DEBATE

Is interprofessional co-debriefing necessary for effective interprofessional learning within simulation-based education?

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ABSTRACT

Background

Interprofessional simulation-based education has become ever-more popular in recent years, in both undergraduate and postgraduate settings. Whilst the literature-base concerning debriefing interprofessional learner groups is growing, there is little research exploring interprofessional co-debriefing as a technique to facilitate effective learning in this context. This is surprising considering how pertinent the concept of interprofessional co-debriefing is in the context of interprofessional simulation-based education.

The question of whether interprofessional co-debriefing is necessary for effective interprofessional learning is relatively unexplored. In this article we examine this discussion further and provide a balanced argument highlighting both the benefits and challenges encountered when instituting interprofessional co-debriefing. We draw upon our extensive experience of interprofessional simulation-based education as well as the best available evidence to inform readers of the current understanding of best practice in this field.

Discussion

Benefits of interprofessional co-debriefing include differing perspectives and subject matter expertise, role-modelling, complementary debriefing styles, sharing of cognitive workload, and the opportunity for enhanced faculty development. However, it can also present challenges, even for experienced debriefers. For example, co-debriefers may have differing personal agendas with a focus on only one professional group, knowledge gaps concerning other professionals' learning requirements, and both open and covert disagreements and differences in opinion that may affect the effectiveness of the debriefing. Furthermore, extra resources are required in terms of faculty numbers and training. Unfortunately, there is a lack of empirical research concerning interprofessional co-debriefing, with only one study currently reported that compares the perceived effectiveness of single debriefers versus interprofessional co-debriefers.

Conclusion

Drawing on our experiences and the best available evidence, interprofessional co-debriefing is not a necessity for effective interprofessional learning in simulation-based education. However, when utilized with skilled and trained faculty, we consider it to be an extremely powerful technique for interprofessional debriefing. This may be especially applicable for undergraduate

learners who will likely have limited experience of working together with other healthcare professions. Further research is urgently needed to explore multiple aspects of interprofessional co-debriefing, including faculty and participant perceptions and expectations, and comparative studies assessing the effectiveness of debriefings led by single versus multiple debriefers.

Background

Simulation-based education (SBE) is now a commonly practised educational modality within healthcare education, with the discourse having now firmly shifted from 'does SBE work?' to 'how best to utilize SBE to maximize learning?' [1]. Debriefing is commonly accepted as the most important component of SBE that supports reflective learning [2–4]. Debriefing has been defined as a 'discussion between two or more individuals in which aspects of performance are explored and analyzed, with the aim of gaining insights that impact the quality of future clinical practice' [5]. In recent years multiple reviews have examined evidence for the effectiveness of various elements of debriefing, such as frameworks and debriefing structures, use of video playback, debriefing style and content, length and timing of debriefings, the presence or absence of facilitators and the role of tele-debriefing [5–10]. Most authors agree that skilled facilitation is one of, if not the most, important aspect to ensure debriefing is effective, irrespective of the structures or frameworks used [2,4,6,8,11–13], although this notion has been contested by others [9,14–16].

One element that is yet to be extensively explored is the concept of co-debriefing or co-facilitation. Co-debriefing first came to prominence when Cheng et al [12] published a seminal paper exploring the associated advantages and challenges, coupled with proposals for various strategies to improve the effectiveness of the technique. They defined co-debriefing as 'more than 1 facilitator conducting a debriefing session, when these facilitators may be from the same or different professional backgrounds or specialities' [12]. In this 'Concepts and Commentary' piece they drew on their extensive experience whilst highlighting the lack of empirical evidence studying the technique and its place within SBE. Unfortunately, this lack of evidence continues to this day.

