Support Methods for Healthcare Professionals Who Are Second Victims: An Integrative Review

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A second victim is a healthcare provider who has been involved in a critical event. A critical event is a clinical situation in which an unforeseen clinical outcome occurs, or the clinical deterioration of the patient takes place for many different reasons. The patient and his/her family are the first victims. The healthcare provider(s) involved in the event are second victims. After such an event, the healthcare provider may experience a constellation of negative emotions, such as guilt, sadness, depression, somatic symptoms, hypervigilance, and fear. Most second victims require support to cope with the adverse clinical situation. Many of the studies addressed in this integrative review, revealed that having a trusted colleague or staff member with whom to discuss the critical event is therapeutic. Some organizations have developed programs to support second victims in which specially trained staff members are deployed to discuss critical events with those involved, if the participant(s) desire the support. Other clinical facilities do not have established support programs; however, healthcare providers have expressed desire to discuss the critical event with supportive colleagues.

Keywords: Anesthesiology, CRNA, second victim, nurse anesthetist, physician.

Second victims[1] are healthcare (HC) providers who have been emotionally affected by an adverse patient event. An adverse event of this nature could be an error, an unexpected situation (eg, massive intraoperative bleeding in a case where this would not normally occur), a healthcare system-related situation that resulted in patient suffering, a patient safety violation, a near-miss issue, or some other sort of patient-related injury. The HC provider may feel responsible for the event, think that they have failed in their role, or begin to doubt their abilities.[2] The emotional effects that the second victim may experience may vary from anxiety, guilt, sadness, shame/embarrassment, anger,[3] loss of confidence and depression,[4] to a broad range of negative emotional, physical, and psychological results.[5] Second victims' emotions may also be moderated by how much they may identify with the patient and family.[6] Margulies and colleagues[6] studied anesthesiologists and obstetricians (attending physicians and residents), nurses, midwives, nurse practitioners, and medical technicians (n=105) involved in adverse events regarding the impact of the events. The researchers found that the possible reason for the extent of the residents' negative emotions about the adverse event was related to their closeness in age to the patients.[6] Lack of support for a second victim may result in unresolved stress and emotional effects. Some HC professionals experiencing critical events who have been unable to resolve their emotional issues may change jobs. They may experience higher levels of absenteeism,[7] develop poor attitudes toward patients,[8] experience burnout and post-traumatic stress disorder (PTSD),[8,9] and in extreme cases commit suicide.[4,9] Therefore, it is crucial to support second victims to remain productive, confident professionals.[2,5,10-14]

Purpose and Specific Aims

The purpose of this review is to explore, evaluate, and synthesize the methods of support for HC professionals who are second victims. The specific aims are: 1) to determine the support methods available to second victim HC professionals, 2) assess professionals' access to support methods; and 3) determine methods that proved helpful/not helpful to second victims.

Methods

• ***Design.*** The design of the reviews is guided by the methodological approach for integrative review.[15] The methodology consists of five stages: problem identification, the literature search process, data evaluation and analysis, and synthesis of information.

• ***Literature Search.*** A health services research librarian aided in the literature search, conducted using PubMed, PsychInfo, and CINAHL. Search terms used included: *nurses, physicians, paramedics, anesthesiologists,*

emergency medical technicians, advanced practice nurses, medical error, wrong-site surgery, crisis intervention, critical incidents, adverse events, and *adverse outcomes*. The Boolean terms AND and OR were used. Inclusion and exclusion criteria were determined as the search evolved. The inclusion criteria included papers published in the English language from 2008-2018 that discussed or studied HC providers who were second victims. Exclusion criteria included articles that were commentaries, editorials, anecdotally based, or un-informative.

• ***Data Evaluation.*** A total of 519 papers were identified; 384 were excluded based on the exclusion criteria. One hundred twenty-eight full-text articles were assessed; 92 were excluded because of the exclusion criteria. However, a few anecdotally oriented papers by subject matter experts were included. A total of 43 articles were ultimately included in this integrative review.

