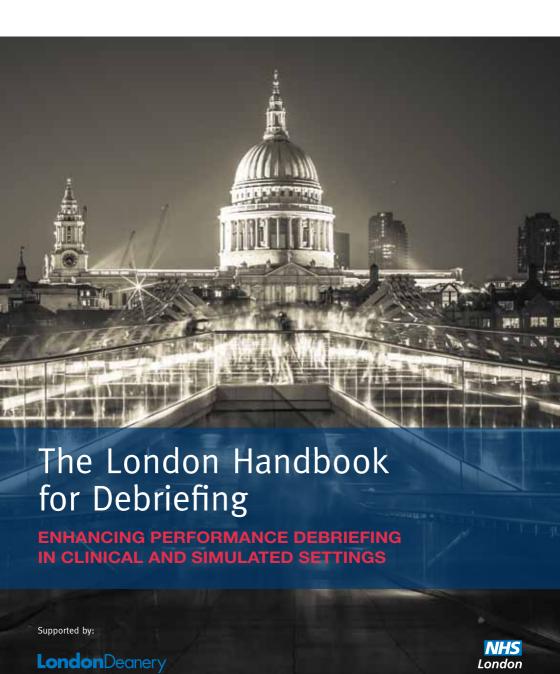
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Background

The fundamental aim of medical and surgical training is to produce competent clinicians able to provide the highest standard of patient care. Quite how this training is to be delivered is currently one of the most hotly debated topics engaging the profession. Drivers for change include increasing concerns for patient safety and reduced working hours resulting in less opportunity for experiential learning. In an effort to address such challenges, there has been an increased uptake in the use of simulation to provide trainees with the necessary knowledge, skills and attitudes that they will need for independent practice.

The use of simulators alone does not guarantee high-quality training, especially when the skill in question goes beyond technical competence to involve aspects of human factors. In addition, running simulations requires significant faculty and financial resources. Therefore, practices which permit maximal learning from every clinical encounter, be they in simulation or in real environments, must be actively sought.

From this perspective, the role of structured feedback and debriefing as part of both simulation and workplacebased training is of paramount importance. As an educational strategy, debriefing following a simulation-based scenario or clinical encounter, be it on the ward or in an operating theatre, is a critical part of the learning process. Through the use of a mutually engaging dialogue between the trainee and trainer, debriefing highlights the lessons learned by trainees through guided reflection on their performance. It also provides the trainee with an opportunity to develop strategies for applying these lessons to their daily clinical activities so as to improve their practice.

Despite this central importance of debriefing to training, the components of an educationally effective debriefing and how best to deliver it remain elusive.

A lack of guidelines on debriefing can lead to significant variations in practice which can result in many missed opportunities for learning. Both trainers and trainees need tools that can allow for systematic, objective feedback to be provided. Such evidence-based tools will allow for better quality debriefs, more transparency and higher acceptability in the provision of feedback.

This handbook provides evidencebased, user-informed tools for conducting and assessing debriefings in the real clinical and simulated setting. The tools can be used for adult and paediatric cases.

SHARP PROMOTING PERFORMANCE DEBRIEFING

OSAD IMPROVING QUALITY OF DEBRIEFING

SHARP PROMOTING PERFORMANCE DEBRIEFING

What is SHARP?

SHARP contains the absolute basic principles of what to cover when conducting a debriefing. SHARP is an acronym that comprises five 'prompts' to guide trainers and trainees in providing/receiving a structured debrief. SHARP stands for Set learning objectives. How did it go, Address concerns, Review learning points, Plan ahead. It is a practical tool which can be used when there is not enough time to carry out a detailed debriefing using all the comprehensive information provided in the Objective Structured Assessment of Debriefing (OSAD) tool described below.

Who can use SHARP?

SHARP can be used by anyone who wants a brief reminder of what to cover in a debriefing in a time-limited setting. For example, it can be used by a trainer to provide feedback to their trainee immediately after a case in theatre. It can also be used, for example by a paediatric trainee to help structure their feedback when discussing management of a seriously ill child with their trainer. Ideally SHARP should be used by both trainee and trainer in order to ensure joint responsibility for the debriefing.