The concept of co-debriefing is especially pertinent to interprofessional SBE. Interprofessional education (IPE) occurs in any setting in which more than one professional group learn with, from and about each other [17–18]. As the value of learning together, surfacing assumptions and collaboration across different professional groups is being better appreciated, training in interprofessional teams via SBE has become ever-more popular in recent years [13,19–21]. Whilst the literature-base concerning debriefing interprofessional learner groups in general is growing [13,16,22–23], the same does not apply when exploring interprofessional co-debriefing as a technique to facilitate effective learning in this context. In this article, we define *interprofessional co-debriefing* as more than one facilitator conducting a debriefing session, in which each facilitator comes from a different healthcare professional background, for example, nursing, medical, physiotherapy or others. We do not classify sub-specialist divisions within a particular healthcare profession as interprofessional. For example, an anaesthetist and surgeon co-debriefing together would be classed as *interspeciality co-debriefing* as opposed to interprofessional. Furthermore, it is important to recognize that the terms 'debriefers' and 'facilitators' are often used interchangeably in the SBE literature.

The question of whether interprofessional co-debriefing is necessary for effective interprofessional learning in SBE is relatively unexplored. In this debate article we examine this discussion further and provide a balanced argument highlighting both the benefits and challenges encountered when instituting interprofessional co-debriefing within interprofessional SBE, both in undergraduate and postgraduate settings. We draw upon our extensive experience of interprofessional SBE as well as the best available evidence from the literature to inform readers of the current understanding of best practice for interprofessional co-debriefing as a technique to foster effective learning within interprofessional learner groups. We conclude by highlighting specific areas for further research that are urgently required to improve our understanding in this field.

The role of the facilitator in debriefing

To explore the potential benefits and challenges of interprofessional co-debriefing within interprofessional SBE, it is important to first be clear about the role of the facilitator in debriefing. Some studies have reported that self-led or within-team debriefing can be deemed as 'effective' as instructor-led debriefing [14–16]. However, these studies were conducted with postgraduate participants who are likely to have had extensive previous experience in SBE. Therefore, such findings may not be generalizable to other contexts in which participants may have varying levels of experience of SBE. We agree with other experts in the field for whom skilled facilitation with debriefings is the cornerstone for effective reflective learning [2,4,6,8,11–12]. Within debriefings, the role of a facilitator is to create a safe psychological space in which they can guide reflective discussions so as to allow learners to surface assumptions and gain relevant meaning and understanding from their simulated experiences and apply these into their real world [2,10,24]. This practice of reflection-on-action is often cited within the SBE literature as a key element of Kolb's experiential learning theory [25], in which learning depends not simply on experiences themselves, but rather on the process of deliberate reflection on such experiences [26].

We advocate for interprofessional educators to co-design interprofessional simulated learning events (SLE) to ensure that there is agreement on course design and structure, interprofessional learning outcomes and scenario complexity. However, even in such co-designed SLEs, when compared to uniprofessional SBE, debriefing interprofessional learner groups is still often more challenging as debriefers must meet the learning needs of a diverse group of learners who come

from different backgrounds with different educational and life experiences [18,23,27]. The mixing of different backgrounds may lead to complications within the learning process due to factors such as hierarchy, status, imbalances of power and historical professional assumptions and divisions [12,28–30]. Due to these perceived challenges, interprofessional debriefings are often conducted by more experienced and skilled debriefers [19]. They may be better placed to guide and foster rich and meaningful learning conversations and for surfacing assumptions, thus allowing healthcare professionals to move away from traditional silo-based learning practices and gain a better appreciation and understanding of each others' roles [18,28]. Despite some inherent challenges, interprofessional co-debriefing is one technique which can help foster this opportunity.

