MCN in Advance

Effective Communication During and After an Amniotic Fluid Embolism

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Abstract
Amniotic fluid embolism (AFE) is a life-threatening complication occurring during pregnancy, labor, or birth and is characterized by sudden cardio-respiratory collapse and disseminated intravascular coagulopathy. Amniotic fluid embolism is unpredictable, sudden, and complex. Amniotic fluid embolism is one of the causes of peripartum maternal mortality and morbidity in the United States. Nurses and other health care professionals responding to severe maternal events, such as an AFE, may experience trauma, which can lead to reduced executive functions, and challenges with memory, organization, prioritization, and emotional regulation. Amniotic fluid embolism patients and families also experience shock and trauma and may have a difficult time receiving and understanding information conveyed after the event. Communication frameworks commonly used in oncology and trauma settings have been successful in helping plan and guide the delivery of bad news while increasing patient and family understanding. Existing communication frameworks do not address the impact of perinatal nurse and health care professional trauma on their ability to communicate with their patients effectively. Based on feedback from the AFE survivors and clinicians, the AFE Foundation developed the AFE Effective Communication Guide. The Guide acknowledges and validates the impact of perinatal nurse and health care professional trauma and assists them in the planning and execution of effective, trauma-informed communication with patients and families after an AFE or other severe maternal events.

Keywords: Amniotic fluid embolism; Maternal mortality; Morbidity; Peripartum period; Pregnancy; Trauma and stressor-related disorders.

Amniotic fluid embolism (AFE) is a life-threatening birth complication characterized by sudden cardio-respiratory collapse and disseminated intravascular coagulopathy. It is thought to be the result of an anaphylactic-like reaction to the entrance of amniotic fluid or fetal debris into the maternal circulation (Haftel et al., 2023). Amniotic fluid embolism most often occurs during labor, near the time of birth, but can also occur during medical procedures such as amniocentesis or dilation and evacuation. Although rare, occurring in approximately 6 per 100,000 births, AFE is associated with significant maternal morbidity and mortality (Mazza et al., 2022). Mortality rates between 11% and 43% have been reported (Mazza et al., 2022). The latest case review data from the Centers for Disease Control and Prevention on maternal deaths in the United States covering 525 pregnancy-related deaths from 38 states reported at least 19 US women (3.7% of reported maternal deaths) died of AFE in 2020 (Trost et al., 2024).

Presentation of symptoms includes a triad of acute hypoxia, hypotension, and bleeding. Patients often decompensate rapidly, and many present with cardiac arrest, requiring prompt recognition and well-coordinated, aggressive management of the associated complications (Pacheco et al., 2020). There are no distinguishable risk factors to aid in predicting an AFE (Stafford et al., 2020), further adding to the challenge of being adequately prepared for this event. Patients who survive often face long-term cardiac, renal, pulmonary, and neurological sequelae (Haftel et al., 2023; Sundin et al., 2024). In addition to the physical sequelae, AFE survivors may experience symptoms of an acute stress response, depression, and post-traumatic stress disorder (Beck, 2025; Sundin et al., 2024). Stafford et al. (2020) found that 55% of survivors of AFE described symptoms consistent with post-traumatic stress disorder. Symptoms of acute stress can begin while patients are hospitalized and extend well beyond the postpartum period (Morton et al., 2021).

Although an AFE is traumatic for both patients and families because of its unpredictable, sudden, and complex nature and association with severe complications and mortality, perinatal nurses and health care professionals caring for the patient may also experience trauma after the event (Crawford & Williams, 2024). Xu et al. (2023) found that of labor and delivery clinicians (nurses, midwives, and physicians) surveyed, 97% reported they experienced emotional duress after participating in a traumatic birth, demonstrating greater levels of stress when compared to

their peers in other specialties. The emotional duress and stress experienced by clinicians after participating in a traumatic birth may make it challenging for them to maintain a professional demeanor and manage symptoms of traumatic stress (Beck & Gable, 2012) and effectively communicate with the patient and their family (Saslow et al., 2014).