"SHARP forces you to sit down and talk... make every moment count "

Consultant Trainer

"It could be implemented into routine practice like at the end of the case 'Have you done your SHARP?""

Consultant Trainer

For what can SHARP be used?

SHARP can be used as a practical aide memoire to help conduct a debriefing 'on the ground'. It can be used by a simulation instructor, for example, to remind trainees of the points that need to be covered in the post-scenario debriefing. Here SHARP could also be placed as a poster in the debriefing room. Clinically, SHARP can be carried in a credit card sized format in the pocket of a trainer and then brought out at the end of the case to aid debriefing.

Unlike OSAD (see below), it is not an assessment tool. The five prompts of SHARP map onto the components of high quality debriefing described in OSAD. Both tools are designed to complement each other and can be used together. For example, SHARP could be used by a trainer to conduct a debriefing and OSAD by a researcher who observes their skills in debriefing to determine how effective they are when using SHARP.

How should SHARP be used?

Before conducting a debriefing with a trainee, trainers should first familiarise themselves with the components of SHARP so that they are comfortable using it. The first prompt 'Set learning objectives' should be completed before the case or simulation scenario commences. The remaining four promots should be discussed after the case. It is recommended that this is done as soon as possible to ensure immediacy of feedback. No training is required in order to use the SHARP tool.

The Evidence for SHARP

SHARP was developed based upon the findings of a comprehensive literature review and an international interview study with end users from three continents regarding the components of effective debriefing. These were distilled into the five key prompts that form the basis of SHARP using an international expert panel.

A clinical study using SHARP highlighted how it significantly improved feedback and debriefing in the operating theatre, thereby demonstrating its fitness for purpose (see references). In particular, debriefings were provided to trainees more often (72% of cases when SHARP was not used vs.100% of cases when SHARP was used). The number of cases where learning objectives were set prior to the case significantly increased from 24% to 86% when SHARP was used. The quality of debriefings provided by trainers in the operating theatre was assessed using OSAD within this study. Results found that there was a significant improvement in OSAD scores when SHARP was used indicating that the performance debriefs with SHARP were also of an objectively higher standard.



TRAINERS THOUGHT SHARP WAS FEASIBLE AND EASY TO USE IN BUSY CLINICAL AND SIMULATED SETTINGS

SHARP

5-STEP FEEDBACK AND DEBRIEFING TOOL



BEFORE CASE

Set learning objectives

What would you like to get out of this case?

AFTER CASE

How did it go?

What went well? Why?

Address concerns

What did not go so well? Why?

Review learning points

Were your learning objectives met for this case?
What did you learn about your clinical/technical skills?
What did you learn about your teamwork skills?

Plan ahead

What actions can you take to improve your future practice?



"We have SHARP as a poster in the scrub room. It reminds me to always ask my trainee at the start of each case what they want to get out of it..."

Consultant Surgeon

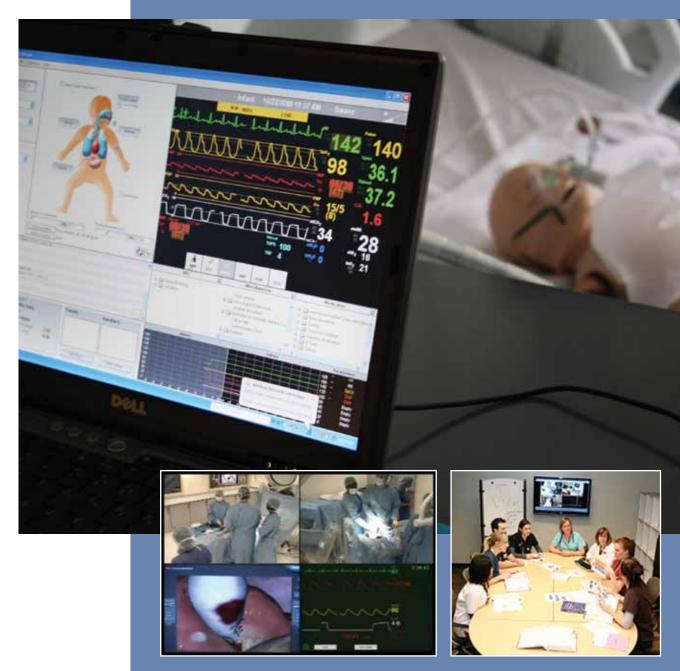
"OSAD helps to define what is really important when giving feedback. By measuring how we are doing, we understand where we can further improve our debriefing practices."

