General Advice and Specific Issues

3

Abstract

This section starts with a list of general debriefing tips and advice about preventing and handling difficult debriefing situations that are applicable to most circumstances and will benefit simulation educators. It then addresses a series of commonly faced issues or queries that are often discussed in the simulation community. Whether or not to play back the video recording in the debriefing process is often debated, and research is still inconclusive as there are so many possible confounding factors. Similarly, insight into the use of within-scenario debriefing is provided with support from relevant references. An additional approach that can be perceived as being a supportive measure for learners new to simulation-based education followed by debriefing is the provision of a complete demonstration cycle, live or by playing back a recording of the whole process. On the other hand, a real dilemma sometimes faced by simulation educators relates to the mutual promise of confidentiality in relation to simulation session with learners and the potentially very concerning performance or behaviour of a participant. An introduction to rapid cycle deliberate practice in relation to how it affects debriefing is presented. Finally we briefly review the current debriefing assessment tools.

3.1 General Debriefing Tips

Debriefing can feel like the hot seat for the debriefers as they have the task of untangling what the participants did during the scenario. Elucidating their actions and decisions in a tactful manner can be an arduous task and relies on the debriefer(s) having good knowledge about the scenario, its learning objectives, and paid close attention to the participants' interactions with other team members, their patient(s), and the environment. The success of the interaction between the debriefer(s) and the learners is influenced by the climate of professional respect and trust which has been established during the simulation session (Decker et al. 2013). Overall, the debriefing is a

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key phase of any simulation-based educational intervention to help learners reflect on what happened, so they can really assimilate the learning objectives (Alinier 2011).

The debriefers require good communication skills and a particular psychological awareness in the approach to adopt to ensure the most positive learning outcome for the learners. A summary of some useful debriefing tips sometimes inspired by other educators (Der Sahakian et al. 2015; Gardner 2013; Jones and Alinier 2015; Mayville 2011) is presented in Table 3.1 in relation to what needs to be considered before the debriefing, in Table 3.2 for tips related to during the debriefing phase, and

Table 3.1 List of debriefing tips to consider before a debriefing session

• Establish expectations and ground rules from the beginning of a simulation session regarding respect and confidentiality
• Establish a good rapport with the learners to gain their trust
• Add bookmarks or write down the time of specific events during the scenario if you intend to play back these events as video clips during the debriefing
• Keep a mental or written note of all elements you observed during the scenario that need to be debriefed by directing appropriate questions to participants
• Debrief immediately after the simulation to capture immediate participants' reactions
• Acknowledge the limitations of the simulation and relate to real situations rather than defend or defy the critics of the simulation process or technology

Table 3.2 List of debriefing tips to consider during the debriefing session

• Remember to always thank the scenario participants
• If you have ended the scenario before its natural conclusion, briefly mention why (i.e. the learning objectives have been addressed)
• Manage the debriefing input from learners towards other learners
• Decontextualise aspects of the scenario from the participants to balance the emotional and teaching aspects
• Maintain a structured debriefing approach starting with a general reaction phase
• Address the most junior scenario participants to speak first
• Ask open-ended questions (what, why, how, etc.) to really find out what learners want to say
• Use questioning that promotes in-depth reflection and participation of learners
• Do not answer yourself when learners do not promptly respond to your questions
• Reword questions when participants do not respond
• Get learners to respond to their own questions
• Use active listening to encourage constant participation
• Use silence/pauses to encourage further responses from learners
• Direct questions to quiet learners, and ask them to comment on what others said
• Involve all learners in the debriefing discussion, including observers
• Keep a mental or written note of all elements that emerge from the reaction phase and need to be debriefed by directing appropriate questions to participants
• Avoid deterring learners' participation by monopolising the discussion
• Make observations or remarks in a non-offensive manner
• Use the video for debriefing only if it is really necessary and beneficial and framed in a non-offensive manner for the participants
• Check with all learners individually what is their take-home learning point from the scenario

Table 3.3 List of debriefing tips to consider after the debriefing session

• Consider if anything should be changed in the scenario template (the briefing, patient condition, documentation, script from confederate(s) or actor(s), etc.)
• Constantly reflect on your own practice as a debriefer by considering how learners react during the debriefing
• Consider how you come across to your learners and what they really learn from your debriefings
• Seek feedback from co-debriefers and learners about your debriefing approach
• Use Chap. 4 of the book as your personal debriefing diary to write your important debriefing learning events and situations

in Table 3.3 for the points that relate primarily to after the debriefing. Irrespective of whether it is about before, during, or after the debriefing session, the tips help ensure that this phase of a simulation session profits all learners, including the observers (O'Regan et al. 2016).

