Exploring Safety Citizenship Behavior In The Workplace: A Systematic Literature Review

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ARTICLE INFO	ABSTRACT
	To keep a workplace safe and healthy, Safety Citizenship Behavior (SCB) is crucial. In order examine the definition, methodology, and available resources for SCB, a thorough literature review is conducted in this research. The study investigates the many aspects and affecting variables of SCB to fill in the knowledge gap. In terms of methodology, the research uses stringent article selection criteria and conducts a thorough search across all publications that are indexed in Scopus. Significant findings highlight multiple perspectives on SCB and highlight its voluntary character and proactive participation.
	The findings show how different aspects, such organizational support and safety leadership, affect SCB. The analysis also emphasizes the importance of SCB in reducing workplace accidents and improving organizational performance.
	The study's implications highlight how crucial it is to promote SCB inside businesses in order to reduce workplace accidents, strengthen safety culture, and boost productivity. Prospective avenues for investigation include examining the influence of surrounding factors on self-compassion and devising strategies to encourage self-compassion in workers.
	This study adds to the pool of knowledge by giving a thorough examination of SCB and giving practitioners and organizational leaders advice on how to prioritize safety activities and foster a culture of safety in the workplace.
	Keywords: *'Safety citizenship behavior', Workplace safety culture, Organizational Safety, safety behavior analysis, Safety leadership, Systematic Review.*

1. Introduction

The quest for workplace safety and illness prevention has been a global imperative, and its significance is underscored by the annual celebration of World Day for Safety and Health at Work on April 28th, a proactive initiative introduced by the International Labor Organization (ILO) in 2003. This worldwide awareness campaign serves as a stark reminder of the scale of workplace safety challenges and the pressing need to foster a culture of safety and health in the workplace. The responsibility for ensuring workplace safety is shared by governments, employers, and employees, each playing a unique and indispensable role. While governments are tasked with enacting and enforcing laws, rules, and regulations, employers are entrusted with creating safe and healthy work environments. Employees, in turn, are responsible for their safety and the well-being of their coworkers, underscoring the importance of knowledge and proactive safety measures (*World Employment and Social Outlook: Trends 2016*, n.d.)

Workplace safety discourse has changed significantly over the years, with a growing emphasis on employees' proactive roles in advocating current and future safety regulations, especially in high-risk industries. This shift in perspective has ignited a growing interest in understanding "Safety Citizenship Behavior" (SSCB), a behavioral phenomenon that encompasses extra-role employee behaviors contributing to both current and future workplace safety. SCB aligns with the Organizational Citizenship Behavior (OCB) philosophy, extending beyond contractual obligations to enhance safety practices (Hofmann et al., 2003). Recognized for its capacity to influence workers'

risk management strategies through behavior modification and affiliation, SCB holds significant promise in fostering organizational learning, transformation, productivity, and sustainability (Griffin & Curcuruto, 2016).

Occupations associated with a high risk of injury or fatality have long been recognized as demanding and perilous career choices (Leung et al., 2012) . Millions of employees navigate the challenging realities of workplace safety and standards, and the statistics are grim. The ILO estimates approximately 2.78 million work-related fatalities annually, with a staggering 2.4 million attributed to occupational ailments. The economic costs associated with these fatalities are substantial, affecting organizations, governments, and society at large. In response to this challenge, ILO standards on occupational safety and health have been formulated to guide governments, businesses, and employees in adopting safe work practices (International Labour Organization, 2022).

Researchers & Professionals have underscored the indispensable role of employees Safety Citizenship Behavior (SCB) in sustaining organizational safety and reducing workplace accidents (Christian et al., 2009; Griffin & Curcuruto, 2016; Zhou et al., 2015). SCB represents an individual's proactive commitment to enhancing workplace safety, extending beyond mere safety compliance (Curcuruto et al., 2015; Griffin & Neal, 2000).

This research places a specific emphasis on employees' "Safety Citizenship Behavior." While the terminology around "safety behavior," "organizational citizenship behavior," and "citizenship behavior" may have nuanced distinctions, this study specifically centers on "Safety Citizenship Behavior." Notably, the concept of SCB was first defined by Hofmann et al., in 2003, encompassing behaviors such as assisting coworkers, suggesting safety improvements, promoting safety programs, and taking initiative as part of SCB.

