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Measurement tools and organizational support approaches for the second victim phenomenon in healthcare professionals: a systematic review

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ABSTRACT

Background: Healthcare professionals involved in adverse events may experience the Second Victim Phenomenon (SVP), leading to emotional distress, burnout, and turnover intention. Nurses are particularly vulnerable due to their close involvement in patient care. **Aim:** To systematically review measurement tools and organizational support approaches used to assess and address the Second Victim Phenomenon in nurses and healthcare professionals. **Methodology:** A PRISMA-guided systematic review was conducted using PubMed, Scopus, and the Cochrane Library. Primary studies published in English between January 2017 and October 2025 were screened using predefined inclusion and exclusion criteria. Methodological quality was appraised using the Mixed Methods Appraisal Tool (MMAT). **Results:** Ten studies met the inclusion criteria. Validated measurement instruments, including the SeViD questionnaire and the Second Victim Experience and Support Tool (SVEST), were identified. Organizational approaches such as peer-support and tiered intervention models (e.g., RISE, forYOU) were also described. SVP was consistently associated with psychological distress and turnover intention, while supportive organizational cultures facilitated coping. **Conclusion:** SVP is a common issue among nurses, and both measurement tools and organizational support approaches are important for identifying and managing its impact. However, the predominance of cross-sectional designs limits causal conclusions, highlighting the need for longitudinal and intervention-based research.

KEYWORDS

second, victim, phenomenon, nurses, clinical errors

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1. INTRODUCTION

Nurses play a central role in protecting patients from harm, yet adverse events remain common in healthcare settings and can affect not only patients but also healthcare staff and their families [1,2]. Adverse events—unintended injuries or complications resulting from medical care rather than the underlying disease—include medication errors, procedural complications, healthcare-associated infections, psychological harm, and death [1–3]. Even non-fatal events may lead to long-term consequences for patients and can also traumatize healthcare professionals, giving rise to the Second Victim Phenomenon (SVP) [4].

The Second Victim Phenomenon was first described by Albert Wu in 2000 to describe healthcare providers experiencing emotional distress after patient-related adverse events [5]. The European Researchers' Network on Second Victims (ERNST) expanded this definition in 2022 to include healthcare workers encountering emotionally challenging situations that may impair their professional functioning and well-being [1,6]. SVP commonly manifests as guilt, shame, anxiety, fear of blame, and professional self-doubt. If unaddressed, it may progress to burnout, absenteeism, defensive practices, or intentions to leave the profession [7–9].

Nurses are particularly vulnerable to SVP due to their direct involvement in patient care, high emotional labor, and frequent exposure to accountability within hierarchical systems [10]. Evidence indicates that unresolved SVP negatively affects nurses' mental health, job satisfaction, and retention, with potential downstream consequences for patient safety and organizational performance [11–14]. Emotional support via peer programs and structured networks is significant to mitigate these psychological and professional impacts [15]. Effective support promotes recovery, adaptive behavioral change, and improved care for patients and families [16,17], while reducing absenteeism and turnover. Enhancing resilience, coping skills, team cohesion, empathy, and awareness is key to addressing SVP [18,19].

SVP affects nurses differently across countries. In Spain, 70% of nurses reported experiencing SVP, either directly or indirectly [20]. A study of Brazilian nurses highlighted difficulties in reporting adverse events due to fear of judgment and punitive consequences, alongside signs of emotional distress [21]. In the USA, SVP is estimated to affect 10–60% of nurses [22]. In China, approximately 70.6% of nurses reported experiencing at least one adverse event during their careers; of these, 52.35% caused minor harm to patients,

while 43.7% were directly involved and held accountable for the event [23].

A key advancement in SVP research is the development of validated assessment tools and organizational support programs. The Second Victim Experience and Support Tool (SVEST) measures psychological distress, professional self-efficacy, and perceived organizational support [17,24]. The SeViD framework captures emotional and contextual responses among Austrian nurses [25]. Structured peer-support programs such as RISE and forYOU provide tiered interventions to help healthcare professionals cope with adverse events [26]. Introducing these tools and programs early is essential for understanding, measuring, and addressing SVP.

