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Twelve tips for facilitating and implementing clinical debriefing programmes

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ABSTRACT

Contemporary clinical practice places a high demand on healthcare workforces due to complexity and rapid evolution of guidelines. We need embedded workplace practices such as clinical debriefing (CD) to support everyday learning and patient care. Debriefing, defined as a 'guided reflective learning conversation', is most often undertaken in small groups following simulation-based experiences. However, emerging evidence suggests that debriefing may also enhance learning in clinical environments where facilitators need to simultaneously balance psychological safety, learning goals and emotional well-being. This twelve tips article summarises international experience collated at the recent Association for Medical Education in Europe (AMEE) debriefing symposium. These tips encompass the benefits of CD, as well as suggested approach to facilitation. Successful CD programmes are frequently team focussed, interdisciplinary, implemented in stages and use a clear structure. **KEYWORDS**

Debriefing; continuing education; communication skills; work-based learning

Background

Teams caring for patients in contemporary healthcare settings face increasingly complex environments that complicate efforts to provide effective, safe care. The accelerated evolution of best practice guidelines challenges clinicians to stay abreast (Densen 2011). Debriefing can promote reflective practice and represents a powerful educational tool that can enhance both group learning and safe patient care (Schmutz and Eppich 2017). Debriefing can be viewed as a guided reflection in the experiential learning cycle. In other words, we view debriefing as a deliberate learning conversation (Fanning and Gaba 2007; Tavares et al. 2019). As educators, we typically use debriefing as a learning tool following simulated events, with common discussion points including decision making, communication and teamwork (Harden and Laidlaw 2012; Cheng et al. 2014). However, when applied at the patient's bedside, "clinical debriefing" (CD) has also been associated with positive outcomes including improved team performance (Kessler et al. 2015; Schmutz et al. 2018).

Life-long learning facilitated by CD and workplace wellbeing programmes are both recognised as useful activities (Morey et al. 2002; Shanafelt et al. 2019). The recent uptake of programmes addressing these priorities appears to be increasing (Nadir et al. 2017; Song and Baicker 2019). Early studies of workplace debriefing primarily focussed on debriefing trauma victims or mandatory debriefing of staff experiencing very traumatic occurrences. Unsurprisingly, these studies signalled possible harm from debriefing after incredibly stressful experiences (Carlier et al. 1998; Rose et al. 2002; Kagee 2002; Vaithilingam et al. 2008). In contrast, recent studies (Rose and Cheng 2018; Farrington et al. 2019) suggest that if debriefing is targeted appropriately then potential risks (related to psychological trauma, social relations, and learning trajectories) may be outweighed by the benefits. To this end, CD enhances learning, team performance and patient outcomes (Couper and Perkins 2013; Wolfe et al. 2014).

International symposium

In this article, we present twelve tips that review the current role of CD and offer suggestions for balancing the potential risks and benefits of these programmes. We distil the rich discussion from a recent symposium on CD held during the most recent meeting of the Association for Medical Education in Europe (AMEE) in Vienna on the 26th of August 2019.

Most prior literature on debriefing has focussed on healthcare simulation (Dufrene and Young 2014) or 'how to' debrief (Sawyer et al. 2016). At this symposium, an international panel of multidisciplinary educators considered an array of questions (Table 1) including:

- 'When should CD occur?'
- 'Who should participate?'
- 'Why undertake a CD?'
- 'Where should CD occur?'

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Table 1. Twelve tips for facilitating and implementing clinical debriefing programmes.

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When to debrief?	Tip 1	Formulate criteria regarding when, and when not to initiate a clinical debriefing.
Why debrief?	Tip 2	Demonstrate and articulate the importance of debriefing to colleagues.
Where to debrief?	Tip 3	Ensure a range of suitable environments for debriefing.
How to debrief?	Tip 4	Focus on the learning environment and emphasise psychological safety.
	Tip 5	Engage local faculty who can facilitate but not dominate.
	Tip 6	Establish an implementation strategy aligned with local culture.
	Tip 7	Use an easily recognisable structure for both facilitators and learners.
	Tip 8	Limit discussion topics and translate any important findings into meaningful clinical changes.
	Tip 9	Provide debriefers opportunities to improve their facilitation skills.
	Tip 10	Minimise the impact of hindsight bias and avoid individual assessments of performance.
What next?	Tip 11	Share a clear plan for providing expert help to distressed participants.
	Tip 12	Account for any legal issues and provide a policy on written documentation.

• 'How to debrief?'

- 'What to debrief?'
- 'What are the consequences?'

The AMEE simulation sub-committee purposefully selected five conference speakers (WE, RAS, RJS, AC, CDN) to include a balance of professional backgrounds, genders, international locations and debriefing experience (Table 2). Extensive notes were recorded from the pre-planning minutes, symposium experience and immediate post-conference reflections. We have derived our tips (Table 1) from a distillation of the symposium discussion supported by a literature review conducted with assistance from a senior University of Sydney librarian.

Tip 1

Formulate criteria regarding when, and when not to initiate a clinical debriefing

A primary goal of CD, in contrast to critical incident stress debriefing (CISD) should be to learn from routine everyday clinical events (Table 3). Discussing ordinary activities in debriefings may aid the building of rapport with groups of learners. To this end, while regular CD may be desirable (Sandhu et al. 2014), routine CD is infrequent (Nadir et al. 2017). The wider impacts on team performance are likely to be from cumulative exposure which may support CD with a high frequency (Wolfe et al. 2014).

