. Department of Labor, n.d.).

Despite the wealth of information and guidance provided by OSHA regarding safety training, a notable gap exists in the literature when it comes to pinpointing the direct performance impacts of such training. While OSHA's standards and regulations underscore the critical role of training in creating safe workplaces, the specific, quantifiable effects on organizational performance remain less explored in current research. This gap prompts the need for further investigation and empirical studies that can illuminate the tangible performance outcomes stemming from robust safety training initiatives. Closing this gap is essential for refining and enhancing safety training programs to meet compliance standards and contribute substantively to organizational effectiveness and success.

Performance Metrics and Key Performance Indicators (KPIs)

Performance Metrics and Key Performance Indicators (KPIs) are essential for evaluating and advancing safety within high-risk industries. “Safety performance is a key factor in measuring the comprehensive competitiveness of companies” (Niu et al., 2023, p. 1). In this section, I share the literature to illuminate these metrics' pivotal role in assessing and improving

safety performance. Examining a range of metrics employed to measure safety outcomes, I aimed to uncover insights into the effectiveness of safety metrics and their impact on overall organizational safety performance used by leaders.

Total Recordable Incident Rate (TRIR) a Lagging Indicator. One of the most widely recognized key performance indicators in safety performance is the Total Recordable Incident Rate (TRIR). TRIR tracks injuries that meet specific severity thresholds set by the Occupational Safety and Health Administration (OSHA). TRIR, being a lagging indicator, can be employed by leaders within the safety management framework as a transactional measure due to several pragmatic considerations Hallowell, M., Quashne, M., Salas, R., Jones, M., MacLean, B., & Quinn, E. (2021). While acknowledging its limitations, leaders may find value in the transactional use of TRIR for specific purposes such as compliance and regulatory alignment, contractual requirements, communication with stakeholders, performance incentives, and general industry benchmarking.

TRIR is calculated by taking the total number of recordable injuries within a specific timeframe, multiplying this figure by 200,000, and dividing the result by employees' total number of working exposure hours. This computation yields a numerical value that leaders often utilize as a performance metric to assess and monitor the safety performance of their organization. This rate is commonly employed in safety management to gauge the frequency of workplace incidents relative to the number of hours worked, providing leaders with a standardized measure for evaluating safety outcomes and identifying areas for improvement.

Contrasting perspectives in the literature found that leaders and organizations should not use TRIR to track internal performance or compare companies, business units, projects, or teams. Since the average company requires tens of millions of work hours to return a confidence

interval with one decimal point of precision, organizations should be cautious in making comparisons using TRIR (Hallowell et al., 2021).

A study aimed to evaluate the underreporting of workplace injuries and illnesses in the construction industry and investigate whether TRIR influences the extent of underreporting was identified as interesting literature that needed to be noted. Data from 1,390 employees across 38 companies at a major construction site were analyzed. OSHA recordable injury rates were calculated from OSHA logs (a yearly requirement by OSHA), while actual injury rates were obtained from medical claims data. The reported annual injury rate to OSHA was 3.11 per 100 workers, but the rate of unreported eligible injuries was 10.90 per 100 employees. Companies with a poor safety climate exhibited higher underreporting rates (81% of eligible injuries unreported) than those with a favorable safety climate (47% unreported). The findings have implications for organizational practices and the accuracy of the U.S. Bureau of Labor & Statistics' (2022) national occupational injury and illness surveillance system (Probst et al., 2008). Despite its transactional utility and widely used measure in the practical world, it's noteworthy that there is limited existing literature comprehensively exploring the implications and applications of leaders using TRIR in this manner.

Lost Workdays a Lagging Indicator. Lagging indicators, such as the number of lost workdays, provide crucial insights into the long-term impact of organizational safety incidents. Understanding the implications of lost workdays is essential for leaders and safety professionals striving to enhance workplace safety and reduce the enduring effects of incidents on employee well-being and organizational productivity (Niu et al., 2023). Additionally, the literature summarization concisely points out that this knowledge enables proactive measures to prevent future incidents and prioritize the workforce's well-being.

The lost workday outcomes from mining injuries are valuable indicators of several aspects of job safety programs. While traditional measures of preventive program performance are still needed, including total case counts and incidence rates, lost time measures offer the possibility of comparing essential aspects of safety program performance among various sectors and periods without relying on denominators. In particular, the “distribution of lost workdays can be modeled statistically, and the models can be used to quantify losses for more effective tracking of what works and what doesn't” (Coleman & Kerkerling, 2007, p. 1). According to the OSHA resource cited by the U.S. Department of Labor, Occupational Safety and Health Administration (2023), it is shared that,

While lagging indicators can alert you to a failure in an area of your safety and health program or to the existence of a hazard, leading indicators allow you to take preventive action to address that failure or hazard before it turns into an incident. A good program uses leading indicators to drive change and lagging indicators to measure effectiveness. (p. 2)

Leading Indicators. Proactive measures, known as leading indicators, play a crucial role in averting worker fatalities, injuries, and illnesses while strengthening overall safety and health outcomes in the workplace, according to OSHA’s page on using leading indicators to improve safety and health outcomes U.S. Department of Labor, Occupational Safety and Health Administration (2023). Unlike lagging indicators that retrospectively measure past events like the frequency of injuries or fatalities, leading indicators are preventive, offering insights into the effectiveness of safety and health activities and identifying potential issues in a safety and health program. Leading indicators represent an invaluable tool that allows organizations to track health and safety performance, not just failures and accidents; measure the effectiveness of safety

efforts adopted; and focus on undesired precursors rather than undesired events (Bayramova et al., 2023).

According to Xu et al. (2023), it is asserted that, “The effective deployment of safety leading indicators needs a transformational business model that prioritizes investment in people and capabilities and nurtures a positive organizational culture and workgroup climate” (p. 11). The continuation of this author explains that, “transactional business model, lack of organizational learning and lack of engagement in project front end hindered the effective implementation of safety leading indicators” (p. 2). This emphasizes the critical role of organizational culture and leadership style in successfully utilizing safety-leading indicators for enhanced workplace safety and performance in high-risk industries.

While many employers are familiar with lagging indicators, which indicate failures or existing hazards, leading indicators reveal whether safety and health activities effectively prevent incidents. An adequate safety and health program strategically employs leading indicators to drive change and lagging indicators to assess effectiveness. Leading indicators offer significant benefits, irrespective of the existing safety or health program's nature, components, or developmental stage. OSHA, U.S. Department of Labor (n.d.), Occupational Safety and Health Administration (2023) strongly encourages employers to incorporate leading indicators today, emphasizing their potential to:

- Prevent workplace injuries and illnesses.
- Reduce costs associated with incidents.
- Enhance productivity and overall organizational performance.
- Optimize safety and health performance.
- Boost worker participation.

An evident literature gap exists concerning applying leading indicators with recommendations from the regulatory agency OSHA as a sound application to improve safety performance. Further research is necessary to contribute to the literature regarding leading indicators.

Contingent Rewards and Incentives. Building on the effectiveness of rational persuasion in engaging workers in tasks requiring transactional safety performance (Yukl et al., 2005), contingent reward systems emerge as a significant component of transactional leadership as it relates to organizational safety. Judge and Piccolo's (2004) research underscores the comparable efficacy of contingent reward systems to transformational leadership, particularly within business settings. In the realm of safety, Zohar (2002a) provides evidence that leadership rooted in contingent reward principles is associated with a noteworthy reduction in injury rates. As Clarke and Ward (2006) emphasize, this “evidence forms the basis for our hypothesis, suggesting that the strategic implementation of exchange tactics will successfully promote active employee participation in safety initiatives” (p. 1175).

Controversy does exist in the literature regarding the efficacy of contingent rewards in the context of safety. While noting this debatable transactional component in the literature, the evaluation of safety rewards in the July 2019 issue of *Professional Safety Challenges* by Geisinger (2019) on conventional thinking highlights concerns about its efficacy and perceived value within the safety profession. Geisinger (2019) critiques that “tangible rewards, such as gift cards or vouchers, hold greater motivational power than the inherent value of avoiding potential harm, injury, or even fatality. This assessment calls for a more comprehensive approach in safety research, urging professionals to explore the fundamental causes of unsafe behaviors rather than relying solely on reward programs” (p. 9). His critique emphasizes the opportunity cost

associated with administering award programs, suggesting that time spent tracking behavior and distributing rewards could be more effectively utilized to identify and mitigate risks. This perspective aligns with the need to shift focus from token rewards to proactive risk reduction strategies in the safety profession, advocating for a more substantial and impactful role in addressing systemic issues (Geisinger, 2019).

Discussions in the literature have taken place concerning the merits and drawbacks of safety incentive programs. Advocates assert that prevailing conditions and events can influence worker behavior, reinforcing behaviors through positive feedback and deterring negative consequences Geller (2021). The belief is that incentives, in the form of rewards, encourage and enhance safe behavior, ultimately contributing to improved safety performance. However, skeptics challenge that safety incentive programs result in sustained safety improvements. They question these programs' added motivation, arguing that working safely already yields significant intrinsic benefits for workers. Critics contend that attributing enhanced safety performance to incentives is misleading, as evidence indicates that these improvements diminish or even fall below original levels once the incentive program concludes (Goodrum & Gangwar, 2004).

The Role of Leadership in Supporting Effective Workplace Safety

The following sections explore the influential leadership styles underpinning workplace safety and safety culture. The first section focuses on transformational leaders, researching their impact on shaping safety behaviors and compliance. Subsequently, we examine transactional leaders and their role in maintaining safety standards by emphasizing structured guidelines, monitoring, and corrective actions. The third section spotlights servant leadership and its positive influence on safety culture. Through each of these leadership styles, I aim to gain a

comprehensive understanding of how they drive safety outcomes within organizations and offer valuable insights for those seeking to enhance workplace safety.

Impact of Transformational Leadership on Workplace Safety

Research has shown that the extent to which managers exhibit transformational and constructive leadership styles is an effective predictor of the rate of injury within an organization, directly influencing the improved safety behavior of organizations (Zohar, 2002a). Additional research by Clarke and Taylor (2018) shows that data were analyzed to determine if there is a statistically significant association between leadership behaviors and safety performance. Transformational leadership is substantially associated with OSHA injury rates but not severity rates. Extending the foundational contributions of Burns (1978) and Bass (1985) to leadership studies, transformational leadership has evolved within the framework of a comprehensive full-range leadership theory. This theory describes a spectrum of leadership behaviors, ranging from passive to transactional and, ultimately, to transformational leadership behaviors. Building upon this theoretical foundation, transformational leadership is a focal point in leadership research, capturing significant attention and exploration. Comprising four distinct facets often regarded as a higher-order transformational leadership factor, this model continues to serve as a cornerstone for understanding and analyzing leadership dynamics Krouse, J. E. (2011).

Through its emphasis on inspirational motivation, intellectual stimulation, individualized consideration, and idealized influence, transformational leadership provides a lens for comprehending the various natures of effective leadership within organizational contexts. First is idealized influence, meaning leaders' demonstration of admirable attributes and behaviors that reflect their high moral standards. Inspirational motivation refers to leaders communicating an

appealing vision and encouraging followers to strive beyond their goals. Intellectual stimulation, or how leadership behaviors allow and support followers to face and overcome challenges; and individualized consideration, meaning the degree to which leaders recognize and address each follower's needs (Nguyen et al., 2023).

Building on transformational leaders' influence on safety cultures, Wu et al. (2022) share the complex relationship between transformational leadership and safety compliance. The study's findings were mixed compared to previous research. Employing a longitudinal research approach, the study gathered data from 309 employees in the Chinese construction industry to explore this relationship. Results revealed a nuanced picture: Transformational leadership positively impacts safety compliance by supporting a sense of obligation among employees toward their leader. However, it also negatively influences safety compliance by increasing employees' tolerance for safety risks. It was demonstrated that employees' perceptions of the safety climate significantly influence these processes. In particular, a strong perceived safety climate amplifies the increasing positive indirect effect of transformational leadership on safety compliance through obligation Wu et al. (2022).

In contrast, a weak perceived safety climate intensifies the increasing negative indirect effect of transformational leadership on safety compliance through safety risk tolerance. This study sheds light on the dynamics of transformational leadership and safety compliance, offering valuable insights for organizations aiming to enhance workplace safety. An additional correlational study examined leadership characteristics (transformational, transactional, and laissez-faire) about organizational safety outcomes. The study involved 37 participants across 28 facilities in a Midwest Concrete Association (Krouse, 2011). Using the Multifactor Leadership Questionnaire (MLQ) and interviews, the study assessed leadership styles and Total Recordable

Incident Rates. Results did not show a significant correlation between transformational, transactional, or laissez-faire leadership and lower incident rates. However, qualitative research suggested that more vital transformational leadership was associated with lower incident rates, while laissez-faire leadership was linked to higher incidents. This highlights the complexity of leadership concerning safety culture improvement. The author encourages further research on these leadership styles related to organizational safety (Krouse, 2011).