3.2 Using a Debriefing Preparation Checklist

Using a checklist can be a very useful tool, so no element of the debriefing preparation and actual running is forgotten. It is especially important when working alongside a co-debriefer to ensure both debriefers work in harmony. The key elements of such checklist for debriefing are presented in an article by Cheng et al. (2015b) and have been slightly adapted and graphically represented in Fig. 3.1. In essence and as discussed earlier, it shows that debriefing is not an improvised session and requires some preparation on the part of the debriefer(s) to ensure it is facilitated effectively. The proposed checklist is based on the work from Cheng et al. (2015b) and shows four consecutive phases:

– Pre-simulation: These elements should happen before the start of the simulation session to prevent any potential surprises, especially if the debriefing will be jointly facilitated with someone else. This checklist contains elements that pertain to debriefer reviewing the intended learning objectives, understanding the key scenario events, and agreeing on the roles and responsibilities and their debriefing strategy.
– During the simulation: This part of the checklist encourages debriefers to stay focused on the simulation and to take notes about events they would like to discuss during the debriefing.
– Post-simulation: A short huddle should take place immediately after the simulation, involving the facilitators and actors, to share observations and concerns and agree on what are the key elements that need to be debriefed. The checklist can be used to guide this process and ensure intended versus actual learning objectives are appropriately prioritised through a rapid consensus approach while remaining open-minded about the fact that the reaction phase of the debriefing itself may modify the intended discussion points.

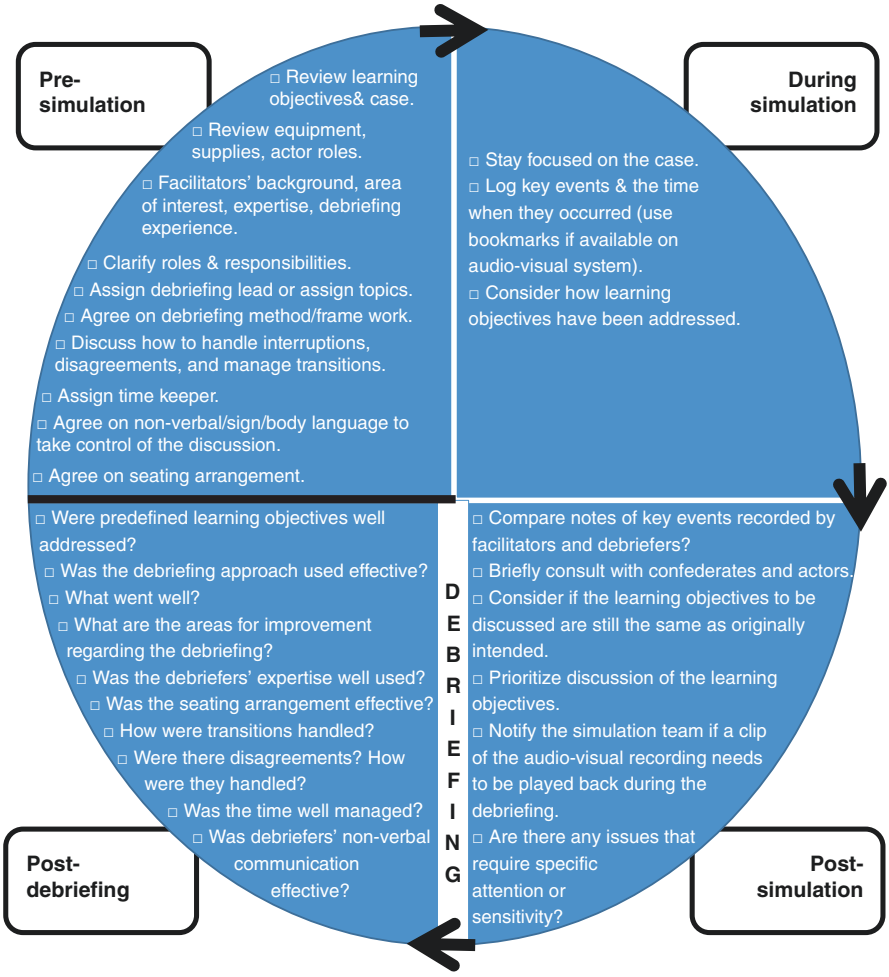

Fig. 3.1 Checklist of points for consideration to facilitate good debriefings (Adapted from Cheng et al. 2015b)

– Post-debriefing: Debriefers are also encouraged to reflect on the experiential learning process they have facilitated through debriefing in order to improve their practice, whether they have conducted the debriefing solo or with a co-debriefer. In the latter case, it is valuable for the debriefers to go through the checklist jointly, so they can mutually agree on how to refine their approach if required.

