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Second Victim Syndrome and Organizational Support for Healthcare Providers: A Scoping Review

Abstract

Purpose: Healthcare providers may experience critical incidents, medical errors, or other adverse patient events in their clinical practice. Providers that encounter such events can experience second victim syndrome (SVS), a condition where providers feel psychological, cognitive, or physical reactions rendering care in these instances. Organizational support may mediate the impacts of SVS after an adverse patient event. We conducted a scoping review to explore and synthesize the literature on the support strategies implemented by healthcare organizations for healthcare providers after adverse patient events. Methods: The initial search strategy yielded 244 articles, 84 of which were removed for duplication. The 3-person review team completed title and abstract screening, reference screening, and full-text review, reaching 2-person consensus for article inclusion at each phase. To be included in analysis, studies had to be conducted in the United States, include real or perceived outcomes of organizational support strategies for healthcare providers related to adverse patient events. During title and abstract screening, 144 articles did not meet inclusion criteria. The references of the remaining articles (n = 16) were screened and 6 articles were added to the review pool. Twenty-two articles were included in the full text analysis, 16 articles were removed for not meeting the inclusion criteria. Six articles were included in the final extraction and analysis. Results: The 6 studies assessed SVS and organizational support across a variety of healthcare work settings and professions. Findings indicated that healthcare providers believe organizational support after adverse patient events was or would be beneficial for minimizing SVS. They further demonstrated a discrepancy in the types of support strategies healthcare providers preferred or desired after an adverse event, as the level of agreement differed between sampled populations. Conclusion: Healthcare providers believe support from their organization is important after experiencing an adverse patient event, but support strategies may not be universal. Organizations should establish provider support systems for adverse events, but first need to assess provider preferences to implement the strategies most desired. As organizations develop their support systems, they should consider the interprofessional nature of their staffs to aid in collective support following an adverse event.

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Second Victim Syndrome and Organizational Support for Healthcare Providers: A Scoping Review

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ABSTRACT

Purpose: Healthcare providers may experience critical incidents, medical errors, or other adverse patient events in their clinical practice. Providers that encounter such events can experience second victim syndrome (SVS), a condition where providers feel psychological, cognitive, or physical reactions rendering care in these instances. Organizational support may mediate the impacts of SVS after an adverse patient event. We conducted a scoping review to explore and synthesize the literature on the support strategies implemented by healthcare organizations for healthcare providers after adverse patient events. Methods: The initial search strategy yielded 244 articles, 84 of which were removed for duplication. The 3-person review team completed title and abstract screening, reference screening, and full-text review, reaching 2-person consensus for article inclusion at each phase. To be included in analysis, studies had to be conducted in the United States, include real or perceived outcomes of organizational support strategies for healthcare providers related to adverse patient events. During title and abstract screening, 144 articles did not meet inclusion criteria. The references of the remaining articles (n = 16) were screened and 6 articles were added to the review pool. Twenty-two articles were included in the full text analysis, 16 articles were removed for not meeting the inclusion criteria. Six articles were included in the final extraction and analysis. Results: The 6 studies assessed SVS and organizational support across a variety of healthcare work settings and professions. Findings indicated that healthcare providers believe organizational support after adverse patient events was or would be beneficial for minimizing SVS. They further demonstrated a discrepancy in the types of support strategies healthcare providers preferred or desired after an adverse event, as the level of agreement differed between sampled populations. Conclusion: Healthcare providers believe support from their organization is important after experiencing an adverse patient event, but support strategies may not be universal. Organizations should establish provider support systems for adverse events, but first need to assess provider preferences to implement the strategies most desired. As organizations develop their support systems, they should consider the interprofessional nature of their staffs to aid in collective support following an adverse event.

