

## **Introduction to Debriefing**

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### **Abstract**

Debriefing is a unique type of conversation that guides reflection, analysis, and ultimately learning after a practical experience. During a debriefing, participants and instructors share their experiences and observations of the event, discuss what they did or did not do and, mostly importantly, why, and develop plans to apply lessons learnt to their future practice. A successful debriefing requires active engagement, an environment of mutual respect, and a focus on learning. This article is an introduction to the why, how and when of debriefing. It will discuss what makes debriefing unique from other types of teaching that happens in medicine and medical education, how to create the right environment for a successful debrief, and when to apply debriefing tools in clinical practice and education.

**Key words:** Medical education; interdisciplinary; feedback; learners; learning; conversation

### **INTRODUCTION**

Reflecting on an experience is the link between having that experience and the ability to learn from it<sup>1</sup>. Debriefing guides that reflection. Debriefing is a structured conversation that allows someone to discuss a meaningful experience<sup>2</sup>. Debriefing relies on active conversation between the learner and instructor or among a group of learners. Participants of a debriefing reflect on what happened during the experience, how they felt and acted, discuss what went well and what did not, determine why they acted the way they did, and consolidate knowledge and skills that they can apply in future situations<sup>3,4</sup>. This article will review why, how, and when to debrief: the rationale for debriefing, components of a structured debrief, and clinical and educational events where debriefing can be helpful in promoting learning, improving clinical care and patient outcomes.

#### **Why Debrief**

Debriefing has its roots in the military and aviation industry in which, like medicine, teams work together in potentially critical situations. Many of the features of debriefing in health sciences and health sciences education come directly from these two fields: holding debriefings as close in time to the event as possible, involving all team members regardless of hierarchy, creating a non-punitive environment that focuses on learning, and application to future events<sup>5,6</sup>. The skills that are often discussed during a debriefing

(leadership, decision making, communication, resource utilization, situation awareness, collectively referred to as Crisis Resource Management skills or non-technical skills or teamwork skills) are derived from the aviation industry's crew resource management skills<sup>5,6</sup>.

There is evidence that when debriefing is used in both clinical and simulation settings, there is improvement in technical skills and non-technical skills, individual performance and team performance, and patient outcomes<sup>4,7,8,9,10</sup>. Debriefing is widely used in simulation curriculum in medical schools and postgraduate medical education training programs. Many hospitals and departments hold debriefings after critical events. Both the European Resuscitation Council and the American Heart Association recommend debriefing after a resuscitation event<sup>11</sup>. There is growing evidence that, when used as part of a simulation program, debriefing is beneficial to the education of surgical and obstetrical residents in low- and middle-income countries<sup>26,27</sup>.

#### **How to Debrief**

Debriefing is a special type of social interaction between you and your participants and amongst the participants. Like any type of social encounter, you need to consider the environment you are in and the one you are creating, the participants you will

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be interacting with, and also how you will be spending your time together.

The debriefing environment includes both the physical and psychological environment (Table 1). Ideally you should find a private space with few distractions where all participants can sit down and both see and hear each other<sup>12</sup>. In our institution we use a conference room close to the operating room area. This may not always be possible at your site. Be creative. Find an empty operating room or patient room and close the door. If there aren't enough chairs for everyone then stand in a circle. Ask colleagues (not involved in the debriefing) to answer pages or phone calls during the debriefing. Don't let a lack of the "ideal" environment stop you from debriefing.

The psychological environment you create is even more important than the physical environment in which you find yourself. In order for a debriefing to be effective, your participants need to feel psychologically safe to share their observations, reflections, thoughts, and ideas. Confidentiality is important for the learners and the instructors. For simulation sessions we ask the participants not to discuss the content of the scenarios as we often reuse scenarios for future learners. For all debriefings we ask participants not to share what was discussed. In return, we tell them that we will not be sharing anything about performance during the simulation scenario or questions or comments shared during the debriefing with department heads, supervisors, or program directors. Only include people in the debriefing who were involved in the clinical or simulated event<sup>12</sup>.