Consultant Anaesthetist

"Using OSAD has helped me to develop my skills as a simulation trainer. As my scores get better, I have become much more confident in giving feedback - especially when the simulation has not gone so well."

Consultant Paediatrician





OSAD OBJECTIVE STRUCTURED ASSESSMENT OF DEBRIEFING

What is OSAD?

OSAD is a one page tool which can be used to facilitate debriefings in both real clinical and simulated settings. It identifies eight core components/categories of effective debriefing i.e. best practice guidelines. These include the approach of the trainer, establishing a learning environment, learner engagement, gauging learner reaction, descriptive reflection, analysis of performance, diagnosis of performance gaps and application to future clinical practice. Each category describes poor, average and good practices. If desirable, each category may also be rated on a scale of 1 (minimum) to 5 (maximum) regarding how well that element of the debriefing is conducted by the trainer. Descriptive anchors at the lowest point, mid-point, and highest point of the scale are used to guide ratings. The global score for OSAD, therefore, ranges from a minimum of 8 to a maximum of 40 with higher scores indicating higher quality.

Who can use OSAD?

OSAD can be used by anyone who wishes to provide high-quality debriefings, for example a clinical trainer, an educator or a simulation instructor. It can also be used by academics who want to robustly assess the quality of debriefings provided to trainees so as to ensure they are of the highest standard possible.



What can OSAD be used for?

OSAD has several uses which will be dependent upon the local context. Suggested examples are listed below:

1 OSAD as a guide for novice debriefers

As OSAD contains a detailed set of components that underpin debriefing, novice simulation instructors/ facilitators or trainers can use the information in the form to identify best practices which they can follow.

2 OSAD as an assessment tool

OSAD can be used formatively as a rating tool that can measure the skills of the facilitator in providing a debriefing. Each of the eight components can be rated to provide individual scores for that component. They can also be added together to provide a Global Score for Debriefing Quality. This can identify what the facilitator is doing well and where there are gaps requiring improvement.

3 OSAD as a tool to share best practice

Expert facilitators can use OSAD to identify and share best practices in debriefing so as to drive forward standards in this domain.

4 OSAD in clinical practice

OSAD can be used by clinical trainers who may wish to have a detailed set of evidence-based, userinformed guidelines to refer to when wishing to provide more comprehensive feedback to their trainees, for example in an appraisal session.

5 OSAD for research purposes

OSAD can be used by academics interested in evaluating different models of debriefing and comparing their relative quality and effectiveness. It can also be used to empirically quantify whether an intervention designed to improve debriefing is actually effective in doing so.

How should OSAD be used?

If using OSAD simply as a set of guidelines for what to cover in a debriefing, you do not need to worry about the scoring system. You can use OSAD after reading this handbook and do not require any further formal training on the tool.

If using OSAD as an assessment tool for formative purposes, e.g. to provide feedback to facilitators on how to improve their debriefing skills, you may wish to consider rater training before you carry out any assessments. This ensures the scores that you allocate for each component of OSAD are reliable and accurate.

If using OSAD for any high stakes assessments or for research purposes, we recommend that you do receive further training and are calibrated to use the tool. Please contact Dr Sonal Arora on sonal.arora06@imperial.ac.uk if you require information on rater training.

OSAD OBJECTIVE STRUCTURED ASSESSMENT OF DEBRIEFING



Practical notes for using OSAD to assess the quality of a debriefing

- Please note you are observing and rating the facilitator in their ability to conduct a debrief, NOT the learner.
- Please read the entire rating form before starting the debriefing session to ensure you observe the facilitator's behaviours that you are scoring.
- There are 8 categories (see definitions overleaf), for which you score the facilitator on a scale of 1 (done very poorly) to 5 (done very well).
- To help you score, descriptions for the observable behaviours for scores 1, 3 and 5 are provided. If you decide to score in between these, rate them as a 2 or 4 accordingly. For example, if you think a particular component of OSAD is performed better than average (score 3) but is not quite excellent (score 5), you would give a score of 4.
- Mark your ratings directly onto the OSAD form. Please tick directly onto the box containing the text that describes the behaviour for scores 1, 3 and 5. If you want to allocate a score of 2 or 4, please place a tick in the empty box corresponding to these scores.
- For group debriefings, it is important that the facilitator involves all participants in order to score a 5, and, therefore, all behaviourly descriptors in OSAD refer to "learner(s)".
- Definitions and examples of some of these behaviours are given below to guide your scoring.

