

Listening and using participant and observer perspectives following large group, team-based simulations: Empowering many voices.

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Word Count: 1069

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Summary

In this report we describe the design and delivery of an interprofessional Simulation Based Education (SBE) course with a novel debriefing strategy designed to facilitate the simultaneous debrief of a larger than normal number of interprofessional participants and observers. The participants and the observers were separated into two groups with each having a facilitated learning conversation. Following on from these initial separate debriefings, the participant and observer groups were then once again combined for a successive learning conversation, in which facilitators shared and discussed approximately three key points derived from each of the groups.

Description

Recently across Scotland a Trauma Network (STN) has been developed with the aim of improving and optimising the health and wellbeing of the seriously injured patient as well as pioneering clinical excellence and education. With Aberdeen Royal Infirmary and the Royal Aberdeen Children's Hospital becoming the first operational Major Trauma Centre (MTC) within the network, the STN has highlighted and prioritised that staff education through IPL team-based training be employed as a modality to improve collaboration when treating the seriously injured patient. With these trauma patients being initially received into the Emergency Department of the hospitals and managed under the direction of a trauma team leader, who coordinates a multidisciplinary team made up from a wide range of medical, nursing and allied healthcare professionals.

To address the educational needs of those involved in the immediate management of trauma patients a bespoke workshop and simulation-based trauma course was developed. The one-day course was held in the simulation ward of the MTC, replicated to represent the resuscitation room of the hospital. Throughout the day, as well as facilitated discussions and equipment familiarisation workshops, four mannequin-based simulation cases were utilised to illustrate specific trauma related learning outcomes and principles. These included the reception and handover of a traumatised patient, traumatic cardiac arrest, neurogenic shock and the treatment of hypovolaemia associated with catastrophic haemorrhage.

Participants were divided into teams comprising of nursing, medical and paramedic staff. Following an introductory briefing and establishment of learning contract for the SBE component of the course there were four simulation exercises with each attendee participating actively in

two and observing the other two exercises. The structure for each 40-minute exercise was pre-scenario briefing, simulation exercise, followed by a facilitated debrief and learning conversation led by practicing Emergency Medicine Consultants.

The course debriefing strategy was intentionally designed to manage the larger numbers of participants who made up the interprofessional team. For each exercise the participants and the observers were separated into two groups with each having a facilitated learning conversation using the “diamond debrief” model, to explore both clinical/technical aspects of trauma as well as the key non-technical skills required in the management of major trauma.[1] Following on from these initial separate debriefings, the participant and observer groups were then once again combined for a successive learning conversation, in which facilitators shared and discussed approximately three key points derived from each of groups (Figure- diagram of debrief structure). To this end we described this debriefing model as “simultaneous successive debriefing” (Figure 1). The participating group then changed to become the observing group for the next simulation and vice versa.

Discussion

The use of and demand for simulation-based education (SBE) throughout all healthcare professionals' curricula has risen over the past few years. This combined with the drive towards interprofessional learning (IPL) has inevitably led to the two being combined as, interprofessional SBE.

In IPL SBE, staff from different professions, reflecting real-life clinical practice, train together working collaboratively in an effective manner.[2] Similarly, as with any other SBE, it is feedback through the learning conversation which remains the core element of this strategy.[3]

Whilst this makes sense from an educational perspective, in practice, the debriefing and learning conversation process is much more complicated. Especially considering the potential for larger groups of learners and dynamic interactions achieved through interprofessional simulations. Currently there is a paucity of literature surrounding the optimum size of a group for debriefing, particularly with regards to team-based activities. Additionally, there is also the consideration of how to manage those who, in any particular simulation-based exercise, were observers and not active participants. Furthermore, how they might effectively contribute to the learning conversation as they would have a different and non-immersed viewpoint compared to those immersed in the simulation.[4] Indeed in our experience the immersed group often attempted to steer the conversation towards the technical challenges of the simulation with the observing colleagues drawing out more of the non-technical skills displayed.

This report addresses the challenges of large-group interprofessional simulation-based debriefing, providing a model which may be replicated in other areas of simulation-based practice. The diamond debrief was selected as our preferred debriefing structure for use in the developed scenarios, as it provided a structure for an advocacy with inquiry approach to exploring, description, analysis and application of learning following SBE specifically designed to

explore non-technical aspects of the scenarios.[1] It is thought that this form of debriefing could be upscaled to have multiple simultaneous groups which are then brought together in the sequential approach by trained facilitators. We acknowledge there were challenges associated with this structure i.e. facilitator numbers required due to the two simultaneous debriefings and in this first course the facilitators for the learning conversations were medical staff who, while trying to address non-technical team-based issues, may not have fully addressed nursing or paramedic issues.

However, despite the unavailability of facilitators from the other professions for this course, it was decided beforehand that having a team-based debriefing structure was a necessity to enhance the IPL experience. This structure was based on the principles of constructivism, in which participants learn by building on their existing knowledge and clinical practice and use the learning conversation to form new knowledge, ideas and understanding.[5] The structure used in this course enabled both the participants and observers to construct new experiences both independently and dependently, by allowing a greater proportion of voices to be heard during the learning conversations. Subsequently, bringing the learning from each group together at the end allowed both a depth and breadth of issues to be discussed and utilising facilitators (both practicing clinicians) experienced in debrief allowed for key technical and non-technical aspects of scenarios to be addressed. Following the success of this debriefing model in this training day we plan to utilise it in further SBE team-based training events and consider formally evaluating this debriefing method by video-recording future sessions and meta-debriefing.

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Contributorship

CWB/JCM/AC conceived the initial debriefing structure. CWB drafted the first version of the manuscript. CWB/JCM/AC all contributed substantially to subsequent versions, made critical reviews and approve the final version for publication. CWB/JCM/AC are accountable for all aspects of this work.

Funding

No sources of funding were required for this project.

Competing interests

The authors report no competing interests.