3.3 Video or Not Video-Assisted Debriefing?

It is very common for facilities used for scenario-based simulation education to be equipped with an audio-video system that allows for live streaming and recording of scenarios (Alinier 2007). Although there are not always demonstrated learning benefits (Savoldelli et al. 2006; Sawyer et al. 2012), some educators favour the use of video-assisted debriefing whereby the facilitators play selected video clips of the scenario (Hamilton et al. 2012) or the entire scenario video at the beginning of the debriefing to allow participants to relive the experience from a different perspective (Dusaj 2014).

Video-assisted debriefing supposedly permits learners to review their performance by providing an objective record, but we should emphasise that adequate guidance is required for this to occur. Four studies compared the use of video-assisted debriefing with non-video-assisted debriefing for simulation-based training and showed no difference in benefit between the two methods of debriefing (Cheng et al. 2014). In a study involving nursing students, skill improvement was higher, and response times were faster in the video-assisted group, as well as knowledge retention, compared to verbal debriefing alone (Chronister and Brown 2012), but other studies demonstrated no real difference (Savoldelli et al. 2006). Many factors come into play when it comes to comparing debriefing methods as the "experimental" approach itself, which could be considered to be the use of the video footage, can be implemented in many different ways. The video may be played entirely before the debriefing starts, it may be played and stopped every time something is worth discussing, or only specific bookmarked segments can be played back to highlight particular events. In a randomised study (debriefing with vs. without video), nursing students reported that their experiences in debriefing were minimally different, especially by helping in making connections between theory and real-life situations (Reed et al. 2013). In a recent Australian study, 24 expert debriefers shared the belief that video was an adjunct to debriefing, but its use varied from almost always to very rarely (Krogh et al. 2015). For the authors, the optimal use of video in debriefing was at most a few short selected clips, with learners oriented to the educational purpose of the particular extracts (Krogh et al. 2015).

In summary, for us the practical use of video-assisted debriefing, in order to maximise learning outcomes, should be limited to selected bookmarked clips in order to provide evidence for the debriefer's observations. These clips should be presented in a neutral tone as scenario facts and associated to questions to the participants to gather their reactions on a specific action. We do not favour the routine use of video with replaying the whole scenario, which would not put sufficient emphasis on the debriefed points and would take too much time. Similarly video clips should not be used to reinforce directive feedback in a judgemental way, as it could be very offensive to the participants. Showing a specific clip and saying "Look what you did wrong here!" is strongly discouraged.

If the debriefer is a "beginner debriefer", we think that the best use of the audio-video recording capability of a simulation session to maximise learning outcomes is during debriefing rather than during the scenario itself. By video recording their own performance of debriefing the participants, with their consent, and reviewing the

video eventually with a colleague, the beginner debriefer can be guided in their own reflective process with an aim to eventually improve or perfect their debriefing performance and therefore improve learning outcomes of trainees (Arafeh et al. 2010).

3.4 Using Within-Scenario Time-Outs to Debrief or Not?

Interrupting a scenario in a "stop-and-go" manner to provide feedback or initiate a debriefing is quite a particular strategy which can be perceived as being "instructor centred" or "trainer led" (Alinier 2007) and provoked by an overprotective feeling whereby the educator does not want the participants to go down the "wrong path". This approach could be perceived to be beneficial to stop participants from learning or practising "wrongly"; however, it also stops them from learning about the actual consequences of their current thought process and actions.

Once this approach is adopted in a scenario by a facilitator, it inherently reduces its level of fidelity especially if it is done in a way that really pauses the scenario. Such breaks may affect the way students engage in the scenario and the actual flow of the care they are trying to provide to their "patient". A study by Van Heukelom et al. (2010) showed that Post-simulation debriefing was favoured by students as it helped them more effectively understand their correct and incorrect actions. In our view, "in-simulation debriefing" is more adapted to practical skills training as an isolated event rather than as part of a scenario.

"Indirect feedback" can be provided during a scenario by a facilitator or "confederate" (imbedded participant) in an acting capacity (Meakim et al. 2013) without really affecting the flow and realism of the scenario by making useful suggestions or offering to take over. Such approach is sometimes useful as a scenario "lifesaver" to ensure that the scenario develops in the expected direction, so learning objectives can still be addressed (Der Sahakian et al. 2015; Dieckmann et al. 2010).

