Keywords Peri-operative death/ Emotional distress/Second victim

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In this article...

- Effects of peri-operative death on staff working in the operating department
- Support needs of peri-operative staff after a traumatic event
- Key elements of organisational support for staff faced with a peri-operative death

How to mitigate the effects of peri-operative death on nursing staff

Nursing Times Journal Club

Key points

The effects of peri-operative death on nurses are under-researched and seldom discussed

Staff may hesitate to talk about the distress caused by a peri-operative death for fear of being perceived as weak

Staff can become 'second victims', with effects such as guilt, shame, anger, loss of empathy, depression and feeling isolated

Organisations must recognise the traumatic effect of a peri-operative death on staff and provide support

Strategies to help staff faced with peri-operative death include down time, peer support, team debriefing, training and counselling

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Abstract Peri-operative mortality is estimated to be between one and 30 per 100,000 general anaesthetics, so nurses working in theatre are exposed to the risk of experiencing a peri-operative death. This can have devastating and long-lasting effects on staff's emotional wellbeing, especially if support is scarce or absent. This article explores the effects of peri-operative death on peri-operative nurses, which are under-researched and seldom discussed. It explains the 'second-victim' phenomenon and the importance of appropriate support, discusses tools and strategies that organisations can use to help staff cope, and highlights the need for further research.

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The effects of a patient's death on staff working in the peri-operative environment – surgeons and anaesthetists but also nurses – is an important topic that remains under-researched and seldom discussed. Although the effects of a patient's death on nurses have been explored (Wilson and Kirshbaum, 2011), there is a dearth of research on the specific experiences of peri-operative nurses.

Peri-operative death (PD) describes the death of a patient occurring after their arrival in the anaesthetic room and before leaving the post-anaesthesia care unit (PACU). Research on the effects of PD on staff has so far focused on anaesthetists and surgeons. This article explores the effects of PD on peri-operative nurses, and encourages open discussion and further research on this topic to benefit peri-operative nurses' wellbeing.

Traumatic event

Being involved in a traumatic event such as a patient's death has the potential to have long-lasting negative effects on staff working in health and social care. The peri-operative environment is a particularly challenging area of healthcare where nurses and other staff are exposed to a number of stressors that can cause intense negative feelings for which many will be unprepared. The combination of these two phenomena means that the death of a patient in the peri-operative environment can be especially traumatising for staff.

There seems to be a reticence among peri-operative staff to discuss PD, the emphasis being on avoiding it rather than how to manage the emotional trauma it can trigger. Peri-operative staff may hesitate to raise concerns about the emotional impact of PD because they fear being perceived as weak or unable to manage the difficult aspects of their role – although there may be other reasons for this. In the late 1980s, an anaesthetist referred to unexpected PD as "one of the great taboos of modern anaesthesia literature" (Bacon, 1989).

It is important that peri-operative nurses recognise that they are part of a larger caring and moral community that can be deeply affected by the death of a patient.

Prevalence and risk

Peri-operative nurses often have to deal with experiences that can have deep negative consequences on their own wellbeing. Peri-operative mortality – which has significantly declined over the last 50 years (Bainbridge et al, 2012) – is estimated to occur in 1-30 per 100,000 general anaesthetics (Gazoni et al, 2008). The risk of PD varies depending on the patient's age and comorbidities, and the type and urgency of surgery. The vast majority of PDs occur during emergency procedures (Attri et al, 2016).

In the UK, patients at high risk of PD, who are older and have more severe comorbidities, make up about 10% of all surgical patients. This high-risk patient group accounts for more than 80% of post-operative deaths (Pearse et al, 2012). They are more likely to be anaesthetised and operated on in specialist tertiary centres. Peri-operative staff working in such centres are therefore more likely to be exposed to PD.

Emotional toll

When a PD occurs, it can be devastating for all those involved and lead to distress, anxiety, decreased job satisfaction, guilt and desensitisation (Jithoo and Sommerville, 2017; Gazoni et al, 2012). Researching the impact of patient death on social workers, Gustavsson and MacEachron (2002) found that distress was exacerbated if the death had been sudden, unexpected and traumatic. If one applies these criteria to the peri-operative arena, it is clear that a large number of PDs fall into the same category.