Assume the best of your participants. At our institution we have signs posted on the walls of our debriefing rooms that share our basic assumption, adapted from the Center for Medical Simulation in Boston, Massachusetts<sup>13</sup>: "We believe that every participant at the University of Ottawa Skills and Simulation Centre is intelligent, capable, cares about doing their best, and wants to improve". Approach your learners with the same attitude. Include a similar statement when you start your debriefing.

Focus on learning. A debriefing is not an evaluation, a performance review, nor is it meant to be punitive<sup>12</sup>. Remember that participants are there to learn from you and learn from each other. Be open to learning from your participants as well. This is especially true during interprofessional and interdisciplinary debriefings where participants have a lot to learn from other team members about their different points of view, experience, and roles during a crisis.

Participant engagement is critical to a successful debriefing. Unlike a lecture, or what we typically think of as feedback, debriefing is a

conversation between instructor and the participant(s) or amongst the participants themselves. The participants are not passive<sup>8</sup>. Debriefing relies on their observations, reflection and analysis. All team members, regardless of their role or level of training, who were involved in the clinical or educational event should be included in the debriefing<sup>12</sup>. Everyone should be given the opportunity to speak and ask questions. There are examples of peer-led debriefing where participants are able to debrief themselves with little or no input from an instructor<sup>24,25</sup>. They may be guided by a list of written questions. This often works best if members of the team have some training or previous experience with debriefing.

The content of your debriefing should focus on knowledge, skills, and behaviours that are clinically relevant. One of the biggest challenges I have observed is instructors who try to address every performance gap that they observe. This is especially challenging when there are multiple instructors, each with their own agenda, trying to discuss what is most important from their own perspective. It is also a challenge when participants come from different professions or specialties. Debriefings have a limited duration and there is only so much that participants can learn during any teaching session<sup>12</sup>. Spend your time discussing two or three objectives in detail. Don't expect to discuss everything that happened. Your learners may want to discuss different topics than you during the debriefing; try to address some of your objectives and some of theirs. At our institution, many instructors will focus on learning objectives related to team work skills instead of medical knowledge or technical skills. This allows us to engage the entire team in conversation rather than learners from specific specialties or professions. We send resources regarding the medical expert objectives after the session by email.

It is important to focus the discussion on how the team worked together, made decisions, used their resources, and communicated rather than the outcome that was achieved. Sometimes a team demonstrates excellent medical knowledge and teamwork but the patient has a poor outcome. Sometimes, despite poor teamwork, the patient has a good outcome. The goal of debriefing is to examine the processes that were used by individuals and the team and to reinforce what was done well and improve what can be improved<sup>12</sup>.

Your goal as a debriefer is to close performance gaps<sup>15</sup>. Participants may act in ways you don't expect them to. This difference between their actual performance and the performance you expect and want, is the performance gap. The goal of debriefing is not just to correct the actions, it is to uncover the thought processes (or frames) that led to the actions that you observed. Correcting frames will lead to more consistent and effective learning and behaviour change than

**Table 1:** Creating the Debriefing Environment

The Debriefing Environment	
Private and quiet	Confidential
Eliminate distractions	Respectful
Allows everyone to see and hear each other	Appropriately inclusive of all team members
	Assume the best of your participants
	Subgaleal space
	Learning focused

correcting actions alone. By teaching participants better ways of approaching and working through problems, they will be able to apply what they have learnt to a wide variety of situations. Similarly, you should spend time during the debriefing discussing what thought processes led to desirable actions and provide reinforcement.

There are multiple debriefing models described in the literature. They all have the same basic structure (Table 2): pre-brief (for a planned experience such as simulation or clinical teaching), reactions, description, analysis, and summary<sup>16</sup>.