The setting of an AFE can introduce further communication challenges. Amniotic fluid embolism is a rare event. The etiology is poorly understood, and the pathophysiology is complex, making it challenging to relay information about the diagnosis to the patient and family in lay language. There is often diagnostic and prognostic uncertainty, especially when anticipating a hypoxic-anoxic injury, making conveying the correct information and setting expectations for recovery especially difficult. When the mother or newborn are transferred to higher levels of care, communication can become fragmented or insufficient, further complicating sharing information. In cases of severe maternal morbidity and mortality, communication can become further strained due to concerns of medical-legal implications leading to guarded or diminished communication with the patient and family.

It is well understood that effective communication is vital to improving outcomes, ensuring patient safety and care coordination, and the provision of patient-centered care (Kwame & Petrucka, 2021). Nurses have regular interactions with patients and families, making it critically important they are knowledgeable about and feel comfortable using effective and trauma-informed communication strategies, such as active listening or silence, recognizing and reflecting emotions, seeking clarification, and making observations (Durkin et al., 2019).

Although patient-centered communication is a core aspect of nursing education, nurses may still feel ill-equipped to implement effective communication techniques in instances of serious illness, prognostic questioning, and when strong levels of emotion are present (Kerr et al., 2022). Although the National Partnership for Maternal Safety's Support After Severe Maternal Event consensus bundle acknowledged the traumatic impact severe maternal events have on patients and perinatal nurses and clinicians and called attention to the need for enhanced communication after severe maternal events (Morton et al., 2021), no resources were included in the bundle to guide the communication between the patient and health care professionals after the event. Tools to support clinicians in effectively communicating with patients and their families during and after a severe maternal event are integral to the well-being of both patients and providers.

Communication Frameworks

Several validated communication frameworks and interventions have been created to aid health care professionals in communicating bad news. A search on PubMed, Scopus Research Gate, and Google Scholar did not yield the use of any specific communication frameworks designed for use in the setting of labor and delivery, severe maternal morbidity, or maternal mortality. Most widely adopted are the ABCDE (Advanced preparation, Build a therapeutic relationship, Communicate well, Deal with patient and family reactions, Encourage and validate emotions; Rabow & McPhee, 1999), BREAKS (Background, Rapport, Explore, Announce, Kindle, Summarize; Narayanan et al., 2010), COMFORT (Communication, Orientation, Mindfulness, Family, Ongoing, Reiterative, Team; Villagran et al., 2010), the SPIKES protocol (Setting, Perception, Invitation, Knowledge, Emotions, Summary; Baile et al., 2000), and SUNBURN (Set-up, Understand, Notify, Brief narrative and break bad news, Understand emotions, Respond, Next steps; Velez et al., 2022; Table 1). These frameworks have been used in various settings, including oncology, palliative care, and trauma.

Although not initially designed for labor and delivery, some authors discussed using a modified version of the SPIKES protocol in the setting of labor and delivery. A meta-analysis by Johnson and Panagioti (2018) examined the effectiveness of various oncology and trauma-focused communication frameworks to enhance health care providers' communication skills and confidence, particularly in delivering bad news, and their impact on patient satisfaction. Researchers confirmed that these frameworks improved the perceived effectiveness of communication and boosted physicians' confidence during difficult conversations. Although most established communication frameworks provide guidance on recognizing patients' emotions, they neglected to acknowledge or address the clinician's trauma and how it could affect their ability to communicate effectively with patients after the traumatic event (Baile et al., 2000; Johnson & Panagioti, 2018; Rabow & McPhee, 1999; Velez et al., 2022; Villagran et al., 2010).

