AANA Journal Course

Second Victim: A Traumatic Experience

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Research is abundant on second victimhood (the provider who was involved in and traumatized by an adverse clinical event) but minimal about the experience in nurse anesthetists. Physical and psychological symptoms of second victimhood may have a deleterious effect on patient care. Recognizing the important aspects during the various stages of recovery will help guide recovery efforts. Inclusion of important curriculum domains in nurse anesthesia education will improve understanding of this issue. Organizations and departments need to be aware of the seriousness of the effects of second victimhood and how to develop a supportive compassionate recovery program. More research is needed in nurse anesthetists to better understand implications specific to the practice.

Keywords: Adverse event, anesthesia providers, second victim.

Objectives

Upon the completion of this course, the reader should be able to:

1. Recognize the impact of second victimhood on global healthcare.
2. Describe the second victim experience.
3. Identify symptoms and anesthesia delivery implications of the second victim experience.
4. Differentiate the stages of recovery of the second victim.
5. Formulate ideas for a departmental process for immediate support of victims.

Introduction

The first victim of an adverse clinical event is the patient, and the second victim is the provider who was involved in and traumatized by the adverse event. This event places the provider in a position of challenge as he or she may have created, caused, or contributed to the adverse clinical event and its effects on the patient. Second victims, as coined by Wu[1], and further defined by consensus are:

> healthcare providers who are 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. Frequently, these individuals feel personally responsible for the patient outcome. Many feel as though they have failed the patient, second guessing their clinical skills and knowledge base.[2]

Terms such as *catastrophic event, adverse event, clinical error, perioperative catastrophes*, and *traumatic event* are used synonymously in the literature to describe the event leading to a second victim expereince.[1-8] Second victim experiences are well described in the literature, although a gap exists relative to Certified Registered Nurse Anesthetists (CRNAs).[1-4] Only one known study, containing unpublished pilot survey data (M. Van Pelt, PhD, CRNA, FAAN, F. Gazoni, MD, and M. Durieux, PhD, MD, unpublished data, 2012), is specific to nurse anesthetists.

Several factors contribute to the paucity of nurse anesthesia–specific literature. First, second victim is a relatively new term. Second, some individuals feel that using the term *second victim* diminishes the importance of the first victim's (ie, the patient's) suffering as someone who is helpless during a traumatic event.[4] Third, the public perception of the healthcare provider may be viewed as someone who is concerned only with his or her own symptoms with little regard for the patient.[4] This perception may have a lasting impact on how the medical community is viewed. Therefore, the term has not been widely used in healthcare systems. Fourth, maintaining both provider and patient confidentiality and anonymity are critical considerations that pose major challenges when conducting second victim research. Fifth, medical culture is still in the process of shifting away from a blame and shame mindset. Until this shift is complete, many medical errors and second victims associated with them remain hidden.

Second victim experiences were first reported in the mid-1980s.[4] Emergence of second victim phenomena highlighted both a need for and lack of institutional

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support and research funding. Research has since been conducted, and findings guide modern efforts to identify and treat potential second victims. Dekker[4] argues that using the term *second victim* adds legitimacy to this experience as the provider experiences the event with the first victim who is immediately affected. Additionally, medical culture continues to transition away individual blame and toward the recognition and correction of systems errors.

As anesthesia providers, we experience adverse events that may lead to feelings of being a second victim. Van Pelt et al[3] reported that 65% of nurse anesthetists had experienced a perioperative catastrophic event during the course of their career. Similarly, Gazoni et al[5] identified that 84% of respondents to an anesthesiologist survey had experienced an adverse event and had an emotional response consistent with second victimhood.[5] This experience was found to be independent of the health of the patient, the anesthetic plan, or years of professional practice.[3,5]

Literature relative to second victim experience among CRNAs is sparse. Because of the potential substantial impact that second victimhood may have on anesthesia providers, organizations may encounter financial loss, litigation, dissatisfied patients, and employee health concerns.[6] There is no surprise that 48% of patient safety representatives from 38 hospitals in Maryland believe the phenomenon to be "extremely or very relevant" and 55% are "very/somewhat aware" of the emotional impact a second victim experience can have on healthcare providers.[6] Nearly every hospital representative (97.7%) "strongly agreed" that support programs should be available.[6] Funding, stigma, and confidentiality concerns were the 3 most commonly reported barriers to offering needed support.[6]

Following a catastrophic event, it was personally disturbing to learn of the frequency in which providers were immediately assigned to providing the next anesthetic, as though no adverse outcome had occurred. It is common that the aftermath effect is felt in a kind of professional vacuum with little or no acknowledgment, transparency, and debriefing. This practice supports an environment of perfectionism, not compassion, and limited or no acknowledgment of subsequent effects on the provider or future patients.