Keywords: adverse event, medical error, critical incident, support strategies

INTRODUCTION

Critical incident, medical error, or other adverse patient events may be common in the healthcare field. These all may be described as an experience that one is involved in or witnessed that causes actual or threatened death, or serious injury of yourself or others.1 The burden that adverse events may put on the healthcare provider can impact their profession causing them to fold to the demands of the job due to the stress they may feel. 2 Consistently throughout this paper, we will be referring to these experiences as adverse events. Second victim syndrome (SVS) is defined as one who is involved in an unanticipated adverse patient event, in a medical error and/or a patient related injury, and become victimized in the sense that the provider is traumatized by the event.3 These healthcare providers are described as second victims, first victim being the patient and their families.³ Common symptoms reported throughout the literature may impact the provider in both a personal and professional manner. Personal symptoms one may experience with SVS were anxiety, shame, guilt, shock, helplessness, depression, burnout, anger, sleeplessness, intrusive thoughts, and nightmares.³ Professional symptoms involved poor concentration and memory, social avoidance, burnout, decreased job confidence, job related stress, decrease job satisfaction, fear of discovery, embarrassment, worries of punishment, job loss, and ligation.3 SVS poses a threat to the providers personal and professional well-being. These symptoms can decrease one's ability of seeking help and may further impact further patient care. Ongoing research has been underway on how a healthcare provider may receive support to minimize or decrease further progression of SVS. A common strategy that is recognized in literature highlights organizational support strategies that healthcare providers may be given through numerous methods to help them overcome an adverse event.³ Although there has been an advancement in published literature on adverse events and SVS. navigating the literature on ways organizations provide support has proven difficult. The purpose of this scoping review is to investigate SVS in healthcare providers and different ways in which organizations are supporting the provider after experiencing an adverse event.

METHODS

Search Strategy

A literature search was performed across five electronic databases (PubMEd, CINAHL, OVID, SportDiscus, and EBSCOhost) from publication dates of inception through November 2022. A combination of key words related to the research question was used to search the databases along with the Boolean operators *OR* and *AND* (Table 1.) Analysis of these articles were then conducted from November 2022 through January 2023.

Table 1. Search Strategies

Databases	Search Strategies
PubMed	("healthcare professional"[tiab] OR "health care professional"[tiab] OR "healthcare provider"[tiab] OR "health care provider"[tiab] OR "medical professional"[tiab] OR "medical provider"[tiab]) AND ("critical incident"[tiab] OR "emergency incident"[tiab] OR "crisis"[tiab] OR "adverse event"[tiab] OR "trauma"[tiab]) AND ("management"[tiab] OR "response"[tiab] OR "policy"[tiab] OR "review"[tiab] OR "infrastructure"[tiab] OR "process"[tiab]) AND ("training"[tiab] OR "education"[tiab] OR "support"[tiab] OR "debrief"[tiab] OR "discussion"[tiab] OR "meeting"[tiab] OR "conference"[tiab]) NOT ("mental health"[tiab] OR "COVID 19"[tiab])
EBSCOhost, CINAHL, OVID, SportDiscus	TI (healthcare professional OR health care professional OR healthcare provider OR health care provider OR medical professional OR medical provider) AND TI (critical incident OR emergency incident OR crisis OR adverse event OR trauma) AND TI (management OR response OR policy OR review OR infrastructure OR process) AND TI (training OR education OR support OR debrief OR discussion OR meeting OR conference) NOT TI (mental health OR COVID 19)

Selection Criteria

The articles identified from the scoping review were screened for inclusion and exclusion criteria. Titles and abstracts were screened by two investigators (KP and JY), with the full-text manuscript being assessed if the eligibility could not be determined initially. A third investigator (JB) was brought into the screening process to resolve disagreements between the two authors regarding the eligibility criteria of the articles.

Inclusion Criteria

Searches were limited to full text in English. Article inclusion pertained to studies that examined the impact of adverse events on the healthcare provider and their perceptions of support strategies offered by their organization.

Exclusion Criteria

Articles were excluded from the analysis if they (1) did not examine the impact of adverse events on the healthcare provider' specific to SVS (2) did not measure real or perceived organizational support for healthcare providers post-adverse patient event. (3) did not pertain to CI management (4) discussed COVID-19 or mental health.

Data Extraction

Publications were analyzed on quality of the included studies based on identification of adverse events leading to SVS, and supportive strategies given to the provider by the organization.⁴ Each publication was screened for eligibility through several rounds, first being title and abstract, then screened for full text review. The data was organized based on if an adverse patient event occurred, how the healthcare provider felt, and if the provider reported if they were given support methods from their organization.