Articles were rated on a scale of 0-2 based on content, methodology, and rigor. A *zero* rating meant that the paper offered no insight into second victims' issues or stress management (eg, editorials or commentaries). A rating of *one* suggested that the article provided some insight in terms of a case study or anecdotal evidence, but not in terms of scientific inquiry. A rating of *two* indicated the paper offered significant insight into some aspect of second victimology or stress management (eg, qualitative, quantitative, mixed methods studies, or a case report authored by a known expert in the areas of interest). Examples of this are studies that evaluated methods of support or explained the needs of second victims and studies that made recommendations for second victim program implementation methods.

Papers were primarily from the United States, with several from European countries. Most of the studies met Whittemore and Knafl's criteria for contributing to the body of knowledge of second victimology and support. Their criteria consist of five stages: Problem Identification, Literature Search, Data Evaluation, Data Analysis, and Presentation.[15] The goal in the problem identification stage is to have a clearly defined purpose for the review and its variables; this will help to differentiate between what is important and what is not during data extraction. It is important to carefully assess the databases used and keywords during the literature search stage, using adjuncts such as ancestry searching to locate pertinent papers that will contribute meaningful works to the integrative review. Inclusion and exclusion criteria must be carefully defined during the literature search phase. In the data evaluation stage, references are evaluated based on research design and methodological quality. Data are coded and summarized as the researcher sees fit, ie, how s/he can best categorize it so that meaningful information is easy to retrieve. The researcher can then easily discern which studies are best categorized and written about together in the review. During the presentation stage, the information disseminated should "capture the depth and breadth of the topic and contribute to a new understanding of the phenomenon of concern."[15]

Each study's specific methods of inquiry, sample and setting, intervention(s), tools used, findings, implications, and method of support used by second victims were extracted. Not all studies addressed all areas; for example, not all discussed a specific method of support. The exclusion of one area did not necessarily eliminate the study's value as meaningful information could be gleaned from other areas of the study.

Results

• ***Synthesis of Results.*** The purpose of the review was to explore, evaluate, and synthesize the methods of support for HC professionals who are second victims. Three themes emerged: 1) methods of support for second victims, 2) accessibility to those methods, and 3) the utility of those methods.

• ***Methods of Support for Second Victims.*** The methods of support available for second victims who are HC professionals focus on communication. The primary approach is talking to a trusted colleague or friend. In a study by Coughlan et al[16] some second victims said they were most comfortable speaking with trusted peers about the critical event in which they were involved. They felt that colleagues understood their work-life and could best empathize with what had happened to the patient and what the second victims felt. Those with the same clinical knowledge as the second victim are likely to be effective in helping them to understand "imperfect systems and inevitable human error."[17]

Conversely, second victims may feel uncomfortable talking with peers about the event because they know that there may be an investigation.[16] If they have discussed their role in the incident, they may fear that their remarks may be taken out of context and used against them by the facility leadership, their state licensing board, or the legal system. Some second victims found that talking with a person outside of the work environment was helpful (eg, spouse, parent). This method is one which second victims may implement on their own.

Han et al[3] studied surgeons who had experienced an adverse intraoperative event. The surgeons felt that colleagues, not family, and friends constituted a helpful support system. However, the surgeons approach colleagues with caution due to fears of negative peer perceptions. Therefore, they often react to their emotions (eg, sadness, anxiety, and shame) after an adverse intraoperative event with "repression, self-defense, or depersonalization of the event."

May and Plews-Ogan[18] studied the role of talking to physicians who have experienced a medical error. The role of talking is postulated to help the physician to develop a description regarding the error. Three themes emerged: silence, talking that did not help, and talking

that did help. Silence could be experienced in two ways: the physician who made the error and did not speak about it due to fear and embarrassment, or colleagues and superiors who did not discuss the error with them. As a result, these physicians felt isolated, feeling that no one cared.