Despite growing attention to the Second Victim Phenomenon, existing reviews, such as Busch *et al.* [8], have primarily focused on prevalence estimates, conceptual frameworks, or psychological consequences, with limited integration of validated measurement instruments and organizational support approaches. In particular, the tools used to assess SVP and the structured interventions designed to support affected healthcare professionals, especially nurses, have not been systematically synthesized within a single review. Moreover, recent studies describing new peer-support models and assessment instruments have not been comprehensively examined. This gap limits the ability of healthcare organizations to select appropriate measurement tools and implement evidence-informed support strategies.

Therefore, this systematic review aims to synthesize and critically examine validated measurement instruments and organizational support approaches used to assess and support nurses and healthcare professionals experiencing the Second Victim Phenomenon.

2. METHODOLOGY

2.1. Design

This study is a PRISMA 2020-guided systematic review aimed at examining validated measurement tools and organizational support approaches used to assess and support healthcare professionals experiencing the Second Victim Phenomenon (Figure 1). The review was conducted and reported in accordance with the PRISMA 2020 guidelines.

2.2. Search strategy

An electronic search was conducted in PubMed, Scopus, and Cochrane Library to identify relevant

studies published between January 2017 and October 2025. The search combined keywords and MeSH terms using Boolean operators (AND, OR). The main search string in PubMed included: ("second victim" OR "second victim phenomenon" AND ("health personnel"[MeSH] OR "nurse" OR

"healthcare worker") AND ("medical errors"[MeSH] OR "clinical error" OR "adverse event"). Filters applied included English language, full-text availability, and publication years January 2017 and October 2025. Reference lists of relevant studies were also screened manually to identify additional articles.