RESULTS

Search Results

The search of the electronic databases yielded 244 articles in the original search strategy (see Figure I in Appendix A), 84 of which were removed for duplication. The 3-person review team, (KP, JY, and JB) completed a title and abstract screening of the remaining 160 articles, 144 were then deemed irrelevant to the review. Two reviewers (KP and JY) assessed the eligibility of the remaining 16 studies and 6 studies were added from the reference review. Of the 22 studies, 16 were removed due to irrelevant study design; 6 articles were deemed eligible for scoping review. The quality appraisal was then completed using the standardized framework outlined by the Evidence for Policy and Practice Information and Coordinating Center. Scoring was based off 6 criteria for quantitative studies and 7 criteria for qualitative studies.

Appraisal

The average summary score for the methodological quality of the 5 studies in quantitative review was 6/6. The qualitative summary score for the methodological quality of the one study was 5/7 (Table 2). The most missed items of the quality appraisal tool were the lack of comprehensive literature review and/or theoretical framework, and clear description of context important for interpreting results. Five of the studies were quantitative cross-sectional surveys, 1 of the studies was qualitative interview studies.

Table 2. Quality Appraisal

Interview Based Quality Appraisal: 4	Fischer
(i) an explicit account of theoretical framework and/or inclusion of a literature review that outlines the rationale for the intervention;	
(ii) clearly stated aims and objectives;(iii) a clear description of context, which includes details about factors important for interpreting results;	X
(iv) a clear description of sample;(v) a clear description of methodology, including	X
systematic data collection methods; (vi) evidence of attempts made to establish the reliability	X
and validity of data analyses (vii) inclusion of sufficient original data to mediate	X
between data and interpretation.	Х
	5

Non-Interview Quality Appraisal: 4	Burlison	Endrees	Leroy	Quillivan	Scott
(i) an explicit account of theoretical framework and/or inclusion of a literature review that outlines the rationale for the intervention;	X	X	x	X	X
(ii) clearly stated aims and objectives; (iii) a clear description of context, which includes details	Х	X	Х	X	X
about factors important for interpreting results;	Х	X	Χ	X	Χ
(iv) a clear description of sample;	X	Х	Х	Х	X

Non-Interview Quality Appraisal: 4	Burlison	Endrees	Leroy	Quillivan	Scott
(v) a clear description of methodology, including					
systematic data collection methods;	X		Χ	Х	Χ
(vi) inclusion of sufficient original data to mediate					
between data and interpretation.	Χ	Х	Х	Х	Х
	6	5	6	6	6

Sample Characteristics

The sample characteristics of the six studies highlighted specific areas in which researchers focused their work. Studies included focused on participants in the healthcare setting involving nursing,^{5,9} physician residents⁷ and other healthcare professionals in the hospital setting.^{6,8,10} All 6 studies originated in the United States (see Table 3, Appendix B).

Study Design and Theoretical Framework

Researchers used qualitative and quantitative study designs for collecting data. Studies included in the review resulted in qualitative semi structured in-depth interviews completed over telephone, and quantitative cross-sectional surveys.⁵⁻¹⁰

Article Focus

The research team classified the articles on recognizing adverse events causing the provider to identify as a second victim (SVs). All identified and collected perceptions from the SVs on what organizational support strategies were being offered. We further investigated the effectiveness of the support strategies after an adverse event to mitigating the impact of SVs distress on the providers personal and professional careers.