White et al[19] surveyed 5,272 risk managers belonging to the American Society for HC Risk Management (ASHRM) regarding their perceptions of available programs to support second victims. Surveys were completed by 635 risk managers. Support providers were connected with second victims via self-referral or the second victims' supervisors or risk managers. Employee Assistance Programs (EAP) were often the only support available to second victims. However, EAP staff were often not trained to help second victims specifically, especially HC staff. Other potential shortcomings of EAPs were the use of non-clinical staff to support second victims who may lack credibility with clinicians, being located off-site, and possibly having restrictive hours of operation. At other facilities, it was the risk manager's job to provide support to the second victims. Participants replied, "don't know" (60%) when responding to the question about the preparedness of the facility to support second victims.

Interestingly, the participants noted that the activities of a second victim support program were considered confidential only when they were provided by the EAP. Some other areas that could be cited in order to maintain confidentiality were the provider-patient relationship and Quality Improvement (QI) activities. Barriers cited for second victim support program success were lack of funding, lack of staff willing to serve as a support person, poor buy-in from executive leadership, and lack of definition about what best practice is for supporting second victims. Additionally, many clinicians are not always willing or able to access support programs. They often fear that what they say to a support person may be used against them during an incident investigation, or they may not know how to access support systems. The lack of use of second victim support programs may erroneously lead executive leadership to believe that their facility does not have second victims, or perhaps only a few.

Types of Support Programs

Critical Incident Stress Management: Critical incident stress management involves debriefing allowing the participants to express their thoughts and feelings about the most intense, terrifying aspects of the event. The debriefer acknowledges the intensity of the event and may take the opportunity to educate the participants regarding feelings to expect regarding reactions to the event and possible helpful coping strategies. Critical incident stress management is thought to have a positive impact on helpers who have experienced tragic events.[20]

RISE Program: Edrees and colleagues[21] conducted a mixed-methods study investigating a specific second victim support program at Johns Hopkins Hospital known as the Resilience in Stressful Events (RISE) program. RISE is often cited in the literature as an example of programs to support second victims. The study spanned four years. The average number of calls to the support program was 1 to 4 per month. Individual nurses and multidisciplinary groups made the majority of the calls. Calls were made because individuals wanted to call the team or at the behest of a supervisor. Most calls were due to adverse events, such as patient death, difficult decisions, staff assault, intrastaff conflict, burnout, and others, as opposed to actual errors. Sometimes a team representative met with only one person (43%); other times it met with groups (56%). There were few barriers to accessing the support team; most were related to staff being unsure of how to initiate the call. Some challenges to the initial implementation of the program were lack of awareness about what a second victim is, staff concerns about confidentiality regarding seeking help, and risks of potential disciplinary or legal action. Peer responders felt that their initial training and refresher training was essential to maintaining valuable skills.

It emerged during this study that the strength of the RISE program was based on the Johns Hopkins' staff acknowledging that second victims exist and that there were resources to help them. The employees surveyed noted that primarily they wanted to speak with a colleague or peer about the event; after that, they would opt for family, friends, or a supervisor.

ForYou Program: The ForYou Team at Missouri University healthcare (MUHC)[4] conducted a root cause analysis of critical events and second victim responses. Interprofessionals and the Employee Assistance Program (EAP) came together to develop a program to support second victims. Staff was surveyed about their needs and concerns. After careful analysis of their findings, the team created the Scott Three-Tiered Interventional Model of Support.[22]

- *Tier One* support is provided at the departmental level. Basic training is provided to unit staff about how to recognize potential second victims and how to support them initially. The colleague discusses the event with the potential second victim to determine if s/he may actually become a second victim.
- *Tier Two* is provided when the potential second victim is displaying signs and symptoms of second victimization. Peer supporters are usually people who work on units at "high-risk" for critical events and have more in-depth training to provide immediate support. If the peer supporter feels it is necessary, s/he can refer the second victim to other resources.
- *Tier Three* is provided when the second victim requires counseling and guidance; at this point, the second victim's emotional response is beyond the capabilities of a peer supporter.