AFE Foundation

The Amniotic Fluid Embolism Foundation, a non-profit patient advocacy organization established in 2008, is dedicated to supporting those affected by AFE, advancing research on AFE, and promoting clinician education on AFE (AFE Foundation, 2025). The organization has received regular feedback over 15 years from approximately 2,500 patients, their families, and health care professionals about their experiences with AFE through support groups, forums, and surveys. A common occurrence reported by community members centers on the impact of ineffective communication between the patient and providers. Patients and families frequently express emotions over how information was

communicated to them throughout their AFE event. Specifically, patients and families have described guilt and empathy when the nurses, midwives, and physicians who participated in their care became emotional when discussing the event. They expressed frustration over the use of dramatic language and platitudes. Patients have also expressed confusion stemming from inconsistent responses to commonly asked questions about AFE.

In parallel, nurses and other health care professionals often share that they became emotional when talking with the patient and their family after an AFE and struggled to maintain a professional demeanor or boundary. They report feeling unprepared during these difficult conversations and that the fear of potential medico-legal implications changed or limited their communications.

AFE Effective Communication Guide

To support patients after an AFE and aid nurses and other health care professionals in delivering trauma-informed and effective communication during and after an AFE event, the AFE Foundation (2025) developed the *AFE Effective Communication Guide*. The guide incorporates many of the recommended interventions from the Support After Severe Maternal Event Consensus Bundle (Morton et al., 2021) and can be used when communicating with the AFE survivor and their family or when a patient has died after an AFE. The guide uses a simple and easily recalled mnemonic, A.F.E., that aligns with its three core components: *Acknowledging the clinicians' emotions*, *Formulating a plan*, and *Executing the communication*.

Table 1. Existing Validated Communication Frameworks

Framework	Protocol	Clinical setting	Overview
ABCDE (Rabow & McPhee, 1999)	**A**—Advanced Preparation **B**—Build a therapeutic relationship/ environment **C**—Communicate well **D**—Deal with patient and family reactions **E**—Encourage & validate emotions	Developed as a framework that goes beyond just delivering bad news and tasks care teams with managing the consequences of that bad news	The ABCDE framework introduced the concept of attuning to a patient's suffering and providing empathy and validation. However, it was not developed for a critical care setting.
SPIKES (Baile et al., 2000)	**S**—Setting **P**—Perception/Perspective **I**—Invitation **K**—Knowledge **E**—Empathy/Emotion **S**—Summary/Strategy	Originally developed for oncology patients in non-emergency settings	The SPIKES framework lacks the unexpected nature and shock that accompany severe maternal morbidity and does not account for the care team trauma.
COMFORT (Villagran et al., 2010)	**C**—Communication **O**—Orientation **M**—Mindfulness **F**—Family **O**—Ongoing **R**—Reiterative **T**—Team	Developed in response to previous frameworks that were deemed not robust enough to guide palliative bedside nurses in delivering bad news	The COMFORT framework provides a helpful outline for compassionate and direct communication but does not account for the unexpected nature of severe maternal morbidity, or the care team trauma that can impact communication.
BREAKS (Narayanan et al., 2010)	**B**—Background **R**—Rapport **E**—Explore **A**—Announce **K**—Kindle **S**—Summarize	Developed as a framework to communicate bad news to patients typically related to a diagnosis in non-emergency settings	The BREAKS framework continues to build on the skills required for care teams to provide effective and compassionate communication, but it does not account for the emergent nature of a severe maternal event or the impact of the event on the care team.
SUNBURN (Velez et al., 2022)	**S**–Set Up **U**–Understand Perceptions; **N**–Notify ('Warning Shot') **B**–Brief Narrative and Break Bad News **U**–Understand Emotions **R**–Respond **N**–Next Steps	Developed as a framework to specifically account for the shock that often accompanies unexpected complications in trauma and acute care surgery	The SUNBURN framework is better suited for unexpected situations, but it only briefly addresses the impact of those providing the care calling for the provider to compose oneself, missing a critical step in addressing and validating care team trauma.