Benefits of interprofessional co-debriefing within interprofessional SBE

1) Differing perspectives and subject matter expertise amongst co-debriefers

Interprofessional co-debriefers may come from diverse range of professional backgrounds and therefore add a wide variety of experience, expertise and differing insights and perspectives to the reflective learning discussions within interprofessional debriefings [8,12,27,31]. Lee et al [32] highlight that such factors influence learners' perceptions of the credibility and importance of interprofessional SLEs as an educational experience. Furthermore, interprofessional co-debriefers are more likely to have a better working knowledge of specific learning requirements for learners from their own discipline. Depending on facilitators' individual backgrounds, they may also have an intimate knowledge of both undergraduate and postgraduate training curricula. This allows interprofessional co-debriefers to complement one another in areas where there may be gaps in specific profession-related knowledge [18]. As noted by Hall and Zierler [33], however, IPE facilitators must also appreciate and respect professional differences and be able to guide discussion and surface assumptions, when such differences are explored by learners. In our experience, interprofessional co-debriefing allows these types of discussions to occur in a non-judgemental manner in which all viewpoints are considered and valued.

2) Role modelling collaborative interprofessional working practices

Effective interprofessional co-debriefing, in which interprofessional faculty work together respectfully, helps role-model good behaviour [18]. This may be particularly important in undergraduate learner groups who have relatively little real-world experience of working collaboratively in interprofessional contexts. The benefits of role-modelling, both within and out with healthcare, has been extensively researched [34–37], with many of the lessons learnt being applicable to interprofessional SBE [38].

3) Complementary debriefing styles of co-debriefers

Interprofessional co-debriefers may employ contrasting styles of debriefing that can be mutually complementary [8,12,31]. In our experience, this can lead to deeper and richer debriefing conversations that help keep learners engaged in the process of reflective learning. Additionally, we have found that differing styles may be more appropriate and more effective depending on the learner group. For example, undergraduate learners have fewer real-world experiences of interprofessional working practices upon which to scaffold reflections, and therefore may require a more directive facilitation style to ensure effective learning when compared to those with more experience, such as postgraduate learners.

4) Sharing of cognitive workload between co-debriefers

With multiple competing priorities in a complex and dynamic setting, skilled facilitation of debriefing leads to a heavy cognitive load for debriefers [39]. This is amplified in an interprofessional setting due to the need to manage multiple complex interactions between different professional learner groups. By employing interprofessional co-debriefing as a technique in such contexts, debriefers are able to proactively share this cognitive burden and thereby better manage both their intrinsic and extraneous loads [39]. The sharing of cognitive load is even more crucial within difficult and challenging debriefings, where a skilled co-debriefer can be an invaluable asset to help maintain psychological safety in situations where it is under threat. Cheng et al [12] suggest two structured strategies to co-debriefing, the 'follower the leader' approach and the 'divide and conquer' approach. We endorse these strategies as effective methods to proactively reduce cognitive load which should lead to improved debriefer performance and satisfaction in facilitating reflective learner conversations.

5) Harnessing opportunities for interprofessional faculty development

Debriefers may be at different stages on their faculty development journey, and interprofessional co-debriefing allows the opportunity for more experienced debriefers to guide and support those less experienced along this journey. They can offer differing and insightful perspectives and support, especially when analysing and reflecting on challenging debriefings, thereby helping ensure the debriefers' own psychological safety [40]. This can take the form of peer-coaching, direct observation and feedback, meta-debriefing or via formal validated debriefing assessment tools such as the Objective Structured Assessment of Debriefing (OSAD) or Debriefing Assessment for Simulation in Healthcare© (DASH) [11,41–43]. Furthermore, interprofessional co-debriefing offers a unique opportunity to deliver specific feedback regarding the challenges of interprofessional debriefing [38], such as involving all candidates regardless of professional background, integrating communal intended learning outcomes (ILOs) and ensuring all professional groups value and respect alternative perspectives.