Such practice places the safety of the patient in jeopardy, in addition to the provider's professional and personal health. Gazoni et al[5] evaluated the impact a catastrophic event has on a provider's physical and emotional health and how the quality of care provided to future patients can suffer as a result. The authors noted that 67% of anesthesia providers reported sensing a compromised ability to deliver care for up to 4 hours following an event. Similarly, Van Pelt et al[3] reported that 64% of anesthesia providers felt the event attenuated the quality of care he or she was able to provide for the next 4 hours.

The practice of anesthesia requires vigilance, critical evaluation skills, and an ability to rapidly solve problems when crises arise in the operating room. Regardless of the vigilant care provided by anesthesia providers, errors do occur, not surprisingly, considering the large amount of medical errors occurring in the United States.[7] This is especially true when you consider that two-thirds of adverse events are viewed as preventable.[7] Examples of errors that may lead to an adverse clinical outcome may include a medication error, inadvertent carotid artery injury during central line insertion, or wrong-side peripheral block insertion.

When the anesthesia provider is a contributor to an adverse clinical event, this can create a sense of internal guilt and turmoil. In our environment as competent and professional anesthesia providers, both public and professional expectations of perfection without room for error create added guilt and remorse when adverse events do occur. Dekker[4] discusses that without acknowledgment of this experience, unhealthy emotions of denial, discounting, and distancing might set in. When the adverse event is due to error, disclosure to the patient adds additional stress to the provider. Psychosocial symptoms most commonly reported include depression, self-doubt, difficulty concentrating, and flashbacks.[2] Symptoms such as guilt, frustration, fear, and anger that result from the emotional trauma of an adverse event experience can last for weeks and reappear over the years.[4] Not surprisingly, it is quite common that providers can easily recall adverse events years later and may continue to experience symptoms.[2,5] Often, anesthesia providers are tasked to move on to the next surgical case immediately following an adverse event. This does not allow time for the provider to process through the stages of recovery, leaving them especially vulnerable during this time.

Healthcare workers are not the only professionals to experience second victimhood. According to Dekker,[4] even though healthcare workers experience this phenomenon more frequently than other professions, research in effective healing methods does not come out of the healthcare sector.[4] More often, other disciplines such as emergency services, air traffic control, firefighters, police forces, and the military have worked to develop compassionate support programs.[4]

In an effort to enhance awareness, encourage support, and advocate for future research, this course reviews the lived experience, recovery stages, and associated implications of second victimhood for nurse anesthetists.

What Is the Second Victim Experience?

The second victim effect is a personal experience that occurs in the wake of an adverse event. Not everyone has the same symptoms and journey, but victims likely share some commonalities. Scott et al[2] interviewed 31 medical professionals, including 10 physicians, 11 registered nurses, and 10 other health professionals, involved in a patient safety event between 2003 and 2007. Professional

Physical symptoms	Psychological symptoms
• Sleep disturbances	• Grief
• Fatigue	• Sadness or depression
• Blood pressure changes	
• Tension	• Loss of self-confidence
• Difficulty concentrating	• Fear of damage to reputation
• Substance abuse	• Shame or guilt
	• Flashbacks
	• Frustration or anger
	• Insecurity

Table 1. Reported Symptoms of a Second Victim Experience[1,2,5,8,9]

