Why you should read this article:

- To be aware that women presenting to emergency departments (EDs) who are experiencing a miscarriage require sensitive nursing care including empathetic communication
- To recognise that breaking bad news to patients in the ED can be challenging for nurses, partly because of insufficient training
- To learn about an education programme that increased the confidence levels of nurses in breaking bad news and their comfort in managing patients' emotions

Improving care for patients who experience miscarriage in emergency departments: a practice innovation

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Abstract

Vaginal bleeding during pregnancy is a common patient presentation in emergency departments (EDs), and in some cases this will occur due to miscarriage. However, there are several barriers to effective and sensitive communication with patients experiencing a miscarriage. Women presenting to EDs who are experiencing a miscarriage are more likely to be psychosocially vulnerable and less satisfied with their care compared with those seeking care in the outpatient setting.

There is a gap in nursing and advanced practice provider preparation regarding techniques for breaking bad news to patients in the ED setting. At one high-volume, urban ED in the US, an education programme for staff regarding best practice in breaking bad news to patients experiencing a miscarriage was developed based on an established protocol. The intention was to increase the confidence levels of nurses and other healthcare professionals in breaking bad news to these patients. After the education programme, many participants self-reported increased confidence in breaking bad news and comfort in managing patients’ emotions. The results can be used to inform education for healthcare professionals who deliver bad news in the ED and other departments.

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Keywords

accident and emergency, antenatal, breaking bad news, child health, communication, emergency care, management, miscarriage, professional, service improvement

Background

Vaginal bleeding during pregnancy and ultimately spontaneous abortion, also known as miscarriage, is a common patient presentation in emergency departments (EDs). For example, a retrospective chart review conducted between June 2021 and June 2022 identified that 356 women presented to the first author’s (ALF) urban ED in the US with the chief complaint of vaginal bleeding during pregnancy at less than 20 weeks’ gestation. Spontaneous abortion is defined as the loss of pregnancy before 20 weeks’ gestation (Dugas and Slane 2022). In the US, early pregnancy loss accounts for around 3% of all ED visits (Benson et al 2021). It has been estimated that approximately 26% of all pregnancies end in miscarriage (Dugas and Slane 2022).

Many women seek treatment in an ED due to ease of access, a sense of urgency and not having an established medical professional to go to (Krewson 2023). Compared with those who present in the outpatient setting, pregnant women with vaginal bleeding who
seek treatment in an ED are more likely to be socioeconomically and psychosocially vulnerable and are generally less satisfied with their care (Miller et al 2019). Furthermore, these vulnerable patients are at an increased risk of developing post-traumatic stress disorder from a negative experience (Miller et al 2019).

EDs are hectic environments that do not always facilitate empathetic communication. Miller et al (2019) reported that patients seeking care for miscarriage in EDs are more likely to report suboptimal communication, an unfriendly environment and a lack of emotional support compared with those seeking care for miscarriage in outpatient settings. Unlike an appointment with an established obstetric or gynaecology professional, ED staff are strangers to the patient and have little time to develop a relationship with them before diagnosis (Collini et al 2021). These barriers compound the challenges of breaking bad news to patients when informing them that they are experiencing a miscarriage.

Breaking bad news
Bad news is defined by Rosenzweig (2012) as ‘any information that changes a person’s view of the future in a negative way’. There are several frameworks for the delivery of bad news in healthcare, of which the most commonly used is the SPIKES protocol (Baile et al 2000, Buckman 2010). In 1992, Dr Robert Buckman introduced a six-step process on how to break bad news (Buckman 1992). This process was later developed into the well-known SPIKES protocol (Baile et al 2000). The goal is to gather information about the patient, provide information to the patient and support the patient. The SPIKES protocol comprises the following steps (Baile et al 2000, Buckman 2010):

- Setting up the interview.
- Assessing the patient’s Perception.
- Obtaining the patient’s Invitation.
- Giving Knowledge and information to the patient.
- Addressing the patient’s Emotions with empathetic responses.
- Strategy and Summary.

Each step contains further suggestions for providers to incorporate in their patient interaction. For example, the first step — setting up the interview — recommends ensuring privacy, involving significant others and sitting down while speaking to the patient (Buckman 2010).

Baile et al (2000) measured confidence levels among oncology professionals in workshops on communicating bad news. After the workshops, participants reported increased confidence in planning the discussion in advance, organising a strategy for disclosing information, providing information in small increments and managing the patient’s emotional reactions. Baile et al (2000) collected baseline information through an informal survey at the 1998 American Society of Clinical Oncology annual meeting to assess attitudes and practices regarding oncologists’ experiences of breaking bad news to patients with cancer. The survey findings showed that oncologists were more confident in their ability to break bad news to patients after participating in the SPIKES protocol education programme (Baile et al 2000).