Existing leadership strategies, including transformational, leader-member exchange, and thoughtful leadership, were all identified as necessary in the influence of remote workers (Nayani et al., 2017). In summary, a conclusion from the study is that immediate front-line managers play a critical role in the development and influence of employees. Executive leaders and higher-level managers have less impact on the employees than front-line managers. Front-line managers influence remote workers' behavior by being close to the employees daily. With managers directing the culture at the front line, the affected employees get a more significant impact of change at a much more impactful time frame (Nayani et al., 2017).

Qualities of Effective Transformational Safety Leaders

In the forthcoming sections of this transformational component, I navigate through essential areas of effective transformational safety leadership, unraveling the qualities that distinguish exceptional leaders in supporting a safety-conscious culture. The exploration begins by dissecting transparency in safety communication by shedding light on its pivotal role in building trust and promoting open discourse around safety matters. I extend to the literature on inspirational safety motivators, exploring how leaders can leverage motivational strategies to instill a collective commitment to safety within their teams. Next, I scrutinize the concept of safety empowerment, dissecting its role in cultivating a workforce that actively participates in

safety initiatives. Following safety empowerment, I identify the literature behind idealized safety influencers, assessing how leaders can embody and communicate safety values to influence positive safety behaviors throughout high-risk organizations. The safety transformational literature concludes by exploring the application of modeling best practices within high-risk organizations.

Effective Communication. The literature identifies effective communication as behavior exhibited by leaders instrumental in cultivating and upholding a positive safety culture. Leadership behaviors, particularly effective communication, could be pivotal in supporting a productive work environment and ensuring employees' safety and well-being. The research suggests that effective communication directly relates to employee safety, being among the most influential tools leaders can deliver within an organization to promote a safe environment.

Numerous research themes have emerged, with multiple findings emphasizing the critical significance of effective and pertinent safety communication. Various studies have been undertaken, particularly within organizational settings. A common theme that resonates across several investigations, including those by (Boelhouwer et al., 2013; Chib et al., 2012; Narayan & Nair, 2021; Schulte et al., 2018) all share similarities in research on effective communication. Commonalities can be observed, leading to the inference that communication takes on diverse forms, encompassing but not restricted to personal, engaging interactions, on-the-job training, posters, and pictograms. A clear indication from a study conducted by Boelhouwer et al. (2013) shows that leader engagement with training on product safety labels and general awareness was most effective in a high-risk hazardous materials organization.

Effective communication within the world of safety is guided by principles such as lucidity, openness, active listening, and the provision of feedback (Conchie, 2018). Leaders and

employees must ensure that safety-related information is conveyed clearly, actively listen to comprehend concerns, and engage in a feedback loop to perpetuate safety procedures. Evaluating the impact of effective communication on safety is a critical practice. Metrics, including response times to incidents, rates of errors, and compliance with safety protocols, serve as indicators that allow organizations to gauge the effectiveness of their communication strategies in promoting safety (Gillen et al., 2009).

Examining leader communication within the existing literature reveals a gap in understanding the practical implementation of effective communication strategies toward a safety culture among leaders in high-risk industries. Effective communication practices may assume different forms in diverse global settings. My research aimed to bridge this gap by investigating the specific methods and approaches through which leaders in such industries can successfully integrate and apply effective communication practices.

Transparency in Safety Communication. The significance of transparency in safety leadership cannot be overstated, as it plays a pivotal role in shaping organizational dynamics and supporting a culture of trust and engagement. “When leaders display transparent behaviors, such as requesting information, following through on suggestions, and responding to criticism, followers' implicit promises may be interpreted while the leaders' actions exhibit integrity” Wells, J. E., & Walker, N. A. 2016, p 183). This foundational aspect of leadership transparency has been explored in-depth through a study conducted by Brandt and Uusi-Kakkuri (2016), focusing on the communication styles employed by 216 executive leaders, including CEOs, directors, and managers. Brandt and Uusi-Kakkuri (2016) identified emotionally intelligent, impatient, controlled, insecure, avoiding, dominating, and transparent as key influential communication styles in leaders. They also specify that these communication styles are linked to

a leader's subordinate's satisfaction levels. Transparency is highly effective in internal communication, enhancing trust and engagement if conducted in person. In-person face-to-face communication is one component of adequate transparency.

An online survey methodology collected data on the selected 216 CEOs, directors, and managers. Three quartiles were used to identify skills being assessed in the survey. The first group appraised the weakest skillset below 25%, the second group appraised their skills as moderate between 25%, and the final group in the (highest 25%). CEOs who placed themselves in the highest group were most transparent, tied with emotional intelligence as a skillset. In the lowest group, managers and directors were identified as having insufficient skills in transparent communication. Leaders in the lower group also showed leadership behavior of having insecurity and emotional pitfalls when communicating with team members. Concluding findings in this study show that transparency in communication was found in leaders who regarded themselves as transformational leaders. “Those who placed themselves in the lowest and mid-level of exhibiting transformational leadership showed leadership behaviors such as insecurity, avoidant and dominance” (Brandt & Uusi-Kakkuri, 2016, p. 7).

Another sample of 114 leaders identified the impact and association between a leader's transparency and the receptiveness of other leaders who inherit a similar trait of transparency in safety communication Rego et al. (2021). It was suggested that transparency and authenticity in leaders are relational only when it is bidirectional or mutually shared in communication. Additionally, the study indicates that transparent leaders who show genuine, humble interactions are more relatable to employees, and in turn, the receiver will share similar attributes when communicating. This interaction ultimately opens critical thinking for both engaged in the communication effort and conveys respect Rego et al. (2021).

A study examined why leaders' transparent behavior influences creativity in the workplace and its impact on productivity and team cohesion. "A field survey of 51 teams and 199 employees in a large I.T. company showed that psychological safety and ability to focus attention mediated the positive relationship between leaders' transparent behavior and employee creativity" (Yi et al., 2016, p. 1). The study concluded that transparency directly impacted employee engagement and creativity, which resulted in employee contributions to the organization with additional groundbreaking recommendations and ideas. It was also discovered that employees' psychological safety came from the leader's ability to focus on a transparent, open relationship model when communicating. With the employees' psychological safety from their organization's leaders came the intended creativity of employees. Transparent communication opens employees' minds, empowering them to speak up and voice their opinions, feeling a stake in the organization (Yin et al., 2016).

The research underscores the critical link between transparency in communication and its substantial impact on change management processes, particularly within the realm of organizational safety. Quality leaders, when orchestrating changes in safety protocols or procedures, play a pivotal role in ensuring that their teams are well-informed through open and transparent communication. The various studies reveal that transparent communication addresses the "why" behind significant changes and aligns seamlessly with shaping a more effective safety culture (Yin et al., 2016).

The research consistently demonstrates that employees prefer to be involved in the early conversations surrounding substantial changes in normal processes, a preference that holds profound implications for organizational safety. Fusing transparent communication practices with safety initiatives creates an environment where employees feel included, informed, and

motivated to contribute to safety enhancements actively. This approach strengthens ongoing safety processes and catalyzes cultivating a robust safety culture within high-risk organizations (Yin et al., 2016).

The findings underscore the strategic significance of transparency in safety communication by building a safety-conscious organizational culture. By intertwining transparent communication with safety practices, leaders can effectively instill a sense of shared responsibility, collaboration, and proactive engagement, ultimately supporting a workplace where safety is a priority and an ingrained value embraced by all (Yin et al., 2016).

Inspirational Safety Motivators. In transformational safety leadership, inspirational motivation stands out in the literature as a beacon guiding organizations toward a culture of safety excellence. Rooted in the foundational framework of transformational leadership asserted by Bass (1985), inspirational motivation represents a powerful force that propels leaders to communicate compelling visions and encourages followers to reach beyond conventional safety goals. Leaders who possess this quality ignite a sense of purpose and enthusiasm among their teams, supporting a collective commitment to safety as a shared value (Bass, 1985).

A research study noted that inspirational motivation manifested differently, with leaders embracing a participatory approach and involving workers in addressing safety challenges as they arose. This approach aimed to empower workers and instill motivation by supporting individual safety mindfulness. Leaders demonstrated the behavioral aspect of inspirational motivation in construction by attributing significance and complexity to their tasks and encouraging them to devise safety solutions (Oswald et al., 2022).

Connecting With Compassion. Karly St. Aubin (2021), a respected analyst at Tenneco Company, earned her B.S. in Environmental Health and Safety from Oakland University and is a

certified radiation safety officer. When discussing the topic of safety leadership, she shares her insights on the significance of inspiration in cultivating a safety-conscious environment:

An essential piece of persuasion is compassion. Seeing the situation from the other person's perspective is paramount in effective persuasion. Why? Because you need to speak the language of your audience. Like public speaking, you need to speak to and for the person you're talking to. If you come to me and try to persuade me in French to buy a car, I'm not likely going to buy the car because I can't speak French. Similarly, if I go to workers and try to persuade them to wear safety glasses in 'compliance speak,' chances are good that many won't wear the safety glasses. They don't speak compliance. But I've found that if I try to persuade a worker using compassion (i.e., addressing the importance of their family to them that they've previously spoken about or bringing up a relevant story), they'll be more likely to wear the glasses. Bottom line: part of persuasion is speaking the right language, and as safety professionals, our language needs to be compassion. (St. Aubin & Pater, 2021, p. 22)

The importance of compassion in safety leadership cannot be overstated. As professionals in the field, it is crucial to recognize the significance of speaking the correct language when persuading others. Compassion, as highlighted in the discussion, is a powerful tool for understanding and connecting with individuals on a personal level. The analogy of using the appropriate language for persuasion resonates strongly, emphasizing that safety professionals need to communicate in a way that aligns with the values and perspectives of their audience.

Safety Empowerment. Empowering teams from within leader traits appeared to be repetitive and consistent in the literature, centered on the idea that empowerment to be safe from

leaders was highly influential in various research studies. One study underscores the growing significance of employees' voices in workplace safety management, aligning with the imperative to empower employees for safety. The authors, Curcuruto and Griffin (2023), look into three distinct categories of safety-specific voice behaviors: promotive voice (offering original safety improvement suggestions), preventive voice (voicing personal concerns about potential risks), and proscriptive voice (speaking up against safety standards violations).

The primary aim is to establish the unique significance of these safety voice categories. Furthermore, it investigates how leadership styles, particularly empowering supervision, influence these various safety voice forms. The research, conducted in a multinational chemical industry with 192 participants, reveals that delegating leadership predominantly impacts promotive and preventive agents. In contrast, the proscriptive voice is influenced by both empowering and monitoring management. These findings emphasize the importance of empowering employees to engage actively in safety discussions and actions, supporting a culture where their safety voices are heard and valued, ultimately enhancing workplace safety (Curcuruto & Griffin, 2023).

When examining the impact of empowering leadership behaviors on employee engagement in safety, Gracia et al. (2020b) found that leaders who empower their teams by involving them in safety decision-making processes directly and positively influence employee engagement and safety commitment. Implementing empowering leadership for safety may pose challenges, including the need for leadership training and the adaptation of organizational culture to support empowerment; Gracia et al. (2020b) suggest that overcoming these challenges is essential for successful implementation.

Extensive research has explored the impact of values on employee behavior. Yet, the connection between work values and the safety conduct of miners, a high-risk group, remains understudied, according to (T. Chen et al., 2022). This research utilizes self-verification and trait activation theories, employing a structural equation model with psychological empowerment as a mediator and safety climate as a moderator. Analyzing data from 207 miners in three Chinese coal mines, the study reveals that three work values significantly predict positive safety behavior mediated by psychological empowerment. These insights guide coal managers aiming to enhance safety behavior by cultivating work values and reinforcing psychological empowerment (T. Chen et al., 2022).

In today's work environment, career satisfaction is a vital expectation and contributes significantly to workforce efficiency. Overcoming barriers to career satisfaction is crucial for business success, and Turunç et al. (2020) assert that psychological empowerment is an essential factor in enhancing career satisfaction. The study explores (1) the direct impact of psychological empowerment on career satisfaction and (2) the moderating influence of work safety on the relationship between psychological empowerment and career satisfaction within the public health sector (Turnuç et al., 2020).

The study tested theory-based hypotheses using a sample of 420 public health sector workers in Antalya, Turkey, collected in 2019. Statistical analyses were conducted using SPSS and AMOS. The results indicate that work safety perception moderates the influence of psychological empowerment, except for the perceived control dimension, on career satisfaction. In situations where work safety perception is low, the positive impact of psychological empowerment on career satisfaction is notably high, contrary to expectations. This unexpected finding aligns with similar observations in previous studies, suggesting that focusing on

empowering workers may overshadow the effects of other variables on career satisfaction, especially when work safety perception is low (Turunç et al., 2020). This positive finding also suggests that in environments with low work safety perception, the positive influence of psychological empowerment on career satisfaction is amplified. The existence of work safety might lead workers to overlook other factors influencing career satisfaction. Consequently, efforts to empower workers may be more positively perceived as a motivational tool even with low work safety perception. This result provides an optimistic perspective on the relationship between psychological empowerment, work safety, and career satisfaction (Turunç et al., 2020).