Stage of recovery	Elements for second victim	Interventions for CRNAs
Chaos and Accident Response	Is frequently distracted and immersed in self-reflection while trying to manage a patient in crisis	Demobilize, defuse, and consult with person of authority such as lead CRNA.[11] Obtain peer support.
Intrusive Reflections	Reevaluates the situation repeatedly with "what-if" questions	Complete an informal debriefing with team members.[2,3]
Restoring Personal Integrity	Seeks support from an individual with whom the provider has a trusting relationship	Obtain informal support from peer professionals.[2,3,9] Seek support from family and/or other trusted person.
Enduring the Inquisition	Wonders about repercussions of the event	Obtain informal and formal support from peer professionals.[3,5,9]
Obtaining Emotional First Aid	Seeks emotional support	Participate in formal institutional debriefing such as morbidity and mortality conference.[5]
Moving On	Drops out, survives, or thrives	Have an active role in root-cause and quality improvement process.[3]

Table 2. Stages of Recovery for Second Victims
(Adapted from Scott et al.[2])

experience ranged from 6 months to 36 years. Time since the adverse event ranged from 3 weeks to 44 months.[2] Scott et al[2] found that regardless of sex, professional type, or years in the profession, the second victim phenomenon can be described as a life-altering experience that leaves a permanent imprint on the individual.

Second victimhood may lead to both psychological and physical symptoms (Table 1) that interfere with one's personal and professional responsibilities.[1,2,5,8,9] Feelings of frustration, depression, sadness, and sleep disturbances create havoc in one's life. Ullström et al[8] interviewed 21 healthcare professionals: 21 nurses, 10 physicians, and 2 other allied healthcare professionals. All the providers reported the same emotional distress and a lack of organizational support regardless of the provider's role in the health system.[8]

Gazoni et al[5] surveyed 1,200 anesthesiologists nationally to examine the emotional impact of an adverse event and the type of support they would have preferred following the event. The authors also sought to examine whether patient care was jeopardized immediately following an event.[5] One important finding was that 62% of those surveyed had been involved in at least one unanticipated patient death or serious injury within the last 10 years and 84% had been involved in at least one unanticipated death or serious injury within their career.[5] Their findings revealed long-lasting feelings of shock, disbelief, sadness, anxiety, and self-doubt as well as flashbacks. Ullström et al[8] found the provider's reactions to an adverse or traumatic event are not always associated with the severity of the patient's outcome. Gazoni et al[5] noted that 64% of those surveyed who believed the adverse event was not preventable continued to feel personally responsible. Although 64% felt personally responsible, others experience similar reactions to an adverse event without the added distress of personal responsibility.

Many individuals worry about the security of their job and are genuinely concerned about what others think of their professional ability. Interestingly, Seys et al[10] found female victims reported more distress than male victims and were more afraid of losing their confidence, receiving blame, and suffering a loss of reputation.

Feelings such as an inability to think clearly, emotional lability, loss of confidence, and insecurities can lead to distraction and in an anesthesia provider may jeopardize patient safety, especially if there is not an op-

Stage 1: Chaos and Accident Response	Stage 2: Intrusive Reflections	Stage 3 Restoring Personal Integrity	Stage 4: Enduring the Inquisition	Stage 5: Obtaining Emotional First Aid	Stage 6: Moving On
How did this happen?	What did I miss?	What will others think?	What happens next?	Do I need help?	Why do I still feel so badly?
Why did this happen?	Could this have been prevented?	Will I ever be trusted again?	Will I lose my job?	What is wrong with me?	How could I have prevented this?
		How much trouble am I in?	What happens next?	Where can I turn for help?	What can I do to make it better?
		How come I can't concentrate?	Who can I talk to?	Is this the profession I should be in?	What can I learn from this?
			How much trouble am I in?	Can I handle this kind of work?	What can I do to make it better?

Table 3. Common Questions During Recovery Stages
(Adapted from Scott et al.[2])

portunity to debrief shortly after the incident. Although debriefing is important, clearly there are other elements as well, such as time to recover, time for self-reflection, engaging with personal support networks, and emotional coping. The absence of a dedicated recovery interval is one of the most frequent traumas that second victims experience. Ullström et al[8] found that when support was available, it was often unstructured and inadequate following an event.

Stages of Recovery of Second Victimhood

When an adverse event precipitates a second victim experience, the individual is often consumed with emotions. According to Scott et al,[2] each victim's emotional experience is different, but the experience often follows an expected trajectory. Second victims may experience each of 5 stages individually and synchronously or asynchronously and in multiples (Table 2).[2,3,5,9,11] During the first stage, Chaos and Accident Response, the provider quickly processes to verify exactly what has happened.[2] Scott et al[2] note that the provider may enlist help from a peer or someone trusted, as the provider is distracted and may be less attentive to the patient in crisis.