Table 1: Benefits and challenges of interprofessional co-debriefing within interprofessional SBE

Benefits of interprofessional co-debriefing within interprofessional SBE	Challenges of interprofessional co-debriefing within interprofessional SBE
– Differing perspectives and subject matter expertise amongst co-debriefers – Role modelling collaborative interprofessional working practices – Complementary debriefing styles of co-debriefers – Sharing of cognitive workload between co-debriefers – Harnessing opportunities for interprofessional faculty development	– Differing agendas of co-debriefers with a focus on only one professional group – Knowledge gaps concerning different learning needs and requirements of various professional groups – Conflict and disagreements between co-debriefers – Requirement for additional faculty and faculty training

Challenges of interprofessional co-debriefing within interprofessional SBE

1) Differing agendas of co-debriefers with a focus on only one professional group

Co-debriefers from different professional backgrounds may have their own personal and professional agendas that are not aligned with predefined ILOs [8,12]. Furthermore, either consciously or subconsciously, they may concentrate only on participants from their own particular professional background, rather than taking a collective and collaborative approach to debriefing. Multiple strategies should be employed to mitigate the risk of this occurring. Firstly, simulation scenarios should be co-designed employing constructive alignment principles [44] with ILOs based around interprofessional teamworking and collaboration. All too commonly scenarios that have been designed for a specific professional group are taken and simply 're-framed' in the vague expectation that the adapted ILOs will be relevant to all learners. This is especially problematic when there are more than two professional groups involved in a SLE, as 're-framed' ILOs are unlikely to satisfy the increased complexity involved with having multiple candidates from multiple professional backgrounds. Furthermore, difficulties will occur if co-debriefers place differing degrees of importance on different ILOs [12]. Indeed, Boet et al [19] highlight that diversity should be balanced with equity, such that no one professional group is overvalued over another in terms of scenario design or debriefing content. Secondly, co-debriefers should be adequately pre-briefed and open discussions had pre-SLE, so as to ensure that there is a shared mental model as to how the debriefing will proceed. Thirdly, if a debriefer is including only one specific profession or group in the reflective discussion, then the co-debriefer can use both implicit and explicit methods to communicate with and redirect their colleague, without jeopardizing the psychological safety of the learner group [12,24].

2) Knowledge gaps concerning different learning needs and requirements of various professional groups

In our experience, difficulties will arise if debriefers are unfamiliar with the learning needs of each professional group and the stage of training or development of different learners. We advocate that debriefers should participate in a pre-brief before SLEs to ensure that they appreciate and understand the specific learning needs of each of the interprofessional learner groups involved. This is especially important in undergraduate interprofessional SBE, where the curricula of different professional groups and courses vary widely, coupled with the fact that learners have comparatively little concrete clinical experience of working together with other healthcare professions. Piloting well-rehearsed interprofessional simulation scenarios and debriefings will be of benefit to debriefers in this process.

3) Conflict and disagreements between co-debriefers

As in any clinical environment in which team members are working together towards a specified common goal, there may still be disagreements about specific situations or indeed clinical judgements or decisions. Similar situations may manifest themselves within a debriefing environment, especially when co-debriefers are from different professional backgrounds, may not know each other or have differing opinions on crucial topics. These situations may manifest with debriefers both openly and covertly undermining their colleagues, talking over them, openly contesting statements as false, interrupting or hijacking discussions or thoughts and dominating discussion whilst not allowing colleagues to air their opinions [8,12]. Thankfully, in our experience, such occurrences are extremely rare, but they are likely to seriously undermine any meaningful learning with the debriefing. Whilst there are no studies that have reported these issues within an interprofessional debriefing context, lessons can be learnt and extrapolated from the more general pedological literature, in which adverse learning has been reported in situations of collaborative teaching conflict [45].

4) Requirement for additional faculty and faculty training

Utilizing interprofessional co-debriefing as a technique in SBE inevitably requires more faculty. Furthermore, faculty require training, support and mentorship to ensure they develop into effective and skilled interprofessional co-debriefers [11,43,46]. This has obvious implications for resources which are already scarce and likely to be further stretched during the current global pandemic.