Peer Support Team (PST): The Peer Support Team of Brigham and Women's Hospital in Boston[23] was established by the Risk Management Department and an anesthesiologist who had been a second victim. This team became part of the Center for Professionalism and Peer Support (CPPS) in 2008.[24] Their vision was to have staff serve as peer-supporters for colleagues who had experienced a critical event. Supporters, colleagues with similar backgrounds who they felt could facilitate conversations about the event and potentially decrease the stigma of seeking help were identified. The program was established outside of the Quality Assurance Program at the facility to decrease fears of lawsuits. However, quality managers from the Employee Assistance Program (EAP) played a role in training the peer supporters, teaching skills that could help supporters listen, assess and support colleagues and recognize when they needed more advanced support. The support team designed to be available around the clock for any staff who needed it was activated, creating a "safe haven"[23] when a critical event occurred with one-on-one or group support sessions available. Confidentiality is maintained whenever the PST is activated; there is no written documentation or record-keeping. Practitioners, especially physicians, may often not feel comfortable expressing their feelings in front of other professionals; in those cases, one-on-one support is best.[24]

An Australian hospital anesthesiology department developed a second victim support program for anesthesiologists.[25] The goals were to ensure automatic follow-up for anesthesiologists involved in critical incidents, identify staff at risk of immediate and on-going psychological distress, facilitate access to helpful resources, encourage individual staff to seek support as needed, and promote a departmental culture of understanding. The process for this program is that initially, the senior anesthesiologist notifies the support program coordinator that an incident occurred and which staff members were involved. The coordinator then contacts support responders who follow-up within 48 hours with the individuals involved in the incident. Follow-up is also done at 1 week and 1 month post-incident. If more follow-up is required after 1 month, the person is referred for psychological counseling.

Significance of the Support Programs

Participants represented in studies chosen for this review favored post-critical event support interventions.[3,7,11,18,19, 26-31] Many were pleased with talking to a friend, usually a colleague who understood their situation. Those who worked at facilities where they could not get help felt that something should be offered. Those who coordinated communication with a friend or other understanding person felt that the workplace should provide some formal system of support.[18,21,32]

A study of CRNAs and Student Registered Nurse Anesthetists revealed that more experienced CRNAs may better cope with serious adverse events.[33] A study conducted in the Netherlands[34] surveyed nurses and physicians involved in patient safety incidents. As adverse patient outcomes increased, so did the nurses' and physicians' symptoms such as hypervigilance, doubts about knowledge and skill, feeling unhappy or dejected, etc. This study supports the quadruple aim as it speaks to improving staff's work-life to optimize HC team performance. The quadruple aim consists of four goals that support one another: better patient outcomes, lower costs, improved patient experience, and improved clinician experience.[35] The researchers felt that institutional support for staff after a patient safety incident was paramount and that support would speak to the quadruple aim by improving the work-life of staff. They postulated that absenteeism and turnover would be positively influenced.

Physicians, Nurse Practitioners, Physicians' Assistants, and residents (n = 901) were studied to determine the impact of errors on HC professionals.[36] Non-physicians experienced more fear of blame and sanction. In terms of support, attending physicians felt less supported than non-attendings (fellows and residents). The support types that study participants felt were important were team debriefings, talking with colleagues, talking with the patient and family, confidential hospital quality review, and departmental case review, to name a few.