**Table 2:** Different phases of a structured debriefing. While the duration of each component will vary depending on the type of event taking place, the number of learners, and the duration of the event, the analysis phase is the main component of a debriefing and most of your time should be spent in the analysis phase.

<b>Pre-Briefing</b>
<b>Reactions Phase</b>
<b>Description</b>
<b>Analysis Phase</b>
<b>Summary</b>

Pre-briefing should be done for all planned simulation activities and clinical teaching where a debriefing is planned. A pre-briefing engages the participant by preparing them for and orienting them to the experience they are going to have. It is the first step in creating a psychologically safe environment during the debriefing. Hughes and Hughes<sup>17</sup> describe the four basic components of a pre-briefing: reviewing the session goals and objectives, establishing a contract with the learner where they agree to treat the scenario as if it was real (necessary for simulation events), describing logistics and ground rules, pledging to respect the learner. Table 3 outlines a suggested script that can be used during a pre-brief.

The reactions phase is the first phase of the post event debriefing. It often occurs as participants are walking towards or gathering

**Table 3:** Suggested pre-briefing script

<b>Suggested pre-briefing script</b>
(Introductions). Thank you for joining us today for your simulation session. The goal today is for us to practice and discuss our team working skills by working through either common or important crisis situations that can occur in the operating room. We know that everyone here is intelligent, capable and wants to improve and we are all here to learn from each other today. We will not be discussing your performance outside of this room and we ask that you also do not discuss the events or discussion we have here today. We have done our best to make the clinical situation and environment as realistic as possible but we know that things will be different from a real clinical situation. Please do your best to treat the situation, patient, equipment, and people you are working with as if this was a real clinical situation. Today we will be running one scenario for 10-15 minutes and then we will spend 30-45 minutes discussing it together. Please ensure your pagers and cell phones are turned off for the duration of the session. Does anyone have any questions?

in the debriefing room. When a participant experiences a real or simulated event, it will have an impact on them<sup>18</sup>. They may have strong negative or positive feelings about what happened. The reactions phase allows participants to share or vent these feelings to the instructor and to each other. Make sure everyone has the opportunity to speak. As an instructor, the reactions phase can tell you whether the participant thinks they did a good or poor job and how they are feeling about their performance: are they confident, angry, excited, sad, withdrawn? It can tell you the level of insight the participant has on the experience and their performance: are their emotions what you expect or are they unexpected? It can tell you what the learner is focused on and what they will want to speak about during the debriefing. Pay attention to the participant's facial expressions, tone of voice, body language, and words and adjust your debriefing accordingly. Table 4 contains suggestions for how to start the reactions phase.

The description phase brings all the participants onto the same page so there is no confusion about the facts of the case and the events that occurred<sup>16</sup>. Participants may come from different clinical backgrounds or different levels of training. They may not have been present for the entire event being discussed. They may not have a global picture of everything that happened because they were focused on a particular situation or task. You may choose to provide the description yourself or have participants describe the main issues and events from their perspective. See Table 5 for suggestions on how to summarize or how to ask learners to summarize the scenario. The description phase is important because learners may not be able to focus on discussions about non-technical skills, crisis resource management, or teamwork until they know if they "made the right diagnosis", "managed the case correctly" or figured out "what the case was about".

The analysis phase is crucial for learning to occur during and after a debriefing and this is where you should spend most of your time<sup>5,16,18</sup>. I recommend spending 75% of your time in the analysis phase. This is where the learners have time to reflect on their actions, ask questions, analyze their frames, discuss their performance gaps, and come up with solutions to close them<sup>1,2,5,16,18</sup>. There are many different strategies that can be used to guide this reflection, analysis, and discussion. In their PEARLS Debriefing Script, Eppich et al describe how to choose which strategy (self-assessment, instructor led teaching, or facilitated discussion) will be most effective for your participants based on the type of performance gap, the insight of the participants, and the time available<sup>16</sup>.