Idealized Safety Influencers. Idealized influence refers to when leaders behave in a way that makes them serve as role models for followers (Bass, 1985). They are respected, admired, and trusted by their followers. Inspirational motivation is when leaders motivate and inspire their followers by providing challenge and meaning to their work (Bass, 1985). A study by Tucker et al. (2016), grounded in social learning theory, asserts that individuals in positions of power, particularly chief executive officers (CEOs), exert indirect influence on front-line injuries. “This influence operates through collective social learning experiences and collaborative efforts across various organizational groups, including the top management team (TMT), organizational supervisors, and front-line employees. The collective social learning model was validated through empirical data analysis from 2,714 front-line employees, 1,398 supervisors, and 229 TMT members across 54 organizations. The study found that “TMT members' exposure to a CEO-driven TMT safety climate positively correlated with organizational supervisors' perceptions of the broader organizational safety climate” (Tucker et al., 2016, p. 1228).

Furthermore, this perception was linked to their collective support for safety, as reported by front-line employees. “Ultimately, this supervisory support for safety was associated with a

reduction in individual-level employee injuries” (Tucker et al., 2016, p. 1228). Highlighting the significance of influence on leaders and employees, mainly from top-tier levels, emerges as a crucial leadership behavior essential for supporting a safety culture.

One phenomenological study addressed the knowledge gap within the electric utility industry, particularly where employees navigate diverse weather conditions to restore customer power. Drawing on leadership and motivation theories proposed by Burns (1978) and Maslow (1943), the study's conceptual framework explored the impact of transformational leadership on enhancing safe driving performance within organizations and the role of emotional intelligence in leaders' effectiveness for improving safe driving performance. Using a 14-item, in-depth, open-ended interview questionnaire, data were gathered from a convenience sample of 18 management and 12 union-represented personnel across five U.S. electric utility companies, employing the snowball sampling method. The collected data underwent analysis using NVivo 10 software and were interpreted within the methodological framework of Leedy and Ormrod (2001) and Maxwell. The findings indicated that transformational leadership positively influenced safe driving performance by leveraging leaders' idealized influence, inspirational motivation, and intellectual stimulation, and, while not consistently impacting safe driving improvement, contributed to enhanced organizational trust through leaders' empathy and drivers' empowerment (Joseph, 2016).

Impact of Transactional Leadership on Workplace Safety

Transactional leaders play a significant role in shaping safety cultures within organizations. These leaders focus on exchanging rewards and punishments to ensure compliance with established safety procedures and regulations. They emphasize clear guidelines, monitoring, and corrective actions to maintain safety standards. Transactional leaders provide

structure and consistency in safety-related tasks, which can be particularly effective in high-risk industries. While they may inspire enthusiasm and commitment differently from transformational leaders, their attention to detail and accountability mechanisms contribute to the safety framework. Transactional leaders help maintain the foundational elements of a safety culture, ensuring that safety protocols are followed consistently and that deviations are swiftly addressed to prevent accidents and hazards (Clarke & Taylor, 2018).

A recent study investigated the effectiveness of a leadership intervention aimed at enhancing safety climates within organizations (Clarke & Taylor, 2018). The study identified that combining leadership behaviors encompassing both transformational and transactional styles is crucial for improving safety outcomes. However, limited empirical research has tested this concept comprehensively. This study developed and implemented a leadership intervention involving training supervisors in transformational and active transactional behaviors within a UK-based chemical processing company. Over eight weeks, the intervention substantially improved employees' perceived safety climate compared to a control group (Clarke & Taylor, 2018).

While the frequency of leader behaviors remained unchanged, the intervention effectively facilitated supervisors' application of active transactional leader behaviors in safety-critical contexts. Notably, transformational leader behaviors were already prevalent and positively linked to safety. These findings suggest that employees are receptive to active transactional behaviors, particularly in high-risk situations. They demonstrate that leaders can undergo training to adapt their behaviors, with a heightened focus on dynamic transactional behaviors in safety-critical contexts. This research sheds light on the potential of various leadership approaches to enhance

safety cultures within organizations and underscores the importance of tailored interventions in achieving this goal (Clarke & Taylor, 2018).

Research was conducted on a UK-based chemical processing plant to identify leadership behaviors to improve safety successfully. Results from the study and authors (Clarke & Taylor, 2018) share that, “I have been given that safety-critical organizations are characterized by complexity and uncertainty, it has been argued that active transactional leadership may be particularly appropriate in this context, as it focuses on providing clear guidance and feedback” (p. 315). This approach offers a fitting solution for more extensive and intricate organizations to guarantee compliance and conformity.

Impact of Servant Leadership on Workplace Safety

Drawing upon existing literature and the insights derived from Greenleaf, R. K. (1997) concept of servant leadership, it becomes evident that a discernible and favorable connection exists between how servant leadership principles positively impact organizations’ safety culture. Servant leadership theory is built upon transformational leadership principles; in some researchers' opinions, servant leadership is different from transformational leadership in that it is not based on the paternalistic empowerment model of the past. Servant leaders, it has been said, recognize the collaborative nature of leadership in terms of listening first and respecting followers (Rauch, 2007), Greenleaf, R. K. (1997), proposed that the defining component of this type of leadership is that the leader believes from the outset that they are a servant.

In the realm of safety leadership, the principles of servant leadership align seamlessly with the core objective of supporting a secure and healthful workplace. Servant leadership, with its primary focus on serving and meeting the needs of others, resonates profoundly in the context of safety. Safety leaders adopting a servant leadership approach demonstrate a commitment to

the well-being of their team members, taking on a humble and service-oriented stance. In creating a safer work environment, servant leaders prioritize their followers' physical and mental health, actively seeking to empower them with the knowledge and resources necessary for a secure and thriving workplace. This orientation enhances the safety culture and contributes to the holistic development and empowerment of individuals within the organization (Wilson & Anderson, 2019).

Many scholars and researchers in the servant leadership community have accepted the servant leadership components contained within Laub's (1999) framework (Rauch, 2007). Nevertheless, several authors have concurred that further research is warranted to address additional gaps in this area. One study investigated whether servant leadership within an organization can serve as a safety indicator by influencing individuals' propensity for actively caring for safety. It explored whether servant leadership shapes employees' psychological states, promoting safe behaviors. The research involved 230 sales representatives and managers in a pharmaceutical company. The study used a cross-sectional survey to assess servant-leadership perceptions, actively caring, and self-reported safety data. Findings revealed that servant leadership predicted active caring, including belief in active care, willingness, and participation. The study partially supported a model where servant leadership indirectly influenced near misses by promoting active caring, and it directly affected accidents, highlighting its role in safety outcomes (Krouse, 2011).

Servant leadership is underpinned by core principles like empathy, active listening, empowerment, and collaboration (Greenleaf, R. K. (1997). These principles directly relate to safety by encouraging leaders to empathize with employees' safety needs, listen to their concerns, empower them to take ownership of safety initiatives, and support collaboration among

teams to enhance safety protocols. Organizations committed to implementing servant leadership in safety invest in leadership development programs. These programs focus on cultivating servant leadership skills, including communication, empathy, and coaching (Wilson & Anderson, 2019). Through training and development, leaders can learn how to apply servant leadership principles effectively in the context of safety.

Comparing servant leadership to other leadership styles, such as transformational and transactional leadership, can shed light on its unique advantages in safety. Research by Nguyen et al. (2023) suggests that servant leadership's emphasis on empathy and empowerment can lead to greater employee engagement in safety initiatives. The adaptability of servant leadership to diverse industries and regions is noteworthy. A study by Lee and Lee (2019) examined servant leadership's application in multinational corporations and highlighted its ability to transcend cultural boundaries and support a shared commitment to safety. Servant leadership's emphasis on serving and empowering others is an influential leadership style that positively impacts workplace safety. By adopting servant leadership principles and addressing associated challenges, organizations can build a safety culture that prioritizes employees' well-being and supports a safer working environment (Spears et al., 2001).

Conclusion

This literature review underscored the pivotal role of leadership in shaping a robust safety culture within high-risk industries. Transformational leadership emerged as the most effective style, demonstrating a clear impact on safety outcomes. The exploration encompasses various leadership styles, including transactional and servant leadership, highlighting their unique implications for safety culture. Key leadership behaviors, such as effective communication, modeling of safe practices, and empowerment, are scrutinized for their crucial role in supporting

safety-oriented environments. However, the review reveals significant gaps in understanding how various leadership styles can be strategically combined to enhance safety. This underscores the need for further research to explore synergies and optimize the integration of leadership approaches for maximum safety effectiveness.

CHAPTER 3: METHODOLOGY

Purpose Statement

The purpose of this qualitative study is to explore how various leadership styles can be integrated to positively influence safety culture in high-risk industries.

The research questions are:

1. How do various leadership styles contribute to the development of a positive safety culture in high-risk industries?
2. What is the correlation between leadership behaviors and the occurrence of preventable work injuries and fatalities in high-risk industries?
3. How can organizational safety leaders leverage different leadership styles to enhance safety practices and mitigate the impact and costs associated with injuries and fatalities?

Protection of Human Subjects

In upholding the ethical protection of human subjects, this study employed a stringent framework of protocols and strategies. A review by the Institutional Review Board (IRB) ensured the research's alignment with ethical standards and the requirement for mandatory human subjects training for myself and all committee members. The voluntary participation of subjects, including safety professionals with the titles of safety lead, safety supervisor, safety manager, safety director, and Vice President of Safety from high-risk industries, was contingent on informed consent, emphasizing the study's purpose, duration, and participant rights.

Participants could withdraw before, during, or after the interview process.

Pseudonyms were applied to safeguard participant identities if requested, assuring anonymity throughout the research process. Potential risks, such as participant discomfort during interviews, were acknowledged and mitigated through a supportive interview environment, with

individuals retaining the option to discontinue participation at any time. The research openly addressed potential biases, notably my health and safety background, for most of my professional career. To mitigate this bias, I committed to a transparent and reflective approach, acknowledging preconceptions, actively engaging in self-awareness throughout the research process, and being mindful of my language in the interviews by using unbiased wording to prevent leading or suggestive questions.

I kept an active journal by documenting my thoughts, biases, and reflections throughout the interview. This helped promote self-awareness and accountability during the interview process. Conflicts of interest were transparently disclosed, with measures in place to mitigate their impact. This comprehensive framework provided participants with ethical protection, well-being, and confidentiality, positioning the research within the highest standards of ethical conduct.

As I conducted the research, I kept ethical standards at the top of my mind as being important. I considered how the initial interaction was handled between myself and the sample participants of safety professionals. Given that I was the initiator of contact, I ensured a transparent and respectful introduction, clearly communicating the purpose and scope of my research through email, in-person, or phone calls. Emphasizing the voluntary nature of participation, participants were well-informed about their rights, including the option to withdraw at any stage without consequences.

Respecting the privacy and valuable time of the participants was a fundamental ethical consideration. In the in-person interviews, I conducted myself with empathy and cultural awareness, acknowledging the potential vulnerability of the subjects. The questions used in the interview process were developed to gather the necessary information while minimizing any

discomfort. Ethical considerations guided the research process, ensuring that the study contributed to knowledge responsibly, respectfully, and unbiasedly.

Research Design

The research design for this qualitative study aimed to employ phenomenology to gain a profound understanding of the relationship between leadership styles and safety culture within high-risk industries. Phenomenology was chosen to clearly understand the lived experiences of individuals, providing rich insights into how leadership behaviors influenced safety practices. Utilizing one-on-one interviews, the study investigated participants' subjective experiences and perspectives, capturing the essence of their encounters with leadership and safety culture.

This study aimed to examine leadership styles and their influence on safety culture within high-risk organizations in depth. The study utilized semi-structured interviews conducted within the framework of phenomenology. The semi-structured interviews allowed for a detailed exploration of real-life situations, analyzing the connections between different leadership styles and their contribution to a positive safety culture in high-risk industries.

Within the interpretive realm, my study recognized that reality is accessed through social constructions such as language, consciousness, shared meanings, and instruments. By adopting the interpretive philosophy and phenomenological approach, my study emphasized qualitative analysis over quantitative methods, aligning to uncover the possible combination of leadership styles and behaviors contributing to a positive safety culture within high-risk industries.