A pivotal moment in defining SCB came from Didla et al., 2009, who described SCB as employees' spontaneous acts of assisting team members beyond their designated roles to enhance safety behavior. Their work highlighted SCB's critical role in the safety of working groups, particularly in high-risk sectors, where dangerous worker behavior often poses significant risks. It is in this context that understanding the variables influencing SCB becomes essential, with the aim of enhancing employee safety and minimizing accidents.

Despite its significance, the literature on safety citizenship behavior remains fragmented, with studies examining various aspects of SCB from different theoretical perspectives and methodological approaches. While some studies focus on the antecedents and determinants of SCB, such as leadership styles, organizational climate, and individual characteristics, others explore its outcomes in terms of safety performance, organizational effectiveness, and employee well-being (D. Zohar, 2010).

Therefore, a comprehensive understanding of 'safety citizenship behavior' necessitates a systematic review of the existing literature, which can synthesize and integrate findings from diverse studies to identify common trends, theoretical frameworks, and gaps in knowledge. By synthesizing the extant literature on SCB, this systematic review aims to contribute to theory development, inform organizational practices, and guide future research directions in the field of workplace safety.

2. Methodology

In this systematic search, we utilised search strategy adopted by (Moher et al., 2009) to identify relevant literature from SCOPUS database. The search string were "Safety AND Citizenship AND behavior". The search encompassed the whole duration of the database, from its establishment to February 2024, and included journal aricles, review papers, Book, research reports, published in English language only. The primary objective of the search was to conduct a extensive review of the available literature pertaining to 'Safety Citizenship Behaviour' within Social Science, Business Management & Accounting, Engineering, Statistics, and Environmental Science fields.

The decision to exclusively utilize articles from the Scopus database for this research article stems from several key considerations. Firstly, Scopus is renowned for its extensive coverage of scholarly literature across a diverse range of disciplines, ensuring access to a comprehensive array of peer-reviewed journals, conference proceedings, and other academic publications (Mongeon & Paul-Hus, 2016). By focusing solely on articles indexed in Scopus, the research benefits from the platform's broad scope and comprehensive database, which enhances the credibility and reliability of the literature review process. Additionally, Scopus employs rigorous selection criteria to index peer reviewed, high quality journals, thereby ensuring the inclusion of credible and academically sound sources in the research (Falagas et al., 2008). This commitment to quality assurance aligns with the research's objective of synthesizing evidence from reputable sources to generate robust insights and conclusions. By leveraging these features, the research maximizes its ability to retrieve pertinent literature, evaluate its significance, and contextualize findings within the broader academic landscape.

The present study exclusively relies on primary research publications, review papers, & conference papers. In order to maintain the standard of the review, all instances of duplication were meticulously examined and eliminated. The publications' abstracts were thoroughly examined to analyze and refine them, ensuring the quality & relevance of the academic literature included in the review process. A meticulous assessment of each study article was conducted at a subsequent phase. The subsequent exclusion criterion was restricting the publication of papers only to the English language.

2.1 Study Selection

Relevant studies were selected using a multi-stage process. Firstly, duplicate articles were discarded, both within and across databases. Subsequently, the titles and abstracts of the papers that were obtained were examined to determine their relevance to the study topics, with any publications considered irrelevant being excluded. After the first screening procedure, a total of 161 articles that were considered possibly relevant were included in the full-text search. Out of these, the complete text was inaccessible for 21 articles, resulting in a total of 140 articles for comprehensive examination. After a detailed examination of the full texts, 26 additional non-relevant articles were discarded. In the end, a total of 114 papers were included into the systematic review.

2.2 Data Extraction

Data from the entire text of each research included in the systematic review were carefully extracted. The data included information on the author(s), publication name, year of publication, title, the research question(s) investigated in the study, and the primary findings related to the research question(s). The retrieved data formed the basis for the ensuing analysis.

3. Analysis of Results

3.1. Key features of studies included in the review

The names of the journals in which research articles were published are exhibited in table-1. The journal that published the majority of the papers included in the study is "Safety Science," followed by "International Journal of Environmental Research and Public Health."