On the other hand, the purpose of scenario-based simulation is generally to provide autonomy to participants by putting them in particular situations to observe how they would manage solely relying on their knowledge, clinical reasoning and practical skills, and teamwork abilities. Not interrupting or interfering with the participants during the scenario allows them to fully experience the consequences of their actions in the safety of the simulation environment and learn from their error which is a key advantage of this training modality.

"Within-scenario" debriefing needs to be considered as a different approach as it meets different participants' learning needs. It promotes reflection in action and hence facilitates mastery learning (Eppich et al. 2015).

3.5 What About Running a Scenario and Debriefing Demonstration?

A demonstration scenario followed by a demonstration debriefing is sometimes requested by learners to better understand what will be expected from them or because they might be nervous and uncomfortable to engage in a simulation-based activity observed by a number of people who might be co-workers, other learners,

or senior clinicians. Although time-consuming, it still provides a valuable learning opportunity for everyone and might be very valuable in some cultural context were such approach is very remote from their traditional way of learning. The demonstration does not necessarily need to be enacted live, but instead a relevant pre-recorded video from a library of scenarios and its associated debriefing could be used to illustrate these important aspects of a simulation session to the learners (Fanning and Gaba 2007). It can either be a scripted demonstration played out by faculty or volunteers with clearly identified roles, so learners understand who are meant to be the "learners" versus the confederates or actors. Alternatively, with informed and written consent of the learners, the actual video recording of a real simulation-based learning experience and its associated debriefing, illustrating basic learning objectives and conducted in an ideal manner, could be used.

3.6 How to Best Handle the Debriefing of a Multiprofessional Team?

When dealing with a multiprofessional team of learners, it is highly recommended to also have a multiprofessional team of debriefers the learners can relate to. They implicitly need to feel represented among the faculty team as it can be seen as a form of reassurance. This also means that the debriefing is likely to last longer as the various professions' perspectives need to be analysed. This approach has already been implemented for a large number of undergraduate interprofessional simulation sessions and generated fruitful discussions (Alinier et al. 2014).

A lack of representation of the key professions involved as learners within a scenario among the debriefers could easily lead to an unbalanced debriefing favouring discussions with a particular group of participants to the detriment of the others. There could be an issue of lack of credibility or misinformation if an educator of a particular profession advises learners from a different profession. An important aspect to consider is that all the debriefers should preferably have received appropriate training in facilitating the debriefing (Lioce et al. 2015) as being a subject matter expert does not necessarily come with the most appropriate ability to facilitate the debriefing in a constructive manner.

The 3-D debriefing model from Zigmont et al. (2011) has been recommended in the interprofessional context, and it can be complemented by other approaches (Becker et al. 2016). Circular questioning, for example, is a particularly useful approach to use during debriefing when learners from different professions engaged in a team-based simulation activity as it promotes dialogue that generally enables learners to understand their interdependencies, but it also needs to be balanced with advocacy-inquiry (Kolbe et al. 2016) as discussed in Sect. 1.8.4.

3.7 What If I Feel I Cannot Keep What Happened Confidential?

There are situations when deficiencies discovered during a simulation session and confirmed through the debriefing might be so concerning that it needs to be discussed again with the participant(s) outside of the simulation setting and even with their

clinical supervisor. One should however remember the initial promise of confidentiality made with the learners and the safe learning environment that the simulation is meant to be. As such, it would be wise to obtain consent from the affected participant(s) prior to externally disclosing any element of concern relating to them and that may have occurred during the scenario or debriefing.

Such situation may relate to the inadequate or disrespectful behaviour of a participant towards their peer(s) or the debriefer(s). Although very unlikely, the tension potentially caused by the stress of the clinical scenario or a poorly worded criticism from an observer could trigger an unexpected outburst from a participant. In that sense, the participant(s) in question could be considered to have violated a fundamental ground rule related to respect, and hence it could be a valid reason for the debriefer to also violate the promise of confidentiality if the situation warrants to be considered by an external disciplinary panel. In a more conventional situation, the facilitator would be expected to retake control of the situation by rephrasing the point being discussed to prevent the escalation of a potential argument (Der Sahakian et al. 2015). "Debriefing with good judgement" helps to alleviate such situation (Rudolph et al. 2007) but requires some form of practice to master (See Sect. 2.6.3).