Brann et al (2020) reported that although there are frameworks for breaking bad news there is a communication barrier between patients who are experiencing a miscarriage and healthcare professionals. Many medical professionals find it challenging to break bad news, citing a lack of guidance during their training, difficulties with managing their own emotions and limited understanding of what is important to patients and their partners (Fallowfield and Jenkins 2004). A systematic review by van den Berg et al (2018) found that communication and patient education were two of the most common areas that required improvement to ensure those experiencing a miscarriage receive person-centred care.

The terms ‘challenging conversations’ and ‘breaking bad news’ are used synonymously for the purposes of this article. The term ‘advanced practice providers’ (APPs) refers to the collective group of advanced practice registered nurses and physicians’ assistants. The term ‘providers’ refers to both medical professionals and APPs.

Aim
The aims of this practice innovation were to:

- Develop an education programme on best practice in breaking bad news to patients experiencing a miscarriage in the first author’s high-volume, urban ED in the US. The intention of the education programme, which was jointly devised by the authors of this article, was to increase the confidence levels of nurses and APPs in breaking bad news and comfort in managing patients’ emotions.
- Evaluate the education programme to determine if the self-reported confidence levels of nurses and APPs in breaking bad news and comfort in managing patients’ emotions had increased.

Key points

- Patients experiencing a miscarriage who present to an emergency department (ED) are a vulnerable population that requires additional considerations.
- Nurses may experience challenges in breaking bad news to patients experiencing a miscarriage in an ED, partly because of insufficient training.
- The SPIKES protocol (Baile et al 2000) is a framework for breaking bad news to patients that can provide guidance to ED staff in communicating with patients experiencing a miscarriage and their family members.
- Educating ED staff in breaking bad news techniques can increase their confidence and comfort in breaking bad news and communicating with patients experiencing a miscarriage.
Elevate the triage acuity of patients experiencing a miscarriage in the first author’s ED so they were evaluated sooner by a provider. While patients experiencing a miscarriage often have stable vital signs, triage acuity in this hospital was determined by the Emergency Nurses Association’s Emergency Severity Index, a standardised process in which each patient is assigned an acuity level from 1 (most acute) to 5 (least acute) (Wolf et al 2023). Higher acuity patients have their care prioritised because they are assumed to be the most unstable and require more resources from the ED. For example, acuity level 1 patients require life-saving intervention.

Method
The practice innovation was conducted between November 2022 and January 2023. The first author undertook a literature review to explore best practices in caring for patients experiencing a miscarriage, then developed objectives and content for the education programme based on this evidence. The objectives of the education programme were to identify barriers to effective communication with patients experiencing a miscarriage and their families, and to apply the SPIKES protocol for breaking bad news to inform patients of miscarriage in the ED. Participants were informed of the voluntary programme via printed posters displayed throughout the ED.

Education programme
The programme took approximately 30 minutes, and the sessions were conducted in a room in the ED. It consisted of a presentation, video simulation and discussion, with take-home activities to apply the new knowledge.

The conceptual framework of the SPIKES protocol (Baile et al 2000) was used to develop the content of the programme to educate nurses and APPs on navigating challenging conversations. The education programme included a proposed ‘difficult conversation script’ for APPs to refer to when caring for women experiencing a miscarriage. The SPIKES protocol also provided structure for this script. In addition, a blank script template handout was developed to give participants an opportunity to write a sample script in their own words and style to carry with them after the education programme. The blank script template handout was provided at the beginning of the education programme for staff to fill out as the programme progressed through the presentation and video simulation.

Participants watched a three-minute video developed to model breaking bad news to a patient experiencing a miscarriage using the script. The patient role was performed by an ED nurse with significant experience in treating women who had experienced a miscarriage. The provider role was performed by an ED employee trained and educated in the new approach and script. Viewing this video was crucial to applying the SPIKES protocol to real-life experiences, specifically to patients experiencing a miscarriage.

Evaluation measures
As a co-author of Baile et al (2000), Dr Estela Beale provided permission for the authors of this article to use the survey devised by Baile et al (2000) to evaluate participants’ confidence levels before and after they completed the education programme. Box 1 shows the survey questions used to evaluate the education programme.

To draw meaning from the data, pre-education and post-education confidence levels were averaged using question three (‘How do you feel about your own ability to break bad news?’) and question six (‘How would you rate your own comfort in dealing with patients’ emotions?’) from the survey because these were considered to be the best indicators of comfort and ability to break bad news. Participants’ pre-education and post-education confidence levels were then compared for statistical significance using the Wilcoxon signed-rank test (The Odum Institute 2017). Participants’ demographic information, such as their role and number of years in that role, was also collected as part of the evaluation.

Ethical considerations
The healthcare system’s nursing scientific review committee endorsed this project and determined it was not a research study. The university’s institutional review board also determined that this project did not meet the criteria for a research protocol. Consent was obtained from participants and the data were anonymised to protect their confidentiality.