Table-1 List of journals based on number of articles included in the review:

| Name of Journal	Number of articles
Safety Science	14
International Journal of Environmental Research and Public Health	6
Accident Analysis and Prevention	3
Journal of Construction Engineering and Management	3
Journal of Safety Research	3
Journal of Occupational Health Psychology	2
Journal of Risk Research	2
Lecture Notes in Networks & Systems	2
Others (one article per journal)	27
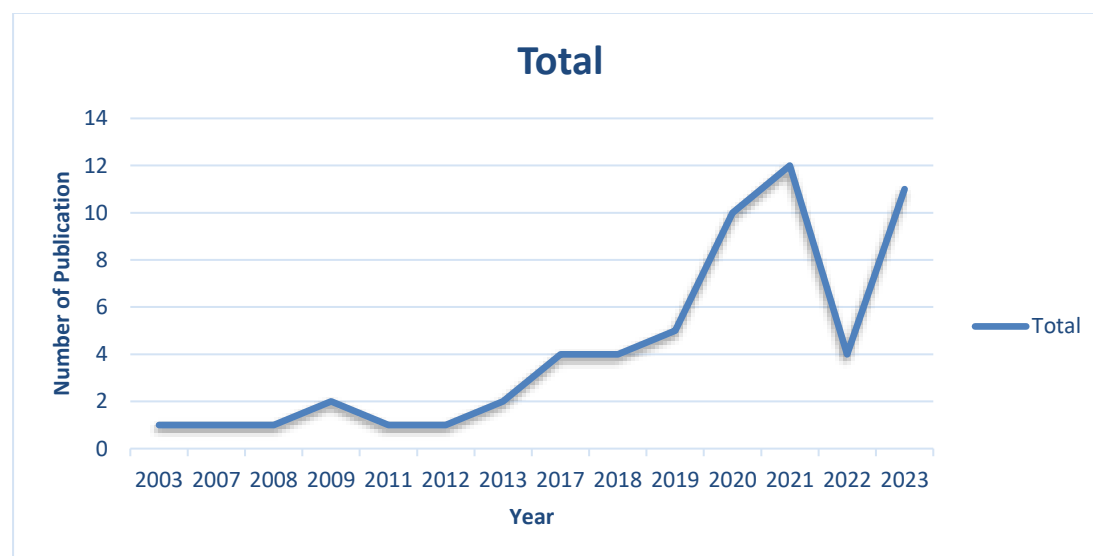
Figure-1 Annual publication pattern

Table-2 Top 15 articles based on number of citations

Sl	Authors	Title	Year	Publised In	Cited by
1	Hofmann D.A.; Morgeson F.P.; Gerras S.J. (Hofmann et al., 2003)	'Climate as a moderator of the relationship between leader-member exchange and content specific citizenship: Safety climate as an exemplar'	2003	Journal of Applied Psychology	793
2	Conchie S.M. (Conchie, 2013)	'Transformational leadership, intrinsic motivation, and trust: A moderated-mediated model of workplace safety'	2013	Journal of Occupational Health Psychology	122
3	Conchie S.M.; Donald I.J. (Conchie & Donald, 2009)	'The Moderating Role of Safety-Specific Trust on the Relation Between Safety-Specific Leadership and Safety Citizenship Behaviors'	2009	Journal of Occupational Health Psychology	116
4	Mearns K.J.; Reader T. (K. J. Mearns & Reader, 2008)	'Organizational support and safety outcomes: An un-investigated relationship?'	2008	Safety Science	95
5	Didla S.; Mearns K.; Flin R. (Didla et al., 2009b)	'Safety citizenship behaviour: A proactive approach to risk management'	2009	Journal of Risk Research	94
6	Curcuruto M.; Griffin M.A. (Curcuruto & Griffin, 2018)	'Prosocial and proactive "safety citizenship behaviour" (SCB): The mediating role of affective commitment and psychological ownership'	2018	Safety Science	84
7	Reader T.W.; Mearns K.; Lopes C.; Kuha J. (Reader et al., 2017)	'Organizational support for the workforce and employee safety citizenship behaviors: A social exchange relationship'	2017	Human Relations	60
8	Meng X.; Chan A.H.S. (Meng & Chan, 2020)	'Demographic influences on safety consciousness and safety citizenship behavior of construction workers'	2020	Safety Science	45
9	Liu Q.; Xu N.; Jiang H.; Wang S.; Wang W.; Wang J. (Liu et al., 2020)	'Psychological Driving Mechanism of Safety Citizenship Behaviors of Construction Workers: Application of the Theory of Planned Behavior and Norm Activation Model'	2020	Journal of Construction Engineering and Management	37
10	Chmiel N.; Laurent J.; Hansez I. (Chmiel et al., 2017)	'Employee perspectives on safety citizenship behaviors and safety violations'	2017	Safety Science	35
11	Wang D.; Wang X.; Griffin M.A.; Wang Z. (Wang et al., 2020)	'Safety stressors, safety-specific trust, and safety citizenship behavior: A contingency perspective'	2020	Accident Analysis and Prevention	34
12	Curcuruto M.; Parker S.K.; Griffin M.A. (Curcuruto, Parker, et al., 2019)	'Proactivity towards workplace safety improvement: an investigation of its motivational drivers and organizational outcomes'	2019	European Journal of Work and Organizational Psychology	34
13	Probst T.M.; Graso M.; Estrada A.X.; Greer S. (Probst et al., 2013)	'Consideration of future safety consequences: A new predictor of employee safety'	2013	Accident Analysis and Prevention	31
14	Curcuruto M.; Conchie S.M.; Griffin M.A. (Curcuruto, Conchie, et al., 2019)	'Safety citizenship behavior (SCB) in the workplace: A stable construct? Analysis of psychometric invariance across four European countries'	2019	Accident Analysis and Prevention	29
15	Li M.; Zhai H.; Zhang J.; Meng X. (Li et al., 2020)	'Research on the relationship between safety leadership, safety attitude and safety citizenship behavior of railway employees'	2020	International Journal of Environmental Research and Public Health	22