Acknowledging Your Emotions. Unlike existing communication frameworks that center on the patient's emotions, this guide acknowledges the impact of the traumatic event on the health care team and, subsequently, its impact on their ability to effectively communicate with patients and their families. This first component of the guide endeavors to normalize the emotionality often associated with treating a patient who experienced an AFE. It calls for a pause, for the nurse, midwife, or physician to take a brief time for self-care before initiating communication with the patient or family after the event. Morton et al. (2021) calls for activating all resources and tools to support the health care team involved in the event to ensure they have time to process their emotions and assess their ability to continue providing care. This guide encourages nurses to discuss their feelings with their peers and leaders and give themselves empathy and compassion.

Formulating a Plan. Following a severe maternal or other traumatic event, the team's ability to remember the details of the event may be impaired, as well as their capacity to organize, plan, and prioritize the information that needs to be communicated (Fleishman et al., 2019). This section of the guide addresses these disruptions and aids the health care team in planning for their communication with the patient and/or family. Planning begins with identifying which team member is best suited to take on the role of primary communicator to lead and continue the communication. The health care team should also decide what information to share and coordinate which health care team members, family members, or support people should be involved and present during each communication. The team should also be thoughtful about when and where the communication occurs with the patient and their family.

The guide calls for the health care team to assess potential communication barriers and calls out strategies that promote patient and family understanding of the information shared. Laws et al. (2018) reviewed patients' recall of medical information in a non-traumatic setting and found that recall could be enhanced if the amount of information to be remembered was limited. Based on the experiences shared by patients and families in our AFE community, the shock and trauma, along with the complexity of AFE, appear to make it difficult for patients and families to understand and retain information. To best support patients and families in understanding the event, the AFE Effective Communication Guide provides users with additional printable educational resources, such as answers to frequently asked questions and outcome-specific guides for patients and families, which are available on the AFE Foundation website (www.afesupport.org).

Executing Communication. Recognizing that executive functions such as memory, word recall, emotional regulation, and problem-solving may be hindered in nurses, midwives, and physicians due to the experience of the traumatic event (Arnsten, 2009), the guide provides a checklist of discussion points and goals for each conversation. As AFE is not included in most childbirth education classes or mentioned in popular pregnancy books and websites, patients and families are often unfamiliar with this complex and rare obstetric complication. Braaf (2018) found that the use of medical terminology and words that exceeded the patient's health literacy level impeded patients' ability to understand their condition. The guide includes a lay language description of AFE, which can be used in all patient and family interactions. A reminder to document the conversation in the medical record, including what was discussed, who was present, and any additional resources that were provided is included to ensure best practices in quality assurance and transparency and to aid in the continuity of care.

When to Use the AFE Effective Communication Guide

The guide emphasizes well-planned, reflective communication for four distinct interactions: initial conversations with the family during or after the AFE, informing AFE survivors about their condition, discharging a patient after an AFE, and when a maternal death occurs.

Initial Family and Support Communication. The patient's family or support people will initially experience shock and confusion, necessitating clarity and empathy (Velez et al., 2022). Nurses, midwives, and physicians must give families frequent and scheduled updates on their loved ones initially and throughout their hospitalization to help mitigate uncertainty and reinforce trust in the health care team during such an uncertain time (Morton et al., 2021). Recognizing that the family or patient may need to relay information to others, the clarity of messaging is imperative, and therefore, it is integral that strategies such as teach-back are used to ensure patient and family understanding. Providing the family with trusted resources and handouts at initial meetings gives them a way to learn more about their loved one's condition and a resource to refer to and share.

Initial Patient Communication. For AFE survivors, news of their condition, the life-saving measures performed, and the condition of their infant(s) are often delivered in the intensive care unit in the post-acute setting as they are weaned from sedation and intubation. This unique situation is noteworthy as these patients are actively in a state of trauma. They have likely been heavily medicated, and they may have cognitive impairment. Notably, the patient may have little or no memory of the event. However, patients are usually concerned about their health and that of their newborn(s) and may even be curious about their future fertility. Collectively, these circumstances make receiving and retaining important health information difficult.