Population

This study's population came from an estimated 135,800 safety professionals within the United States who essentially met the general criteria within the high-risk industry, according to the U.S. Bureau of Labor & Statistics (2022). The selection of this population was driven by the

aim to capture varied perspectives on leadership and safety culture. The criteria for the study involved individuals with direct experience or expertise in safety practices in a leadership role within a high-risk organization. The population consisted of safety leaders with a safety professional title, such as Safety Lead, Safety Supervisor, Safety Manager, Safety Director, and VP of Safety.

The selection process for this study utilized a purposive sampling method based on my specific criteria. The selection criteria for the population had to meet the following standards. The safety professional had to have direct experience in a safety leadership role in a high-risk private industry within the United States. Secondly, the safety professional had to have at least one year of experience in this safety leadership role. Adopting a single-stage sampling design ensured efficiency and timely data collection, aligning with my study's emphasis on optimizing resources. This approach facilitated a straightforward identification of participants, streamlining the sampling process and allowing for a focused and direct recruitment strategy.

Sample

The study sought twenty-five safety professionals in the following roles: (5) Safety Leads, (5) Safety Supervisors, (5) Safety Managers, and (10) Safety Directors and VPs. These numbers were selected to explore diverse perspectives while comprehensively maintaining a manageable research scope. The sample had to fall within the population criteria that were previously shared. The participants for the study were selected from diverse cohorts of safety professionals within the United States affiliated with the American Association of Safety Professionals (ASSP), LinkedIn, and connections within my professional network.

Instrumentation

The development of instrumentation for my study involved creating a semi-structured interview process designed to collect data from the participants identified in the sample. The literature review section provided a comprehensive review of existing literature on leadership styles, safety culture, and their existence in high-risk industries. This literature review guided the development of open-ended questions designed to explore the various elements of leadership styles and safety practices. Open-ended questions enabled participants to express themselves freely, providing insights into their experiences and behaviors, such as encountering specific leadership styles and behaviors.

The study, applying a phenomenology methodology to capture leadership experiences, aimed to present the findings in a practical, real-world application. Interviews were held on Microsoft Teams with the Live Transcripts feature active. A total of 25 interviews were conducted over 4.5 weeks with a time duration of interviews ranging from 17 minutes to 48 minutes.

Data Collection

Semi-structured interviews were the chosen method for data collection, as they offered a dynamic and interactive platform for participants to share their experiences and insights. The open-ended nature of these interviews allowed the participants to express themselves freely, ensuring that no aspect of their experiences was restrained by closed-ended predefined responses. The interview protocol explored various leadership and safety culture dimensions from the participants' previous experiences. It encompassed questions about leadership styles, behaviors, organizational safety culture, and participants' experiences. The flexibility allowed for in-depth probing and follow-up questions, comprehensively capturing participants' narratives.

Interviews were conducted one-on-one through the Microsoft Teams application. Each interview was estimated to be approximately 30 to 45 minutes, depending on the depth of discussion and detail, with the target of 25 individuals. The selection process concluded accordingly if saturation was reached before reaching the planned number. This sample size was determined based on theoretical saturation, which meant data collection continued until new data no longer added significant insights or perspectives to the study. This ensured that the data collected was rich and comprehensive, covering various experiences and viewpoints.

For the data collection process, Microsoft Teams served as the platform for conducting the semi-structured interviews. Calendly was used as the platform to schedule these interviews. This choice was made to leverage the dynamic and interactive capabilities of the platform, allowing participants to share their experiences and insights openly. Another pivotal aspect of the research methodology was the diversity of the selected participants, which aligned with purposeful sampling guidelines. Purposive sampling determined respondents most likely to yield appropriate and valuable information. It was a way of identifying and selecting cases that would use limited research resources effectively (Campbell et al., 2020). Capturing safety leaders within high-risk industries was expected to yield the highest effectiveness for the identified sample.

By incorporating participants from diverse levels within the safety professional business titles, the research aimed to capture various experiences and insights, allowing for a more holistic and robust study of the research topic. By not only capturing data from one level within an organization, the study sought to capture a diverse collection of experiences and expertise.

Data Analysis

This research's two primary data analysis techniques were thematic and constant comparative analysis. Thematic analysis was used to analyze qualitative data relating to opinions, thoughts, feelings, and other descriptive information (Mihas, 2023). Constant comparative analysis involved obtaining information and comparing and contrasting it with previous knowledge to fit all the pieces inductively into a larger puzzle, uncovering patterns, themes, and nuances within the qualitative data (Pawluch, 2005). Thematic analysis systematically identified themes and practices in the data, allowing for a comprehensive picture of the relationships between leadership and safety culture (Castleberry & Nolen, 2018). On the other hand, constant comparative analysis involved comparing data from different interviews to identify commonalities and differences in participants' responses (Hewitt-Taylor, 2001). This iterative process enabled the refinement and development of emerging themes, ensuring the data analysis was rigorous and comprehensive (Hewitt-Taylor, 2001).

A qualitative data analysis software (QDAS) called Dedoose was used to code my recorded videos and transcripts. This study aimed to provide a significant and in-depth examination of how safety leaders promote safety in high-risk organizations using complementary techniques. It went beyond the surface level of data to uncover the subtle yet influential ways leadership styles and behaviors impact safety practices. This combined analytical approach ensured that the findings were comprehensive, providing valuable insights that could guide high-risk organizations in enhancing their safety measures and prioritizing the well-being of their employees.

Design and Instrument Limitations

As an experienced safety professional with eighteen years of experience in the private high-risk industry, I identified this as the highest personal bias risk. To mitigate this bias, I

committed to a transparent and reflective approach, acknowledging preconceptions and actively engaging in self-awareness throughout the research process. Being mindful of my language in the interviews by using unbiased wording to prevent leading or suggestive questions was a priority. I kept an active journal by documenting my thoughts, biases, and reflections throughout the interview. This helped promote self-awareness and accountability during the interview process.

A single-method approach, relying solely on semi-structured interviews as the primary data collection method, may have limited the depth of my understanding, as other methods like observations or surveys could provide additional perspectives. Being aware of the participants' moods during the interview or the perceptions they may or may not have of their current or past employers could have influenced their responses. Expecting any particular outcome before, during, or after my semi-structured interviews was identified as a possible limitation of the data analysis section of my research. Personal reflection sessions were closely monitored following each interview and documented as identified.

Summary

In conclusion, the qualitative study leveraged existing leadership theories and a phenomenology framework to uncover the dynamics between leadership and safety culture within high-risk organizations. This approach supported a holistic exploration of how leaders support effective safety practices by utilizing semi-structured interviews, purposive sampling, an adaptive interview protocol, and thorough data analysis through Dedoose. Adhering to ethical guidelines and controlling bias, this research provided valuable insights for high-risk organizations, guiding them in elevating safety standards and, foremost, prioritizing the well-

being of their employees in response to the increase in workplace injuries and fatalities in recent years.

CHAPTER 4: RESEARCH, DATA COLLECTION, AND FINDINGS

Overview

Purpose Statement

The purpose of this qualitative study is to explore how various leadership styles can be integrated to positively influence safety culture in high-risk industries.

Research Questions

The research questions are:

1. How do various leadership styles contribute to the development of a positive safety culture in high-risk industries?
2. What is the correlation between leadership behaviors and the occurrence of preventable work injuries and fatalities in high-risk industries?
3. How can organizational safety leaders leverage different leadership styles to enhance safety practices and mitigate the impact and costs associated with injuries and fatalities?

Research Methods and Data Collection Procedures

The data collection process began with a strong emphasis on ethical principles. Participant recruitment and informed consent procedures are closely interconnected, emphasizing participant confidentiality, adherence to research protocols, and following the IRB guidelines. The following steps outline the progression from online and in-person participant recruitment to data collection through semi-structured interviews, ensuring a thorough and responsible approach to data acquisition.

Participant Sample

The sampling strategy was a purposive sample. The sample comprised 25 safety professionals working in a high-risk industry as outlined by OSHA's defined criteria.

Participant’s time employed in a safety position ranged from 1- 20+ years. Demographic questions were answered following participant consent from Appendix C. Demographic questions established title, years of experience, level of education, employer size, industry type, and if currently working within the United States.

Table 1

Description of Participants

<i>Participant Identifier</i>	<i>Safety Title</i>	<i>Years in Safety</i>	<i>Org Size</i>	<i>Industry Sector</i>
<i>Participant 1</i>	VP/Exec	16-20	501+	Energy
<i>Participant 2</i>	Safety Lead	6-10	501+	Construction
<i>Participant 3</i>	Safety Supervisor	6-10	51-500	Oil & Gas
<i>Participant 4</i>	VP/Exec	11-15	501+	Energy
<i>Participant 5</i>	Safety Manager	6-10	51-500	Oil & Gas
<i>Participant 6</i>	Safety Lead	1-5	501+	Energy
<i>Participant 7</i>	Safety Supervisor	11-15	51-500	Oil & Gas
<i>Participant 8</i>	VP/Exec	11-15	501+	Energy
<i>Participant 9</i>	VP/Exec	11-15	501+	Oil & Gas
<i>Participant 10</i>	Safety Director	6-10	501+	Oil & Gas
<i>Participant 11</i>	Safety Director	11-15	51-500	Energy
<i>Participant 12</i>	Safety Lead	1-5	51-500	Manufacturing
<i>Participant 13</i>	Safety Manager	1-5	51-500	Construction
<i>Participant 14</i>	Safety Supervisor	1-5	501+	Manufacturing
<i>Participant 15</i>	Safety Supervisor	1-15	501+	Energy
<i>Participant 16</i>	Safety Lead	6-10	51-500	Manufacturing
<i>Participant 17</i>	Safety Director	6-10	51-500	Oil & Gas
<i>Participant 18</i>	VP/Exec	16-20	501+	Energy
<i>Participant 19</i>	Safety Lead	1-5	501+	Manufacturing
<i>Participant 20</i>	Safety Supervisor	11-15	51-500	Oil & Gas
<i>Participant 21</i>	Safety Manager	11-15	51-500	Energy
<i>Participant 22</i>	Safety Manager	6-10	501+	Oil & Gas
<i>Participant 23</i>	Safety Director	6-10	51-500	Transportation
<i>Participant 24</i>	Safety Director	16-20	501+	Construction
<i>Participant 25</i>	Safety Manager	6-10	51-500	Transportation

The recruitment process for participant selection began with targeted outreach to potential candidates who were members of the ASSP and professionals identified on LinkedIn with safety-specific titles, including Safety Lead, Safety Supervisor, Safety Manager, Safety Director, and Safety VP/Executive. This method ensured that the sample pool consisted of individuals actively engaged in safety leadership roles within high-risk industries across the United States.

Using professional networks like ASSP and LinkedIn allowed for a focused approach to identifying and recruiting participants who met the study's criteria. Through this targeted recruitment strategy, the research aimed to capture a diverse cohort of safety professionals with varying experience levels and perspectives, enriching the study with comprehensive insights into the connections between leadership styles and safety culture within high-risk organizations.

Leveraging these platforms facilitated efficient communication and scheduling of interviews, streamlining the participant selection process and ensuring representation from a broad spectrum of safety professionals engaged in leadership roles within the identified industries. This approach enhanced the study's ability to gather detailed perspectives, contributing to a robust qualitative analysis and interpretation of the collected data.

Online Recruitment Process

The study's online recruitment process began with an email containing a detailed recruitment script (see Appendix B) and a consent form (see Appendix C) explaining the study's purpose and inviting participation. Interested individuals who agreed to participate were then directed to a Microsoft Forms template, where they completed a demographic questionnaire. This questionnaire ensured that potential participants met specific criteria aligned with the study's objectives and target population.

Following the completion of the demographic questionnaire and selection of the target population, the chosen participants received an email containing the electronic Informed Participant Consent Form (see Appendix D) from Microsoft Forms. This comprehensive form provided detailed information about the study, including its purpose, procedures, potential risks, and benefits. Participants reviewed this form and electronically signed it to indicate their informed consent to participate in the study. Upon providing informed consent, participants were directed to a scheduling platform called Calendly, where they selected a suitable date and time for their semi-structured interview.

In-Person Recruitment Process

The in-person recruitment process was held at the local ASSP chapter in Bakersfield, CA. Before initiating the recruitment at the ASSP event, an ASSP representative signed off on the research agreement form (see Appendix F) ahead of the scheduled monthly event, solidifying the collaboration between the organization in conducting this study. At the opening reception introductions of the ASSP event, individuals were introduced to the study using a live script (see Appendix E), clearly understanding the research purpose and inviting participation. Interested participants accessed the same online consent form (see Appendix C) at the back of the room and scanned the QR code, which took them to the demographic questionnaire. Following the ASSP event, those who completed the demographic questionnaire received an electronic Informed Participant Consent Form (see Appendix D) via Microsoft Forms. This comprehensive form outlined the study's purpose, procedures, and potential risks and benefits, ensuring that participants made an informed decision about their involvement. Subsequently, participants were sent a Calendly invitation to select a suitable date and time for their semi-structured interview using Microsoft Teams.