3.2. Evolution of 'Safety Citizenship Behavior'

The concept of 'Safety citizenship behavior' (SCB) has evolved over time, reflecting changes in organizational safety practices and theoretical perspectives. Initially, SCB was conceptualized as voluntary actions taken by employees to foster workplace safety (Griffin & Neal, 2000). These actions typically extended beyond employees' formal job requirements and encompassed behaviors such as reporting hazards, taking part in safety related training programs, and assisting colleagues in adhering to safety protocols.

Over the years, the definition of SCB has expanded to incorporate broader dimensions of 'Organizational citizenship behavior' (OCB) and safety climate. OCB refers to discretionary behaviors exhibited by employees that support the smooth operation of the company (Organ, 1997). Within the context of safety, SCB can be seen as a subset of OCB, focusing specifically on safety-related behaviors.

Over time, scholars recognized the distinctiveness of safety-related behaviors and began to delineate them as a separate construct within the broader domain of OCB. This led to the emergence of the term "Safety Citizenship Behavior" to specifically refer to voluntary actions shoulder by employees to enhance safety within the workplace (Neal & Griffin, 2006).

Moreover, the safety climate concept has gained importance in understanding SCB. Safety climate refers to the way employee perceive the organization's commitment to safety and the level of importance given to the safety in the workplace (D. Zohar, 2010). A Affirmative safety climate is conducive to fostering SCB by creating an environment where safety is valued and encouraged.

Overall, the evolution of the definition of SCB reflects a broader recognition of the multifaceted nature of safety-related behaviors and the importance of organizational factors such as safety climate & leadership, in shaping SCB among employees.

Table-3 The Dynamic Evolution of Safety Citizenship Behavior (SCB)

Early Conceptualizations (1990s):	• **Laying the Foundation:** Pioneering research by Zohar, (1980) and Chan (1997) established SCB as a distinct concept, defining it as "discretionary safety behaviors beyond formal rules" and "voluntary actions to promote safety," respectively. • **Normative Focus**: Griffin & Neal, 2000 further refined the understanding by highlighting the normative aspect, defining SCBs as "behaviors contributing to safety beyond compliance with formal rules."
Mid-2000s to 2010s:	• **Expanding the Scope:** Research efforts broadened to encompass the antecedents, consequences, and intervention strategies for promoting SCB. • **Key Drivers Identified:** Studies by Griffin & Neal, (2000) & Hofmann et al., (2003) shed light on the crucial influence of leadership styles, organizational culture, and safety climate on SCB prevalence. • **Positive Impact Demonstrated:** (Conchie, 2013; Griffin & Neal, 2000) provided compelling evidence of the positive impact of SCB on safety outcomes, such as reduced accident rates and improved risk perceptions. • **Multi-Level Interventions:** (K. J. Mearns & Reader, 2008) emphasized the effectiveness of multi-level interventions targeting individuals, teams, and organizations for fostering SCB.
Present Day (2020s onwards):	• **Emerging Frontiers:** Contemporary research explores the intersection of SCB with: o **Technological Advancements:** (Pishgar et al., 2021; TAVAS, 2020)) investigates how safety apps and AI can facilitate SCB. o **Globalization:** (Gattario et al., 2020; Newaz et al., 2021) examine cross-cultural variations in SCB and advocate for culturally tailored interventions. o **Sustainability & Resilience:** (Khan & Shrivastava, 2023; Newaz et al., 2021; Radu & Radu, 2023; Wang et al., 2022) explore the role of SCB in building sustainable and resilient safety cultures.