The various forms of clinical debriefing require differentiation (Sawyer et al. 2016). We recommend local policies that provide programmatic guidance on which scenarios to exclude from CD. These twelve tips view CD as learning focussed in contrast to highly distressing situations requiring CISD or specific cases requiring formal after-action review (AAR) (Hagley et al. 2019). While overlap exists between CD, AAR and CISD, and all could reasonably occur for a given case, CD most often has a multidisciplinary lens, with the focus shifted away from individual performance. CISD, discussed in Tips 2 and 11, provides support to providers exposed to, or suffering from, distress. (Tuckey and Scott 2014).

Concerns over negative impacts of debriefing have previously been highlighted (Kagee 2002; Carlier et al. 1998). Furthermore, one-off debriefing interventions for lay people exposed to severe injury and burns have been associated with increased risk of post-traumatic stress disorder (PTSD) symptoms (Bisson et al. 1997; Mayou et al. 2000). However, in these studies there was scarce availability of long-term outcomes, thereby limiting generalisation to CD of healthcare workers. Moreover, no currently reported evidence suggests harm related to participation in appropriately implemented CD (Rose and Cheng 2018). Successful CD programmes (Table 2) deliberately account for each participant's autonomy, undertake planned implementation, and ensure a consistent standard of facilitation. By ensuring these key steps, healthcare teams are more likely to use CD in their everyday practice. (Kessler et al. 2015).

Tip 2

Demonstrate and articulate the importance of debriefing to colleagues

In the context of undergraduate medical education, we most often encounter debriefing after simulated events (Fanning and Gaba 2007). Debriefing is widely viewed as a key component of simulation-based medical education (SBME) for all levels of learner experience (Ryoo and Ha 2015), but also has utility for learning after real-life events (Sawyer et al. 2016). The literature supports the use of debriefing to promote the effective application of existing skills (Rudolph et al. 2008) and improve team performance (Wolfe et al. 2014). As part of implementing new CD programmes, we recommend articulating the positive evidence for debriefing to our colleagues, who may be unfamiliar with its benefit in clinical settings. For example, the American Heart Association advises that CD should occur after cardiac arrest cases (Cheng et al. 2018). In addition, the American Academy of Paediatrics recommends offering debriefing after neonatal resuscitation (Serwint et al. 2016). One must clearly differentiate between clinical debriefing and CISD. In order to distinguish, CDs are generally short in length, focus on less-controversial content and discuss team, rather than individual performance (Nocera and Merritt 2017). In contrast, CISDs often follow an institutional process, may involve external providers, are scheduled several days after the event, and are primarily to ensure individual well-being (Clark et al. 2019). In this regard, clear communication of the aim and scope of any CD programme is essential (Johansson et al. 2009).

Tip 3

Ensure a range of suitable environments for debriefing

Debriefings should occur in an appropriate environment (Kessler et al. 2015). Table 2 lists settings conducive for successful CD. Moving away from clinical spaces may increase privacy and limit distractions (Hall and Tori 2017). On the other hand, some participants may be unable to leave their

Table 2. International experiences of clinical debriefing presented at AMEE 2019.

Presenter initials and origin CDN, Cardiff, UK 7	When? – timing of	Who? – AMFF					
					Where? -location	Where? – environmental	Take home messages from
	debrietings	presenter speciality	Who? – participants	Where? – location of event	of debriefing	considerations	local context
	TALK' debriefings shortly after event, making use of natural breaks. Prompted at end of case 'checks'.	Anaesthesia	Multidisciplinary and interprofessional teams, predominantly clinicians already in practice + some clinical trainees; teams change daily	Operating Theatres, non-theatre areas of anaesthetic practice.	In the clinical environment (Approach described allows team self-debriefing)	Aim to debrief before the team disperses, with choice of location depending on working environment and circumstances	 (i) Create local buy-in and a supportive workplace culture (ii) Use a specific structure (iii) Agree on changes/actions and make them happen.
RAS, A Melbourne, Australia	At the end of an operating list (daily)	Obstetrics and Gynaecology	Multidisciplinary and interprofessional teams, predominantly clinicians already in practice + some clinical trainees: teams change daily	Operating Theatres	In the clinical environment (doctor or regular theatre staff led)	Location should be conducive to (i) Promote sustainabili promoting psychological safety (ii) Create a safe space (iii) Account for past de culture when impler new programs	 (i) Promote sustainability (ii) Create a safe space (iii) Account for past debriefing culture when implementing new programs
AC, Sydney, Australia Within 60 minutes of Emergency Medicine Emergency Department clinical event	Mithin 60 minutes of Emergency Department clinical event		Multidisciplinary and interprofessional teams, predominantly clinicians already in practice + some clinical trainees; teams change daily	Emergency Department	In the clinical environment (<i>nurse led</i>)	Debriefing in actual clinical space(s) may aid recall of equipment and environmental issues	 (i) Tie in your discussion outcomes with quality improvement initiatives (ii) Use structure
RJS, Mlami, USA V	Various (immediate or delayed)	Internal Medicine	Predominantly clinical trainees (clerkship students and residents); teams change biweekly or monthly	Medical Ward Setting	Separate room on the ward where teams conduct "sit-down rounds" (doctor led)	Proximity near enough to "the action" contributes to relevance of CD, but location should be separate/quiet enough to create safe environment conducive to reflection	 (i) Especially with junior trainees, even non-critical events may present emotional challenges that CD may help to "unpack" (ii) Making CD part of routine practice in training may help inculcate self-reflection and lifelong learning to create a "debriefing culture"