Nurses and other health care professionals need to anticipate and prepare for the emotionality of such a conversation. This underscores the need for well-planned and guided conversations.

Discharging the AFE Patient and Family. Discharging a patient after a severe maternal event like an AFE can often be emotional for the patient, their family, and the health care team (Alliance for Innovation on Maternal Health, 2024). Although the patient may be grateful to be alive, they may also feel a mix of emotions, including sadness, grief, fear, detachment, or anxiety Spouses, partners, or family members may also feel overwhelmed and concerned about how they will be able to care for their loved ones once they return home. It is important to gauge the patient's and family's emotions and offer reflective and empathetic communication.

Exemplar AFE Case with Effective Communication

A healthy 29-year-old patient in labor experienced a sudden cardiopulmonary arrest at 10 cm dilated. Resuscitation efforts commenced, and the patient had an emergency birth 6 minutes after her initial arrest. The baby was delivered, resuscitated, and sent to the neonatal intensive care unit (NICU). An AFE was suspected, and extensive life-saving measures were required. After multiple arrests, the patient developed profound DIC, requiring 143 units of blood products. The patient was eventually stabilized through extracorporeal continuous membrane oxygenation (ECMO), allowing the patient's lungs and heart to recover from the acute injury. The patient was transferred to a higher level of care where ECMO could be continued. In total, the patient underwent 11 surgeries and procedures, including an emergency cesarean, uterine artery embolization, hysterectomy, right salpingo-oophorectomy, and three abdominal exploratory laparotomies with washouts. The course of care extended across two facilities and involved several interdisciplinary teams. The patient remained unconscious for 5 days, necessitating the care teams to talk extensively with the patient's spouse and family about her diagnosis, prognosis, and plan of care. The patient was extubated on the fifth day and was informed of what had occurred on the sixth day. She received occupational and physical therapies and was discharged home on the 14th day.

The complexity and uncertainty of the prognosis in this case necessitated well-coordinated, effective communication but was challenged by the considerable trauma experienced by everyone involved. In this case, the medical team was able to provide clear, effective communication by implementing several aspects of the AFE Effective Communication Guide, outlined as follows. *Acknowledging Emotions*. The hospital offered the health care team peer support. Hearing of the case unfolding, obstetric providers from several different practices arrived at the hospital to provide camaraderie and emotional support to the treating physicians and nurses. Other units within the hospital provided food and offered words of encouragement to the labor and delivery team. However, there was no formalized process within the hospital to support providers in the days and weeks after the event. Subsequently, nurses and physicians were left to find and access internal and external support on their own.

Formulating a Plan. Key members of the care team discussed the plan and appointed two specific providers, the obstetrician and trauma surgeon, to regularly update the family with critical information about the patient's care. The care team at the birth hospital coordinated with the care team at the transfer medical center to ensure a smooth handoff and remained in contact throughout the entire hospitalization. A NICU lead professional was also appointed to communicate expectations for transfer and organize support for the family staying in the NICU with the baby. The communication with the patient and family was empathetic, clear, and effective when delivered by the appointed clinicians. However, the quality of the communication deteriorated when delivered by other physicians who were not appropriately prepared to communicate with a patient after a severe event. These instances of poor communication led to confusion and increased anxiety for the patient, necessitating more work for the appointed physicians, who were then required to correct the inaccurate or poor communication. This example emphasizes the importance of using the AFE Effective Communication Guide for all providers.

Executing Patient Communication. The obstetrician and anesthesiologist who were present during the initial cardiac arrest came to the intensive care unit at the transfer center to be present for the initial conversation with the patient about the event. Before the discussion, the obstetrician contacted the AFE Foundation for guidance in navigating this difficult conversation. They used empathetic and clear language as outlined in the Effective Communication Guide. The team had the collective goal to focus on concise, clear communication and not to overwhelm the patient with too much information. The patient and family were not provided with any written information about Amniotic Fluid Embolism or access to the support provided through the AFE Foundation. This would have been invaluable support for the patient, who was left to search for such information on her own.