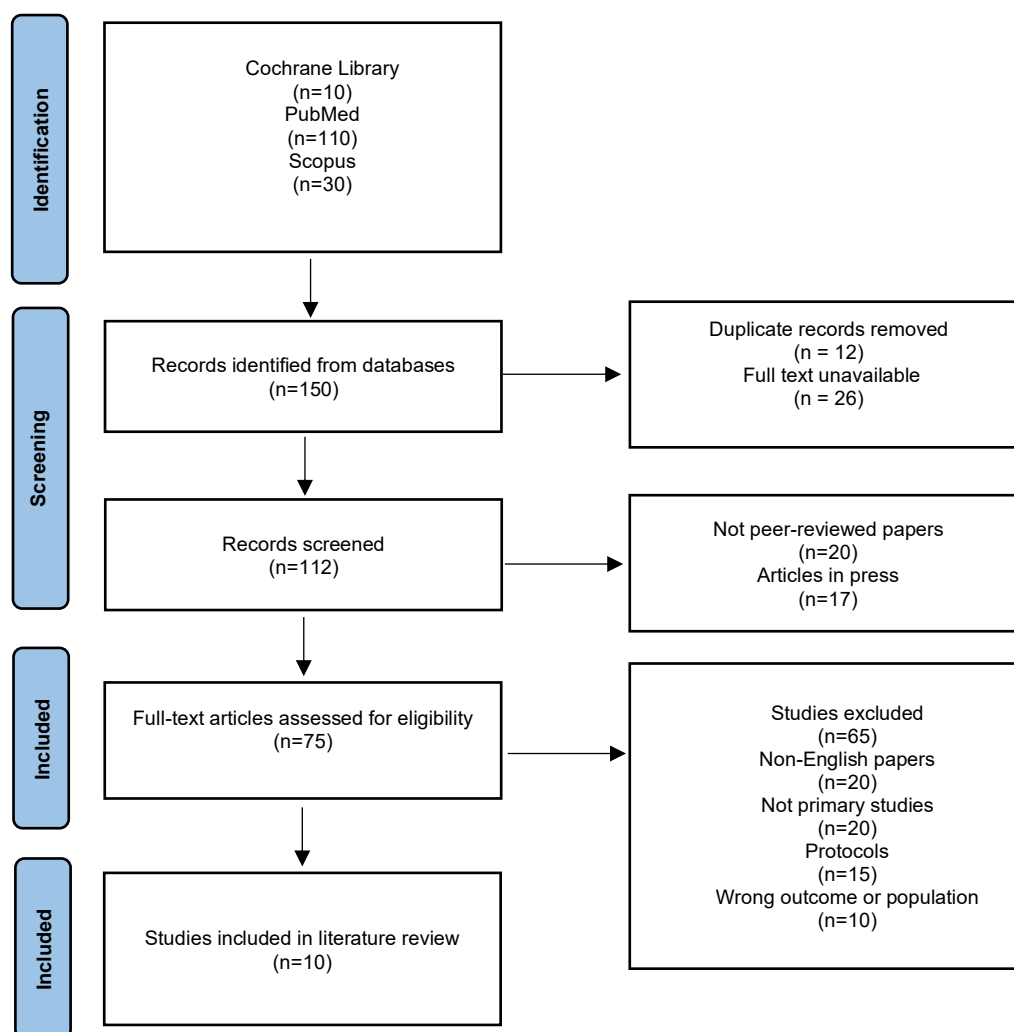


Figure 1. PRISMA 2020 flowchart of study selection and inclusion process.

2.3. Eligibility criteria

2.3.1. Study designs

Primary research studies reporting on the Second Victim Phenomenon among healthcare profession-

als were eligible. Given the review's focus on measurement tools and organizational support interventions, studies using cross-sectional surveys, analytical-descriptive designs, mixed-methods approaches, or qualitative content analyses were included. Longitudinal or interventional studies were consid-

ered when available to assess outcomes over time or evaluate the effectiveness of support programs.

2.3.2. Population

Studies were eligible if they included nurses or other healthcare professionals directly involved in patient care. Studies focusing exclusively on students, trainees, or non-clinical personnel were excluded.

2.3.3. Outcomes

Included studies needed to report on validated tools measuring SVP (e.g., SVEST, SeViD) or organizational support interventions (e.g., peer support programs like RISE or forYOU), and their impact on psychological, professional, or organizational outcomes.

2.3.4. Language and publication type

Only studies published in English and available as full-text, peer-reviewed articles were included. Protocols, conference abstracts, editorials, and non-peer-reviewed reports were excluded.

2.4. Study selection

After deduplication, two independent reviewers screened titles and abstracts for eligibility. Full texts of potentially relevant studies were then assessed against the predefined inclusion and exclusion criteria. The study selection process followed the PRISMA 2020 framework and is summarized in the PRISMA flow diagram (Figure 1). Disagreements were resolved through discussion, and a third reviewer was consulted if consensus could not be reached.

2.5. Data extraction

Data were independently extracted by two reviewers using a predefined and piloted data extraction form. Extracted variables included: author and year, country, study design, population characteristics, sample size, measurement instruments used to assess the Second Victim Phenomenon, organizational support approaches described, outcomes assessed, and key findings. Any discrepancies between reviewers were resolved through discussion, with arbitration by a third reviewer when necessary to ensure accuracy and consistency.

2.6. Quality assessment / Risk of bias

The methodological quality and risk of bias of the

included studies were independently assessed by two reviewers using the Mixed Methods Appraisal Tool (MMAT), version 2018. The MMAT was selected because it allows for the appraisal of qualitative, quantitative, and mixed-methods studies within a single framework. Each study was evaluated according to five design-specific criteria relevant to its methodological category (qualitative, quantitative descriptive, or mixed-methods). These criteria addressed the appropriateness of the study design, sampling strategy, data collection methods, risk of bias, and coherence between data, analysis, and conclusions.

Any discrepancies between reviewers were resolved through discussion, with a third reviewer consulted when necessary. Rather than being used as an exclusion criterion, quality appraisal informed the interpretation of findings and was considered when discussing the strength and limitations of the available evidence.