Type of debriefing	When? – timing of debriefing	Who? – typical participants	Where? – typical location	What? – typical content	Commentary
Clinical Debriefing (CD) (Kessler et al. 2015)	Usually immediately after a clinical event but no specific time limits (Table 2)	 Facilitated by a skilled and trained debriefer of any background, or self-debriefing by high-performing teams Multidisciplinary participants including medical, nursing, allied health and students 	Near to, or in the actual clinical environment	Routine events involving teamwork and communication Resuscitation events	 Aims to debrief ordinary everyday events (Table 2) Debriefers should aim to 'facilitate and not dominate' Focus on non-controversial facts Focus on team rather than individual performance Uses a structured format and focuses on a
Critical Incident Stress Debriefing (CISD) (Tuckey and Scott 2014); (Magyar and Theophilos 2010)	Not typically the first intervention following an incident Typically occurs within 24–72 hours of the event	 Led by a specially trained team of 2–4 people depending on group size Mental health professionals present Peer support professional present i.e. someone from the same profession with a similar background to group members Typical formula is one team member for every 5–7 group participants 	A quiet meeting location as convenient as possible for all invited participants	Traumatic and distressing events causing strong emotional responses (e.g. violent incidents, paediatric cases with poor outcomes)	 Ilimited range of discussion topics Aims to mitigate the impact of a traumatic incident; to facilitate normal psychological recovery in healthy people distressed by an event; identifies group members who would benefit from additional professional support Typically addresses both medical and psychological issues without judgement A clear pathway for psychological referral is established
After-Action Review (AAR) (Hagley et al. 2019); (Orlander and Fincke 2003)	Delayed and often recurring May be mandated to be scheduled on a regular (e.g. monthly) basis (MMC)	 with the critical incident, directly or indirectly an indirectly or indirectly indirectly and investigator (ideally within institution but not involved in the patient's care) Group (MMC) Interviewers and Interviewees (RCA) Note taking (MMC minutes) Report writing (RCA) RCA investigators, who are typically senior staff from the local institution, suggest changes to implement of the patient's care institution. 	Departmental meeting rooms or secure online conference systems	Morbidity and mortality conferences (MMC) Root cause analyses (RCA)	 After-action reviews typically seek to address five common questions: What happened during the response (and what was supposed to have happened)? Why did it happen? What can be learned? What should change? Have these changes taken place? A major goal of RCA and MMC is to prevent recurrence of negative patient orientated outcomes
		from AAR			(RCA) – MMC used to examine medical error, to demonstrate teaching points, and meet quality assurance requirements

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essential clinical duties for extended periods. Of note, one of the CD symposium speakers successfully conducted debriefings outside of the hospital setting. These small debriefings with groups of students proved popular with the learners even though they occurred a few days after the experiences.

In clinical environments, potentially suitable spaces for debriefing are often already occupied (e.g. by patients), prohibitively noisy or pre-allocated for a specific function (e.g., staff tea rooms). Thus, many spaces are not designated or designed for debriefing, which in turn may lead to difficulty finding a suitable location without prior consideration. On the one hand, a CD location close to where the event(s) took place may ease the team's recall of the environmental challenges such as ambient noise, physical obstructions, overcrowding of space, or broken equipment (Small 2007; Mullan et al. 2013). On the other hand, moving to a remote area for debriefing may be more practicable in some instances. Leaving the clinical area may provide enough space and time to rationally analyse the event (Fanning and Gaba 2007). Indeed, a recent randomised study in France showed that pre-debriefing guided mindfulness 'meditations' following simulation were associated with a significant increase in retention of key learning objectives after three months (Lilot et al. 2018).

Tip 4

Focus on the learning environment and emphasise psychological safety

An ideal learning environment requires psychological safety (PS), both establishing it before and deliberately maintaining it *during* the activity (Rudolph et al. 2014). Given the stakes for providers, PS is perhaps more important in CD and possibly harder to achieve. Relevant ground rules should be clearly outlined in the debriefing preview phase (Eppich et al. 2016). For instance, one might state the following: The purpose of debriefing is to improve the quality of medical care by [sic] our team'; it is not a blaming session. Everyone's participation is encouraged. All information discussed during this debriefing is confidential" (American Heart Association 2018). A recent concept analysis (Turner and Harder 2018) defined the essential components of PS as (1) making mistakes without consequences; (2) the qualities of the facilitator(s) and (3) foundational activities such as orientation. This list summarises the concepts but ignores the caveat of stating that mistakes are inconsequential in CD. Of course, mistakes can be quite consequential when taking care of real patients. Therefore, for CD we should mindfully consider case selection, with an awareness that breaches in confidentiality or ground rules may generate mistrust in future debriefings, as well as risk the reputability of the programme.

In addition, PS is an individually perceived and fragile phenomenon (Rudolph et al. 2008). Learners construct their perception of PS not only from facilitators' words, but also prior relationships, past experiences, and observation of the debriefer's non-verbal communication (Turner and Harder 2018; Kolbe et al. 2020). The perception of PS can also be affected significantly by local culture, presence of supervisors and the facilitator's style and approach (Edmondson 1999; Fey et al. 2014; Kolbe et al. 2020). To this end, deliberately promoting PS can also contribute to an increase in 'team inclusiveness' (Eppich and Schmutz 2019).