Stage 2 is termed Intrusive Reflection and can be a period of deep self-reflection and self-doubt.[2,12] Stage 3, Restoring Personal Integrity, is a time during which the second victim reaches out to use the resources available, such as a trusted friend or colleague, to restore his or her integrity.[2,12] Anesthesia providers may reach out to a professional peer or other anesthesia providers in their department, which should include departmental leaders. Stage 4, Enduring the Inquisition, involves the period of inquiry about the event. This may be a time for a departmental mortality and morbidity review. Stage 5, Obtaining Emotional First Aid, is a crucial time for much-needed emotional support. During this stage, institutional support is often lacking or insufficient. Stage 6, Moving on, is unique, according to Scott et al as the individual may move in 3 different directions as a result of the experience. The individual may drop out, survive the environment, or thrive in recovery, depending on both internal and external factors.[2]

Gazoni et al[5] surveyed anesthesiologists seeking information of how long it took them to recover emotionally following their memorable adverse event. Although "emotional recovery" was not defined in the survey, each participant's own interpretation of "emotional recovery" guided his or her response. The most frequently selected time for emotional recovery was 1 week, although "19% of those surveyed indicated that they never fully recovered".[5] Several questions (Table 3) are common during this time of recovery, although given the range of human experiences, there can be quite varied responses and less than optimal resolution.[2] The best resolution following a traumatic event would be for the provider to thrive as a result of developed coping skills. The provider would be able to balance work and life and have gained insight for a better understanding of coping during a traumatic experience.

The global patient- and provider-related importance of this problem calls for action to support providers during this critical time of recovery. Organizational culture greatly affects the success a second victim has in coping with the aftermath of an event. Quillivan et al[13] investigated the impact that a nonpunitive organizational culture with a strong emphasis on patient safety had on second victim distress and available support for pediatric nurses. In alignment with previous qualitative research, they found a nonpunitive, supportive culture was associated with reductions in all forms of perceived second victim distress.[13]

Positive, supportive, patient safety focused organizational cultures enhance providers' ability to cope.[13] Not all institutions offer support at the time of insult, which may be due to both overt and covert barriers to establish a program within the system. Barriers to establishing support systems for employees noted by Edrees and Wu[6] include "funding, stigma, trust and concerns about confidentiality, lack of interest on the part of the staff, and uncertainty about best practices". Another confusing aspect as noted by Scott et al[2] is understanding the requirements related to the Health Insurance Portability

Education curriculum domains	Examples from subdomains
Define and describe second victim	History, incidence
Second victim risks for nurse anesthetists	Complex cases, culture, everyday risk
Barriers for second victims	Institutional, lack of support systems
Consequences of second victim	Professional, personal
Evidence-based understanding and interventions frameworks	Recovery stages of Scott et al,[2] critical incident debriefing
Support systems	Peer, departmental, institutional

Table 4. Domains and Subdomains for Curriculum
(Adapted from Daniels and McCorkle[15])

and Accountability Act (HIPPA) for the reviewing and sharing of information about a particular case. Burlison et al[14] emphasize an urgent need to develop tools to measure the outcomes of second victim experiences and to build organizational support programs. The culture is crucial for the provider's recovery. A supportive, compassionate environment facilitates provider recovery during all 6 stages of the second victim experience.

Education Implications

One proposal for improving provider well-being related to second victimhood is a calling to consider curricular changes to educate anesthesia providers about this issue during their initial education and training, as well as to practitioners through continuing education programs. Daniels and McCorkle's[15] research argues for inclusion of curriculum domains (Table 4) to educate providers about second victimhood. They proactively advocate for an evidence-based curriculum (see Table 4) and measures of effectiveness of the curriculum. These measures could be considered for anesthesia programs as they are already present in other high-risk occupational disciplines. Additionally, Gazoni et al[5] noted the focus has been on the avoidance of an adverse event rather that the recovery following an event.