3. RESULTS

The findings were synthesized thematically according to two main domains: (1) validated measurement instruments used to assess the Second Victim Phenomenon, and (2) organizational support approaches implemented to address its impact. Within each domain, similarities and differences across studies were examined with respect to outcomes, populations, and contextual factors. Based on the table of the particular systematic literature review (Table 1), Shahbazzadeh *et al.* [27] carried out an analytical-descriptive study in Ardabil, Iran, from September 2022 to May 2023, with 1350 nurses employed in 5 teaching hospitals affiliated with Ardabil University of Medical Sciences to investigate the status of the phenomenon of second victims of errors and factors related to it among nurses. Most nurses in the study reported considering job resignation or taking time off after experiencing second victim stress from errors. Damage caused by an adverse event include guilt, anger, shame, and, in some cases, concern about punishment, job loss, and litigation. Briefly leaving the unit was seen as helpful, especially given the punitive management atmosphere which was intense in their daily routine. Novice nurses were more affected, largely due to stricter reprimand policies for errors. Also, nursing leaders need to better understand nurses' attitudes toward errors by fostering a constructive and learning-oriented management atmosphere. However, as reporting errors by nurses might be associated with the fear of legal consequences, nurses might prefer not to have reported correct data.

Table 1. Structured overview of the studies included in the present systematic review and focusing on clinical error to organizational support, tools and approaches for measuring the second victim phenomenon in healthcare.

Study	Publication year	Country	Design	Sample	Tool	Main outcome
Shahbazzadeh <i>et al.</i> [27]	(2025)	Iran	Analytical descriptive	Nurses (n=1350)	SVEST	Punitive management and fear of legal consequences increased second-victim experiences; associated with absenteeism and intention to leave.
Edrees & Wu [28]	(2021)	USA	Mixed-methods	Hospital staff (n=43)	Semistructured Interviews	All participants reported second-victim experiences; organizational emotional support programs recommended.
Cobos-Vargas <i>et al.</i> [29]	(2022)	Spain	Descriptive	Healthcare workers (n=135)	SAE Support Program Evaluation	One-third of workers involved in serious adverse events were highly affected; intervention improved safety-culture visibility.
Connors <i>et al.</i> [30]	(2019)	Canada	Cross-sectional survey	Nurse leaders & staff nurses (n=337)	Peer-support / RISE survey	Peer support improved resilience but showed no significant change in burnout or job satisfaction.
Krommer <i>et al.</i> [31]	(2023)	Austria	Cross-sectional descriptive	Healthcare workers (n=966)	SeViD Questionnaire	Second-victim phenomenon was prevalent, though less pronounced than expected.
Strametz <i>et al.</i> [32]	(2021)	Germany	Nationwide cross-sectional online	Nurses (n=534)	SeViD Survey	59% lifetime prevalence of second-victim experience; personality traits associated with higher risk.
Ajri-Khameslou <i>et al.</i> [33]	(2017)	Iran	Qualitative content analysis	Emergency nurses (n=18)	Semi-structured Interviews	Clinical errors negatively affected psychological, physical, occupational, and family wellbeing.
Sedile <i>et al.</i> [34]	(2024)	Italy	Cross-sectional	Healthcare workers (n=250)	SVEST	Significant correlation between second-victim dimensions and work-related outcomes; need for formal support programs.
Kappes <i>et al.</i> [35]	(2023)	Chile	Descriptive correlational cross-sectional	ICU nurses (n=326)	SVEST	Majority experienced adverse events; two-thirds reported psychological distress.
Al Sabei & Qutishat [36]	(2025)	Oman	Descriptive cross-sectional	ICU nurses (n=199)	SVEST/Turnover Intention Scale	Higher second-victim scores were significantly associated with higher turnover intention.

Edrees and Wu [28] conducted a mixed-methods design with 43 patient safety representatives to determine the perceived need for second victim support services and to understand the current support programs available for second victims in 38 acute hospitals in Maryland from November 2013 to February 2014. Although participants differed in their views on whether their hospital specifically needed a formal second victim support program, they all agreed that organizations should provide support mechanisms. Similar to Shahbazzadeh *et al.* [27], despite efforts to foster and implement a “just culture” in responding to adverse events, bar-

riers in developing an organizational support program like trust, concerns about confidentiality, stigma and uncertainty about best practices still persist for staff that is in need and wants to feel safe to access support.