Tip 5

Engage local faculty who can facilitate but not dominate

To establish a successful CD programme, we recommend recruiting and developing a range of debriefing champions. These champions ideally will role model effective facilitation practices and promote a wider awareness of the programme. Sawyer and Halamek recommend that CD debriefers should 'facilitate not dominate' (Sawyer et al. 2016). Furthermore, we endorse role switching from a 'sage on the stage' to a 'guide on the side', although we acknowledge that this approach can seem unnatural for most clinician educators (King 1993). As a facilitator, with the best of intent, we often want to 'fix' errors, provide solutions, give positive feedback, and actively encourage our team (Dieckmann et al. 2009). While it is important to add our expertise at opportune moments, the most effective clinical debriefings focus on behavioural skills applied in a team context.

Higher level collective skills such as communication and team reflexivity may be easier to promote in an open environment with a flattened hierarchy (Schmutz et al. 2018). CDs should de-emphasise discussion of unresolvable system issues and individual performance, thereby reducing the likelihood of threats to PS and collective frustration. High levels of distress or emotion may be better unpacked with CISD, supportive follow-up or professional counselling as appropriate (Clark et al. 2019). Uncertainty remains about how best to train debriefing facilitators. We require more evidence about extrapolating our existing knowledge of SBME debriefing to clinical environments (Kessler et al. 2015; Taras and Everett 2017). Facilitator training is further discussed in Tip 9.

Tip 6

Establish an implementation strategy aligned with local culture

Provide advanced notice about the intention to commence CD in your institution. Specific information about the debriefing process can be provided in the same way as we would expect to be notified of a prospective conference timetable. A combination of factors appears to contribute to implementation success, including local context, historical culture, transparent processes and the overall quality of CD facilitation (Salas et al. 2008; Eppich et al. 2016).

Whilst universal participation is encouraged, debriefing should be non-mandatory in the first instance, because compulsory attendance may cause stress in some participants (Mancini and Bonanno 2006). Furthermore, a key component of programme sustainability appears to lie in a focus on team performance (Mullan et al. 2013; Kessler et al. 2015) rather than individual performance (Rose and Cheng 2018).

Tip 7

Use an easily recognisable structure for both facilitators and learners

CD implementation may be streamlined by promoting familiarity with the process and thereby normalising debriefing. The use of a structure suited to local requirements helps achieve this aim. A consistent approach promotes familiarity and reduces the cognitive load for all involved (Fraser et al. 2018). Multiple scripts and tools can assist with CD implementation (Kessler et al. 2015). Notably, most structures set a time limits, provide a clear beginning (check in), a clear end (check out) as well as an approach to analysing performance. Examples of relevant debriefing tools include:

- TALK[®] (Diaz-Navarro et al. 2014) The Target, Analyse, Learn and Key Actions (TALK) model guides self-debriefing. A team first agrees on what target issues will be discussed. Next, the team examines successes and identifies areas for improvement. Finally, the team summarises the main learning points (i.e. from each other, the experience, and/or the CD), and finally agree on key actions for the future.
- DISCERN© (Mullan et al. 2013) The Debriefing In Situ Conversation after Emergent Resuscitation Now (DISCERN) model provides a CD guide and audit tool.
- 3. *STOP-5* (Walker 2018) This tool was described by Edinburgh Royal Infirmary. It is a 5-minute focussed CD with the structure 'STOP-5' (*i.e. Summarise case, Things that went well, Opportunities to improve and Points of action*).
- 4. *INFO* (Rose and Cheng 2018) Nurses lead CD in 4 steps (*i.e. Immediate, Not for personal assessment, Fast facilitated feedback, and Opportunity for questions*).
- TEAMSTEPPS[®] (Clapper 2016) In this model teams are asked to self-evaluate whether they had clear communication; understood team roles and responsibilities; maintained situational awareness; distributed workload; engaged in cross-monitoring; asked for and offered help when needed; and made, mitigated, or corrected errors.

Tip 8

Limit discussion topics and translate any important findings into meaningful clinical changes

CD simply cannot cover everything - facilitators must make choices. Indeed, relatively mundane occurrences can catalyse learning conversations in clinical environments, provided they focus on the collective experience rather than individual performance. The spectrum of successful approaches described at the Vienna AMEE symposium (Table 2) illustrate this point.

Several factors may dilute the quality of clinical care, including (a) poor dissemination of the latest guidelines, (b) lack of education, and (c) errors in application (Søreide et al. 2013). To this end, debriefing may have a key translational role in remedying these three barriers to ideal patient care. If clinical teams observe that debriefing led to visible improvements in the care of patients, our

programmes are more likely to be successful. Thereafter CD can evolve from 'what we sometimes do' to become embedded in the culture of 'what we do' (Farokhzadian et al. 2018). In this regard, engagement with stakeholders and managerial buy-in are important considerations, as is the case with any clinical intervention involving cultural or practice changes (Curtis et al. 2017).

Regardless of altruism, the long-term sustainability of CD poses challenges. Common barriers may include a lack of available faculty, time pressures, and consistency of engagement during out-of-hours settings. To this end, the literature suggests that CD can be a both time-efficient and effective learning tool despite the substantial pressures that characterise modern healthcare (Kessler et al. 2015), especially during the recent challenge posed by global pandemics. In Tip 9, we address overcoming the challenges of facilitator preparation and out-of-hours availability.