3.3. Defining & describing 'Safety Citizenship Behavior'

The concept of 'Safety Citizenship Behavior' has been defined and conceptualized by various authors in the literature. 'Safety citizenship behavior' encompasses a range of voluntary actions individuals take beyond minimum safety requirements to promote and improve safety within their environment. Here are some definitions found in articles:

Hofmann et al., (2003) view SCB as "discretionary individual behavior that contributes to the safety of the work environment beyond formal safety rules and procedures". It emphasizes going above and beyond the minimum requirements, driven by individual initiative.

Mearns & Reader, (2008) offer a concise definition: "Safety citizenship behaviors (SCBs) are voluntary individual actions that benefit the safety of others and the work environment as a whole, which go beyond the minimum required compliance with safety rules and procedures". This definition emphasizes both the individual's role and the broader benefit to the environment.

Didla et al., (2009) defined "Safety Citizenship behaviour as behaviours that are discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promote the effective functioning of the organization."

Du & Zhao, (2011) defined "SCB as behaviors that are discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promote the effective functioning of the organization. The concept of citizenship behavior is based on the principle of reciprocity i.e. employees tend to reciprocate a high-quality relationship with their supervisor (i.e. relationship based on trust, support and fairness) by engaging in behaviors valuable to the organization."

Curcuruto et al., (2015) define SCBs as "employee actions that are discretionary, beyond the minimum safety requirements, and beneficial to the safety of the work environment and others". This definition clearly distinguishes SCBs frosm mandatory compliance and underscores their contribution to overall safety.

Griffin & Neal, (2000) define SCBs as "discretionary individual behaviors that contribute to the safety of the work environment beyond the minimum required compliance with safety rules and procedures". This definition echoes the core idea of voluntary actions exceeding basic compliance while contributing to a safer environment.

In view of above, Safety Citizenship Behavior (SCB) can be defined as voluntary individual actions that go beyond the minimum required compliance to safety regulation and protocols, aiming to improve the safety of the work environment for both oneself and others. This behavior is discretionary and not explicitly rewarded, but it contributes to the broader well-being and effective functioning of the organization.

Key elements of this definition:
Voluntary: Individuals freely choose to engage in SCB, demonstrating proactive involvement beyond mandated compliance.
Individual initiative: While benefiting others, SCB primarily stems from individual choice and motivation.
Beyond minimum requirements: SCB exceeds established safety rules and procedures.
Safety improvement: The core aim of SCB is to enhance the safety of the work environment for all.
Benefit to others: SCB goes beyond personal safety and contributes to the well-being of colleagues and the work environment as a whole.
Discretionary and unrewarded: SCB is not tied to explicit rewards or punishments within the formal system.
Organizational impact: Although voluntary, SCB contributes to the effective functioning and overall safety culture of the organization.

This comprehensive definition integrates the strengths of the provided sources:
It captures the essence of voluntarism and discretion emphasized by (Curcuruto et al., 2015; Didla et al., 2009b; Hofmann et al., 2003; K. J. Mearns & Reader, 2008).
It acknowledges the individual's role while highlighting the collective benefit to the environment, as seen in Curcuruto et al., (2015); Mearns & Reader, (2008).
It aligns with the understanding of SCB as contributing to overall safety beyond minimal compliance, as emphasized by Curcuruto et al., (2015); Griffin & Neal, (2000).
It incorporates the notion of organizational impact seen in Didla et al., (2009).

By understanding this comprehensive definition, researchers, organizations, and individuals can work towards fostering and recognizing SCBs, ultimately this will result in the construction of a work environment that is both safer and healthier for all those involved.

Dimensions of Safety Citizenship Behaviour:
The primary components of Safety Citizenship Behavior (SCB) encompass two dimensions namely affiliation oriented & change oriented. This conceptualization facilitates the exploration of both distant and immediate factors influencing specific behaviors (Curcuruto et al., 2015). **Affiliation-oriented SCB,** as per the literature, concentrates on mitigating risks by fostering interpersonal relationships that bolster workplace safety, thereby diminishing accidents, injuries, and fatalities. These behaviors are depicted as prosocial actions creating a supportive atmosphere conducive to workplace safety (Curcuruto et al., 2015).