Role of Organizational Culture

The culture of an organization plays an essential role in how critical events are handled and how second victims are supported. A *just* culture is one in which professional discourse is encouraged, to include constructive criticism, ie, a learning atmosphere exists.[14] Organizations that have just cultures are ones in which the stigma surrounding errors and near misses is balanced by focusing on healing the second victim.[37] Focusing on patient safety as part of a just culture was also identified in a paper that described a study of Korean physicians, nurses, and pharmacists (n=16) involved in patient safety incidents.[38]

Second victims can feel free to discuss the critical event with colleagues in an atmosphere where they will be safe from ridicule and derision. When Johns Hopkins Hospital developed the RISE program, it decided to adopt a supportive stance toward its providers by establishing a blame-free culture.[39] If a culture of safety exists, ie, one in which everything is done to ensure that all involved (patients and staff) are well cared for, such a program has a much greater chance of success.[12,26,39,40] Safety cultures facilitate support programs; with staff being more aware of their existence. Conversely, a punitive culture where it is encouraged to "blame, criticize, silence or stigmatize patient safety events creates an environment that instills fear in second victims, making coping difficult."[12] Second victims surveyed in a Belgian study (n=913) communicated that when their organizations' attitudes

were characterized by blame,[41] they experienced a higher psychological impact than those from a more supportive culture. However, no data exist regarding the outcomes of any of the programs mentioned in this paper.

• ***Accessibility.*** Staff is often unaware of a second-victim support program.[10,21,26] If unaware they cannot access the programs, people who need help often do not receive needed assistance. Publicizing the existence of a program, and de-stigmatizing its use, are key to the success of such resources. Most intervention teams have a call system arranged so that a team member is always available and can meet with the second victim(s), usually within 12 hours.

Discussion

Second victims are hospital staff members who have been involved in a critical event, which has happened suddenly and unexpectedly. In the aftermath, the staff who participated in the event are usually shocked, saddened, distressed, and start to experience many of the emotions mentioned earlier in this review. They need to have some way to express their emotions and discuss what has happened. The results of this integrative review noted clearly that second victims want to primarily talk with someone who will actively and empathetically listen to them.[16,17] Methods of support all revolve around communication, starting with a discussion between the second victim and someone else, progressing to a group debriefing with all involved. Possibly, the post-critical event support could progress to a more in-depth form of therapy.

Participants in the studies used for this integrative review all wanted to talk to someone after the critical event in which they were involved with those not able to avail themselves of such an opportunity being regretful. They felt a strong need to discuss the details of the event. The evidence presented in the studies noted that those who were able to experience some form of support were able to move on with life. Those who were not, moved on with life at a slower pace, or developed or had the potential to develop, on-going psychological problems such as Post-traumatic stress disorder (PTSD), chronic depression, or suicidality.[4,9] Support after a critical event is something that should become integral to the management of HC organizations. In a study of CRNAs (n=196), 87.4% of participants believed that after an adverse event, peer support and debriefing with an anesthesia professional would be helpful in the future, and 67.2% felt that it should be standard operating procedure.[33] If staff are offered help to deal with the negative feelings generated by a critical event, they are likely to remain on-the-job as productive members of their profession. In an effort to support this, second victim assistance programs should be both generalized, individualized, and sustainable.[33]

Accessibility to support resources is an issue for second victims.[21,42] Some facilities offer no formal support program, causing victims to deal with their issues independently. Coping mechanisms used may be maladaptive. Second victims may develop substance use disorders, be excessively absent from work, or become withdrawn, all negative methods of coping.

In other facilities, post-event support is available for second victims; however, the programs are not well-publicized, and either employees do not know they exist, or they do not know how to access them. Senior leadership in HC facilities must take an active part in the development, sustainment, and overall support of these programs. If they do, evidence exists that the programs will be better known within the organization and better used.[39,43] Often, it is necessary to market these programs to the staff so that they understand that senior leadership supports them and that there will be no punitive action taken based on what information may emerge during any debriefings to utilize the service.[44]