Tip 9

Provide debriefers opportunities to improve their facilitation skills

Many healthcare providers recognise debriefing as an important activity and desire a structured implementation (Kessler et al. 2015). Despite this recognition, a lack of trained facilitators impedes the upscaling of many programmes (Sandhu et al. 2014). Further, 90% of North American Paediatric Emergency Medicine (PEM) fellows felt under-prepared to facilitate CDs (Zinns et al. 2015). Facilitator development promotes successful debriefing programme implementation (Fey and Jenkins 2015). In addition, direct mentorship and training of new facilitators should include guidance on leading discussion in target areas such as communication (Kessler et al. 2015).

Debriefers can acquire the skills and flexibility to facilitate debriefings through formal courses, peer feedback based on direct observation, and follow-up mentoring (Eppich et al. 2016; Krogh et al. 2016). Given the overlap between facilitation of SBME debriefings and CD, simulation-based sessions may assist new debriefers in acquiring skills in a predictable, reproducible manner and translating those skills to clinical environments (Eppich et al. 2016).

Programme sustainability and reach require a broadening pool of trained facilitators. Indeed, many settings do not routinely have experienced facilitators available to debrief 24-hours a day. Nurses, social workers, trainee medical providers and psychologists may all debrief capably (Kessler et al. 2015; Rose and Cheng 2018). Allowing new faculty to co-debrief with experienced facilitators is a useful method to build skills and confidence (Cheng et al. 2015).

Tip 10

Minimise the impact of hindsight bias and avoid individual assessments of performance

Consider the question of who is best placed to debrief clinical scenarios. When directly immersed in patient care, we may not recognise our cognitive biases or emotional impacts resulting from the case (Croskerry 2005). Further, residual stress could limit our ability to debrief effectively (LeBlanc 2009). High levels of cognitive load during debriefing represent a challenge in CD of complex cases (Pawar et al. 2018). As a result, clinicians directly involved in patient care should be aware that their judgement, memory and facilitation performance are likely to be affected. Moreover, 'hindsight bias' may hinder our analysis of self and others during debriefings (Motavalli and Nestel 2016). This effect may be amplified when we were directly involved in caring for the patient in question, or when the details of the final diagnosis are known. Therefore, in each case we should consider the appropriateness of combining our personal involvement in the case with facilitation of the subsequent debriefing (Pawar et al. 2018). Finding a path through these pitfalls can challenge our self-awareness. To navigate the challenge, we recommend starting all CDs with a brief revision of existing ground rules, followed by a review of the facts of what occurred without judgment of the quality of performance (Mullan et al. 2014). Only then should we discuss or judge performance. During this 'analysis phase' we advise to focus discussions on team-based factors and collective problem solving, rather than individual errors (Kessler et al. 2015; Eppich et al. 2016).

Tip 11

Share a clear plan for providing expert help to distressed participants

Many institutions will have a range of available resources to support students and providers who become distressed. Mapping the available resources and providing these to debriefers may be pertinent when CD focuses on highly emotive events such as cardiac arrest with a fatal outcome. As discussed in Tip 2, facilitators should distinguish between the need for debriefing to learn (CD) and debriefing for well-being (CISD). In other words, is the primary objective for debriefing an everyday, lower stakes learning conversation, or is the focus on preventing immediate and future emotional harm to the team (i.e., debriefing for well-being)?

Uncertainty remains as to how stress impacts healthcare professionals (LeBlanc 2009; Lauria et al. 2017). Most individuals who work in stressful environments and receive resilience training and support appear to manage the demands of their work (Lala et al. 2016; Tubbert 2016; Watson et al. 2019). Nonetheless, CD programmes should adopt local strategies to handle distress resulting from the clinical event and recognize that this may be amplified by CD.

Facilitators must maintain a degree of flexibility and reflexivity in terms of promoting learning and ensuring well-being lies (Salas et al. 2008; Krogh et al. 2016). We recommend designing safety-net processes for serious unexpected emotional reactions, which, while rare, are possible in any form of debriefing (Fraser et al. 2012, 2014; Grant et al. 2018). Our field requires further work to better understand how to balance learning needs and workplace well-being, as well as to investigate which strategies can effectively promote psychological safety in CD (Harder et al. 2020).

Tip 12

Account for any legal issues and provide a policy on written documentation

Depending on local requirements and the legal jurisdiction, facilitators should consider a policy for maintaining confidentiality and non-discoverability (Sawyer et al. 2016). Clear ground rules and statements about confidentiality enhance psychological safety and encourage a rational appraisal of the case.

On the one hand, most contemporary CD guidelines advise against creating formal documentation of the debriefing for inclusion in the patient record in view of the risk of future subpoena (Mullan et al. 2013). Seek local risk management expertise to ensure concerns surrounding confidentiality and non-discoverability are suitably addressed (Sawyer et al. 2016). On the other hand, CD may have a role in identifying latent threats to patient safety. To prevent the loss of this crucial information, consider reporting processes that balance the need for sharing important findings without breaching confidentiality.

In summary, recommendations arising from CD at the clinical coalface present us with opportunities to improve patient care. However, participants should clearly understand how data will be disseminated and how any errors identified in the debriefing will be managed.