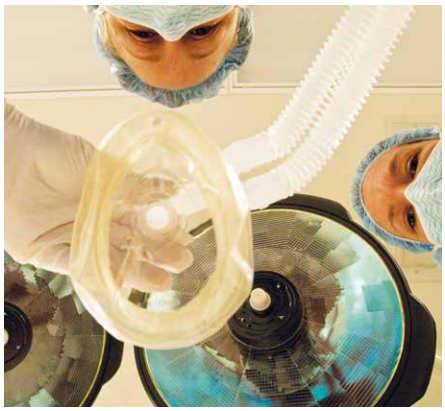
Risk factors associated with a greater emotional toll on staff, which may increase the risk of becoming a 'second victim' (Pratt and Jachna, 2015; Scott, 2011) include:

- Death of a previously healthy patient;
- First death of a patient in one's care;
- Clinical staff being female.

Peri-operative staff can also find cadaveric organ retrievals – which are not PDs – emotionally distressing (Gao et al, 2017; Regehr et al, 2004). The fact that, normally, patients who arrive in the operating department for organ retrieval have already been declared clinically dead does not necessarily alleviate staff's distress.

Appropriate support

A recurring theme in the peri-operative nursing literature is the importance of appropriate support after a PD. Peri-operative nurses have described feeling isolated and vulnerable after such an event because of insufficient support (Michael and Jenkins, 2001). When post-PD support was provided, some peri-operative nurses still reported feeling inadequate and incompetent about their skills, which may explain their subsequent feelings of guilt and self-blame (Michael and Jenkins, 2001).



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Breadon and McColgan (2012) described how they were denied the opportunity to grieve the loss of a patient after a PD. Their workplace had a policy informed by the most up-to-date evidence that included access to training in bereavement care, specialist PD training, information of how to access support and counselling services, access to formal and informal support, and 'down time' to seek peer support. However, that policy was not being implemented (Breadon and McColgan, 2012).

Gillespie and Kermode (2004) have explored how peri-operative nurses manage stress following a traumatic event, concluding that traumatic events such as PDs have a greater negative effect on the least-experienced members of staff. Junior staff therefore need extra support, which may help retain them in the specialty.

Second-victim phenomenon

Some peri-operative nurses can be described as 'second victims' following a traumatic event. The 'first victim' is always the patient. Any distress in the aftermath of that event can lead staff to become second victims. Wu (2000) was the first to describe the 'second-victim experience' as the physical and psychological distress experienced by staff after a medical error.

The second-victim phenomenon can manifest through a range of emotions including guilt, shame, anger, loss of empathy, depression and feeling isolated (Scott and Hahn-Cover, 2014). In some cases, the emotional distress caused by a particularly traumatic event mirrors that of post-traumatic stress disorder (Ullström et al, 2014).

The second-victim experience can also be triggered by traumatic events that are not due to a medical error. Martin and Roy (2012) have used the concept in a broader sense to describe the psychosocial distress experienced by anaesthetists following any peri-operative catastrophe. Supporting this broader understanding, Scott and Hahn-Cover (2014) stated that "even in the absence of a mistake in care, clinicians may be affected by their patients' outcomes because of their relationship with a particular patient, past clinical experiences, or the similarity of a patient to a member of the clinician's own family".

Responses to trauma

The emotional toll taken by PD on peri-operative staff should not be underestimated. Experiencing a PD generally leads those involved to question whether they did everything they could – or anything that may have contributed to the negative outcome – and whether they should have done anything differently. For many staff, a traumatic event will trigger significant negative effects, both physical and psychological. However, responses to PD will differ between individuals and being involved in a PD does not mean that all staff will inevitably become second victims.

There is little literature discussing the second-victim experiences of peri-operative nurses, as most research in this area is based on surveys of anaesthetists and surgeons. However, the negative psychosocial effects experienced by peri-operative nurses are unlikely to differ significantly from those experienced by surgeons and anaesthetists, given the focus on teamwork and the shared responsibility for patient care.