3.8 What Is Debriefing for Rapid Cycle Deliberate Practice About?

Repetition of simulation practice over several rounds in a row impacts on the way debriefing should be conducted as participants in such events will be much quicker to go through the debriefing process as many elements will not need to be repeated. Indeed rapid cycle deliberate practice (RCDP) provides progressively more challenging simulation rounds in rapid repetition, and it is usually associated with brief, directive expert feedback interspersed throughout the session (Doughty et al. 2015) (see Sect. 1.8.1). It contrasts with traditional debriefing, which seeks to uncover learners' frames through advocacy-inquiry debriefing but does not provide the opportunity for immediate repetitive practice (Doughty et al. 2015). In RCDP, assessment of learner performance and feedback is more instantaneous and directive, which allows for rapid resumption of practice (Patricia et al. 2017). Nevertheless, implementation of RCDP with its short direct debriefings has been associated with an increase in resident's skills in resuscitation (Hunt et al. 2014). The depth of the learning that occurs is an element that should be more researched.

3.9 How to Prevent or Handle a Difficult Debriefing?

A good briefing of the learners regarding the simulation and debriefing process and a clear orientation to the simulation environment and technology used can prevent issues during the scenarios that may translate into a difficult debriefing. It also helps

ensure that any potential technical issues or lack of familiarity with the simulator can be noticed before the start of the scenario. A candidate not being able to hear breathing sounds or to feel a pulse could adversely affect the progress of the scenario or distract the participants, preventing them to progress as expected in the scenario. At this stage, a confederate might still be able to interfere in an acting capacity in the scenario to "redress" the situation by also auscultating the chest (in the correct place) and providing their opinion. This is a good example of the use of a scenario "life-saver" (Dieckmann et al. 2010).

Similarly, if a scenario briefing or introduction is oversimplified, too directive, misleading, or inadvertently ambiguous or if assumptions are made during the briefing phase about the learners' prior experience about simulation, our expectations of them during the simulation, and what they are expected to do for real as opposed to pretend could lead to difficulties in the scenario that may be perceived by participants as unfair to them. This may cause them to react defensively from the onset of the debriefing, and they may remain focused on a particular negative trigger. For example, the participants' way to handle a scenario may differ greatly if the briefing provided is:

> "… A couple present themselves to your clinic. They expect to learn about the outcome of some recent tests which show the husband is HIV positive. Demonstrate how you would break the bad news to the couple".

As opposed to:

> "… A couple present themselves to your clinic. They expect to learn about the outcome of some recent tests which show the husband is HIV positive. Start the consultation and break the bad news".

In the first case briefing, the participant is directly encouraged to address the couple together, which would be a mistake, in terms of respecting patient confidentiality whereas in the second case briefing, it is not specified. From the onset, learners may feel they are being set up to fail or purposefully put in a difficult and unrealistic situation. This would lead them to be taking a defensive stance from the onset of the debriefing and denigrate the realism of the situation or scenario.

In the same example, the main learning objectives could relate to the learner having to demonstrate:

- Good communication skills to professionally ask the couple to first be seen individually, irrespective of their probable intent to have a joint consultation,
- Appropriately disclosing the bad news,
- Speaking with empathy

Once the learning objectives have been achieved, it is normal to bring the scenario to an end to keep to the planed schedule of the session rather than to allow the learner to go through the whole process they probably anticipate having to demonstrate such as providing in-depth counselling and performing the second consultation and

potentially a third consultation with the couple. If right at the beginning of the debriefing this sudden action of stopping the scenario is not appropriately justified by the debriefing facilitator ("Thank you. We stopped the scenario at the moment of the consultation we intended to and in relation to the learning objectives".), the learner's immediate reaction may be to complain that they were not given enough time to finish their consultation(s), hence pushing them also to take a defensive stance.

We recently published with others an article about setting the right conditions for a productive debriefing (Der Sahakian et al. 2015). It includes six propositions:

1. Reflect on your own performances as an instructor (asking for feedback from the learners and peers and being appropriately trained as an instructor who can facilitate learning) (see Sects. 4.2, 4.3, 4.4, and 4.5).
2. Establish simulation ground rules (preparing and briefing the learners before the simulation experience, controlling the timing of the simulation session and the quality of the scenarios).
3. Manage unexpected events and intended learning objectives by using a confederate or actor during the scenarios.
4. Respect the steps of the debriefing process and good practice recommendations regarding learning psychology.
5. Maintain the balance between emotion and teaching by decontextualising the experience from the participants during the debriefing.
6. Manage the input from the peers during the debriefing, so they do not antagonise the learning process.