Conclusions

Clinical debriefing creates new opportunities for collective learning and can be implemented successfully in a variety of settings. Facilitators need opportunities to train and practice their debriefing skills in immersive, experiential learning environments, which broadens the local pool of facilitators. Further work will explore how best to prepare for the challenges associated with CD. Questions remain regarding both 'how to debrief' as well as 'what to debrief' in CD. Successful programmes have multifaceted benefits, including enhanced teamwork, improved clinical culture and anticipation of latent patient safety threats. There is a strong case for CD as an effective tool to promote workplace learning and patient safety, but maintaining successful programmes requires dedicated facilitators.

Disclosure statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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References

- American Heart Association. 2018. Hot debriefing form examples get with the guidelines[®] resuscitation clinical tools. [accessed 2020 May 27]. http://www.heart.org/idc/groups/heart-public/@wcm/@hcm/ @gwtg/documents/downloadable/ucm_486571.pdf.
- Bisson JI, Jenkins PL, Alexander J, Bannister C. 1997. Randomised controlled trial of psychological debriefing for victims of acute burn trauma. Br J Psychiatry. 171:78–81.
- Carlier IVE, Lamberts RD, van Uchelen AJ, Gersons BPR. 1998. Disaster–related post–traumatic stress in police officers: a field study of the impact of debriefing. Stress Med. 14(3):143–148.
- Cheng A, Eppich W, Grant V, Sherbino J, Zendejas B, Cook DA. 2014. Debriefing for technology-enhanced simulation: a systematic review and meta-analysis. Med Educ. 48(7):657–666.
- Cheng A, Nadkarni VM, Mancini MB, Hunt EA, Sinz EH, Merchant RM, Donoghue A, Duff JP, Eppich W, Auerbach M, On behalf of the American Heart Association Education Science Investigators; and on behalf of the American Heart Association Education Science and Programs Committee, Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation; Council on Cardiovascular and Stroke Nursing; and Council on Quality of Care and Outcomes Research, et al. 2018. Resuscitation education science: educational strategies to improve outcomes from cardiac arrest: a scientific statement from the American Heart Association. Circulation. 138(6): 82–122.
- Cheng A, Palaganas J, Eppich W, Rudolph JW, Robinson T, Grant V. 2015. Co-debriefing for simulation-based education: a primer for facilitators. Simul Healthc. 10(2):69–75.
- Clapper TC. 2016. Proposing a new debrief checklist for TeamSTEPPS[®] to improve documentation and clinical debriefing. Simulation Gaming. 47(6):710–719.
- Clark PR, Polivka B, Zwart M, Sanders R. 2019. Pediatric emergency department staff preferences for a critical incident stress debriefing. J Emerg Nurs. 45(4):403–410.
- Couper K, Perkins GD. 2013. Debriefing after resuscitation. Curr Opin Crit Care. 19(3):188–194.
- Croskerry P. 2005. Diagnostic failure: a cognitive and affective approach. In: Henriksen K, Battles JB, Marks ES, editors. Advances in patient safety: from research to implementation. Vol. 2: Concepts and Methodology. Rockville (MD): Agency for Healthcare Research and Quality (US). https://www.ncbi.nlm.nih.gov/books/NBK20487/.
- Curtis K, Fry M, Shaban RZ, Considine J. 2017. Translating research findings to clinical nursing practice. J Clin Nurs. 26(5–6):862–872.
- Densen P. 2011. Challenges and opportunities facing medical education. Trans Am Clin Climatol Assoc. 122:48–58.
- Diaz–Navarro C, Hadfield A, Pierce S. 2014. TALK[®], Cardiff (UK); TALK materials. [accessed 2020 May 20]. https://www.talkdebrief.org/ startingtotalk.
- Dieckmann P, Molin Friis S, Lippert A, Østergaard D. 2009. The art and science of debriefing in simulation: Ideal and practice. Med Teach. 31:287–294.
- Dufrene C, Young A. 2014. Successful debriefing best methods to achieve positive learning outcomes: a literature review. Nurse Educ Today. 34(3):372–376.
- Edmondson A. 1999. Psychological safety and learning behaviour in work teams. Admin Sci Q. 44(2):350–383.
- Eppich WJ, Mullan PC, Brett–Fleegler M, Cheng A. 2016. Let's talk about it: translating lessons from health care simulation to clinical event debriefings and coaching conversations. Clin Ped Emerg Med. 17(3):200–211.