Cobos-Vargas *et al.* [29] carried out a descriptive study of the second victim support strategy included in the operational Procedure for Serious Adverse Events (PSAE), developed and implemented in a university hospital in Granada, Spain from January 2020 to December 2021 in 135 healthcare workers. The majority were physicians (51.2%), followed by nurses (26.7%). 2 years of

experience was summarized with a second victim support intervention based on the forYOU program and the Scott Three-Tiered Model, integrated into the PSAE system. Based on Shahbazzadeh *et al.* [27], interviews showed that about one-third of staff involved in a serious adverse event were strongly affected emotionally and professionally, displaying clear second victim symptoms. Participants also reported limited access to first-level emotional support. Nevertheless, as confidentiality was essential, interview records were not kept, preventing systematic qualitative or quantitative evaluation of second victims' symptoms or their experiences of the SAE.

Connors *et al.* [30] performed a cross-sectional survey in October 2018 about evaluating the awareness and utilization of Resilience in Stressful Events (RISE) among 337 nurses in Johns Hopkins Medicine and the University of Alabama. Nurses viewed the RISE program positively, and its use was linked to higher resilience but also higher burnout among frontline staff. Most nurses and nurse leaders knew about RISE, but relatively few had used it or activated it for colleagues. Nurses who used RISE showed greater resilience and more burnout than non-users, with no difference in job satisfaction. Nurse leaders who had not activated RISE were more resilient than those who had, while burnout and job satisfaction were similar. Comparatively to Edrees and Wu [28], it is of great importance to persuade hospital leaders to embrace a culture of support within their organizations.

Krommer *et al.* [31] conducted a cross-sectional, monocentric, descriptive study from April to May of 2020 in Clinic Hietzing (KHI), located in Vienna, Austria in 966 healthcare workers to find out how widespread the SVP was. The SeViD (Second Victims in Deutschland) questionnaire distributed to employees, completing it anonymously. Results showed that the second victim phenomenon (SVP) affects 43% of participants at least once, though its prevalence and severity were lower than in comparable studies from German-speaking countries. Nevertheless, measures are still needed to create a psychologically safer workplace and prevent staff from experiencing trauma. Nevertheless, the lower incidence of second victim traumatization compared to previous studies does not suggest overestimation of its prevalence. While findings may not generalize to other hospitals, they align with prior research, though social response bias remains a consideration.

Strametz *et al.* [32] carried out an anonymous cross-sectional online study in 534 nurses using a modified SeViD questionnaire including the BFI-10

(personality traits) in German. They investigated SVP in German nurses regarding prevalence, causes, and predisposition comparing with a preceding study on German physicians (Second Victims in Deutschland/SeViD-I). SVP is highly prevalent among German nurses, similar to the research of Krommer *et al.* [31]. Compared with physicians, nurses had significantly longer recovery times due to neuroticism increased the likelihood of becoming a second victim, while openness was associated with slower recovery. Middle work experience and older age also emerged as risk factors. Unlike physicians in SeViD-I, nurses most often attributed SVP to aggressive patient behavior. These findings are limited by the convenience sample, the number of dropouts, and the cross-sectional design, which identifies associations but cannot infer causation.

Ajiri-Khameslou *et al.* [33] performed a qualitative content analysis to interpret the causes that make nurses to tend to errors in emergency departments as well as the consequences resulting from confronting the errors in the job environment. 18 nurses from five educational hospitals that were affiliated with Shahid Beheshti University of Medical Science, in Tehran, Iran took part in from August 21, 2014 to September 16, 2015. This study showed that errors can shape emergency nurses' attitudes in both positive and negative ways. Learning from mistakes can improve patient safety, while adverse consequences may harm nurses' professional trajectories. A similar pattern is also involved in Edrees and Wu [28] as well as Cobos-Vargas *et al.* [29] research about how nurses are often affected by the errors they encounter, and the value of the appropriate support and protection to sustain their careers.