Discharge. At discharge, the patient was notified that psychotherapy could be helpful, and local referrals were provided. The patient received discharge instructions, but continuity of care was difficult as there was no written summary of all the interventions and no contact information for whom to reach out to

Clinical Implications

- Use a communication framework in the setting of AFE or severe maternal events to support communication with the patient and their family.
- After a severe event, document formal communications with the patient or family and the information or resources that were provided about their condition.
- Print the AFE Communication Guide to be readily available in the unit.
- After a severe maternal event, regularly scheduled check-ins with the patient and family should be provided to ensure all questions are answered.
- After a severe event, assign a point person to communicate with the patient and family.
- Effective communication should be implemented in all clinical simulations to allow nurses to use the AFE Effective Guide.

with questions or to review the course of her extensive care. The patient was not provided with a detailed summary of care that included surgeries, procedures, and transfusions, further compounding the challenge of continuity of care. The care team, in this case, was able to follow many principles of the AFE Effective Communication Guide, which mitigated further trauma for this patient. However, there should have been more formal institutional support for the care team after this event and more emphasis on continuity of care and support for the patient post-discharge.

Clinical Implications

Each year, it is estimated that 50 to 60 thousand women experience severe maternal morbidity (SMM) during pregnancy and childbirth in the United States (Diop et al., 2022) and some will develop PTSD because of their SMM experience (Small et al., 2020). Facilities must be prepared to respond clinically and have an established mechanism to appropriately provide emotional support to patients, families, and clinicians who may experience trauma in the setting of severe maternal morbidity. Facilities should prioritize education and simulation that address not only how to respond and treat the physical complications associated with severe maternal events but also how to communicate with patients and their families after the event effectively (Combs et al., 2021). The AFE Effective Communication Guide can assist teams with planning and executing effective, trauma-informed communication and reducing the use of dramatic language or well-intended but unhelpful platitudes.

Recognizing that severe maternal events occur unpredictably, nurse leaders should ensure their teams are aware of the AFE Effective Communication Guide and that it is readily accessible on their unit (AFE Foundation, 2025). Nurses should be aware of the impact of a traumatic event on their executive function and, therefore, potentially on their ability to effectively communicate with patients (Arnsten, 2009). Lack of preparedness to communicate with patients and families after a traumatic event has implications for patient, family, and caregiver mental health. Educators should ensure nurses receive guidance early in their careers about factors affecting effective communication with patients and families and improving strategies.

The AFE Effective Communication Guide is designed to be used in four distinct interactions: during initial conversations with the family, when informing AFE survivors about their condition, when discharging a patient after an AFE, or when a maternal death occurs. However, communication is ongoing and evolving and occurs outside of these individual points in time. Due to their significant presence at the patient's bedside, out of all the members of the health care team, nurses communicate most frequently with the patient and their family (Kwame & Petrucka, 2021). There are numerous opportunities for perinatal nurses to improve the effectiveness of communication with patients who have undergone a severe event like an AFE and reinforce the information shared during the more formal interactions when the entire health care team is present. ✣

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Conflicts of Interest and Sources of Funding

Miranda Klassen is a paid employee of the AFE Foundation.

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References

AFE Foundation. (2025) *Communication guides.* AFE Support. https://afesupport.org/clinician/resources/#communication-guides

Alliance for Innovation on Maternal Health. (2024, July 5). Severe Maternal Morbidity. https://saferbirth.org/severe-maternal-morbidity/

Arnsten, A. F.T. (2009). Stress signalling pathways that impair prefrontal cortex structure and function. *Nature Reviews. Neuroscience, 10*(6), 410–422. https://doi.org/10.1038/nrn2648

Baile, W. F., Buckman, R., Lenzi, R., Glober, G., Beale, E. A., & Kudelka, A. P. (2000). SPIKES—A six-step protocol for delivering bad news: Application to the patient with cancer. *The Oncologist*, *5*(4), 302–311. https://doi.org/10.1634/theoncologist.5-4-302