Implications for Practice, Policy, and Research

When second victims consider the critical events in which they were involved, they often develop overwhelming emotional issues. Some of these issues, such as doubting their knowledge and abilities, guilt, and depression, render second victims unable to continue in their current job, or sometimes even in their careers. An implication for practice is that if second victims are supported through these emotional matters post-critical event, they may be saved from career alterations that they may regret. Supporting the second victim may also help the profession in that they, as experienced professionals, are not lost to their institution or profession. Another practice implication is the learning from critical events that can happen when examined carefully in a safety culture. If a critical event occurs in a facility with a safety culture versus a punitive one, the critical event can be examined for all contributing issues. In this way, those issues can be rectified, and the facility staff can alter practice or routines that contributed to the critical event so that a similar one does not happen again.[2,11,40]

Policy change can be born of the careful examination of a critical event. Often, critical events are the result or partial result of a poorly conceived institutional policy or procedure that results in patient harm or near-harm. As the critical event is studied, to include an interview of second victims and deficits are identified, policy and procedure can be altered so that patient care is affected positively. Therefore, patients and staff both benefit from the policy change. Patients gain by receiving more meticulous care. Staff benefit by having better policies and procedures to follow that affect that care, and as a result, there are fewer second victim issues in the future. The policy also needs to be in place regarding how second victims are to be supported within an institution. Often second victims do not know where to turn for help, and co-workers (and often superiors) do not know how to help them access

help. Without a policy in place that defines the support process for second victims, their feelings of abandonment and isolation may be unresolved.[14,22,29]

Limitations

There are some limitations to this integrative review. One is that it is difficult to discern what methods of support are best for which professional group. For example, many of the studies reviewed looked at "nurses, physicians, and other health professionals." They did not look at the three groups separately; often, the "other health professionals" comprised different groups, with only one or two participants in each profession. In many cases, these studies also did not differentiate between nursing and physician subspecialty groups.

A 10-year span was the time limit for the papers studied. Discussion about support for second victims has been in place in some form, albeit unorganized, for decades. It would be informative to look back at the literature written in past decades from a historical perspective. A ten-year range was set for the studies used in this review; the number of papers it produced was more manageable than a wider time span.

The terms used to define the subject of interest during the literature search phase may have been too vague, inviting the return of numerous papers that were difficult to sort through. Consequently, some promising material may have been missed; this was managed by careful review of paper titles and abstracts.

Conclusions

Second victims are valuable professionals who have been involved in a critical event. In clinical care, unforeseen circumstances arise, emergencies occur, and events happen that were not intended. Patients and their families suffer due to these events (they are the first victims). Staff suffer due to feelings of guilt, depression, and doubt of their knowledge/skills after the event. If they are not helped to deal with these feelings that result from the stress of being involved in a critical event, they may feel they have no alternative other than to change jobs, leave their profession, and in some extreme cases, commit suicide. Staff can learn from the experiences of second victim colleagues.

This integrative review found that second victims are usually eager to receive help. They feel bad about the critical event in which they were involved and need to sort through their feelings about it. They want to talk with someone, usually a trusted colleague or friend, who will actively and empathetically listen to their view of the critical event. Often this is all the support a second victim needs. However, organizations should have a policy and procedure in place for how to help second victims who require more help. It is most effective if this policy and procedure take the form of a formal program, fully supported by facility leadership. The types of support available and how to access them should be clearly defined. The program should be marketed to all who work in the facility so that they are aware of it and know how to get help if they become a second victim. The facility's culture plays an integral part in the success or failure of policies and programs designed to help second victims. If organizations have a safety culture, then the programs and policies may be successful because the staff is encouraged to discuss events openly and honestly to learn from them. If organizations have a punitive culture, then staff try to hide anything that may be perceived as negative and not discuss events. Consequently, critical events are not used as learning tools, and staff do not grow from them. If staff can learn from critical events, there is less chance of them being repeated. Therefore, ultimately, patients in a facility with a safety culture benefit from the opportunity staff have to learn from critical events.

This review led to the decision to study CRNAs as second victims, a population not addressed in the literature. The goal of this study is to give voice to CRNA second victims so their stories may be heard, and their peers and superiors can begin to determine how best to help them.

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