- Eppich WJ, Schmutz JB. 2019. From 'them' to 'us': bridging group boundaries through team inclusiveness. Med Educ. 53(8):756–758.
- Fanning RM, Gaba DM. 2007. The role of debriefing in simulationbased learning. Simul Healthc. 2(2):115–125.
- Farokhzadian J, Dehghan Nayeri N, Borhani F. 2018. The long way ahead to achieve an effective patient safety culture: challenges perceived by nurses. BMC Health Serv Res. 18(1):654.
- Farrington R, Collins L, Fisher P, Danquah A, Sergeant J. 2019. Clinical debrief: learning and well-being together. Clin Teach. 16(4): 329–334.
- Fey MK, Jenkins LS. 2015. Debriefing practices in nursing education programs: results from a national study. Nurs Educ Perspect. 36(6): 361–366.
- Fey MK, Scrandis D, Daniels A, Haut C. 2014. Learning through debriefing: students' perspectives. Clin Simulat Nurs. 10(5):e249.
- Fraser K, Huffman J, Ma I, Sobczak M, McIlwrick J, Wright B, McLaughlin K. 2014. The emotional and cognitive impact of unexpected simulated patient death: a randomized controlled trial. Chest. 145(5):958–963.
- Fraser K, Ma I, Teteris E, Baxter H, Wright B, McLaughlin K. 2012. Emotion, cognitive load and learning outcomes during simulation training. Med Educ. 46(11):1055–1062.
- Fraser KL, Meguerdichian MJ, Haws JT, Grant VJ, Bajaj K, Cheng A. 2018. Cognitive load theory for debriefing simulations: implications for faculty development. Adv Simul. 3(3):28.
- Grant VJ, Robinson T, Catena H, Eppich W, Cheng A. 2018. Difficult debriefing situations: a toolbox for simulation educators. Med Teach. 40(7):703–712.
- Hagley G, Mills PD, Watts BV, Wu AW. 2019. Review of alternatives to root cause analysis: developing a robust system for incident report analysis. BMJ Open Qual. 8(3):e000646.
- Hall K, Tori K. 2017. Best practice recommendations for debriefing in simulation–based education for Australian undergraduate nursing students: an integrative review. Clin Simulat Nurs. 13(1):39–50.
- Harden RM, Laidlaw JM. 2012. Essential skills for a medical teacher: an introduction to teaching and learning in medicine. Dundee: Churchill Livingstone Elsevier; p. 35–53.
- Harder N, Lemoine J, Harwood R. 2020. Psychological outcomes of debriefing healthcare providers who experience expected and unexpected patient death in clinical or simulation experiences: a scoping review. J Clin Nurs. 29(3–4):330–346.
- Johansson J, Skeff K, Stratos G. 2009. Clinical teaching improvement: the transportability of the Stanford Faculty Development Program. Med Teach. 31(8):377–382.
- Kagee A. 2002. Concerns about the effectiveness of critical incident stress debriefing in ameliorating stress reactions. Crit Care. 6(1):88.
- Kessler DO, Cheng A, Mullan PC. 2015. Debriefing in the emergency department after clinical events: a practical guide. Ann Emerg Med. 65(6):690–698.
- King A. 1993. From sage on the stage to guide on the side. Coll Teach. 41(1):30-35.
- Kolbe M, Eppich W, Rudolph J, Meguerdichian M, Catena H, Cripps A, Grant V, Cheng A. 2020. Managing psychological safety in debriefings: a dynamic balancing act. Bmj Stel. 6(3):164–171.
- Krogh K, Bearman M, Nestel D. 2016. "Thinking on your feet"-a qualitative study of debriefing practice. Adv Simul. 1(1):12.
- Lala AI, Sturzu LM, Picard JP, Druot F, Grama F, Bobirnac G. 2016. Coping behaviour and risk and resilience stress factors in French regional emergency medicine unit workers: a cross-sectional survey. J Med Life. 9(4):363–368.
- Lauria MJ, Gallo I, Rush S, Brooks J, Spiegel R, Weingart SD. 2017. Psychological skills to improve emergency care providers' performance under stress. Ann Emerg Med. 70(6):884–890.
- LeBlanc VR. 2009. The effects of acute stress on performance: implications for health professions education. Acad Med. 84(10):25–33.
- Lilot M, Evain JN, Bauer C, Cejka JC, Faure A, Balança B, Vassal O, Payet C, Bui Xuan B, Duclos A, et al. 2018. Relaxation before debriefing during high-fidelity simulation improves memory retention of residents at three months: a prospective randomized controlled study. Anesthesiology. 128(3):638–649.
- Magyar J, Theophilos T. 2010. Review article: debriefing critical incidents in the emergency department. Emerg Med Australas. 22(6): 499–506.

- Mancini AD, Bonanno GA. 2006. Resilience in the face of potential trauma: clinical practices and illustrations. J Clin Psychol. 62(8): 971–985.
- Mayou RA, Ehlers A, Hobbs M. 2000. Psychological debriefing for road traffic accident victims. Three-year follow-up of a randomised controlled trial. Br J Psychiatry. 176:589–593.
- Morey JC, Simon R, Jay GD, Wears RL, Salisbury M, Dukes KA, Berns SD. 2002. Error reduction and performance improvement in the emergency department through formal teamwork training: evaluation results of the MedTeams project. Health Serv Res. 37(6): 1553–1581.
- Motavalli A, Nestel D. 2016. Complexity in simulation-based education: exploring the role of hindsight bias. Adv Simul. 1(1):3.
- Mullan P, Kessler D, Cheng A. 2014. Educational opportunities with post-event debriefing. JAMA. 312(22):2333-2334.
- Mullan P, Wuestner E, Kerr T, Christopher D, Patel B. 2013. Implementation of an *in situ* qualitative debrief tool for resuscitations. Resuscitation. 84(7):946–951.
- Nadir NA, Bentley S, Papanagnou D, Bajaj K, Rinnert S, Sinert R. 2017. Characteristics of real-time, non-critical incident debriefing practices in the emergency department. West J Emerg Med. 18(1):146–151.
- Nocera M, Merritt C. 2017. Pediatric critical event debriefing in emergency medicine training: an opportunity for educational improvement. AEM Educ Train. 1(3):208–214.
- Orlander JD, Fincke BG. 2003. Morbidity and mortality conference: a survey of academic internal medicine departments. J Gen Intern Med. 18(8):656–658.
- Pawar S, Jacques T, Deshpande K, Pusapati R, Meguerdichian MJ. 2018. Evaluation of cognitive load and emotional states during multidisciplinary critical care simulation sessions. BMJ Stel. 4(2):87–91.
- Rose S, Bisson J, Churchill R, Wessely S. 2002. Psychological debriefing for preventing post-traumatic stress disorder (PTSD). Cochrane Database Syst Rev. 2002;(2):CD000560.
- Rose S, Cheng A. 2018. Charge nurse facilitated clinical debriefing in the emergency department. CJEM. 20(5):781–785.
- Rudolph JW, Raemer DB, Simon R. 2014. Establishing a safe container for learning in simulation: the role of the presimulation briefing. Simul Healthc. 9(6):339–349.
- Rudolph JW, Simon R, Raemer DB, Eppich WJ. 2008. Debriefing as formative assessment: closing performance gaps in medical education. Acad Emerg Med. 15(11):1010–1016.
- Ryoo EN, Ha EH. 2015. The importance of debriefing in simulationbased learning: comparison between debriefing and no debriefing. Comput Inform Nurs. 33(12):538–545.
- Salas E, Klein C, King H, Salisbury M, Augenstein JS, Birnbach DJ, Robinson DW, Upshaw C. 2008. Debriefing medical teams: 12 evidence-based best practices and tips. Jt Comm J Qual Patient Saf. 34(9):518–527.
- Sandhu N, Eppich WJ, Mikrogianakis A, Grant V, Robinson T, Cheng A. 2014. Post-resuscitation debriefing in the pediatric emergency department: a national needs assessment. Can J Emergency Med. 16(5):383–392.
- Sawyer T, Eppich WJ, Brett–Fleegler M, Grant V, Cheng A. 2016. More than one way to debrief: a critical review of healthcare simulation debriefing methods. Simul Healthc. 11(3):209–217.
- Schmutz JB, Eppich WJ. 2017. Promoting learning and patient care through shared reflection: a conceptual framework for team reflexivity in health care. Acad Med. 92(11):1555–1563.