Semi-Structured Interview Questions

This study's primary data collection method involved conducting semi-structured interviews with participants from high-risk industries to gain profound insights into safety leadership practices. These interviews were designed to encourage participants to share their experiences and perspectives within the context of safety management. During the interview, participants were invited to reflect on their roles as safety leaders and describe their approaches to supporting a positive safety culture within their organizations. The interview questions were intentionally open-ended, aiming to explore various aspects of leadership styles, behaviors, and their impact on safety outcomes. By adopting this approach, the study sought to uncover insights and real-life examples that illustrate the dynamic relationship between leadership practices and safety culture in high-risk environments.

During the interviews, participants were encouraged to discuss their perceptions of organizational safety culture and the role of leadership in shaping and sustaining this culture. They were prompted to share challenges they have encountered in their safety leadership roles and how they have addressed them within their teams or organizations. Additionally, participants were asked to reflect on the outcomes of effective safety leadership and provide recommendations based on their experiences. The semi-structured nature of the interviews allowed for flexibility and depth in exploring participants' narratives, ultimately contributing to a comprehensive understanding of the critical factors influencing safety practices in high-risk industries. This qualitative approach enabled the study to capture detailed insights beyond statistical data, providing valuable perspectives that can inform best practices in safety leadership within similar contexts.

Each participant was asked open-ended questions tailored to explore their perspectives, practices, and insights related to safety leadership, with the below as a guide.:

1. Tell me about your journey as a safety professional.
2. How would you describe your style of leadership? In what ways do you believe your leadership approach contributes to the safety culture within your organization?
3. Can you share your understanding of the various leadership styles commonly observed in organizations, especially those that might influence safety practices? What characteristics or traits do you associate with effective safety leadership?
4. In your experiences, what areas do you feel contribute to a safe culture for an organization? Is it the leaders, training, environment, safety rules, policies, or regulations as examples?
5. In your role, can you share examples of leaders successfully using diverse leadership styles?
6. Considering your experience, can you recall instances where specific behaviors of leaders were associated with either the occurrence or prevention of preventable work injuries?
7. Can you share instances where leaders have motivated and inspired their teams to prioritize safety actively, recognized and rewarded safe behaviors, or demonstrated genuine concern for the well-being of team members?
8. Can you recall situations where leaders needed to adjust their leadership styles to address specific safety challenges, and what were the outcomes? How did the flexibility in the leadership approach affect the outcome?
9. What comments or questions do you have for me? Is there anything you would like me to explain? What would you like to tell me about your thoughts during this interview?

Presentation and Analysis of Data

The overarching objective of this research was to examine the dynamics of safety leadership and understand how different leadership styles influence the development and sustainability of a positive safety culture within diverse organizational contexts. Through a thematic analysis of the interview data, a range of key themes emerged, shedding light on the behaviors and approaches employed by safety leaders to support a robust culture of safety within their respective organizations.

The research design was set in place for an in-depth examination of safety leadership practices, providing valuable insights into the complexity between leadership behaviors and organizational safety outcomes. By leveraging semi-structured interviews, participants could reflect on their experiences and share candid perspectives, contributing to an understanding of effective safety leadership in high-risk environments. The thematic analysis of the interview data enabled the most effective identification of recurring patterns and critical themes.

This chapter shares and discusses these themes, showcasing the diverse strategies and approaches adopted by safety leaders to promote and sustain a positive safety culture. Each theme represents a distinct aspect of safety leadership, and by presenting these findings in detail and contextualizing them within the existing literature, this chapter aims to contribute to the body of knowledge surrounding safety leadership practices and their impact on organizational safety culture. The subsequent sections explore each identified theme, offering comprehensive discussions supported by excerpts from the interview transcripts.

Introduction to Themes

The analysis centers on three pivotal themes that emerged from the data in response to the research topic: how various leadership styles contribute to developing a positive safety

culture in high-risk industries. The analysis revealed these themes from the participants' experiences of achieving positive results as safety leaders within their organizations.

1. Engagement (visibility, trust, communication)
2. Leadership influence (empathy, adaptability, empowerment)
3. Development (compliance, learning, investment)

The three themes are directly linked to the research question: How do various leadership styles contribute to the development of a positive safety culture in high-risk industries? The data gathered from the semi-structured interviews share the lived experiences of safety professionals. The nine sub-themes will be further discussed later in this chapter.

Table 2

Emergent Themes from Research Questions

<i>Themes</i>	<i>No. of Excerpts</i>	<i>Subthemes</i>	<i>No. of Excerpts</i>
<i>Engagement</i>	84	Visibility	35
		Trust	25
		Communication	24
<i>Leadership Influence</i>	62	Empathy	30
		Adaptability	15
		Empowerment	17
<i>Development</i>	59	Compliance	25
		Learning	20
		Investment	14

Theme 1: Engagement

Visibility

In examining how various leadership styles contribute to developing a positive safety culture in high-risk industries, the subtheme of visibility emerged as a contributor to the engagement theme. As one of the most frequent discussions in the interview process, participants

discussed the importance of being a visible leader. Participant 2 stated, "When our safety leaders are present on the shop floor, it shows they genuinely care about our well-being. It makes a huge difference knowing they're willing to step into our environment and understand our challenges." This sentiment was echoed by Participant 5, who noted, "Seeing our safety manager out in the field regularly builds trust. It's reassuring to know they're not just sitting behind a desk but actively involved in ensuring our safety."

The impact of leader visibility on open communication was highlighted by Participant 7: "When leaders are visible and approachable, it encourages open communication. We feel more comfortable reporting hazards or safety concerns when we see them actively engaged." This accessibility is crucial for maintaining a proactive safety culture where issues are addressed. Participant 9 emphasized the motivational aspect of leader visibility: "Knowing that our safety leaders are regularly checking in and observing our work environments makes us feel supported. Their visibility is a powerful tool in reinforcing the importance of safety practices." This regular engagement from leaders helps instill a sense of responsibility and vigilance among employees.

Further, Participant 11 added, "The presence of our safety leaders in the field during critical operations is invaluable. It boosts morale and ensures that any immediate safety issues are addressed." Participant 10 shared, "Safety is difficult when dealing with so many individuals who think they know it all. If we are not present on the floor, we get little to no credibility when we want to change something."

Trust

Participants shared that trust means a lot out on the floor, and without trust, it is very difficult for the employees to value a good safety culture. Participants highlighted trust between safety leaders and their teams as a critical factor in supporting a collaborative and supportive

environment. Participant 3 emphasized, "Trust is everything. If employees don't trust their leaders, they won't feel comfortable reporting safety issues or following safety protocols." This sentiment was echoed by Participant 6, who noted, "Our safety leader has built a strong foundation of trust by being transparent and consistent. We know they have our best interests at heart, which makes us more willing to engage with safety initiatives."

The importance of trust in promoting a culture of safety was further underscored by Participant 8: "When we trust our leaders, we are more likely to take their guidance seriously and follow safety procedures diligently. Trust creates a sense of security and confidence in the workplace." Participant 10 highlighted the role of trust in facilitating open communication: "Open communication is built on trust. When we trust our leaders, we feel safe to voice our concerns and suggestions without fear of retribution." Participant 12 shared how trust influences the perception of leadership effectiveness: "A trustworthy leader is seen as credible and competent. When our safety leader follows through on their promises and demonstrates integrity, it strengthens our belief in their ability to lead effectively."

Participant 14 summarized the impact of trust on team dynamics: "Trust supports a sense of unity and collaboration. When we trust our leaders, we work together more cohesively towards common safety goals." Participant 17 also highlighted the impact of trust on safety practices: "When there's trust, compliance with safety measures becomes a collective effort rather than just a set of rules to follow. It transforms how we approach safety, making it a shared responsibility." Finally, Participant 20 added, "Building trust takes time, but once established, it leads to a more engaged and proactive workforce. People feel valued and are likelier to go the extra mile to ensure a safe working environment."

Communication

The theme of communication emerged as a critical element. Effective communication practices among safety leaders were consistently highlighted by participants as essential for ensuring clarity, supporting understanding, and promoting a culture of openness and safety. Participant 2 emphasized the role of clear communication: "As a safety leader, you have to be excellent at breaking down safety procedures into understandable steps. This clarity helps the employees know exactly what is expected and how to stay safe." This approach ensures that all team members clearly understand safety protocols, reducing the risk of accidents and misunderstandings. Participant 5 shared the impact of active listening on communication by stating, "As a safety leader, you have to get your team to listen to us safety leaders; it makes a big difference. They take our concerns seriously and address them promptly, which makes us feel valued and heard."

Participant 7 highlighted the importance of consistent communication: "Regular safety meetings and updates keep everyone informed and aligned with the latest safety updates. It helps us stay proactive rather than reactive regarding safety." Participant 7 goes on to share that consistency in communication ensures that safety remains a top priority and that information is always up to date. The value of two-way communication was stressed by Participant 9, who communicated that "we are encouraged to share our ideas and feedback with the employees. This open-door process means we can suggest improvements and make the employees feel part of the safety process. This approach holds a sense of ownership and accountability among employees, as was emphasized in the interview."

Participant 11 underscored the significance of timely communication by sharing that "timely updates on safety issues or protocol changes are crucial. We have to make sure we are informing the employees and management as soon as something comes up, which helps us adjust

quickly and maintain effective communication all around." Participant 16 shared how personalized communication enhances engagement. It was stated that "as an EHS leader I have learned that we have to make an effort to communicate individually to employees as much as possible, checking in and offering support. This personal touch makes us feel more connected and committed to the employees."

Theme 2: Leadership Influence

Empathy

Empathy emerged as a common element of effective safety leadership within the central theme of leadership influence. Leaders who demonstrated genuine concern for their team members' well-being were seen as more effective in promoting a positive safety culture.

Participant 3 shared, "I make it a point to understand my team's challenges. Showing them that I genuinely care about their safety and well-being makes them feel more valued and more likely to follow me and my team's programs." Participant 7 emphasized the importance of empathy in building trust: "When I show empathy, my team knows that I'm not just enforcing rules but that I care about them as an employee. This trust encourages them to be more open about their safety concerns, which ultimately helps me and my team."

Participant 12 reflected on how empathy helps address issues, "When dealing with safety incidents, I approach my team with empathy. Understanding their perspective helps resolve issues more effectively and ensures they feel supported." Participant 18 highlighted the role of empathy in communication, "Communicating with empathy means listening to my team's concerns and responding thoughtfully. This approach helps create a supportive environment where safety is a shared priority." Participant 22 added, "Empathy is critical in leading by

example. When my team sees that I genuinely care about their safety, they are more motivated to champion safety initiatives."

Adaptability

Adaptability was another significant sub-theme, reflecting the ability of safety leaders to adjust their approaches based on the changing needs and dynamics of their teams and work environments. Participant 5 explained, "In the oil and gas industry, situations can change rapidly. Being adaptable allows me to respond to new challenges effectively and ensure that my employees stay safe and my leaders are updated."

Participant 9 is an executive in the oil & gas industry and shared their experience with adaptability, "I've had to adjust my leadership style several times to fit the needs of different teams. Flexibility in my approach has been crucial in maintaining a strong safety culture."

Participant 14 discussed the impact of adaptability on safety initiatives by stating that "adapting to new technologies and methods in safety management has helped us stay ahead. It's important to evolve and implement the best practices available continuously." Participant 20 talked multiple times about the importance of being flexible, "safety leadership requires a balance of firmness and flexibility. By being adaptable, I can enforce rules while considering individual circumstances and finding the best solutions."

Participant 25 noted, "Adaptability is about being proactive rather than reactive. By anticipating and preparing for changes, I ensure that our safety practices remain robust and effective." Participant 8 explained, "Adapting to unexpected changes is crucial to my role. Whether it's a new regulation or an unforeseen hazard, being able to pivot quickly ensures that we maintain high safety standards." Participant 17, as a safety director, shared their perspective, "I've learned that a one-size-fits-all approach doesn't work in safety management. Adapting my

strategies to fit different projects and teams' unique needs has been key to maintaining a safe work environment."

Empowerment

Empowerment was highlighted as a critical aspect of leadership influence, with safety leaders emphasizing the importance of empowering their team members to take ownership of a healthy safety culture. Participant 2 described their approach to empowerment as "I encourage my team to take the initiative and be proactive about safety. By empowering them to make decisions, they feel more responsible and committed to maintaining a safe environment."

Participant 6 highlighted empowerment's benefits, "When team members are empowered, they are more engaged and motivated. They take pride in their work and are more diligent about following safety protocols." Participant 10 shared their strategy for empowering employees, "I provided my team with the training and resources they need to succeed. Empowering them with knowledge and skills boosts their confidence. It enhances overall safety." Participant 15 reflected on the impact of empowerment on safety culture with the statement, "Empowering my team has led to a more collaborative environment. They feel valued and are more willing to share their ideas and feedback, which improves our safety practices."