Sedile *et al.* [34] carried out a cross-sectional study at the Health Local Unit of Lecce, in Puglia, Italy, in December 2022, to identify the phenomenon of SVP among 250 healthcare workers (HCWs), as a result of being involved in an adverse event (AE), and recognize the forms of support received and desired. Adverse events affect three groups of "victims": patients and families, the involved healthcare workers (HCWs), and the healthcare organization. This domino effect can also influence future patients. HCWs routinely manage complex situations with unpredictable outcomes, putting both patient and provider well-being at risk. Similar to Edrees and Wu *et al.* [28], the distress HCWs experience after an adverse event is personally debilitating and can impair performance, with consequences for patient care and organizational functioning. Despite the anonymous survey, some participants may have withheld information about their involvement in an adverse event due to stigma.

Kappes *et al.* [35] performed a descriptive, correlational and cross-sectional study in Chile, in 2022, in 47 intensive care units (ICUs) distributed across in 16 regions in 326 nurses to define the prevalence of second victimhood (SV), concentrated on psychological distress, among Chilean adult ICU nurses and their perception of the organization's support. SV has mainly been measured using the Second Victim Experience and Support Tool (SVEST). This study showed that most nurses in adult ICUs have experienced an adverse event, and many reported resulting in psychological stress. Psychological distress was the most affected dimension, with many nurses agreeing that they felt embarrassed about the incident. Support is essential for ICU nurses, as they often self-stigmatize when experiencing depressive symptoms related to second victim experiences. Nurses with longer ICU experience viewed organizational support more positively, likely due to greater familiarity with available resources. A key limitation is that, although the hospitals were all highly complex with similar ICU structures, unmeasured differences between them may have influenced nurses' responses and second-victim experiences.

Al Sabei & Qutishat [36] conducted a descriptive cross-sectional design research in 199 staff nurses working in critical care units in five hospitals in Oman between April and June 2024 to examine the second victim syndrome in staff nurses working in critical care units, who often encounter traumatic events at work. This study found a strong link between SVP and turnover intention among critical care nurses in Oman, driven mainly by emotional distress, social stigma and inadequate institutional support. Addressing these issues is essential for retaining staff and maintaining quality care, base also on Sedile *et al.* [34] and Kappes *et al.* [35] research. Younger nurses, lacking mentorship and peer support, may feel isolated and dissatisfied, while night-shift schedules and unpredictable hours can disrupt work-life balance and increase the desire to leave. The study is limited by its reliance on self-reported perceptions, and recruitment through an online survey posted on the hospital's website, which may reduce the reliability and generalizability of the findings.

Overall, the methodological quality of included studies ranged from moderate to good. Common limitations included cross-sectional designs, reliance on self-reported data, convenience sampling, and limited longitudinal evaluation of support interventions. These factors were considered when interpreting the findings.

4. DISCUSSION

This systematic review synthesized evidence on validated measurement instruments and organizational support approaches addressing the Second Victim Phenomenon among nurses and healthcare professionals. Across diverse healthcare settings and countries, the findings consistently indicate that SVP is a prevalent and persistent issue associated with significant psychological distress, professional impairment, and turnover intention. Importantly, the reviewed studies demonstrate that both the availability of reliable assessment tools and the presence of structured organizational support systems are critical in shaping how healthcare professionals experience, cope with, and recover from adverse events [38].

Nearly half of all medical errors are associated with surgical procedures, placing operating room personnel under substantial professional responsibility and pressure. Consequently, surgical nurses experience higher levels of occupational stress than nurses in other clinical settings, which may contribute to emotional exhaustion and, in severe cases, suicidal ideation [39, 40].

Psychological distress has emerged as the most prominent and consistently reported consequence of involvement in adverse events. Across studies, nurses described intense emotional reactions including guilt, shame, embarrassment, fear, anger, anxiety, and, in severe cases, suicidal ideation [40,41]. Substantial proportion of participants reported distress levels severe enough to impair both mental well-being and professional functioning [27,35,36]. This consistency across countries and clinical contexts underscores that SVP is not an isolated or episodic response, but a systemic occupational risk that requires proactive organizational recognition and intervention [36,37].