- Schmutz JB, Kolbe M, Eppich WJ. 2018. Twelve tips for integrating team reflexivity into your simulation-based team training. Med Teach. 40(7):721–727.
- Serwint JR, Bostwick S, Burke AE, Church A, Gogo A, Hofkosh D, King M, Linebarger J, McCabe ME, Moon M, et al. 2016. The AAP resilience in the face of grief and loss curriculum. Pediatrics. 138(5): e20160791.
- Shanafelt T, Trockel M, Ripp J, Murphy ML, Sandborg C, Bohman B. 2019. Building a program on well-being: key design considerations to meet the unique needs of each organization. Acad Med. 94(2): 156–161.
- Small SD. 2007. Simulation applications for human factors and systems evaluation. Anesthesiol Clin. 25(2):237–259.
- Song Z, Baicker K. 2019. Effect of a workplace wellness program on employee health and economic outcomes: a randomized clinical trial. JAMA. 321(15):1491–1501.
- Søreide E, Morrison L, Hillman K, Monsieurs K, Sunde K, Zideman D, Eisenberg M, Sterz F, Nadkarni VM, Soar J, Utstein Formula for Survival Collaborators, et al. 2013. The formula for survival in resuscitation. Resuscitation. 84(11):1487–1493.
- Taras J, Everett T. 2017. Rapid cycle deliberate practice in medical education – a systematic review. Cureus. 9(4):e1180.
- Tavares W, Eppich W, Cheng A, Miller S, Teunissen PW, Watling CJ, Sargeant J. 2020. Learning conversations: an analysis of their theoretical roots and their manifestations of feedback and debriefing in medical education. Acad Med. 95:1020–1025.
- Theophilos T, Magyar J, Babl FE, Paediatric Research in Emergency Departments International Collaborative (PREDICT) 2009. Debriefing critical incidents in the paediatric emergency department: current practice and perceived needs in Australia and New Zealand. Emerg Med Australas. 21(6):479–483.
- Tubbert S. 2016. Resiliency in emergency nurses. J Emerg Nurs. 42(1): 47–52.
- Tuckey MR, Scott JE. 2014. Group critical incident stress debriefing with emergency services personnel: a randomized controlled trial. Anxiety Stress Coping. 27(1):38–54.
- Turner S, Harder N. 2018. Psychological safe environment: A concept analysis. Clin Simulat Nurs. 18:47–55.
- Vaithilingam N, Jain S, Davies D. 2008. Helping the helpers: debriefing following an adverse incident. Obstet Gynaecol. 10(4):251–256.
- Walker C. 2018. "STOP 5: stop for 5 minutes" our bespoke hot debrief model. Edinburgh (UK). [accessed 2020 May 20]. https://www.edinburghemergencymedicine.com/blog/2018/11/1/stop-5-stop-for-5-mi nutes-our-bespoke-hot-debrief-model.
- Watson AG, Saggar V, MacDowell C, McCoy JV. 2019. Self-reported modifying effects of resilience factors on perceptions of workload, patient outcomes, and burnout in physician-attendees of an international emergency medicine conference. Psychol Health Med. 24(10):1220–1234.
- Wolfe H, Zebuhr C, Topjian AA, Nishisaki A, Niles DE, Meaney PA, Boyle L, Giordano RT, Davis D, Priestley M, et al. 2014. Interdisciplinary ICU cardiac arrest debriefing improves survival outcomes. Crit Care Med. 42(7):1688–1695.
- Zinns LE, O'Connell KJ, Mullan PC, Ryan LM, Wratney AT. 2015. National survey of pediatric emergency medicine fellows on debriefing after medical resuscitations. Pediatr Emerg Care. 31(8): 551–554.

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