Participant 19 noted the role of empowerment in leadership development: "By empowering my team, I'm also grooming future leaders. They learn to take charge and develop the skills to lead safety initiatives effectively." Participant 10, a safety director in the oil & gas, shared that "empowering my team to make decisions about safety measures has led to more proactive and engaged employees. When they feel they have a say, they're more invested in the outcomes." Finally, participant 21, a safety manager in the energy sector, noted, "Providing employees with the resources and authority to implement safety protocols has been

transformative. It boosts their confidence and enhances overall safety compliance and innovation on the ground."

Theme 3: Development

Compliance

Ensuring compliance with safety regulations emerged as a fundamental theme in developing a positive safety culture under the central theme of development. Safety leaders emphasized that setting clear expectations and consistently monitoring adherence to these standards is crucial for maintaining a safe work environment. Participant 5 stated, "Ensuring compliance with safety regulations is foundational. It's about setting clear expectations and consistently monitoring adherence to maintain a safe work environment." Participant 13 also shared this sentiment, "We prioritize compliance through regular audits and training sessions. This keeps us within legal bounds and instills a culture of accountability among the staff."

Safety leaders also highlighted the importance of understanding the underlying reasons behind safety regulations; as noted by Participant 19, "Compliance isn't just about following rules; it's about understanding the 'why' behind them. This approach helps our team see the bigger picture and remain committed to safety standards." Participant 22 commented on the importance of systematic tracking and feedback: "We've developed a robust system for tracking compliance that includes frequent check-ins and feedback loops. This ensures that any deviations are quickly addressed and corrected." Participant 25 added, "Maintaining compliance is a continuous process. It's about being vigilant and proactive and ensuring everyone understands their role in upholding safety standards."

Participant 10, a safety director, also emphasized the integration of compliance into daily operations, saying, "Compliance should be woven into the fabric of our daily routines. It's not an

afterthought but a core part of daily operations." Participant 8, a VP/ Executive in the energy sector, underscored the proactive measures taken to ensure compliance, stating, "We conduct regular risk assessments and compliance checks to identify and mitigate potential safety hazards before they become issues." Similarly, Participant 16 highlighted the role of leadership in supporting a culture of compliance. "As leaders, we must model the behavior we expect from our teams. By demonstrating our commitment to safety compliance, we also encourage others to take it seriously."

Learning

Learning emerged as a critical subtheme within the broader development context, underscoring the importance of continuous education and skill enhancement in promoting a strong safety culture. Safety leaders consistently highlighted that providing an environment of constant learning is essential for maintaining high safety standards and ensuring that employees are well-equipped to handle potential risks. Participant 7 stated, "Continuous learning is key to staying ahead of potential hazards. We regularly update our training programs to incorporate the latest safety practices and regulatory changes." This commonality was echoed by Participant 12, who shared, "We invest heavily in ongoing education and training for our employees. It's not just about meeting compliance requirements; it's about empowering our team with the knowledge they need to work safely and effectively."

The value of experiential learning was emphasized by Participant 3, who said, "Learning from real-life scenarios and near-misses helps our team understand the practical implications of safety protocols. We conduct regular drills and simulations to reinforce these lessons."

Participant 18 also highlighted the role of mentorship in promoting learning, "Experienced safety

professionals mentor new hires, sharing their knowledge and expertise. This hands-on guidance is invaluable for developing a deep understanding of safety practices."

Additionally, Participant 9 discussed the importance of leveraging technology in safety training: "We use advanced training tools and e-learning platforms to provide interactive and engaging learning experiences. This approach has significantly improved knowledge retention and application among our employees." Similarly, Participant 15 noted, "Our training programs include virtual reality simulations that allow employees to experience and respond to potential hazards in a controlled environment. This learning method has been very effective in enhancing our safety culture."

Participant 4 stressed the importance of feedback in the learning process: "We encourage a culture of open feedback where employees can share their insights and experiences. This continuous loop of feedback and improvement helps us refine our safety protocols and training programs." Participant 20 added, "Learning from incidents and near-misses is crucial. We conduct thorough investigations and debriefs to extract lessons and implement corrective actions. This approach helps prevent recurrence and promotes a proactive safety culture."

Continuing with further participants in the interview process, Participant 11 emphasized the role of leadership in a learning culture: "Leaders must champion the importance of continuous learning and create opportunities for professional development. By prioritizing learning, we demonstrate our commitment to safety and encourage our teams to do the same." Participant 23 shared a similar story, saying, "Investing in our employees' education and development is an investment in the overall safety of our organization. It's about building a knowledgeable and skilled workforce to anticipate and mitigate risks."

Investment

Investment emerged as a pivotal subtheme within the broader development theme, highlighting the essential role of allocating resources to enhance safety measures and practices within organizations. Safety leaders emphasized that investing in safety is not merely a financial decision but a strategic priority that yields long-term benefits, including reduced incidents and a more engaged workforce. Participant 1 stated, "Investing in safety equipment and technology is crucial. It shows our commitment to our employees' well-being and helps prevent accidents before they happen." This perspective was supported by Participant 14, who noted, "When we invest in top-notch safety gear and cutting-edge technology, it not only protects our team but also boosts their confidence and trust in the company's commitment to their safety."

The importance of budget allocation for safety initiatives was underscored by Participant 8, who shared, "Allocating a substantial budget for safety programs and equipment is a non-negotiable aspect of our operations. It demonstrates that we prioritize safety above all else." Similarly, Participant 17 remarked, "We ensure that our safety budget is protected, even during economic downturns. Consistent investment in safety is essential for maintaining a safe working environment and upholding our safety culture."

Participant 5 highlighted the value of investing in safety training and development programs: "We allocate significant resources to continuous training and professional development for our safety teams. This investment not only enhances their skills but also keeps them motivated and engaged." Participant 19 added, "Our investment in training goes beyond the basics. We sponsor advanced certifications and courses that keep our safety professionals at the forefront of industry standards and practices."

Participant 11 discussed the long-term benefits of investing in safety infrastructure, "Upgrading our facilities to meet the highest safety standards is a priority. This includes

everything from better ventilation systems to safer machinery. These investments have a direct impact on reducing workplace hazards." Participant 22 echoed this by saying, "By continually improving our infrastructure, we not only comply with regulations but also create a safer and more efficient work environment."

Participant 6 shared the role of investment in building a safety culture: "When employees see that the company is willing to invest in their safety, it reinforces the importance of safety. It's a powerful message that safety is a core value." Participant 24 elaborated, "Investment in safety should be visible and tangible to employees. Whether through new safety equipment or enhanced training programs, these investments contribute to a culture where safety is genuinely prioritized."

The strategic allocation of resources was also highlighted by Participant 13, a safety manager in construction, who stated, "We use data and metrics to identify areas where investment will have the most significant impact. This targeted approach ensures that our resources are used effectively to enhance safety outcomes." Participant 21 added, "By focusing our investments on high-risk areas, we can proactively address potential hazards and continuously improve our safety performance."

Summary

Chapter 4 shared the themes that surfaced during the data analysis to address the central research question. How do various leadership styles contribute to the development of a positive safety culture in high-risk industries? Three overarching themes emerged from the analysis: Engagement, Leadership Influence, and Development. These themes combined provided the diverse ways safety leaders influence organizational safety practices and promote a safety culture.

The theme of engagement encompasses the subthemes of visibility, trust, and communication, highlighting the significance of leadership behaviors that emphasize active involvement and accessibility. Safety leaders who are visible and engaged demonstrate commitment to safety, building trust and accountability among team members. Open communication and trust were critical factors in promoting employee engagement and participation in safety initiatives.

Leadership influence emerged as another key theme, comprising the subthemes of empathy, adaptability, and empowerment. It was shared that influential safety leaders demonstrate empathy by understanding and addressing the needs and concerns of their team members. They exhibit adaptability by adjusting their approaches to fit the changing dynamics of their work environments, ensuring that safety measures remain adequate and relevant. Additionally, safety leaders empower their team members to take ownership of safety practices, providing a culture of shared responsibility and commitment to safety.

Development emerged as the third central theme: compliance, learning, and investment subthemes. Safety leaders prioritize compliance with safety regulations and standards, setting clear expectations and consistently monitoring adherence to safety protocols. They recognize the importance of continuous learning and skill development in maintaining high safety standards and investing in training programs and resources to empower their teams with the knowledge and skills needed to work safely. Safety leaders shared the value of strategic investment in safety measures and infrastructure, demonstrating a commitment to prioritizing employee well-being and maintaining a safe work environment.

CHAPTER 5: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to explore how various leadership styles contribute to the development of a positive safety culture in high-risk industries. The research aimed to identify the behaviors and strategies of influential safety leaders and how these practices influence safety outcomes within their organizations. The central research question guiding this study was: How do various leadership styles contribute to the development of a positive safety culture in high-risk industries? Additionally, the study sought to address the following sub-questions:

- What is the correlation between leadership behaviors and the occurrence of preventable work injuries and fatalities in high-risk industries?
- How can organizational safety leaders leverage different leadership styles to enhance safety practices and mitigate the impact and costs associated with injuries and fatalities?

A qualitative research methodology was employed to answer these questions, using semi-structured interviews to gather in-depth insights from safety professionals. The study targeted a population of safety leaders working in high-risk industries, including oil and gas, construction, manufacturing, transportation, mining, and energy. From this population, a purposive sample of 25 safety leaders was selected, ensuring a diverse range of experiences and perspectives.

The sample included safety leaders with various titles, such as Safety Leads, Safety Supervisors, Safety Managers, Safety Directors, and VPs of Safety. Data collection involved conducting detailed interviews with these participants, focusing on their lived experiences and the leadership practices they found most effective in promoting safety. The interviews were transcribed and analyzed using thematic analysis to identify key themes and sub-themes related to the research questions. This chapter presents the data analysis findings, concludes the

identified themes, and provides recommendations based on the study's insights. The aim is to offer practical guidance for safety leaders and organizations seeking to enhance their safety culture through effective leadership practices.

Conclusions

The conclusions drawn from this study are based on the detailed analysis of interviews with safety leaders across various high-risk industries, including oil and gas, construction, manufacturing, mining, and energy. The insights provided by these experienced professionals emphasize the critical role of leadership in creating a positive safety culture and reducing workplace injuries and fatalities. The conclusions address each research question, summarizing the findings into actionable insights for safety leadership.

Research Question 1

How do various leadership styles contribute to the development of a positive safety culture in high-risk industries?

The analysis revealed that leadership styles significantly impact the development of a positive safety culture. The key themes identified were engagement, leadership influence, and development. These themes, encompassing sub-themes such as visibility, trust, communication, empathy, adaptability, empowerment, compliance, learning, and investment, highlight how leadership can shape safety culture.

Engagement:

Visibility

Leaders who are regularly present in the field demonstrate their commitment to safety, significantly boosting employee morale and open communication. This regular presence is not just about being seen; it is about being actively engaged with the workforce, participating in

daily operations, and showing genuine interest in the well-being of employees. When leaders are visible, they can observe employees' conditions and challenges firsthand. This helps identify potential safety hazards that might not be apparent in reports or during scheduled inspections. This direct engagement allows leaders to address issues promptly and effectively, creating a safer working environment. In the literature, Passantino, F. (2023) asserted from a leadership study that high-visibility leaders who talk and listen to us make us feel valued. Furthermore, their presence reassures employees that safety is a top priority, encouraging them to follow safety protocols more diligently. Over time, this practice builds a culture of safety where employees feel supported and are more likely to participate in safety programs and initiatives, knowing that their leaders are actively involved and committed to their safety.

Trust

Trust between safety leaders and employees is fundamental to creating and maintaining a robust safety culture. Transparent and consistent actions by leaders are crucial in building this trust. When leaders are open about the realities of workplace safety challenges and consistently follow through on their commitments, they demonstrate integrity and reliability. This transparency includes openly communicating about safety goals, progress, and any incidents that occur, as well as how these incidents are handled and what steps are taken to prevent future occurrences.

Such transparency and consistency share a sense of security and reliability among employees, encouraging them to report safety concerns without fear of retribution or being ignored. When employees believe their concerns will be taken seriously and addressed promptly, they are more likely to adhere to safety protocols and actively participate in safety initiatives.

This proactive engagement is vital for identifying and mitigating potential hazards before they result in accidents.

Trust enhances the safety culture by creating a collaborative environment where employees and leaders work together towards common safety goals. In a high-trust environment, employees feel more empowered to speak up and share their ideas for improving safety practices, knowing their input is valued and can lead to positive changes. This collaboration leads to a more dynamic and responsive safety culture where continuous improvement is a shared responsibility.