Importantly, validated measurement instruments and organizational support programs should be viewed as complementary rather than separate strategies, as systematic assessment is essential for guiding timely and appropriate support interventions. A key contribution of this review is the synthesis of validated measurement instruments used to assess the Second Victim Phenomenon. Tools such as the Second Victim Experience and Support Tool (SVEST) and the SeViD questionnaire enable systematic assessment of emotional distress, professional impact, and perceived organizational support. Their use allows institutions not only to identify affected staff but also to detect gaps in support structures. However, the predominance of cross-sectional applications limits their ability to capture recovery trajectories over time, highlighting the need for

longitudinal use of these instruments in future research and practice.

This subsection synthesizes organizational strategies implemented to support healthcare professionals following adverse events. A central and consistent finding across the reviewed studies is that organizational culture plays a decisive role in shaping the second victim trajectory. Supportive, non-punitive environments facilitate emotional recovery and adaptive coping, whereas punitive or indifferent cultures intensify distress, discourage error reporting, and reduce help-seeking behaviors. Although several institutions have adopted “just culture” principles, the low utilization of formal support programs suggests that cultural barriers, such as fear of blame, concerns about confidentiality, and limited psychological safety, remain substantial. Supportive, non-punitive cultures facilitate coping and recovery, while punitive or indifferent environments worsen distress [39].

Despite increasing interest in “just culture” principles, most staff still do not feel safe reporting errors or seeking help [42]. These cultural barriers also affect the implementation and uptake of support programs. High awareness but low utilization of the RISE program suggests that mere availability does not guarantee engagement, reflecting ongoing cultural barriers such as fear of blame, limited psychological safety, and uncertainty about confidentiality [43]. Nurse leaders’ hesitation to activate support services suggests residual discomfort about acknowledging staff distress [28]. Undoubtedly, supportive leadership, transparency, and safety-oriented organizational values are critical for mitigating SVP.

Several healthcare organizations have implemented structured support models, including tiered peer-support programs such as RISE, forYOU, and PSAE-based interventions. These models share a common emphasis on early emotional support, peer engagement, and escalation pathways for severe distress [41]. However, the effectiveness of these programs is difficult to evaluate systematically due to limited outcome measurement, confidentiality constraints, and a lack of longitudinal follow-up. As a result, while these initiatives are perceived positively, evidence regarding their long-term impact on recovery, retention, and patient safety remains limited [28,29]. Psychological characteristics such as neuroticism were linked with higher likelihood of becoming a second victim, while openness predicted longer recovery times [24].

These findings suggest that individual characteristics, including personality traits, age, and professional experience, influence vulnerability to SVP and recovery trajectories. Novice nurses

were more deeply affected and more likely to consider resigning or taking time off after an adverse event, while older nurses or those with intermediate ICU experience were at greater risk of prolonged distress [27]. Structural factors such as night shifts, unpredictable schedules, and high workload further increase emotional exhaustion and turnover intention [37,44,45].

Given this variation, organizational support interventions should not adopt a one-size-fits-all approach. Instead, tailored strategies that account for individual risk profiles, clinical experience, and work conditions may enhance engagement with support services and improve outcomes, particularly for nurses in high-risk clinical environments [39,40,46,47].

Nurses face a combination of high patient contact, emotional labor, and hierarchical constraints, which may prolong recovery and increase stress levels [48]. These findings indicate that SVP support interventions should be tailored to individual and professional risk profiles.

Burnout was also linked with participation in support programs such as RISE, suggesting that those who seek help may already be experiencing high levels of psychological strain [49]. Failure to address SVP therefore carries organizational consequences, including reduced performance, impaired concentration, increased risk of future errors, and the potential for a cycle of worsening patient safety outcomes [50]. SVP affects future patient care. Sedile *et al.* described a domino effect wherein distress impedes clinical performance, while errors influence nurses’ attitudes in both constructive and harmful ways [51]. If adverse events are properly supported, they can lead to organizational learning [52]. If they are mishandled, they can result in defensive practices, disengagement, and repeated errors [34].