Definitions and exemplar behaviours

CATEGORY	DEFINITION	EXAMPLE OF SCORE 1	EXAMPLE OF SCORE 5
1. Approach	Manner in which the facilitator conducts the debriefing session, their level of enthusiasm and positivity when appropriate, showing interest in the learners by establishing and maintaining rapport and finishing the session on an upbeat note.	"You made lots of errors in that scenario, which is poor since I assume that you must have seen that scenario before."	"Let's start the session with introductions, so we can understand each other's backgrounds and previous experiences."
2. Establishes learning environment	Introduction of the simulation/learning session to the learner(s) by clarifying what is expected of them during the debriefing, emphasising ground rules of confidentiality and respect for others, and encouraging the learners to identify their own learning objectives.	"I'm not interested in what you see as the purpose of this session but I know what I want to teach you about and its very important to me."	"Please start by explaining what you hope to take away from this debriefing session. The information we discuss remains confidential."
3. Engagement of learners	Active involvement of all learners in the debriefing discussions, by asking open questions to explore their thinking and using silence to encourage their input, without the facilitator talking for most of the debriefing, to ensure that deep rather than surface learning occurs.	"I'm now going to teach you about the correct way to do things and I'd like you all to keep quiet and listen to me."	"As team leader, can you describe to us what was going on at that point in the scenario? Why do you all think that happened?"
4. Reflection	Self-reflection of events that occurred in the simulation/learning session in a step by step factual manner, clarifying any technical clinical issues at the start, to allow ongoing reflection from all learners throughout the analysis and application phases, linking to previous experiences.	"I can tell you exactly what you did and why you were doing it in that way."	"Could you talk through what you observed, right from the start, in a step by step way, so we are all clear about the events that occurred?"
5. Reaction	Establishing how the simulation/learning session impacted emotionally on the learners.	"I can't understand why you are getting upset about the events in the scenario, it's never had that impact on other people."	"That part appeared very stressful to us observing, how did you feel at the time? Do you think that it impacted upon the rest of the experience, and in what way?"
6. Analysis	Eliciting the thought processes that drove a learner's actions, using specific examples of observable behaviours, to allow the learner to make sense of the simulation/learning session events.	"There's no point asking you why you did that but you should know to do it differently next time."	"Why do you think that event happened at that particular moment? So what was distracting you then?"
7. Diagnosis	Enabling the learner to identify their performance gaps and strategies for improvement, targeting only behaviours that can be changed, and thus providing structured and objective feedback on the simulation/learning session.	"That was all fine I suppose but I don't think you did anything particularly well."	"So you identified that your team was not aware how concerned you were, can you suggest ways in which you could communicate your concerns more clearly next time?"
8. Application	Summary of the learning points and strategies for improvement that have been identified by the learner(s) during the debrief and how these could be applied to change their future clinical practice.	"So you'll do better next time? I think you know what you did wrong in the scenario. Let's finish there."	"Can you summarise the key points you learnt from this session? How do you think you might change the way you manage the situation if faced with it again in your clinical workplace?"