Key Findings

Recognition of SVs in Healthcare Providers after Adverse Events

The studies included in the final analysis assessed SVS and organizational support across a variety of healthcare settings and professions, using both quantitative and qualitative approaches to measure provider experiences (Table 3, Appendix B). $^{5-10}$ The Second Victim Experience and Support Tool (SVEST) 5,9 (n = 2/6, 33.3%) and the Medically Induced Trauma Support Services Staff Support Survey (n = 2/6, 33.3%) $^{7.9}$ were the most commonly used tools to measure SVS experiences. Based on these studies, the presence of organizational support strategies were predictive of absenteeism and turnover. Of those support strategies offered, 2 studies generalized that those who identify as a SVs with greater awareness of resources available would predictably decrease absenteeism and intention to leave their occupation. 5,9 Reported in 5 of the articles, common symptoms of SVs were identified by healthcare providers, but most were afraid to report the incident and seek support due to litigation, fear of punishment, or stigma surrounding support. $^{5-10}$

Organizational Support Strategies

Our findings indicated healthcare providers were either given or sought support methods after an adverse event. They further reported that they believe organizational support after adverse patient events was or would be beneficial for minimizing SVS.5-10 Despite the perception of its value, the frequency of perceived organizational support given to healthcare providers differed across studies, ranging from 43 – 94% of the participants believing they received some form of support (Table 3, Appendix B).^{6,8} Our findings also demonstrated a discrepancy in the types of support strategies healthcare providers preferred or desired after an adverse event, as the level of agreement differed between sampled populations (Table 3, Appendix B). 6,8,10 Informal support was the highest reported support method, where providers spoke with colleagues or peers about the adverse event. 5-10 Formal support from the organization was also identified but reported they were not often used, were used incorrectly, outdated, or unavailable in that specific organization. 5-6,8 Studies also identified methods in why support was not given to the healthcare providers. Participants identified reasons for not seeking support after an adverse event was due to fear of litigation or punishment. 5-6.8 Others felt support was not sought out due to organizations strategies not being updated, used incorrectly, or unavailable. 5-6.8 Providers that experience an adverse event are more likely to seek help and discuss the incident when they know they will not be in trouble, decreasing chance of SVS.5 When interviewing physician residents, one study found that most did not seek organizational support after an adverse event due to fear of punishment.7 They reported that managers were not properly trained to identify the impact of an adverse event and initiate the support strategies designed, nor was it commonly talked about in their education. Participants further explained that they would be more susceptible to seeking help if organizations were taught how to support their employees properly. Those interviewed explained if managers and supervisors were trained to identify and integrate these methods once an adverse event occurs provider support would be recieved.7

DISCUSSION

Based on this review, we were able to identify common characteristics of SVS pertaining to psychological, cognitive, or physical reactions, most reported as anxiety, depression, and burnout.^{3,5-10} The provider experiencing SVS may have higher chances of taking time away from work to try and alleviate these symptoms, or leaving the profession all together if no changes are made to support them.^{5,10} The common symptoms reported with SVS may further justify absenteeism rates and decreasing numbers of healthcare professionals remaining in these professions. With an increase in literature discussing SVS and associated, relating organizations can identify their employees experiencing these and step in to offer support. The impact these symptoms may have on the provider may carry on into their personal and professional lives if no support is offered.

Adverse events may impact the provider and cause them to become a SVs due to the distress the event caused the individual.³ When SVs distress becomes recognized, an organization needs to take the initiative and provide support strategies to better support their employees. Adverse events that lead to SVS may cause the healthcare provider to leave their profession due to the overwhelming nature of the physical and psychological symptoms.^{5,10} One way to help prevent SVS after adverse events is through organizational support strategies.^{2,3} When a healthcare provider is involved in an adverse event, and no support efforts are made by the organization, the provider may develop SVS. Organizations that apply support strategies after an adverse event may diminish SVS from developing in the provider altogether, increasing work retention and improvement in patient care.^{5,10}

Future Recommendations for Support

Organizations should establish provider support for adverse events, as they are valuable to the employee's experience. Organizations should educate those in manager and supervisor roles to identify an adverse event. Earlier identification reduce the prevalence of SVs distress or quicken access to effective and appropriate treatment.⁷ Other methods used for supporting SVs have been to normalize seeking support by having open forums to discuss adverse events, its impact on the organization and provider, allowing for systems to re-evaluate and adjust based on the adverse event that unfolded.³ Providing a space for discussion after an adverse event allows for the organization to focus on supporting the providers involved.^{1,5} Open forums may allow providers the ability to seek support services they may need to avoid becoming SVs without fear of litigation or punishment.^{3,6,11}