On the contrary, **change-oriented SCB**, while aiming for improvement, may disrupt internal harmony and challenge prevailing management practices (Curcuruto & Griffin, 2018; Eva Dodoo et al., 2021; VAN DYNE et al., 1994). Such behaviors involve actions geared toward change and enhancement of the existing status quo, including speaking up about safety concerns (Tucker & Turner, 2015), critiquing dysfunctional work procedures & whistleblowing (Mackenzie et al., 2011).

(Curcuruto et al., 2015) investigated the predictive roles of prosocial and proactive behaviors on various safety outcomes within an Italian chemical plant, such as minor mishap, harm to property, near-miss events, and lost-time injuries. Their findings significantly contributed to understanding affiliation and change-oriented behaviors in relation to organizational safety performance. Specifically, affiliation-oriented activities were associated with lower rates of minor injuries and property damage, whereas change-oriented actions were associated with higher rates of lost-time injuries and the reporting of near-miss events. These findings highlight the multifaceted nature of the SCB construct and explain variations in safety results.

3.4. Theories associated with Safety Citizenship Behaviour
Several theoretical frameworks are being discussed here to understand the antecedents and outcomes of 'Safety Citizenship Behavior' within organizational contexts:

Social Exchange Theory: As per the Social Exchange Theory, people choose their actions depending on the costs and rewards they believe such actions will bring (Blau, 1964). Within the framework of SCB, employees are likely to exhibit safety-related behaviors when they perceive favorable outcomes, such as recognition, rewards, or improved working conditions, outweighing the costs or risks involved (Dartey-Baah et al., 2021; Laurent et al., 2018; Lu et al., 2017; K. J. Mearns & Reader, 2008; Neal & Griffin, 2006; Schopf et al., 2021)

Organizational Support Theory: This theory suggests that employees' perceptions of organizational support influence their attitudes and behaviors, including SCB (Eisenberger et al., 1986). Employees are more inclined to participate in SCB as a way of giving back to the company for the assistance they have received when they believe the organization appreciates their safety and wellbeing.

Transformational Leadership Theory: According to the transformational leadership theory, leaders who uplift and encourage their subordinates are better at encouraging SCB among employees (Bass, B. M. (1985). Transformational leaders who prioritize safety, communicate a compelling vision for safety, and empower employees to take ownership of safety initiatives are more likely to cultivate a culture of SCB within their organizations (Dartey-Baah et al., 2021)

Safety Climate Theory: Safety Climate Theory emphasizes the importance of employees' perceptions of safety within the organization in shaping their safety-related behaviors, including SCB (D. Zohar, 1980). A positive safety climate, characterized by supportive leadership, clear safety policies, and open communication about safety issues, encourages employees to engage in SCB by fostering a sense of shared responsibility for safety.

Psychological Contract Theory: This theory suggests that employees perceptions of the mutual obligations between themselves and the organization influence their attitudes and behaviors, including SCB (Rousseau, 1989). When employees perceive that the organization fulfills its obligations to ensure their safety and well-being, they are more likely to reciprocate by engaging in SCB.

3.5 Drivers of Safety Citizenship Behavior (SCB):
Understanding the factors that precede and promote such behaviors, known as antecedents, is crucial for effective interventions and improved safety outcomes. Here, we delve into key SCB antecedents identified in scientific literature:

Individual-level antecedents:
Personality traits: Conscientiousness, risk aversion, and safety value orientation have been linked to increased SCB engagement (Griffin & Neal, 2000).
Knowledge and skills: Possessing adequate safety knowledge and skills empowers individuals to identify and address safety hazards, fostering active participation in SCBs (Griffin & Neal, 2000)
Job satisfaction and engagement: Feeling satisfied and engaged with one's job and role can motivate individuals to go the extra mile for safety, contributing to SCBs (Ni et al., 2020; Radu & Radu, 2023)

Perceived organizational support (POS): Employees who believe their employer actually cares about their health and safety are more inclined to participate in SCBs (K. J. Mearns & Reader, 2008)

Team-level antecedents:
Team safety climate: A work environment where open communication about safety concerns is encouraged and safety is valued fosters collective responsibility and motivates SCBs (Christian et al., 2009)

Team cohesion and trust: Strong team bonds and trust create a supportive environment where individuals feel comfortable intervening and promoting safe practices (D. M. Zohar & Hofmann, 2012).