Debriefings are not always straightforward to manage. It may be difficult to facilitate a debriefing due to cultural differences. The concept of reflective learning in debriefing comes primarily from Western cultures (Chung et al. 2013). All cultures carry significant characteristics that manifest themselves in teaching and learning preferences, practices, and norms. These cultural differences should be considered during the debriefing facilitation process with a culture-sensitive interpretation of simulation-based learning so that learners receive the maximum possible benefit from their debriefing (Chung et al. 2013). It needs to be facilitated in a culturally appropriate manner, which means that some of the recommended approaches may not be viable in particular settings or very difficult to facilitate successfully. Showing the video clip of a demonstration scenario and corresponding debriefing (Sect. 3.5) to an educator local to the cultural context in question might be a wise approach to ascertain the appropriateness of the intended simulation and debriefing approaches to be used.

In other settings, differences in common practices between places of work within the same country and the same culture may create a misunderstanding of performance that can potentially lead to contradictions. At this point, the cultural-historical activity theory approach can provide a useful lens that directs attention to interactions between simulation participants and the context (Eppich and Cheng 2015).

The briefing at the beginning of a simulation session (see Sect. 1.3.1) is potentially a critical mitigation phase to prevent some difficult debriefing situations. Among other things, some of the limitations of the simulation have to be preemptively acknowledged by the facilitators during the initial session briefing or at

the opening of the debriefing and accepted by learners in terms of the "fictional contract" agreement (Dieckmann et al. 2007), but challenges may still be faced by the debriefing facilitators in four different ways:

1. *The facilitator is a beginner or novice in debriefing:* Each session gives an opportunity to train in the complex process of debriefing and develop skills as a facilitator. The rules of early establishment of buy-in, trustfulness, authenticity, active listening, curiosity, and drawing in all participants by directing the discussion to everyone with open-ended questioning are the "ingredients of the secret sauce". What can help the beginner debriefer are the use of cognitive aids to keep on track during the process (see Sects. 3.2 and 4.7) with useful sentences (Fig. 2.2); keeping records of experiences (Chap. 4), as a plus/delta reflection on their own debriefing practice; and possibly videotape their own debriefing (see Sects. 4.2 and 4.3). A novice debriefer should also take advantage of taking the role of co-debriefer in any available opportunity presenting to them, as it will rapidly provide them with valuable experience in debriefing (see Sect. 1.6).
2. *There is a time issue for debriefing:* Here, the most important is to establish the debriefing structure, as a three-phase process, even if each phase is shortened. It will fulfil most of the debriefing objectives (but not all) and allow participants to get familiar with the debriefing environment.
3. *The debriefer is facing a difficult situation:* Debriefing a senior participant, like a faculty or well-respected and experienced clinician, is often a challenge for the novice debriefer, as a senior participant will be more reluctant to reflect on their practice and will often assume their performance is correct or may even try to take control of the debriefing.
4. *The debriefer is dealing with difficult learners:* This often represents the most stressful situation for the debriefer, as most debriefers do not know how to handle appropriately difficult learners, especially as it may negatively impact on the simulation session overall and the other learners. Here we propose a short approach to difficult debriefing by displaying some vignettes (Table 3.4) although a whole book could be dedicated to that topic.

Despite a good briefing and specific attention to cultural differences or practices, facilitation may still become difficult if during the debriefing phase, the debriefer is facing a "difficult" learner (Table 3.4). It could be a learner who remains very defensive or isolated and silent, with sometimes even self-depreciation. Such individuals may require to be managed differently, for example, by adopting a teaching and learning approach that is more interactive and with an even smaller group of learners. On the opposite, during a debriefing, it could happen that violent emotions emerge, as well as debates or criticisms from other participants. This situation should be quickly handled by the facilitator (restating the ground rules of debriefing, Sect. 2.2) to keep the debriefing process on track and avoid further tensions within the group. The facilitator's expertise in debriefing plays an important role in managing and resolving adequately such situations. Being recognised as the person who can resolve the above difficulties is a very valuable quality for a debriefer.