Taken together, the findings indicate that failure to adequately assess and support second victims has consequences that extend beyond individual distress. Unaddressed SVP contributes to burnout, impaired performance, increased turnover intention, and potentially a cycle of recurrent errors, thereby affecting patient safety and organizational resilience. Conversely, timely assessment and structured support can transform adverse events into opportunities for learning, recovery, and system improvement. This discussion is structured in accordance with PRISMA 2020 recommendations, including interpretation of findings, consideration of evidence and review limitations, and implications for practice and future research.

As a result, the available evidence primarily reflects associations rather than causal relationships. Most relied on self-reported measures,

which may be influenced by stigma, fear of blame, or recall bias. Methodological quality varied across studies, with common sources of bias including convenience sampling and limited control for confounding variables [52]. Moreover, only a small number of studies examined longitudinal outcomes or formally evaluated the effectiveness of support interventions, representing a significant gap in SVP research [53,54]. These limitations warrant cautious interpretation of the findings; nevertheless, the consistency of results across diverse contexts supports the relevance of the phenomenon and the need for further high-quality research.

To enhance clarity and align with the focus of the review, measurement instruments and organizational support approaches were analyzed separately. Table 2 summarizes the main instruments used to assess the second victim phenomenon and their linkage to organizational support programs where applicable. Only studies that explicitly described measurement instruments or structured support approaches were included in this table.

In addition to limitations of the included studies, this review has methodological limitations. Only articles published in English were included, which may have excluded relevant evidence from non-English-speaking contexts. Grey literature was not searched, potentially limiting the identification of unpublished organizational support initiatives. Although independent screening and data extraction were conducted, some degree of subjective interpretation is inherent in qualitative synthesis.

The findings of this review have important implications for clinical practice and healthcare management. Healthcare organizations should implement validated measurement tools to routinely assess second victim experiences and identify staff in need of support. In parallel, the development of structured, confidential, and non-punitive support programs should be prioritized to promote recovery and retention among nurses. From a research perspective, future studies should adopt longitudinal and interventional designs to evaluate the effectiveness of support programs over time and to establish causal relationships between organizational support, recovery, and patient safety outcomes.

Table 2. Measurement instruments and associated organizational support approaches for the Second Victim Phenomenon.

Tool	Purpose	Population	Related support approach	Key reference
SeViD questionnaire	Measures' prevalence, symptoms, and recovery of SVP	Nurses, HCWs	Informs need for institutional support strategies	Strametz <i>et al.</i> [32]
Second Victim Experience and Support Tool (SVEST)	Assesses psychological distress and perceived support	Nurses, HCWs	Identifies gaps in organizational support	Edrees & Wu [28]
BFI-10 (with SVP tools)	Assesses personality traits influencing SVP	Nurses	Tailors support needs	Strametz <i>et al.</i> [32]
RISE program assessment	Evaluates awareness and utilization of peer support	Nurses	Peer-support intervention	Connors <i>et al.</i> [30]
forYOU/Scott Three-Tiered Model	Framework for post-event support	HCWs	Tiered organizational support	Cobos-Vargas <i>et al.</i> [29]

5. CONCLUSION

The Second Victim Phenomenon in Healthcare remains a significant but also under-addressed issue in healthcare. The emotional and professional consequences are substantial, with clear implications for patient safety, staff well-being, and workforce retention. To foster resilient, safe, and learning-oriented healthcare environments, healthcare systems must prioritize comprehensive second victim support as a core component of patient safety and staff well-being strategies. Based on the reviewed evidence, key recommendations should include fostering non-punitive organizational cultures,

strengthening leadership engagement, implementing confidential peer-support programs, and providing structured education on second victim phenomena and available support resources.

ADDITIONAL INFORMATION

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

ETHICAL STATEMENTS

The authors declared that no clinical trials were used in the present study.

The authors declared that no experiments on humans or human tissues were performed for the present study.

The authors declared that no informed consent was obtained from the humans, donors or donors' representatives participating in the study.

The authors declared that no experiments on animals were performed for the present study.

The authors declared that no commercially available immortalised human and animal cell lines were used in the present study.

USE OF AI

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AUTHOR CONTRIBUTIONS

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DATA AVAILABILITY

All of the data that support the findings of this study are available in the main text.

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