Team leadership: Effective leadership that emphasizes safety commitment and encourages participation in safety decisions can significantly influence SCBs within team(Didla et al., 2007) (K. Mearns et al., 2003).

Organizational-level antecedents:
Formal safety programs and policies: Robust safety programs with clear rules, procedures, and training provide a foundation for safe work practices and can stimulate SCBs (Conchie et al., 2013).

Communication and participation: Organizations that facilitate open discussion regarding safety concerns, and encourage employee participation in safety initiatives foster a culture conducive to SCBs (Didla et al., 2009a).

Management commitment and safety culture: Management's visible commitment to safety & creating a positive safety culture demonstrably promotes SCBs among employees (Khan & Shrivastava, 2023; Meng et al., 2021; Tear & Reader, 2023)
SCB arises from a complex interplay of individual, team, and organizational factors. Recognizing these diverse antecedents allows for targeted interventions designed to enhance various levels within the organizational ecosystem. By addressing individual needs, cultivating supportive team environments, and

fostering a strong safety culture, organizations can unlock the full potential of SCB, ultimately creating safer and healthier workplaces for all.

3.5. Characteristics of Safety Citizenship Behaviour

Safety Citizenship Behavior (SCB) exhibits several key characteristics that distinguish it from other types of workplace behavior. Understanding these characteristics is essential for promoting a culture of safety within organizations.

Voluntary Nature: SCB is characterized by its voluntary nature, as employees engage in safety-related behaviors beyond their formal job requirements (Neal & Griffin, 2006). These behaviors are not mandated by rules or regulations but are driven by individuals' intrinsic motivation to contribute to the safety and well-being of themselves and their colleagues.

Proactive Engagement: SCB involves proactive engagement in safety-related activities and initiatives (Cheung et al., 2021; García-Martínez et al., 2021; Grill et al., 2019). Employees who exhibit SCB actively seek out opportunities to promote safety, identify hazards, and implement preventive measures to mitigate risks, rather than merely reacting to safety issues as they arise.

Collaborative Efforts: SCB often involves collaborative efforts among employees to promote safety within the workplace (Schwatka et al., 2020). Employees engage in teamwork, communication, and mutual support to address safety concerns, share best practices, and collectively work towards creating a safe and healthy work environment.

Continuous Improvement: SCB is characterized by a commitment to continuous improvement in safety performance (Curcuruto, Conchie, et al., 2019). Employees who demonstrate SCB actively seek feedback, participate in safety training and development programs, and strive to implement innovative solutions to enhance safety outcomes.

Adaptability: SCB is adaptable to changing circumstances and contexts within the workplace (Curcuruto, Conchie, et al., 2019; Didla et al., 2007). Employees who exhibit SCB demonstrate flexibility and adaptability in responding to new safety challenges, emerging risks, and evolving organizational priorities.

Leadership Influence: Effective leadership plays a crucial role in shaping SCB within organizations (Dartey-Baah et al., 2021; Griffin & Hu, 2013). Leaders who prioritize safety, set clear expectations, and provide support and resources for safety initiatives create an environment conducive to fostering SCB among employees.

3.6. Need for Safety Citizenship Behavior

Safety Citizenship Behavior (SCB) is essential for promoting and maintaining a safe working environment within organizations. Several factors underscore the importance of fostering SCB among employees:

Prevention of Workplace Accidents: SCB contributes to the prevention of workplace accidents and injuries by promoting proactive safety practices and hazard identification (Christian et al., 2009; Griffin & Curcuruto, 2016). Employees who engage in SCB are more likely to take precautionary measures and adhere to safety protocols, reducing the risk of accidents and incidents.

Enhancement of Safety Culture: SCB fosters a positive safety culture within organizations by promoting shared responsibility for safety and encouraging active engagement in safety-related activities (Christian et al., 2009; Griffin & Curcuruto, 2016; Sieberichs & Kluge, 2021). A strong safety culture, characterized by open communication, trust, and collaboration, is essential for creating a safe and supportive work environment.

Improvement of Organizational Performance: SCB contributes to the overall performance and effectiveness of organizations by reducing absenteeism, turnover, and productivity losses associated with workplace accidents and injuries (Q. He et al., 2016; Lu et al., 2017; K. J. Mearns & Reader, 2008). Organizations that prioritize safety and cultivate SCB among their employees are more likely to achieve better safety outcomes and long-term success.