Trust also contributes to unity and teamwork within the research results and the interviews. When employees trust their leaders, they are more likely to support each other in adhering to safety standards and practices. This mutual support and shared commitment to safety helps create a cohesive work environment where everyone prioritizes safety, significantly reducing workplace injuries and fatalities. Ultimately, the presence of trust between leaders and employees transforms the safety culture into one of mutual respect, shared responsibility, and ongoing collaboration, significantly enhancing overall workplace safety.

Communication

Effective communication is critical for ensuring an organization's clarity and understanding of safety procedures. Safety leaders who actively listen to their employees and engage in two-way communication to build an environment where employees feel valued and heard. This type of communication is about transmitting information and creating a dialogue where feedback is encouraged and concerns are addressed promptly and thoroughly.

Leaders who prioritize open communication establish clear channels for reporting hazards and discussing safety issues. This openness helps to break down barriers that might

prevent employees from speaking up about potential risks or incidents. When employees know their voices are heard, and their input can lead to tangible changes, they are more likely to engage actively in safety programs and adhere to established safety protocols.

Active listening by safety leaders plays a significant role in this process. When safety leaders take the time to listen to their employees' concerns and suggestions, they demonstrate respect and concern for their well-being. This attentive approach helps to build trust and shows employees that their safety is a top priority for the organization. It also allows leaders to gain valuable insights from those directly involved in day-to-day operations, leading to more effective and practical safety interventions. Effective communication in safety leadership involves more than just issuing directives; it requires creating a responsive and inclusive dialogue that engages employees at all levels. This approach improves compliance with safety practices and strengthens the overall safety culture, leading to a safer and more supportive work environment for everyone.

Leadership Influence

Empathy

Demonstrating empathy helps leaders connect with their teams personally, supporting a deeper understanding and concern for their well-being. Returning to the literature, Bass (1985) and Burns (1978) are particularly notable for their emphasis on individualized consideration and emotional connection. When safety leaders show genuine empathy, they convey that they care about compliance with safety protocols and their employees' overall health and welfare. This personal connection is crucial in high-risk industries with high stakes, and the impact of safety decisions can be profound.

Empathy can significantly influence how employees perceive and respond to safety initiatives in the context of safety and the research conclusions. When employees believe their leaders genuinely care about their safety, they are likelier to take ownership of safety protocols and actively participate in safety programs. They become more vigilant and proactive in identifying potential hazards, knowing their input is valued and their safety is prioritized.

Adaptability

The ability to adapt to changing circumstances is crucial in high-risk industries. Leaders who can adjust their strategies and approaches based on situational needs ensure that safety practices remain relevant and practical. This adaptability is a hallmark of effective safety leadership, as it allows leaders to respond dynamically to the unique challenges and evolving risks inherent in high-risk environments.

Participant insights consistently highlighted the necessity of flexibility in leadership. For instance, Participant 5 from the oil and gas industry emphasized, "In our field, situations can change rapidly. Adaptability allows me to respond to new challenges effectively and ensure my employees stay safe." This feedback was also shared by Participant 14, who noted that "adapting to new technologies and methods in safety management has helped us stay ahead. It's important to evolve and implement the best practices available continuously."

These findings align with the principles of transformational leadership, particularly the concept of intellectual stimulation, as Bass (1985) posited. Transformational leaders encourage creativity and innovation, challenging their teams to think critically and solve problems in new ways. This approach is particularly relevant in high-risk industries where unforeseen hazards and changing conditions are commonplace.

Empowerment

Empowering employees to take ownership of safety practices enhances their engagement and commitment. When employees are given the autonomy to make safety-related decisions, they are more proactive and invested in maintaining a safe work environment. Participant 2 described their approach to empowerment as "I encourage my team to take the initiative and be proactive about safety. By empowering them to make decisions, they feel more responsible and committed to maintaining a safe environment."

This empowerment aligns with the principles of transformational leadership, particularly the concept of individualized consideration. Leaders who empower their teams have a sense of ownership and accountability, which is essential for driving safety initiatives forward. Additionally, this approach promotes a culture of innovation and continuous improvement, where employees feel valued and empowered to contribute to safety enhancements.

Development

Compliance

Ensuring strict adherence to safety regulations is foundational and aligns closely with the principles of transactional leadership. Leaders must set clear expectations and consistently monitor compliance to maintain a safe workplace. This approach supports accountability and discipline, ensuring that safety protocols are followed and organizational standards are upheld. By establishing a system of rewards and consequences, leaders incentivize compliance while mitigating risks associated with non-compliance.

Learning

Continuous learning and development are not just crucial for individual growth but also imperative for ensuring organizational resilience and adaptability in high-risk industries. Through my interviews with safety leaders across various sectors, it became evident that

investing in ongoing training and professional development is deeply rooted in the principles of transformational leadership.

As revealed by the interviews, transformational leaders are not content with maintaining the status quo but instead strive to inspire a culture of growth and innovation within their teams. They understand that safety standards and practices constantly evolve in response to changing industry dynamics and emerging risks. Therefore, they prioritize equipping employees with the necessary skills and knowledge to navigate these complexities effectively.

Participants emphasized the characteristics of a transformational leader through a supportive learning environment where employees feel encouraged to embrace learning as a continuous journey rather than a one-time event. These leaders empower employees to stay abreast of the latest safety protocols and best practices by providing access to relevant training programs, workshops, and certifications.

Investment

The concept of investing resources to improve safety measures draws from fundamental principles of both transactional and transformational leadership, as learned from the insights from the research interviews with safety leaders. Leadership theorists such as Bernard M. Bass (1985) and James MacGregor Burns (1978) are characterized by their pragmatic approach to resource allocation. In my interviews, safety leaders exemplified this by emphasizing the importance of investing in safety measures to achieve regulatory compliance and minimize workplace hazards. They underscored the need for targeted resource allocation to address specific safety concerns and ensure adherence to industry standards.

Research Question 2

What is the correlation between leadership behaviors and the occurrence of preventable work injuries and fatalities in high-risk industries?

Key correlations emerged by analyzing the research findings and insights shared in the previous section. Firstly, the research indicates that leadership behaviors significantly shape the safety culture within high-risk industries. Safety leaders who prioritize and demonstrate a commitment to safety through their actions and decisions often support a culture of safety consciousness among employees. For instance, leaders who prioritize safety in their communication, decision-making processes, and resource allocation tend to create environments where safety is viewed as a fundamental value rather than a mere regulatory requirement. This proactive approach to safety leadership correlates with lower preventable work injuries and fatality rates, as employees are more likely to adhere to safety protocols and show reduced risky behavior.

Secondly, the research underscores the importance of leadership visibility and engagement in preventing work injuries and fatalities. Safety leaders who are actively present in the field, regularly interact with frontline employees, and actively participate in safety initiatives tend to have a more profound impact on safety outcomes. Their visible commitment to safety instills employee confidence, provides open communication channels, and reinforces the importance of safety as a shared responsibility. Consequently, the research revealed that organizations led by such engaged safety leaders often experience fewer preventable work injuries and fatalities due to increased vigilance and proactive hazard mitigation efforts.

The correlation between leadership behaviors and safety outcomes extends to the empowerment of employees. Safety leaders who empower their teams to take ownership of safety practices, participate in decision-making processes, and contribute ideas for safety

improvement initiatives often witness a positive impact on safety performance. Empowered employees are more likely to proactively identify and address safety hazards, adhere to safety protocols, and collaborate effectively to promote a safer work environment. Organizations with a culture of empowerment facilitated by safety leaders experience fewer preventable work injuries and fatalities as employees actively mitigate risks and promote safety best practices.

In conclusion, the correlation between leadership behaviors and preventable work injuries and fatalities in high-risk industries is evident from the research findings. Safety leaders who prioritize safety, demonstrate visible commitment, and empower their teams tend to support a culture of safety consciousness that correlates with lower rates of work injuries and fatalities. By understanding and leveraging the impact of leadership behaviors on safety outcomes, organizations can proactively enhance their safety performance and create safer work environments for their employees.

Research Question 3

How can organizational safety leaders leverage different leadership styles to enhance safety practices and mitigate the impact and costs associated with injuries and fatalities?

Organizational safety leaders are pivotal in shaping safety practices and mitigating the risks associated with work injuries and fatalities in high-risk industries. Safety leaders can leverage various leadership styles to effectively address these challenges, each offering unique advantages in promoting a safety culture and minimizing the impact of workplace incidents.

Transformational Leadership

Transformational leadership is a powerful approach for inspiring teams to achieve higher safety standards. Leaders employing this style can share a compelling vision for safety, instill a sense of purpose and motivation among employees, and develop personal development.

Transformational leaders can drive significant improvements in safety culture and practices by emphasizing the importance of safety as a core organizational value. Employees feel empowered to actively engage in safety initiatives, leading to a collective commitment to maintaining a safe work environment.

Servant Leadership

Servant Leadership offers another valuable framework for safety leaders to prioritize the needs and well-being of their teams. In a servant leadership model, leaders focus on serving their employees, ensuring their safety, growth, and development. By cultivating a supportive and collaborative environment, servant leaders provide trust and open communication, crucial for preventing workplace injuries and fatalities. Employees feel valued and respected, leading to higher levels of engagement and adherence to safety protocols.

Transactional Leadership

Transactional leadership, emphasizing setting clear expectations and providing rewards or punishments based on performance, plays a vital role in establishing accountability for safety practices. Safety leaders utilizing this approach can effectively communicate safety standards, enforce compliance with regulations, and address any deviations promptly. By establishing a system of rewards and recognition for safety achievements, transactional leaders motivate employees to prioritize safety and adhere to established protocols, thereby minimizing the risks associated with non-compliance.

Situational Leadership

Situational leadership, a leadership theory found in the literature, is a concept pioneered by P. Hersey and K. Blanchard in 1969. When applied to the concept of safety, it will empower safety leaders to adapt their leadership style to suit their teams' and work environments' specific

needs and circumstances. Flexibly adjusting leadership approaches is paramount for effective safety management in high-risk industries characterized by various working conditions and diverse challenges. Situational leaders possess the agility to assess the unique requirements of each situation, customize their leadership strategies accordingly, and empower their teams to respond adeptly to safety risks. This adaptive approach ensures that safety practices remain adaptive and responsive to evolving conditions, thereby reducing the likelihood of workplace incidents. By recognizing that no single leadership style fits all scenarios, situational leaders can leverage a range of strategies depending on factors such as the urgency of safety concerns, the expertise of team members, and the complexity of the task at hand.

Situational leadership promotes continuous learning and development within safety teams. Leaders recognize that situational awareness requires ongoing education and skill-building to adapt to changing circumstances effectively. Noted in various interviews during the research, safety leaders suggested that this adaptability in leadership output is adequate. As such, they invest in training programs and professional development opportunities that equip employees with the knowledge and tools needed to navigate diverse safety challenges. Overall, situational leadership offers a strategic framework for safety leaders to navigate the complexities of high-risk industries, aligning leadership approaches with the ever-changing demands of the environment.

Implications for Action

The study's findings underscore several critical implications for leaders and their role in organizational change and administration, particularly within safety management. Firstly, leaders must align their leadership style with the specific needs and challenges inherent in safety management initiatives. Whether adopting a directive approach for urgent safety hazards or

supporting employee engagement through transformational, transactional, servant or situational leadership, the style must suit the context. Effective communication is a cornerstone of successful safety management, necessitating transparent channels to relay policies, procedures, and expectations and open dialogue for continuous improvement.

Leaders are tasked with empowering employees to take ownership of safety initiatives, involving them in decision-making processes, providing training and resources, and recognizing their contributions. This collaborative approach shares a culture of shared responsibility and accountability for safety outcomes. Additionally, leaders must prioritize continuous team learning and development to navigate evolving safety standards effectively. Leaders ensure their teams remain well-equipped to tackle complex safety challenges by investing in training programs and professional development opportunities.

Adaptability and flexibility are crucial traits for leaders in high-risk industries characterized by dynamic environments. Situational leadership, which emphasizes adjusting strategies based on changing circumstances, ensures that safety practices remain responsive to evolving risks. Lastly, leaders should align safety management initiatives with broader organizational goals, demonstrating the business value of safety programs in cost savings, productivity enhancements, and reputation building. Proactive and strategic safety leadership mitigates risks, enhances employee well-being, and contributes to organizations' overall success and sustainability.

Recommendations for Further Research

Building on the findings of this study, several recommendations for further research came to mind to expand our understanding of safety management within high-risk industries. Firstly, future research could examine the specific leadership behaviors and strategies that correlate most

strongly with reduced incidents of workplace injuries and fatalities. Conducting additional studies across various industries could provide valuable insights into the long-term impact of different leadership styles on safety outcomes.

Exploring the role of organizational culture in shaping safety practices and leadership effectiveness emerged as a potentially promising avenue for future research. Investigating how cultural factors such as norms, values, and communication patterns influence safety leadership behaviors and employee perceptions could offer valuable insights into enhancing safety culture within organizations. During the research, it was apparent that the organizational cultures varied tremendously from one participant to the next. Applying this knowledge to the interview would be an avenue for future research.