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OSAD OBJECTIVE STRUCTURED ASSESSMENT OF DEBRIEFING

	1 (done very poorly)	2	3	4	5 (done very well)
1. Approach	Confrontational, judgmental approach		Attempts to establish rapport with the learner(s) but is either over- critical or too informal in their approach		Establishes and maintains rapport throughout; uses a non-threatening but honest approach, creating a psychologically safe environment
Establishes learning environment	Unclear expectations of the learner(s); no rules for learner(s) engagement		Explains purpose of the debriefing or learning session but does not clarify learner(s) expectations		Explains purpose of debrief and clarifies expectations and objectives from the learner(s) at the start
3. Engagement of learners	Purely didactic; facilitator doing all of the talking and not involving passive learner(s)		Learner(s) participates in the discussion but mostly through closed questions; facilitator not actively inviting contributions from more passive learner(s)		Encourages participation of learner(s) through use of open-ended questions; invites learner(s) to actively contribute to discussion
4. Reflection	No acknowledgment of learner(s) reactions, or emotional impact of the experience		Asks the learner(s) about their feelings but does not fully explore their reaction to the event		Fully explores learner(s) reaction to the event, dealing appropriately with learner(s) who are unhappy
5. Reaction	No opportunity for self- reflection; learner(s) not asked to describe what actually happened in the scenario		Some description of events by facilitator, but with little self-reflection by learner(s)		Encourages learner(s) to self-reflect upon what happened using a step by step approach
6. Analysis	Reasons and consequences of actions are not explored with the learner(s)		Some exploration of reasons and consequences of actions by facilitator (but not learner(s)), but no opportunity to relate to previous experience		Helps learner(s) to explore reasons and consequences of actions, identifying specific examples and relating to previous experience
7. Diagnosis	No feedback on clinical or teamwork skills; does not identify performance gaps or provide positive reinforcement		Feedback provided only on clinical (technical) skills; focuses on errors and not purely on behaviours that can be changed		Provides objective feedback on clinical (technical) and teamwork skills; identifies positive behaviours in addition to performance gaps, specifically targeting behaviours that can be changed
8. Application	No opportunity for learner(s) to identify strategies for future improvement or to consolidate key learning points		Some discussion of learning points and strategies for improvement but lack of application of this knowledge to future clinical practice		Reinforces key learning points identified by learner(s) and highlights how strategies for improvement could be applied to future clinical practice

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OSAD WAS DEVELOPED IN ORDER TO PROVIDE BEST PRACTICE, EVIDENCE-BASED GUIDELINES FOR CONDUCTING DEBRIEFINGS IN THE SIMULATED AND REAL CLINICAL SETTING

The Evidence behind OSAD

OSAD was developed in order to provide best practice, evidence-based guidelines for conducting debriefings in the simulated and real clinical setting.

The approach to development and validation of OSAD consisted of three phases (*Figure 1*). This included a systematic review of the literature and interviews with end-users (including both trainers and trainees in Anaesthetics, Surgery, Paediatrics and Nursing Care) across the world to ensure it was appropriate to their needs.

Robust testing in the real clinical and simulated setting has provided evidence for OSAD's feasibility, reliability and validity. The psychometric properties of OSAD are reviewed in the *Box 1* overleaf. More detailed findings are published in peer-reviewed journals found in the references section of this handbook.

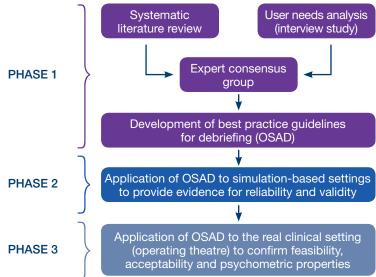


Figure 1

Feasible

- Takes only 5 minutes to complete
- Can be used in simulated and real clinical settings
- Can be used in adult and paediatric cases/scenarios

User-friendly

- Represents views from clinicians across the world
- Acceptable and appropriate to the needs of the clinical community

Evidencebased

- Drawn from a comprehensive literature review
- Evidence for the best practice taken from all fields of healthcare

Evidence for validity

- OSAD measures what it purports to measure
- Evidence for face, content and concurrent validity
- Content Validity Index for OSAD = 0.94

Evidence for reliability

- Evidence for inter-rater (ICC 0.88) and test-retest reliability (ICC 0.89)
- OSAD captures quality of debriefings in a consistent manner
- Evidence for internal consistency (Cronbach alpha = 0.89)

Box 1: Features of OSAD

Awards

This work has received several prestigious, international awards including:

Paper of Distinction Award for 'Objective Structured Assessment of Debriefing (OSAD)'

Awarded by the Association of Surgical Education, Boston 2011

The Ron Harden Innovation in Medical Education (RHIME) Award for 'Operation Debrief: A SHARP intervention to improve performance feedback in Surgery'

Presented at the 15th Ottawa Conference on the Assessment of Competence in Medicine and the Healthcare Professions, Kuala Lumpur 2012

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