Results
Outcomes of the education programme
A total of 21 nurses and six APPs participated in the three education programmes held. This was 14% of the total number of nurses (n=146) and 38% of the total number of APPs (n=16) employed in the department.

The nurse participants had an average of seven years’ experience in their role, while the APP participants had an average of three years’
experience in their role. More than half \((n=16, 59\%)\) of the 27 participants had less than five years’ experience in their role. More than one third \((n=10, 37\%)\) of participants had received no previous specific teaching or training for breaking bad news. The nurse turnover rate in the ED was 14\% per month between February 2022 and January 2023, but data were unavailable for the turnover rate among APPs during the same period.

The Wilcoxon signed-rank test was performed on question three of the survey (‘How do you feel about your own ability to break bad news?’). There was sufficient evidence to suggest a difference between the pre-education and post-education surveys, with an alpha value of 0.001, indicating high statistical significance. Self-reporting of confidence as ‘good’ or ‘very good’ improved by 15\% post-education. Pre-education, 0\% of participants responded ‘very good’ and 37\% \((n=10)\) of participants responded ‘good’, while post-education 7\% \((n=2)\) of participants reported ‘very good’ and 44\% \((n=12)\) of participants responded ‘good’.

When asked how participants would rate their own comfort in dealing with patient’s emotions, pre-education 30\% \((n=8)\) of participants reported they felt ‘quite comfortable’. However, post-education 41\% \((n=11)\) of participants reported feeling ‘quite comfortable’ in dealing with patients’ emotions.

While qualitative feedback was not formally collected, informal analysis of the notes made by the project team leader (ALF) during participant discussions revealed two major themes: agreement on the importance of improving communication with patients experiencing a miscarriage, and increased awareness of appropriate phrases to use during those conversations.

**Triage acuity**

A specific improvement to the initial triage of patients experiencing a miscarriage in the ED was made after the first education programme and integrated into the second and third education programmes.

This change was made following the case of a woman who was approximately eight weeks pregnant and presented to the ED with vaginal bleeding. She was triaged as acuity level 3, indicating that she was stable but would require multiple resources in the ED. She was then placed in the waiting room as there was a high volume of patients that day. She frequently passed blood and clots in the waiting room bathroom, bleeding through her clothing.

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**Box 1. Survey questions used to evaluate the education programme**

1. In an average month, how often do you have to break bad news to a patient?
   - Less than 5 times
   - 5-10 times
   - 10-20 times
   - More than 20 times

2. Have you had any specific teaching or training for breaking bad news?
   - Formal teaching
   - Sit in with clinicians in breaking bad news interviews
   - Both
   - Neither

3. How do you feel about your own ability to break bad news?*
   - Very good
   - Good
   - Fair
   - Poor
   - Very poor

4. What do you feel is the most difficult part of discussing bad news?
   - Being honest but not taking away hope
   - Dealing with the patient’s emotion
   - Spending the right amount of time
   - Involving friends and family of the patient
   - Involving patient or family in decision-making

5. Have you had any training in the techniques of responding to patient’s emotions?
   - Formal teaching
   - Involving patient or family in decision-making
   - Involving friends and family of the patient
   - Spacing the right amount of time
   - Dealing with the patient’s emotion

6. How would you rate your own comfort in dealing with patients’ emotions?*
   - Quite comfortable
   - Not very comfortable
   - Uncomfortable

7. Did you find that the SPIKES made sense to you?
   - Yes
   - No

8. Would a strategy or approach to breaking bad news interviews be helpful to you in your practice?
   - Yes
   - No

9. Do you feel that the SPIKES is practical and can be used in your clinical practice?
   - Yes
   - No

10. When you break bad news to your patients, do you have a consistent plan or strategy in mind?
    - Have a consistent plan or strategy
    - Several techniques/tactics but no overall plan
    - No consistent approach to task

11. Which element of the SPIKES protocol do you think you would find most easy?
    - Setting
    - Patient’s perception
    - Invitation
    - Knowledge
    - Exploring/Empathy
    - Strategy/Summary

12. Which element of the SPIKES protocol do you think you would find most difficult?
    - Setting
    - Patient’s perception
    - Invitation
    - Knowledge
    - Exploring/Empathy
    - Strategy/Summary

*These questions were to evaluate the education programme outcomes
(Reproduced with permission from Baile et al 2000)
She asked nurses for help multiple times, was provided with a towel and instructed to return to her seat. After numerous hours, she was placed in an examination room and continued to wait until the early hours of the morning to be seen by a healthcare professional. When the healthcare professional met with her, the patient said she felt she had passed all products of conception in the waiting room bathroom and flushed the toilet. Because of this, no sample could be sent to the laboratory for pathological testing.