One study found that, after a PD, 10% of anaesthetists thought about it every day for a year (Todesco et al, 2010). Many anaesthetists have described experiencing guilt and shame after a PD (Clegg and MacKinnon, 2014; Gazoni et al, 2012). A significant proportion described feeling personally responsible, even when the PD was deemed unpreventable (Gazoni et al, 2012).

Gazoni et al (2012) found 88% of anaesthetists said they needed time to recover emotionally and described experiencing anger, guilt, sleeplessness, depression, flashbacks and anxiety. Scott et al (2009) explain that these feelings are common psychosocial effects in second-victim experiences, which Martin and Roy (2012) argue have the potential to impair staff's ability to provide safe patient care.

Managing the effects of PD

Several tools and strategies can be used to help peri-operative staff cope with PD; these are discussed as follows.

Down time

Surgeons and anaesthetists appear to recognise the importance of down time – that is, time away from the operating theatre (White and Akerele, 2005; Smith and Jones, 2001). However, down time after a PD does not always occur; one study reported that only 51% of surgeons and 22% of anaesthetists stopped working after a PD (Goldstone et al, 2004). Peri-operative nurses have also stated they need time to grieve and process their emotions after a PD (Onstott, 1998).

However, for time-pressured staff, finding down time to reflect and recover can be challenging. For example, during a night shift, there may be pressure to continue operating after a PD because there is a long list of patients who need urgent treatment, and staff still have a duty of care towards these patients. This can cause a professional and personal dilemma.

Formal and informal debriefing

Any down time should include some form of team debriefing. Debriefing can be understood as a form of 'psychological first aid', in which peers can share their feelings about, reflect on and learn from a traumatic event. This is intended to minimise second-victim effects and ensure that individuals and teams are sufficiently supported. Some institutions go further and have a trained second-victim support team member available on every shift in high-risk clinical areas – such as the operating department – to proactively identify and support second victims (Scott, 2011).

An informal theatre team debrief should take place within a few hours of a PD, when all staff involved are available (Association of Anaesthetists of Great Britain and Ireland, 2005) and serves several purposes (Box 1). Failure to provide this debriefing will only compound the personal and professional toll of PD on staff. Although it is an employer's duty to provide psychological support for staff after a traumatic event (Clegg and MacKinnon, 2014), debriefing is often inadequate or even absent (Jithoo and Sommerville, 2017; Baverstock and Finlay, 2006).

There is also evidence that, even where debriefing is provided, peri-operative nurses may not engage with the process; this could be because they think that, by accepting support, they show an inability to cope with their jobs (Gillespie and Kermode, 2004). Gillespie and Kermode (2004) further found that male peri-operative nurses were significantly less likely than their female colleagues to use debriefing processes; this may be due to a perceived (or real) stigma attached to seeking support for one's mental health.

Box 1. Purposes of informal team debriefing after PD

- Gather all the relevant clinical details
- Gain feedback from colleagues about their role and actions
- Learn and be better-equipped for the future
- Explore misconceptions of the event
- Reduce and manage anxiety or guilt
- Acknowledge any mistakes
- Identify those requiring further support

PD = peri-operative death

Clement et al (2015) described how men and health professionals are disproportionately deterred from seeking support by the stigma associated with mental health problems.

The efficacy of formal debriefing is not completely established. It has been associated with worsening psychosocial symptoms, such as being more likely to experience sleeplessness, depression, anxiety, fear of judgment and anger (Gazoni et al, 2012).

Morbidity and mortality meetings

Another potentially useful tool is departmental mortality and morbidity meetings – usually held monthly and led by a member of the anaesthetic or surgical team. Mortality and morbidity meetings were first established to review and learn from adverse events; historically, they were reserved for medical staff. Today, they are increasingly inclusive, encompassing members of the whole multidisciplinary team, and are also used as a means of monitoring the quality of patient care (Higginson et al, 2012).

Although mortality and morbidity meetings are not primarily intended to provide support to staff, they can be useful to learn from past events to reduce future adverse patient outcomes. They have been found to be helpful for staff involved in a PD (Gazoni et al, 2008). Peri-operative staff involved in a traumatic event should be encouraged to attend the mortality and morbidity meeting where that event will be discussed.