Future studies on the effectiveness of organizational support strategies after adverse event should be assessed. Further identification of SVS may help guide organizations to improving workplace support for the providers following an adverse event and improve work retention. Adverse events can be difficult for the healthcare providers involved to discuss, but by recognizing the importance for provider wellbeing and confidence in the workplace, organizations may implement support strategies to assist their employees. Organizations that do not recognize the importance of caring for their employees after an adverse event risk the continuation of errors to occur, increase absenteeism rates, and employees leaving the profession.^{1,5,10}

Additional ways organizations are supporting their employees and success should be taken into consideration. Examples of this include organizations that supply mental health benefits, mental health policies and procedures, programs, and a culture surrounding support. Organizational support for healthcare providers should be evaluated from all mental and physical health benefits to better support one another and decreasing SVS from occurring.

Limitations

There were no studies that examined the effectiveness of specific organizational support strategies after an adverse event for SVS. The studies examining support strategies perceived that effective support strategies offered by organizations would influence SVs distress but none evaluated their true impact. Studies identified the impact that SVS may pose on the provider but did not specifically study how often these individuals report these symptoms after an adverse event occurs. Organizational support strategies may not be universal and should be contextualized to organizations, providers, and circumstances. SVS that goes unsupported has been perceived to impact continuing patient care, but no studies have reviewed the impact adverse events with the development of SVS has on the provider's patient care after support is provided by the organization.

CONCLUSION

Healthcare providers believe support from their organization is important after experiencing an adverse patient event, but support strategies may not be universal. Certain support strategies may be contextual, with potentially different preferences for support based on organization or profession. Specifically, organizations should continue to develop supportive strategies and evaluate their effectiveness after an adverse event to decrease chances of SVS. Additional integration through education and identification strategies within the organization can then be used to improve internal support strategies for the provider after an adverse event occurs, decreasing the impact SVS may have on the provider. Organizations should further establish provider support systems for adverse events, but first need to assess provider preferences to implement the strategies most desired. Little is known about the effectiveness of the discussed organizational support strategies, outside of their perceived value. As organizations develop their

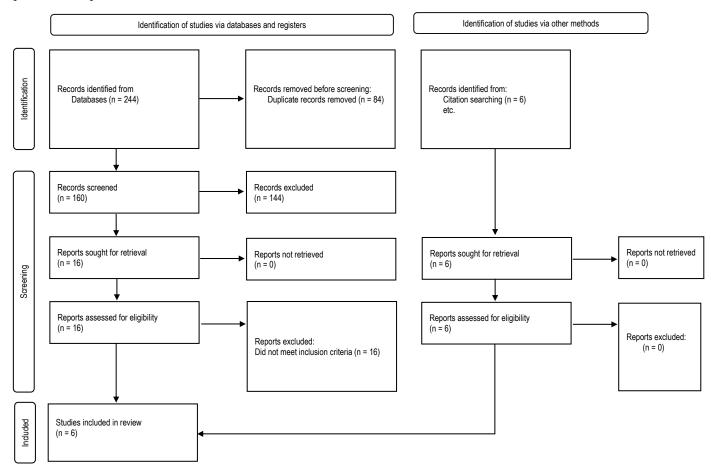
support systems, they should consider the interprofessional nature of their staff to aid in collective support following an adverse event. Furthermore, education should be assessed and provided to managers and supervisors when integrating specific support strategies to ensure proper integration for the staff. Continuous evaluation of these skills may be crucial to the impact on the provider, and their continuation with the profession. Healthcare providers experiencing SVS are at a heightened risk for continuation of medical errors, absenteeism, and leaving the profession. Without being given any source of organizational support, the chances of healthcare providers remaining in the profession will continue to drastically decrease.