Table 3.4 Vignettes of debriefing with difficult learners (Adapted from Akroid (2016))

Vignettes	*Threats*	*Suggestions*
The gamer A participant refusing to engage because it is "all a game"	– Disconnection from the educational purpose – Diversion of debriefing to discussion of limitations of mannequin, environment, equipment, etc. – Loss of buy-in and engagement of the group	– Acknowledge limitations of the simulation, and remind participants of the fictional contract – Important learning can take place regardless of these limitations – Refer to committed to treating the simulation scenario like a real medical event – Remind of responsibilities towards others' learning – If completely disengaged or disruptive, consider exclusion from the session
The blamer A very self-critical participant	– Self-depreciation and loss of self-confidence of an individual – Loss of trustfulness in simulation and debriefing that can contaminate the group – Inhibition of engagement in the debriefing process – Diversion of the debriefing to an individual's problem	– Explore the reasons for being unhappy – Acknowledge it is stressful for all – Focus on team dynamics more than on individuals – Help to see positives – Use positive peer feedback – Encourage the group to support – May require individual support
The shamer An aggressive participant who criticises other participants	– Disruption of debriefing atmosphere that can lead to an open conflict zone – Loss of oversight of educational objectives – Loss of team spirit and performance	– Remind the rules of debriefing: trustfulness, mutual respect, curiosity, etc. – Remind that debriefing should be constructive – Encourage focus on team performance – Zero tolerance on rude or personally offensive comments
The weeper A tearful participant during the debriefing	– Disruption of debriefing atmosphere that becomes sad – Loss of engagement of the group – Diversion of the debriefing to an individual's problem	– May be normal response to anxiety for some participants – Acknowledge it is a stressful experience for all – Use group for support – Encourage to "recompose" to mentally rejoin the session as soon as possible – May require individual counselling or feedback
The homer An unsafe but affirmative, convinced participant who is unaware of his/her misunderstanding, like "Mr. I-know-it-all"	– Loss of oversight of educational objectives – Polarisation of the discussion between the participants – Very difficult closure of performance gaps – Ambiguity of understanding what is to be learnt from the simulation by other leaners	– The use of factual approach, possibly video if a procedure was involved – Explore performance by advocacy-inquiry – Introduce a part of relativity to the assertions, like a "grey zone" – Use peer feedback to redirect to correct understanding – Use team dynamics to force understanding of malpractice – Use protocols or recommendations to demonstrate deviation from expected practice – May need fallback if unsafe behaviour persists, i.e. escalation

Table 3.4 (continued)

Vignettes	*Threats*	*Suggestions*
The defensive A participant evoking any cause (lack of realism, etc.) to justify a gap in performance	– Loss of oversight of educational objectives – Risks of not being faithful for "the" participant – Loss of engagement of the group – Difficult closure of performance gaps	– Acknowledge all the limitations of simulation: mannequin, equipment, scenario – Important learning can take place regardless of these limitations – Refer to commitment to treating the simulation scenario like a real medical event – Remind of responsibilities towards others' learning – Encourage focus on team performance
The quiet A silent or introvert participant	– Non-acknowledgement of one individual – Loss of crucial feelings and/or reactions – Misunderstanding of what was really happening during the scenario – Lack of team functioning	– Direct questioning to the silent learner for emotions and reactions (upset by something?) – Acknowledge it is a stressful experience for all – May be normal response to anxiety for some – Importance of team dynamics: each one has a role – Explore relations with team leader and other members

3.10 How to Assess Debriefing?

Semi-quantitative or qualitative debriefing assessment tools should not be considered as tools for assessing debriefing but tools for assessing performance during simulation that can be used to conduct debriefing on the specific areas of gaps in performance. Debriefing itself can be assessed from different perspectives, more or less objectively, depending on what aspects are considered and who is observing the facilitator's performance.

In 2010, Simon et al. developed a behaviourally anchored rating scale named DASH (Debriefing Assessment for Simulation in Healthcare) (Brett-Fleegler et al. 2012; Simon et al. 2010) to identify the extent to which learners or co-debriefers perceive that another debriefer demonstrated six elements crucial to an effective debriefing session following a simulation experience. The six parts of this scale relate to:

1. Establishing an engaging learning environment
2. Maintaining an engaging learning environment
3. Structuring the debriefing in an organised way
4. Provoking engaging discussions
5. Identifying and exploring performance gaps
6. Helping simulation participants achieve or sustain good practice

Overall, these six parts are composed of a total of 20 items. All items describe specific behaviours and are applicable in a variety of environments. Although from

an assessment perspective this contains subjective elements, it provides a useful guide for facilitators to ensure they adhere to high-quality debriefing principles (Brett-Fleegler et al. 2012). In use, the attention facilitators will have to pay to the different elements of DASH will vary greatly depending on the type of learners. A varying degree of emphasis may be required on the different elements depending on the outcome of a scenario or the level of experience of the learners. For example, some learners may require the debriefer(s) to constantly ensure the debriefing remains structured to ensure no point gets omitted, while with other learners, the facilitators will need to put more effort on provoking an engaging discussion to really explore the mental frame or rational of the participants behind certain actions. Psychometric tests show that DASH is a valid and reliable scale (Table 3.5) that is widely used to objectively assess debriefing (Craft et al. 2016). A student version of DASH was later developed to assess the participants' experience (Rudolph et al. 2016).