Comparative studies across industries and geographic regions could also help identify best practices and transferable lessons for safety leadership and organizational change. Including other countries in future research may surface additional supporting evidence that was not present in the interview of the 25 participants. Researchers can access diverse perspectives and approaches to safety leadership and organizational change by including other countries in future research. Cultural differences in regulatory requirements all influence how safety is perceived, managed, and prioritized in different parts of the world. Comparative studies can highlight innovative strategies and practices from global contexts that may offer new perspectives or solutions to common safety challenges.

In terms of informing the practice of organizational change and administration, the results of this study underscore the importance of proactive and strategic safety leadership. Organizations should invest in developing leaders with the necessary skills and competencies to effectively manage safety risks and promote a safety culture. Leaders should prioritize

communication, empowerment, and continuous team learning to navigate complex safety challenges successfully. By addressing these research recommendations and leveraging the insights from this study, organizations can enhance their safety culture and practices to create safer and healthier work environments.

Concluding Remarks and Reflections

As I wrap up this research journey, I find reflecting on the process and the insights gained along the way crucial. Engaging in this study on safety leadership and organizational change within high-risk industries has been an enlightening experience, filled with both challenges and rewarding moments. Through interviews with safety leaders and professionals in these industries, I have gained invaluable firsthand insights into their experiences, perspectives, and the complexities they face.

One of the most significant lessons from this research is the importance of collaboration and stakeholder engagement. Conversations with safety leaders provided a deeper understanding of their challenges and informed the research questions, methodology, and interpretation of findings. As I conclude this research journey, I am compelled to reflect on the personal and professional growth it has afforded me. Examining safety leadership within high-risk industries has been a profoundly enriching experience, marked by moments of both frustration and revelation. Conversations with safety leaders and professionals provided more than just data; they gave me glimpses into their worlds, struggles, and triumphs. Each interview was not just a collection of responses but a deep understanding of the professionals I work with daily.

Navigating the research process demanded a delicate balance of human connection and curiosity. Every step required careful consideration and adaptability, from crafting research questions to conducting interviews. It was about more than just collecting data; it was about

building and earning trust and genuinely understanding the lived experiences of those I interviewed. Of course, no research journey is without its challenges. From the countless hours put into the research or the various revisions to best share the stories learned, the research process helped polish skills for my future inquires.

This research journey has left a valuable mark on my understanding of safety leadership. It's not just about the findings or the conclusions; it's about the people behind the data, their stories, and the lessons they impart. As I move forward, I carry the knowledge gained and a renewed sense of purpose and passion for creating safer, healthier workplaces for all.

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APPENDICES

Appendix A

Interview Questions

- Tell me about your journey as a safety professional? How many years of experience do you have, and could you share some key insights and lessons learned from your first day until now?
- How would you describe your style of leadership? In what ways do you believe your leadership approach contributes to the safety culture within your organization?
- Can you share your understanding of the various leadership styles commonly observed in organizations, especially those that might influence safety practices? What characteristics or traits do you associate with effective safety leadership?
- In your experiences, what areas do you feel contribute to a safe culture for an organization? Is it the leaders, training, environment, safety rules, policies, or regulations as examples?
- In your role, can you share examples of leaders successfully using diverse leadership styles?
- Considering your experience, can you recall instances where specific behaviors of leaders were associated with either the occurrence or prevention of preventable work injuries?
- Can you share instances where leaders have motivated and inspired their teams to actively prioritize safety, recognized and rewarded safe behaviors, or demonstrated genuine concern for the well-being of team members?
- Can you recall situations where leaders needed to adjust their leadership styles to address specific safety challenges, and what were the outcomes? How did the flexibility in the leadership approach affect the outcome?
- What comments or questions do you have for me? Is there anything you would like me to explain? What would you like to tell me about your thoughts during this interview?
- What is the correlation between leadership behaviors and the occurrence of preventable work injuries and fatalities in high-risk industries?
- How can organizational safety leaders leverage different leadership styles to enhance safety practices and mitigate the impact and costs associated with injuries and fatalities?
- How do various leadership styles contribute to the development of a positive safety culture in high-risk industries?

Appendix B

Email Script

Subject: Invitation to Participate in a Research Study on Safety Leadership

[Recipient's Name],

I'm Clay Wattenbarger, a current doctoral candidate at California Baptist University researching and examining Workplace Safety Through Effective Leadership Styles. Also, I serve as Sr. Director of Environmental Health & Safety for a large private organization, striving to enhance our understanding of safety leadership's impact on employees. I'm conducting research on safety leadership in private high-risk industries and value your expertise as a safety professional at [Company].

Your insights and experiences would be invaluable to this study, and I'd be delighted to have you participate. The study involves a semi-structured interview, allowing you to share your perspectives on safety leadership and discuss supporting a safety culture within your organization. Your contribution could deepen our understanding of effective safety leadership practices and potentially benefit safety initiatives across the industry.

If you're interested in participating, please continue to review the Consent Form and attached demographic questionnaire, which will guide you through the next steps. Your involvement would be highly appreciated, and I'm eager to discuss this research further with you.

Best regards,

Clay Wattenbarger

Cal Baptist University Doctoral Candidate

Sr. Director of Environmental Health & Safety

Appendix C

Consent Form

Dear Research Respondents,

I am Clay Wattenbarger, a California Baptist University (CBU) doctoral student. I am conducting research on the “Examination of Workplace Safety Through Effective Leadership Styles: A Qualitative Study of the High-Risk Private Industry.”

The purpose of this qualitative study is to explore how various leadership styles can be integrated to positively influence safety culture in high-risk industries.

Your participation as a research respondent is entirely voluntary, and you may decide to cease participation after you have begun. The individual responses will be kept confidential, but all will be compiled, summarized, and shared with CBU for program improvement.

If you choose to participate, please complete the attached demographic questionnaire. If you decline, thank you for reading this consent statement; however, you do not need to do anything further. There are no benefits and no penalties for choosing or declining to participate. You may withdraw during the study without consequences, and your data will not be included. Your willingness to participate in this study is implied if you proceed with completing the demographic questionnaire.

Please try to answer all the questions since responding to each item will make the research results more useful. The anticipated time commitment for completing the questionnaire is approximately 1-2 minutes. No obvious undue risks are associated with completing the questionnaire. No identifying information will be shared in the publication of the research. Data will be stored on a password-protected device. While you will receive no direct benefit from participating in the research process, your participation will help my research examine how the various leadership styles can be integrated to positively influence safety culture in high-risk industries. The research is only available electronically; no alternative procedures are available now.

If you have questions about your rights as a research participant, would like to talk with someone about this research other than the researchers, or would like to report an adverse experience, you can contact the IRB (the ethics committee that oversees research at CBU) at irb@calbaptist.edu.

Thank you in advance for your consideration.



Joseph Clay Wattenbarger

Scan or click Here for Demographic form
<https://forms.office.com/r/rtWt0ScYRX>

Appendix D

Informed Participant Consent Form

Dear Participant,

Thank you for considering participation in my study. Your insight into this phenomenon is invaluable to the continued dialogue on the examination of workplace safety through effective leadership styles.

Title of Study: Examining Workplace Safety Through Effective Leadership Styles: A Qualitative Study of the High-Risk Private Industry

Researcher: Clay Wattenbarger

Faculty Sponsor: Jeffrey Belsky, DBA

Purpose of the Study: The purpose of this qualitative study is to explore how various leadership styles can be integrated to positively influence safety culture in high-risk industries.

Participants: 25

Procedures and Duration: Your participation will involve a 30-minute interview, with the total expected time commitment not exceeding 45 minutes for all study-related activities.

Interviews: If you agree to participate, you will be scheduled for a semi-structured interview via Microsoft Teams. The interview will involve open-ended questions about your experiences and perspectives as a safety professional. The interview will be audio & video recorded for accuracy and reference purposes; at the beginning of the interview, a pop-up banner will appear asking for authorization to video record.

Risks: Foreseeable risks to participants in this research are minimal. Participation involves discussing experiences related to safety leadership, which may evoke mild emotional responses.

To report emergencies, unsafe working conditions, safety, and health violations, to file a complaint, or to ask safety and health questions. Contact the OSHA Hotline at 800-321-6742. For Environmental concerns or questions, please contact the EPA at 888-546-8740.

Benefits: While there is no direct personal benefit, your input is vital for the continued dialogue on Examining Workplace Safety Through Effective Leadership Styles.

Confidentiality: Data and identifiers will be encrypted, and records will be securely kept for three years post-study before destruction. The interview recordings and associated data will be stored securely on a password-protected device accessible only to the researcher.

Compensation: There is no financial compensation for participating in this study.

Right to Withdraw: Participation is voluntary, with the option to withdraw without penalty.

Contact information: Should you have any questions or concerns, please contact:

Researcher: Joseph Clay Wattenbarger

Phone: 661-599-5533

Email: JosephClay.Wattenbarger@calbaptist.edu

Faculty Advisor: Jeffrey Belsky, DBA

Phone: 951-343-4574

Email: Jbelsky@calbaptist.edu

Institutional Review Board (IRB):

Email: irb@calbaptist.edu

Statement of Consent:

I have reviewed the information provided and confirm that I understand its contents. Any questions I had have been satisfactorily addressed. With my signature on this consent form, I willingly agree to participate in this research study.

Audio Recording Consent:

Please indicate your agreement for audio recording during the study:

Y/ N I consent to audio-recording.

Please print your name: _____

Please sign here: _____

Date (MM/DD/YYYY): _____

I value and appreciate your perspective and commitment to improving the safety of people working within high-risk industries. Thank you for your participation.

Appendix E

Live Script

Good morning,

My name is Clay Wattenbarger, and I hold the position of Sr. Director of Environmental Health & Safety. I'm currently pursuing my doctoral studies at California Baptist University. My research focuses on Workplace Safety Through Effective Leadership Styles.

Today, I have the privilege of sharing my research interests with you and inviting your participation. I'm conducting a study on safety leadership within private high-risk industries. I believe your insights as safety professionals can greatly contribute to this topic, which I am deeply passionate about.

Your experiences and perspectives are invaluable, and I would be honored to have you participate in my research. The study involves a semi-structured interview, allowing you to share your expertise on safety leadership and discuss supporting a safety culture within your organization.

If any of you are interested in participating or learning more about my research, please feel free to approach me after the event. I will be in the background, providing some additional information. Your involvement would be greatly appreciated, and I look forward to discussing this research further with you.

Thank you for your attention, and I'm excited about the possibility of collaborating with you on this important topic.

Thank you!

Appendix F

ASSP In-Person Research Agreement Form

Research Title: Examining Workplace Safety Through Effective Leadership Styles: A Qualitative Study of the High-Risk Private Industry

Researcher: Joseph Clay Wattenbarger

Phone: 661-599-5533

Email: JosephClay.Wattenbarger@calbaptist.edu

Institution: California Baptist University

Introduction

I, the undersigned researcher, hereby propose to recruit potential participants for my research titled Examining Workplace Safety Through Effective Leadership Styles: A Qualitative Study of the High-Risk Private Industry during the ASSP in-person event. This agreement outlines the terms and conditions for the research collaboration between the researcher and the American Association of Safety Professionals (ASSP).

Purpose of the Study: The purpose of this qualitative study is to explore how various leadership styles can be integrated to positively influence safety culture in high-risk industries.

Procedures and Duration: The potential participant's participation will involve a 30-minute interview, with the total expected time commitment not exceeding 45 minutes for all study-related activities.

Risks: Foreseeable risks to participants in this research are minimal. Participation involves discussing experiences related to safety leadership, which may evoke mild emotional responses.

Benefits: While there is no direct personal benefit, the potential participant's input is vital for the continued dialogue on Examining Workplace Safety Through Effective Leadership Styles.

Confidentiality: Potential participant's information will remain confidential and used solely for educational and publication purposes. Data and identifiers will be encrypted, and records will be securely kept for three years post-study before destruction.

Researcher's Responsibilities

Obtain informed consent from participants before their involvement in the research.

Adhere to ethical standards and guidelines set forth by the ASSP.

Protect the privacy and confidentiality of participants.

ASSP's Responsibilities

Provide access to the event venue for potential participants' data collection purposes.

Permit potential participants to review the provided consent form and complete the demographic form if potential participants are willing to participate.

Data Handling and Security

All collected data will be stored securely and anonymized to protect participant confidentiality. Data will be used exclusively for research purposes and will not be shared with third parties.

Agreement Period

This agreement is effective as of [4-29-24] and will remain in effect until [7-29-24] or until both parties mutually agree to conclude the collaboration.

Researcher's Signature: _____ Date: _____

ASSP Representative's Signature: _____ Date: _____