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APPENDIX A

Figure 1. PRISMA Diagram



APPENDIX B

Table 3. Overview of Studies Used in the Scoping Review

Reference (Year)	Design	Work Setting	Participants	Measure	Key Findings
Burlison <i>et al</i> (2021) ⁵	Quantitative; Cross- sectional survey	Pediatric hospital; single institution	Nurses (n = 155)	Second Victim Experience and Support Tool (SVEST)	Perceived lower organizational support increases second victim distress, intentions to turnover, and absenteeism.
Endrees <i>et al</i> (2011) ⁶	Quantitative; Cross- sectional survey	Academic medical center; single system, multiple institutions	Healthcare professionals (n = 140; nurses, nurse practitioners, nurse managers, physicians, physician assistants, therapists, or clinical support)	Second Victim Questionnaire, Medically Induced Trauma Support Services Staff Support Survey	Almost half (42%) of respondents heard of the term SV, most participants (60%) could identify an adverse event where they were the SV. Half of the participants (52%) received support from anyone in the hospital after an adverse event. Participants most frequently desired prompt debriefing (75%), opportunity to discuss ethical concerns (46%), opportunity to provide insight on how similar adverse events could be prevented in the future (45%), and clear and timely information about processes following adverse events (44%).
Fischer <i>et al</i> (2006) ⁷	Qualitative; semi- structured interview	Academic medical center; single institution	Physician residents (n = 29; internal medicine = 21, surgery = 8)	Qualitative report of interview findings	Participants detailed that a variety of learning tools are important for learning about medical error including: lecture, grand rounds, orientation activities, morbidity and mortality conferences, group discussion, simulation, e-mail communication and attending rounds discussion. They felt that additional chart review, panel discussion, medical error case presentations from more experienced physicians, and further training and clarity on protocols after an error occurs would also be beneficial.
Joelsten et al (2015) ⁸	Quantitative; Cross- sectional survey	Teaching hospital; single institution	Healthcare professionals (n = 120; nurses = 82, MD/DO = 12, other = 24, missing = 2)	Medically Induced Trauma Support Services Staff Support Survey	Participants most frequently described informal emotional support (94.1%), formal emotional support (90.0%), prompt debriefing (89.4%), an opportunity to discuss ethical concerns (87.5%), and personal legal advice or support (86.7%) as being somewhat to very useful after patient safety events. Participants described that help for preparation for analysis of patient safety event (25%), accessing to counseling or other psychiatric services (24%), guidance from a support team member (23%), information about the processes used to analyze patient safety events (22%), and an opportunity to provide insight on how similar adverse events could be prevented in the future (21%) to be not useful after patient safety events. Following a patient safety event, participants frequently disagreed with statements regarding organizational process, guidance or support such as, "There was a designated member of the institution who did a good job

Reference (Year)	Design	Work Setting	Participants	Measure	Key Findings
					guiding me through the processes that are followed after a patient safety event" (23% agree or strongly agree), "I was supported/trained in how to disclose to the patient and/or family" (25% agree or strongly agree), "I knew how to access confidential emotional support within the institution if I needed it" (31% agree or strongly agree), "I felt adequately supported by the institution and associated structures" (32% agree or strongly agree), and "I was always clearly briefed about the 'next steps' in the hospital's processes for following up after the patient safety event" (33% agree or strongly agree) amongst other notable findings.
Quillivian et al (2016) ⁹	Quantitative; Cross- sectional survey	Pediatric hospital; single institution	Nurses (n = 155)	Patient Safety Culture, Second Victim Experience and Support Tool (SVEST)	Non-punitive response to an error by the organization reduces the severity of the second victim distress and increased perceived support for second victims.
Scott <i>et al</i> (2010) ¹⁰	Quantitative; Cross- sectional survey	Academic medical center; single institution	Healthcare professionals (n = 898, physicians = 184, medical students = 65, nurses = 362, allied health professionals = 287)	Second Victim Experience Survey	After an event, participants most often received support from a: colleague/peer (35%), manager/supervisor (29%), significant other (14%), family member (13%), close friend (10%), administrator (2%), or others (2%). 83% of participants described ONLY wanting internal support. Participants most frequently want support that provides a respite from the clinical area to allow them to regroup, collect thoughts and compose themselves (22%), ensures a safe and just culture with a no-blame mentality (20%), educates clinicians about adverse event clinical investigations, the second victim phenomena, and institutionally sanctioned support networks prior to an event (15%), and ensures the systematic review of the clinical event promotes an objective, complete review of case with opportunity for feedback and reflection on care delivered (13%).