**Table 4:** Examples of phrases that can be used to start the reactions phase

Suggested reactions phase opening
How are you feeling right now?
Would anyone like to share how they are feeling?
What is your reaction to what just happened?
Would anyone like to share their initial reactions?

**Table 5:** Examples of phrases that can be used to start the description phase

Suggested description phase opening
This was a case of a patient with an anticipated difficult airway deteriorating and requiring urgent airway management. The goal was to see how you assessed and managed the patient applying the difficult airway algorithm and eventually securing the airway using a surgical airway.
Can you please summarize the important medical issues and events in 1-2 sentences?

Whichever technique is used, it is important to keep in mind the principles of a safe debriefing environment, respect for your learners, respect for your own knowledge and expertise, and the importance of asking genuine questions and paying attention to the answers. Rudolph et al<sup>14</sup> describe the use of “good judgement” to create psychological safety in a debriefing. As a debriefer, instructor, teacher, or expert in your field, you have knowledge, experience, and perspective that your participants may not. Your judgements are valuable and should be shared during the debriefing. However, judgements should be made without shaming, blaming or criticizing. Share your observations and thoughts about performance in a way that respects the participant’s experience and perspective. Don’t assume you know why they performed in a certain way. Instead, be genuinely curious about what led to their actions and try to understand why they did what they did.

The “plus/delta” technique asks learners to create a list of things they did well (plus) and things they would change or improve (delta)<sup>3,19</sup>. Plus/delta relies on participants to speak up, reflect on their own performance and that of their team, and be willing to recognize things that well and things that did not. Presenting this as a written, two-column exercise encourages participants to be balanced and not to focus only on the good or poor aspects of their performance. This technique can be used to generate a list of potential topics to discuss during the analysis phase. As an instructor, you may not necessarily

agree with the participants’ assessment of what belongs in each column. Your perspective and opinion should be shared, respectfully, and used to generate further discussion of the topic<sup>14</sup>.

Direct feedback or instructor-led teaching can be used if there is limited time or for performance gaps that are technical or knowledge based<sup>16</sup>. Ideally, more time will be spent using other techniques that allow participants to engage, reflect, and create their own insights. However, some learners need more guidance or direction from the instructor in order for the conversation to move forward.

A facilitated discussion gives the participants and the instructor a deeper understanding of why certain actions were taken, barriers to applying knowledge, the pros and cons of the decisions that were made, or any other learning objective that is important and relevant to both the instructor and participant<sup>16</sup>. It requires a participant who is engaged, willing to reflect on their performance and their frames, and analyze their behaviours. It also requires an instructor who has paid attention to what was done, is able to respectfully share their “good judgement” and ask genuinely curious questions<sup>14,15,16</sup>. Table 6 contains examples of phrases you can use to facilitate discussion.

Regardless of which technique you use, the analysis phase should focus on objectives that are clinically relevant and important to both you and the participant. End the analysis phase by asking the learners if there are any other issues they wish to discuss.

**Table 6:** Examples of phrases that can be used in the analysis phase to guide a facilitated discussion

Facilitated Discussion
I saw you wait for bloodwork results before treating hyperkalemia even though you noticed EKG changes. That seems like an unnecessary delay. Help me understand why you waited for bloodwork before starting treatment of hyperkalemia.
You decided to give medications for intubation yourself instead of delegating that task to the nurse. It seemed like you had a lot going on at that time and in my view, you were overloaded with tasks. What are the pros and cons of giving medications yourself vs delegating that task to someone else?

**Table 7:** Example of a phrase that can be used to start the summary phase

Facilitated Discussion
Let’s wrap up by each sharing one thing you did well today that you will continue doing in your clinical practice and one thing you learnt that you will apply the next time you encounter a similar situation.