Education and peer support

Breadon and McColgan (2012) described how better staff education may give them more confidence and thus alleviate, to some extent, the negative effects of the second-victim experience. Wilson and Kirshbaum (2011) identified education and peer support as valuable means for staff to develop strategies to cope with the death of a patient. Informal peer support is perceived by staff as the most beneficial means of support (Pratt and Jachna, 2015; Gazoni et al, 2012).

According to Davidhizar (1992), key support for peri-operative nurses after a PD includes learning how to respond to the loss of a patient and peer support. Davidhizar identified dialogue between peers as vital, as it provides opportunities to heal, grow and develop. Peer support may go a long way in alleviating the disproportionate distress experienced by junior staff.

Beyond peer support, a preceptorship or mentorship scheme can provide an additional level of support for staff that may prove invaluable even after the scheme has ended. Effective organisational support should incorporate a robust preceptorship programme that covers:

- The value of debriefing;
- Managing grief;
- Identifying signs of distress in colleagues;
- Available support and how to access it.

To cast the net even wider, death and how to cope with it could be discussed at induction with staff recruited to high-risk areas, such as the peri-operative environment and intensive care units.

Emotional intelligence and resilience

Emotional intelligence is the ability to perceive, evaluate and manage emotions in oneself, in others and in groups (Clancy, 2014). It is a key component of resilience, which is the "capacity to recover from extremes of trauma, deprivation, threat or stress" (Atkinson et al, 2009). Resilience is an individual's ability to recover from the stress of a traumatic event. Resilient people commonly possess flexible coping strategies, strong support networks and advanced reflective skills (Grant and Kinman, 2014).

These characteristics are not necessarily innate, but can be acquired through education and training (Beddoe et al, 2013). Developing staff resilience and emotional intelligence is an organisation's responsibility – it should be interested in staff wellbeing. If adequate resources or support are not provided, even the most resilient members of staff may be unable to cope in a high-risk environment (Grant and Kinman, 2014).

While there is no definitive evidence linking emotional intelligence to organisational performance, there is a suggestion that, if organisations work in an emotionally intelligent way, this can reduce staff stress (Birks and Watt, 2007).

Role of the organisation

It is vital that organisations and managers consider the negative impact second-victim experiences can have on staff and that they set up evidence-informed support structures to promote staff wellbeing.

This is particularly relevant for organisations keen to retain staff, as helping them avoid any unnecessary psychosocial distress will reduce attrition.

Good organisational support and leadership play a significant role in reducing the second-victim experiences of peri-operative staff. Although nurses need to be equipped with personal coping mechanisms, it is essential that organisations show care and compassion towards them. Organisations that do not provide staff with the necessary support structures can compromise their employees' wellbeing and diminish their ability to provide good patient care. As previously noted, there is little purpose in having an evidence-based policy for the wellbeing of peri-operative staff if it is not implemented.

Staff support after a PD requires a multifaceted approach because what may be beneficial for one member of staff may be harmful for another. Staff should not be expected to carry on working unless they want to, and should be given time to talk to peers, either immediately after the event or at some point after. An informal consultant-led debriefing for the multidisciplinary team should be organised within a few hours of the PD. Staff should be reminded of available counselling services. It might also be helpful to give them the possibility to speak to someone from the chaplaincy team. Box 2 summarises the key elements of organisational support for staff faced with PD.

Conclusion

There is clearly scope for more research on the experiences of peri-operative nurses after a PD, as well as for interventional studies identifying the type of support needed to promote staff wellbeing and inform organisational policies. What is already clear is that the second-victim experiences of peri-operative staff must be taken seriously, and that peri-operative staff must be supported to identify and better manage the consequences of PD. **NT**

Box 2. **Organisational support for staff faced with PD**

- Ensure staff can have down time
- Ensure staff can access peer support
- Organise an inclusive team debriefing within a few hours of the event
- Encourage staff to attend the relevant mortality and morbidity meeting
- Remind staff of the available support and counselling services
- Offer support from the chaplaincy team if adequate
- Develop the resilience and emotional intelligence of staff through training
- Consider having a trained second-victim support team member
- Include PD coping strategies in preceptorship/mentorship schemes
- Discuss PD during staff induction

PD = peri-operative death

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