The patient filed a report with patient relations, a hospital department dedicated to patient feedback and improving the patient experience while in hospital. She stated that her experience was ‘horrible’, and she was upset that she passed the products of conception in the waiting room in front of other patients. Following her ED discharge, she said in a patient satisfaction survey that staff lacked empathy in the treatment of her miscarriage.

The first author discussed the case study with ED leaders, and it was agreed that it was essential to prioritise sensitive nursing care for patients experiencing a miscarriage. The case study provided the rationale for assigning a higher triage acuity level to patients experiencing a miscarriage. A revision was made to ED triage protocols to assign patients suspected to be experiencing a miscarriage as triage acuity level 2, indicating a high-risk situation that could deteriorate rapidly. Even if patients present with stable vital signs, they are now assigned this higher triage acuity level to prioritise their emotional safety. The aim is to expedite their care and time spent waiting to be evaluated by a medical professional and to ensure they receive the emotional and physical resources they need as soon as possible, including any ultrasound and obstetric or gynaecology consultations. Furthermore, the products of conception should be sent to the pathology laboratory for testing to identify or rule out molar pregnancy (a growth of abnormal cells which causes miscarriage of any embryo that may have developed and, in rare cases, can cause cancer).

**Discussion**

This project demonstrated that there is a gap in healthcare professionals’ education regarding breaking bad news to patients experiencing a miscarriage in an ED, as 37% (n=10) of participants had not previously received any specific teaching or training for breaking bad news. This finding is similar to that identified by Baile et al (2000) in their informal survey at the 1998 American Society of Clinical Oncology annual meeting, where 42% of participants reported having no previous specific teaching or training in breaking bad news. Furthermore, open discussion and feedback from staff after the education programme presentation identified variations in training experiences and widely varying practices in breaking bad news to patients.

Collini et al (2021) emphasised the importance of training ED staff in breaking bad news to protect the psychological safety of patients and family members. In the ED, providers typically meet the patient within a few minutes or hours before breaking bad news (Collini et al 2021). Frameworks for communicating bad news, such as the SPIKES protocol, are rarely taught in undergraduate or postgraduate nursing or medical education, or in onboarding during hospital orientation (Baile et al 2000). When implementing the education programme in this project it was important to consider the high staff turnover rate in the ED, since many staff had relatively low levels of experience in their roles.

This project identified an increase in the self-reported post-education confidence levels of participants in breaking bad news and comfort in managing patients’ emotions. This reflects the findings of Servotte et al (2019), who conducted a randomised controlled trial involving ED medical students and residents, aiming to assess the efficacy of a four-hour breaking bad news simulation-based training session that used the SPIKES protocol on perceived self-efficacy, the breaking bad news process and communication skills. The training group had a significant improvement in all three aspects. Servotte et al (2019) found that even students with less clinical experience who attended the training showed equal or better breaking bad news performance levels compared with other students who had greater clinical experience but who did not attend the training.

Important factors to consider when replicating this project are involving leaders and interdisciplinary staff (APPs and nurses) as stakeholders to hold themselves and other healthcare professionals accountable, as well as encouraging breaking bad news training to be incorporated as part of staff orientation due to high staff turnover rates. Finally, a large portion of the content of the education programme could be applied to other patient populations beyond those experiencing a miscarriage in the ED and disseminated to other departments in acute hospitals.
Limitations
While the education programme was offered to staff working various shifts and times, many staff members were not available to participate in the education programme due to high turnover in the ED. As a result, the sample size of participants in this project was small. Additional feedback from a larger sample size would be useful in assessing the applicability of the education programme to other departments or EDs. In addition, the target population of this education should be expanded to include medical professionals.

Baile et al (2000) administered their survey one question at a time throughout their SPIKES presentation, and it is unclear if they asked certain questions before or after the majority of their presentation. Since the same process was not followed in this project, it may mean that the results cannot be compared. Future projects should consider longer-term data collection to evaluate if the education programme has had a sustained effect on practice.

Finally, no data were collected from the perspective of patients or their partners following this practice innovation. Patient and family feedback would be crucial to consider in the future to ensure they are satisfied with the care received.

Conclusion
This practice innovation project identified that there was a gap in training for nurses and APPs on breaking bad news in the first author’s ED, and that the care of women experiencing a miscarriage was inadequate at times. An education programme was developed for breaking bad news to women experiencing a miscarriage. The evaluation results suggested that the education programme had a positive effect on the confidence of nurses and APPs in breaking bad news and comfort in managing patients’ emotions. In addition, the triage acuity level for women experiencing a miscarriage was increased from level 3 to level 2, with the aim of ensuring they would receive appropriate physical and emotional care.

The results of this project can be used to inform education for healthcare professionals who deliver bad news in the ED and other departments.

References