Beck, C. T. (2025). In a flash: A qualitative descriptive study of amniotic fluid embolism survivors. *MCN, The American Journal of Maternal Child Nursing*, *50*(2), 107–113. https://doi.org/10.1097/NMC.0000000000001081

Beck, C. T., & Gable, R. K. (2012). A mixed methods study of secondary traumatic stress in labor and delivery nurses. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *41*(6), 747–760. https://doi.org/10.1111/j.1552-6909.2012.01386.x

Braaf, S., Ameratunga, S., Nunn, A., Christie, N., Teague, W., Judson, R., & Gabbe, B. J. (2018). Patient-identified information and communication needs in the context of major trauma. *BMC Health Services Research*, *18*(1), 163. https://doi.org/10.1186/s12913-018-2971-7

Combs, C. A., Montgomery, D. M., Toner, L. E., & Dildy, G. A. Patient Safety and Quality Committee, Society for Maternal-Fetal Medicine. (2021). Society for Maternal-Fetal Medicine special statement: Checklist for initial management of amniotic fluid embolism. *American Journal of Obstetrics and Gynecology*, *224*(4), B29–B32. https://doi.org/10.1016/j.ajog.2021.01.001

Crawford, C., & Williams, J. R. (2024). Support needs of labor and delivery nurses after traumatic experiences. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *53*(4), 383–396. https://doi.org/10.1016/j.jogn.2024.01.008

Diop, H., Declercq, E. R., Liu, C.-L., Cabral, H. J., Cui, X., Amutah-Onukagha, N., & Meadows, A. (2022). Trends and inequities in severe maternal morbidity in Massachusetts: A closer look at the last two decades. *PLOS ONE*, *17*(12), e0279161. https://doi.org/10.1371/journal.pone.0279161

Durkin, J., Usher, K., & Jackson, D. (2019). Embodying compassion: A systematic review of the views of nurses and patients. Journal of Clinical Nursing, 28(9–10), 1380–1392. https://doi.org/10.1111/jocn.14722

Fleishman, J., Kamsky, H., & Sundborg, S. (2019). Trauma-informed nursing practice. *OJIN: The Online Journal of Issues in Nursing*, *24*(2). https://doi.org/10.3912/OJIN.Vol24No02Man03

Haftel, A., Carlson, K., & Chowdhury, Y. S. (2023). Amniotic Fluid Embolism. In StatPearls. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/pubmed/32644533

Johnson, J., & Panagioti, M. (2018). Interventions to improve the breaking of bad or difficult news by physicians, medical students, and interns/residents: A systematic review and meta-analysis. *Academic Medicine: Journal of the Association of American Medical Colleges, 93*(9), 1400–1412. https://doi.org/10.1097/ACM.0000000000002308

Kerr, D., Martin, P., Furber, L., Winterburn, S., Milnes, S., Nielsen, A., & Strachan, P. (2022). Communication skills training for nurses: Is it time for a standardised nursing model? *Patient Education and Counseling*, *105*(7), 1970–1975. https://doi.org/10.1016/j.pec.2022.03.008

Kwame, A., & Petrucka, P. M. (2021). A literature-based study of patient-centered care and communication in nurse-patient interactions: Barriers, facilitators, and the way forward. *BMC Nursing*, *20*(1), 158. https://doi.org/10.1186/s12912-021-00684-2

Laws, M. B., Lee, Y., Taubin, T., Rogers, W. H., & Wilson, I. B. (2018). Factors associated with patient recall of key information in ambulatory specialty care visits: Results of an innovative methodology. *PLOS ONE*, *13*(2), e0191940. https://doi.org/10.1371/journal.pone.0191940