The development of support systems and interventions is important for anesthesia providers as the environment lends itself to an increased risk of second victim experiences. This impacts patient outcomes and provider psychological and physical health, ultimately increasing the cost of healthcare. Adding education to the curriculum may increase awareness of the problem and stimulate the development of coping strategies at the time of insult. This addition can be expanded beyond the anesthesia curriculum and included in advance practice nursing curricula as well as other healthcare disciplines.[5,15]

Anesthesia Implications

The risk for anesthesia providers to experience an adverse event resulting in second victimhood is amplified by their highly dynamic work environment. Production pressure does not accommodate time for those involved to debrief and seek support immediately following the event. According to Scott et al,[12] support should begin the moment a stressful, anxiety-causing event occurs. The aftermath of the experience may produce a range of feelings and emotions including anger, depression, continued reexperiencing the event, loss of one's sense of worth, loss of confidence in performing one's job, and even deciding to change vocations. In the worst case, contemplation of, or actually committing suicide.[5] Although an extreme example, the latter is, unfortunately well documented (eg, Air Force mechanic, Seattle neonatal intensive care nurse).[16] One example of lasting effects from a medical error event that resulted in substantial "long-lasting psychological damage" for a physician highlighted the fear providers experience in a punitive culture.[14] Although we continue to evolve and move away from a culture of blame and shame to a culture of safety these fears still exist.

When a provider experiences an adverse event, time is often needed for debriefing of the event and its effects on the individuals involved. Feelings of guilt, embarrassment, and humiliation are some of the emotions experienced by the provider. Gazoni et al[5] found only 7% of participants were given time off after the event while 95% felt time off would be helpful. Some argue, at the least, release from any further surgery on the day of an event should be the expectation.[5] Support varies across disciplines and institutions. Dukhanin et al[17] found active listening, compassion, and validation or debriefing, were most helpful following an event. Gazoni et al[5] advocate for better support following an adverse event. Interactions with colleagues following the event are particularly important to minimize the isolation one feels and garner professional support for the second victim. Hearing and learning from the experiences of their peers, especially knowing they are not alone, can be important to the recovery following an event.[12]

Recovery time varies widely by individual. Many providers do not recover for days, weeks, or even years following a traumatic event. Gazoni et al[5] found the most frequent source of support following an event was from other anesthesia personnel. Dukhanin et al[17] noted actions such as lack of support, lack of follow-up, blame, showing pity, disregarding or making light of a particular traumatic situation, ignoring feelings or lack of emotional

rapport, are viewed as unhelpful during a traumatic event.

As mentioned, recovery varies by individual and may never occur, leaving some individuals without resolve or skills to cope following a traumatic event. Gazoni et al[5] found 21% of the participants felt they recovered emotionally in 1 week although emotional recovery was not specified/defined in the survey. Usually one surgical case is scheduled to follow the previous one within minutes, not allowing time to recover or seek immediate support. Daniels and McCorkle[15] argue, support structures for anesthesia providers may be unavailable, poorly utilized or grossly absent in many work environments. This absence further contributes to the sequela following an adverse event. Decker states that, regardless of gender, professional type, or years of experience, becoming a second victim is a life-altering event that leaves a permanent imprint on most individuals.[4]

According to the systematic review by Seys et al,[10] major predictors of constructive changes in practice included the coping strategies of seeking social support and "planful" problem solving. Often individuals are instructed to seek help from the organization's employee assistance program (EAP). Most of the participants in a recent survey believed it was the organization's responsibility to support the nurse after a medication error, and 97.7% thought the institution should offer a support program for providers who become a second victim.[6] Burlison et al[14] developed the Second Victim Experience and Support Tool (SVEST), a survey tool, that can be used by organizations to evaluate the quality of resources in place. This tool asks the participants to rate items including psychological distress, physical distress, colleague support, supervisor support, and institutional support. Several organizations offer in-house support programs such as the University of Missouri forYOU program and The John Hopkins Resilience in Stressful Events program (RISE), whereas other organizations use other methods such as EAPs to support their employees.[1,6] The forYOU Team evaluates the individual needs of the victim and allows for interventional support ranging from basic emotional first aid at the unit/departmental level to comprehensive, professional counseling services.[11] The RISE program provides peer support in coordination with other hospital support systems such as the Faculty and Staff Assistance Program.[17]