**Table 8:** from Ahmed M, et al. A SHARP Improvement in Performance Feedback in the OR19

The debriefing concludes with the summary phase. Learners summarize 1-2 take home points that are important to them. The summary phase has multiple important roles. First, summarizing helps consolidate the learning points for the learner themselves. It also gives you, as an instructor, feedback about whether the learners achieved the objectives you wanted them to from the event and from the debriefing. Finally, the summary phase is a good reminder from both the instructor and the participant that learning does not end when the debriefing ends. Learners should continue to reflect on their experience and the discussion. They should look for ways to apply what they learnt to their future practice, thus continuing the cycle of experiential learning<sup>1</sup>. Table 7 contains suggested phrases you can use to guide the summary phase.

## When to Debrief

The debriefing conversation and tools can be applied to simulation sessions, clinical teaching, or after critical events.

Several systematic reviews and meta-analyses have established the importance of debriefing when conducting simulation<sup>4,8,12,20</sup>. Without debriefing after simulation, there is no learning. Simulation is a time and resource intensive teaching modality that requires additional training and, often, equipment. A full review of simulation is addressed in another article in this journal. Although we often think of debriefing in the context of simulation, it can be used more broadly in education and clinical practice.

Teaching tools, such as the SHARP tool (Table 8) and the BID technique (Table 9), have been developed that use a debriefing structure and debriefing strategies<sup>19,21</sup>. They are designed to be used even in busy clinical and teaching practices, taking 5-10 minutes to complete. Start the day/case/clinic/shift/patient encounter by setting expectations, identifying objectives (your objectives and your learner's), and creating an atmosphere of mutual respect: "the pre-brief". Hold the debriefing as soon after the session as possible<sup>12</sup>. Include a reactions phase by asking the learner how things went or how they are feeling. Try self-assessment strategies by asking the learner what they did well and what they could do differently. Have a facilitated discussion by sharing your opinion and good judgement and by asking questions. Use directed feedback to reinforce or correct their knowledge or technical skills. Finally, summarize by asking the learner what their plan is to close their performance gap or apply what they learnt during this session. Unlike what we traditionally think of as feedback, using a debriefing approach engages the learner in the conversation, analysis, and creation of a learning plan.

Structured debriefing tools, such as the DISCERN tool, have been created that require little debriefing expertise or experience and many institutions have created their own versions to use following critical events<sup>22,23</sup>. A psychologically safe environment, a focus on learning rather than blaming, and an attitude of respect for all team members are extremely important when debriefing a team that has recently managed a critical event, especially if there was a poor patient outcome. To make these tools easy to use by those without formal debriefing training, many use a plus/delta strategy. The authors of these tools also suggest that any ideas raised in the summary that could be applied on a system level to reduce error and improve patient outcome, be anonymized and shared with hospital leadership.

**Table 9:** from Roberts NK, et al. The Briefing, Intraoperative Teaching, Debriefing Model for Teaching in the Operating Room<sup>21</sup>

Stage	Step	Script
Briefing	Set learning objectives for encounter	"What would you like to focus on?" OR "Today I want you to focus on..."
Intraoperative Teaching	Teaching during the encounter	Focused on stated objectives
Debriefing	Reflection	"How do you think you did? Why?"
	Rules	"What did you learn for next time?"
	Reinforcement	"You did well at..."
	Correction	"Next time, do this..."

## Conclusion

Debriefing is a well-established tool for promoting learning after a simulation session. There is growing evidence that when used in other areas of healthcare, such as teaching and after critical events, individual performance, teamwork, and even patient outcomes improve. Debriefing is rooted in an educational theory that requires learners to engage, reflect, analyze, and demonstrate insight and a willingness to apply what they've learnt to their future clinical work. The debriefer must be able to create a psychologically safe environment, adapt to the learners' needs and goals, and be willing to share their observations and opinions honestly and respectfully. When both sides are able to fulfill their responsibilities, it leads to a unique and rich discussion where everyone involved learns and improves.

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