The same year (2012), Arora published the OSAD (Objective Structured Assessment of Debriefing) scale (Arora et al. 2012). The OSAD is an assessment tool initially designed to assess surgical simulation debriefing practices. It consists of eight categories related to debriefing: approach, environment, engagement, reaction, reflection, analysis, diagnosis, and application. It has been demonstrated to have strong interrater reliability and internal consistency and has been used to demonstrate an improvement in both frequency and quality of debriefing after an educational intervention (Ahmed et al. 2013; Arora et al. 2012). It is also suggested that OSAD may be used for formative purposes as a teaching tool for new debriefers (Paige et al. 2015). In their article on faculty development, Cheng et al. (2015a) compared DASH and OSAD and suggested that these tools be tested in other contexts and be used formatively to track debriefing performance of educators over time.

The same year that the DASH rating scale and the OSAD scale were published, Reed (2012) developed the Debriefing Experience Scale. It is a subjective scale consisting also of 20 items, designed for simulation in nursing education, describing the experience and importance of debriefing for a nursing student. It was divided into four subscales:

- Analysing thoughts and feelings
- Learning and making connections
- Facilitator skill in conducting the debriefing
- Appropriate facilitator guidance

Although addressing primarily, the nursing student population Reed's scale has the potential to be used with other professions, but further psychometric testing based on a different population sample is recommended by the author. The key characteristics of that scale are presented in Table 3.5 alongside information from the other scales reported in this section.

Three years later, a Norwegian team retested the Reed's scale and found a lower internal consistency, especially in the domain dealing with the importance of debriefing (Tosterud et al. 2015). It should be noted that this was done based on a

Table 3.5 Debriefing assessment scales

Authors, year	Settings, names	Observers	Items	Ranking	Cohort, no.	Scenarios	Statistics (CA, ICC)
Brett-Fleegler et al. (2012)	Simulation DASH	Objective (114 international debriefing experts)	20	7-class Likert	3 debriefings (=3 different types of learners)	PEA due to pneumothorax	Overall CA = 0.89 Overall ICC = 0.74 From 0.57 to 0.68 in subparts
Arora et al. (2012)	Surgery Simulation Objective Structured Assessment of Debriefing (OSAD)	Objective (33 international surgeons and OR personnel, UK, USA, Australia) + experts panel ($n = 7$)	8	5-class Likert	20 debriefings	Not described	Content validity index = 0.94 Overall ICC = 0.88
Reed (2012)	Simulation Debriefing Experience Scale	Subjective (nursing students)	20	5-class Likert	130 debriefings (nursing students)	Obstetrics, intensive care	Overall CA: Importance CA = 0.91 Experience CA = 0.93 CA from 0.61 to 0.89 in subscales
Tosterud et al. (2015)	Simulation Debriefing Experience Scale	Subjective (nursing students)	20 and then 18	5-class Likert	138 debriefings (nursing bachelors)	Not described	With 20 items: Overall CA: Importance CA = 0.64 Experience CA = 0.86 CA from 0.27 to 0.84 in subscales With 18 items: Experience CA = 0.91 CA from 0.64 to 0.87 in subscales
Bradley and Dreifuerst (2016)	Simulation Debriefing for Meaningful Learning Evaluation Scale	Objective (three debriefer experts)	33	0/1	15 debriefings	Not described	Overall CA = 0.88 Subscales' CA: Engage CA = 0.39 Explore CA = 0.51 Explain CA = 0.73 Elaborate CA = 0.79 Evaluate CA = 0.78 Extend CA = 0.70 Overall ICC = 0.86

CA Cronbach alpha coefficient, *ICC* intraclass correlation coefficient

carefully translated version. They removed two items from the scale and obtained a higher Cronbach alpha coefficient in the Debriefing Experience Scale, with a total of 18 items, but still had Cronbach alpha values below the acceptable level of 0.70 on the subscale level (Table 3.5).

In 2016, Bradley and Dreifuerst (2016) published a testing of the Debriefing for Meaningful Learning Evaluation Scale based on only 15 videos of simulation-based training but with objective assessment from three debriefing experts. They concluded praising the overall validity and reliability of their scale; however, several subscale domains are below the acceptable level (Table 3.5).

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