Because provider and patient outcomes may be affected, this calls for a clearer understanding and establishing a support system for anesthesia providers following an adverse event. Minimizing punitive response to error and encouraging supportive coworker, supervisor, and institutional support may be useful techniques to manage the severity of second victim experiences.[13]

Discussion

Understanding the implications for patient and provider health when an adverse event stimulates an experience of second victimhood is important to an organization's quality. Unfortunately, few institutions have a structured process for their frontline healthcare providers.[12] To help combat exponentially rising healthcare costs, one measure of control is realizing the importance of both the patient's and provider's health. Research clearly identifies the problem and symptoms of second victimhood following an adverse event, yet few, if any, support systems or plans exist to assist the practitioner. Organizations that lack support programs may do so because of barriers such as funding and evidence of best practice. With funding barriers common to many organizations, a cost-effective suggestion may be to start with interdepartmental peer support groups.

One recommendation is to build an interdepartmental support system or process to be implemented following an adverse event. The SVEST may be advantageous to evaluate processes in place in an organization as its leaders begin to develop a departmental process.[14] To develop this support system, leaders should consider several suggestions for areas of inclusion. Seek information to clarify the implications of case discussion related to HIPPA requirements. Engage peer supporters to complement the efforts of the department. Scott et al[2] believe supervisors and peers can be easily trained to offer immediate compassionate support. Measures as suggested by the research, such as active listening and compassion and debriefing following an event can be the beginning of a robust program. If educational content is added to the curriculum for anesthesia providers, this information may help guide departments to establish programs.[15] A positive culture of safety in the department and organization is important to support the healthcare provider.

Garnering support of leadership through education and stressing the sense of urgency surrounding this issue as a patient safety issue should be imperative. Organizational awareness is critical in protecting the clinicians.[13] Perhaps organizations can create this sense of awareness through an institutional survey to add results to the current literature on the prevalence and risk of second victimhood to an organization. The forYOU team in Missouri was successful with a strong partnership between Risk Management and Patient Safety leadership and volunteer staff, and a commitment to provide support to their frontline healthcare providers.[13] This is especially important given the critical role of anesthesia providers in patient care.

Another suggestion is to seek program guides to help develop a support program from available resources and established support programs such as The John Hopkins RISE program.[6] The American Association of Nurse Anesthetists (AANA) has *Guidelines for Critical Incident Stress Management* as a resource following a critical adverse event.[11] This is one of several support resources that are

available to organizations and departments. Research indicates several elements that should be included in a support system.[17] These include anonymity, a commitment to follow-up, and a nonjudgmental approach.[17]

Anesthesia providers are unique working in a fast-paced environment. Often the expectation to move forward with the next case or task following an adverse event does not provide time for the needed support. Early intervention and compassion for the provider is paramount. As Scott et al[2] emphasize, understanding the stages of recovery may be key for risk managers and patient safety personnel to positively influence the provider's outcome.

In addition to support system development, improving education by adding this topic to curricula may improve our understanding. Adding this education to curricula for nurse anesthetists as well as other healthcare providers will add evidence to the growing body of knowledge regarding this experience. Including information in the anesthesia curriculum to address this pervasive problem may lessen the experience and help nurse anesthetists to develop coping skills. One recommendation is to extend beyond the nurse anesthesia curriculum and explore this issue, establishing a system of support through interprofessional collaborations. Incorporating skills during simulation training to begin the process of debriefing the stress following an event would be one important element to add to the curriculum. Value may be added to the traditional focus on debriefing about the critical event by also developing a process for discussing the effects of the stress following the adverse event as well. To lessen the harmful effects on a provider, there is agreement that support systems should be in place.

From the research, it is disturbing to learn of how often providers were immediately assigned to the next anesthetic following a catastrophic event. This is especially concerning as research indicates time off is both desired and needed following an adverse event leading to this second victim experience. Although the precise amount or type of needed time off is undetermined, evidence suggests this is a valuable component of recovery.

As CRNAs, we must support our peers and advocate for support systems that meet the needs of providers in this dynamic environment. Future studies are needed to examine the effects and the recovery of nurse anesthetists experiencing second victimhood. Considering the research and suggestions presented in this article may stimulate the establishment of a platform for change to combat this terrible problem for healthcare professionals.

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