Current evidence concerning effectiveness of interprofessional co-debriefing when compared to single-facilitator debriefing

Thus far we have concentrated on the perceived benefits and challenges of interprofessional co-debriefing. But is interprofessional co-debriefing a necessity for effective learning in interprofessional learner groups within SBE? As previously noted, Cheng et al [12] drew on their extensive collective experience and brought co-debriefing to a wider audience with publication of their seminal 'Concepts and Commentary' paper in 2015. However, they clearly noted that at that time there were no studies that explored the impact of multiple co-debriefers within a single debriefing. They identified that there was a need for further research 'to establish current practices in co-debriefing and identify best practices and/or approaches for co-debriefing specific to learner type and facilitator characteristics' [12].

They also highlighted that the challenges of co-debriefing would be likely intensified in an interprofessional setting, 'where issues of status, hierarchy, and profession-related assumptions among debriefers and learners are at play' [12]. Drawing on our experience of interprofessional co-debriefing, we would support this statement, but qualify it by highlighting that, along with the challenges, a number of the benefits of co-debriefing are also amplified in an interprofessional setting.

Unfortunately, since Cheng et al's [12] landmark paper, there has been a lack of empirical research conducted in this field. Following an extensive literature search, we found only one study that compared the perceived effectiveness of single debriefers versus interprofessional co-debriefers [27]. In this study, Brown et al set up an undergraduate interprofessional SBE course including students from nursing, respiratory therapy and medicine. Using the Debriefing Assessment for Simulation in Healthcare Student Version© (DASH-SV) survey [47] as a measure for effectiveness of debriefing, they found no statistically significant difference in groups that involved a single facilitator when compared with those using interprofessional co-debriefers. Indeed, students' perceived effectiveness scores were slightly higher in the single facilitator group (mean score = 6.09/7) compared to the interprofessional co-debriefing group (mean score = 5.93/7). It is important to note also that scoring was consistently high across both groups, suggesting effective learning was occurring regardless of whether co- or single debriefers were employed. This finding is supported in the wider simulation literature reporting on debriefings have been facilitated by single debriefers [5–6,10].

We must interpret Brown et al's [27] results with caution, however. Firstly, this is one study in one centre and as such results may not be generalizable to other contexts. Secondly, whilst the DASH-SV survey is a widely accepted measure for effectiveness of debriefing [48], it can only measure perceived effectiveness from the students' perspective which may be at odds with faculty perceptions. Finally, the DASH-SV tool does not allow for free-text qualitative feedback which may have given greater insight into what the challenges of interprofessional co-debriefing are perceived to be.

Conclusion

In this article, we have highlighted many of the benefits and challenges of interprofessional co-debriefing for interprofessional SBE. Drawing on our experiences and the best available evidence, interprofessional co-debriefing is not a necessity for effective interprofessional learning in SBE. However, when utilized with skilled and trained faculty, we consider it to be an extremely powerful technique for interprofessional debriefing for its capacity to enrich interprofessional learning conservations. This may be especially true within an undergraduate setting in which learners will likely have limited experience of working together with other healthcare professions. We recognize, however, that there is a distinct lack of evidence beyond anecdotal experiences and expert opinion to substantiate this claim. Further research is urgently needed to investigate multiple aspects of interprofessional co-debriefing within interprofessional SBE. We suggest that future studies should explore faculty and candidate perceptions of the value of interprofessional co-debriefing and that comparative studies assessing the effectiveness of debriefing led by single versus multiple debriefers be conducted. Finally, we appreciate that limited resources may not allow interprofessional co-debriefing to occur in all situations. In such cases, skilled single-facilitator debriefings still offer valuable learning experiences for interprofessional learners.

List of abbreviations

DASH	Debriefing Assessment for Simulation in Healthcare©
DASH-SV	Debriefing Assessment for Simulation in Healthcare Student Version©
ILO	Intended learning outcomes
IPE	Interprofessional education
OSAD	Objective Structured Assessment of Debriefing
SBE	Simulation-based education
SLE	Simulation learning event

Declarations

Authors' contributions

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