Mazza, G. R., Youssefzadeh, A. C., Klar, M., Kunze, M., Matsuzaki, S., Mandelbaum, R. S., Ouzounian, J. G., & Matsuo, K. (2022). Association of pregnancy characteristics and maternal mortality with amniotic fluid embolism. *JAMA Network Open*, *5*(11), e2242842. https://doi.org/10.1001/jamanetworkopen.2022.42842

Morton, C. H., Hall, M. F., Shaefer, S. J. M., Karsnitz, D., Pratt, S. D., Klassen, M., Semenuk, K., & Chazotte, C. (2021). National Partnership for Maternal Safety: Consensus bundle on support after a severe maternal event. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, *50*(1), 88–101. https://doi.org/10.1016/j.jogn.2020.09.160

Narayanan, V., Bista, B., & Koshy, C. (2010). 'BREAKS' protocol for breaking bad news. *Indian Journal of Palliative Care*, *16*(2), 61–65. https://doi.org/10.4103/0973-1075.68401

Pacheco, L. D., Clark, S. L., Klassen, M., & Hankins, G. D. V. (2020). Amniotic fluid embolism: Principles of early clinical management. *American Journal of Obstetrics and Gynecology, 222*(1), 48–52. https://doi.org/10.1016/j.ajog.2019.07.036

Rabow, M. W., & McPhee, S. J. (1999). Beyond breaking bad news: How to help patients who suffer. *The Western Journal of Medicine, 171*(4), 260–263. https://pubmed.ncbi.nlm.nih.gov/10578682/

Saslow, L. R., McCoy, S., van der Löwe, I., Cosley, B., Vartan, A., Oveis, C., Keltner, D., Moskowitz, J. T., & Epel, E. S. (2014). Speaking under pressure: Low linguistic complexity is linked to high physiological and emotional stress reactivity. *Psychophysiology, 51*(3), 257–266. https://doi.org/10.1111/psyp.12171

Small, M. J., Gondwe, K.W., & Brown, H. L. (2020). Post-traumatic stress disorder and severe maternal morbidity. *Obstetrics and Gynecology Clinics of North America*, *47*(3), 453–461. https://doi.org/10.1016/j.ogc.2020.04.004

Stafford, I. A., Moaddab, A., Dildy, G. A., Klassen, M., Berra, A., Watters, C., Belfort, M. A., Romero, R., & Clark, S. L. (2020). Amniotic fluid embolism syndrome: Analysis of the United States International Registry. *American Journal of Obstetrics & Gynecology MFM*, *2*(2), 100083. https://doi.org/10.1016/j.ajogmf.2019.100083

Sundin, C. S., Gomez, L., & Chapman, B. (2024). Extracorporeal cardiopulmonary resuscitation for amniotic fluid embolism: Review and case report. *MCN, The American Journal of Maternal Child Nursing*, *49*(1), 29–37. https://doi.org/10.1097/NMC.0000000000000970

Trost, S. L., Busacker, A., Leonard, M., Chandra, G., Hollier, L., Goodman, D., Wright, M., Harvey, A., & Joseph, N. (2024). Pregnancy-related deaths: Data from maternal mortality review committees in 38 U.S. states, 2020. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. https://www.cdc.gov/maternal-mortality/

Velez, D., Geberding, A., & Ahmeti, M. (2022). SUNBURN: A protocol for delivering bad news in trauma and acute care surgery. *Trauma Surgery & Acute Care Open*, *7*(1), e000851. https://doi.org/10.1136/tsaco-2021-000851

Villagran, M., Goldsmith, J., Wittenberg-Lyles, E., & Baldwin, P. (2010). Creating COMFORT: A communication-based model for breaking bad news. *Communication Education*, *59*(3), 220–234. https://doi.org/10.1080/03634521003624031

Xu, L., Masters, G. A., Moore Simas, T. A., Bergman, A. L., & Byatt, N. (2023). Labor and delivery clinician perspectives on impact of traumatic clinical experiences and need for systemic supports. *Maternal and Child Health Journal*, *27*(9), 1651–1662. https://doi.org/10.1007/s10995-023-03708-2