Compliance with Regulations: SCB helps organizations comply with regulatory requirements and standards related to workplace safety (Didla et al., 2009a; Renecle et al., 2021; Ta et al., 2022). By promoting a culture of safety and encouraging employees to adhere to safety regulations and guidelines, SCB ensures that organizations meet legal obligations and avoid potential penalties or fines.

Enhancement of Employee Well-being: SCB contributes to the overall well-being and satisfaction of employees by creating a safe and supportive work environment (K. J. Mearns & Reader, 2008; Neal & Griffin, 2006; Smith et al., 2020). Employees who feel valued, supported, and protected are more likely to be engaged, motivated, and committed to their work.

4. Discussion:

The analysis of results revealed notable characteristics and an evolution of SCB over time. Initially conceptualized as voluntary actions aimed at promoting workplace safety, SCB has evolved to encompass broader dimensions within the framework of organizational citizenship behavior (OCB) and safety climate. The inclusion of affiliative and change-oriented dimensions underscores the multifaceted nature of SCB and its influence on organizational safety performance.
The identified drivers of SCB, rooted in theoretical frameworks such as Social Exchange Theory, Organizational Support Theory, and Transformational Leadership Theory, highlight the complex interplay of individual, team, and organizational factors shaping safety-related behaviors. These antecedents underscore the importance of fostering a supportive organizational culture, effective leadership, and positive safety climate to promote SCB among employees.

Contemporary research is uncovering new dimensions and intersections of safety citizenship behavior (SCB), propelling the field into exciting frontiers that expand its theoretical and practical implications. One such frontier lies in the exploration of the role of leadership in shaping SCB. Recent studies have highlighted the influence of transformational, transactional, and safety leadership styles on employees' engagement in safety-related behaviors (Conchie, 2013; D. Zohar, 2008). For instance, transformational leaders inspire followers to go beyond their self-interests and actively contribute to safety initiatives, fostering a culture of collective responsibility for safety (Clarke, 2013). Moreover, the emergence of virtual work environments and the gig economy presents new challenges and opportunities for promoting SCB. Researchers are investigating how remote work arrangements and the gig economy impact employees' safety attitudes and behaviors, with implications for safety management strategies in the digital age. Furthermore, the integration of advanced technologies, such as artificial intelligence, augmented reality, and wearable devices, holds promise for enhancing safety practices and mitigating risks in the workplace. These emerging frontiers underscore the dynamic nature of SCB research and the need for continued exploration to address evolving organizational challenges and harness opportunities for improving safety outcomes.

The review synthesized various definitions of SCB provided in the literature, emphasizing its voluntary, proactive, and beneficial nature in promoting workplace safety. The integration of affiliation-oriented and change-oriented dimensions facilitates a thorough understanding of SCB and its impact on safety outcomes within organizational contexts.

5. Limitaiton

While this systematic literature review endeavors to provide a comprehensive understanding of safety citizenship behavior (SCB), it is essential to acknowledge certain limitations inherent in the review process. Despite efforts to ensure inclusivity, there remains a possibility of publication bias, as the review is limited to articles indexed in SCOPUS databases only. Additionally, the review is restricted to studies published within a specific timeframe, and while efforts were made to capture the most recent literature, older studies may have been omitted, potentially impacting the comprehensiveness of the analysis. Furthermore, the findings of this review may not be universally applicable across all contexts due to variations in organizational settings, cultural factors, and industry-specific considerations. Given the dynamic nature of research on SCB, new studies may have been published subsequent to the completion of this review, which could offer additional insights or alter existing perspectives. These limitations should be considered when interpreting the findings and applying them to diverse organizational and cultural settings.

6. Implications and Future Directions

Understanding the characteristics, antecedents, and outcomes of SCB has significant implications for organizational safety management practices. By recognizing the importance of fostering SCB among employees, organizations can implement targeted interventions aimed at promoting a culture of safety, enhancing employee well-being, and improving organizational performance. Future research directions may explore emerging frontiers in SCB, such as the intersection with technological advancements, globalization, and sustainability, to advance knowledge and practices in organizational safety management.
In conclusion, the systematic literature review provides valuable insights into the current state of research on SCB, highlighting its evolution, dimensions, antecedents, and theoretical underpinnings. By synthesizing

evidence from diverse disciplinary perspectives, the review contributes to a comprehensive understanding of SCB and its implications for organizational safety and well-being.

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The authors declare that they have no conflict of interest.

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