

The Wisdom in Simplicity: A New Look at Debriefing Models in Limited Resource Environments: A Narrative Reflection from Government Medical Colleges in Tamil Nadu, India

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Abstract: The literature on simulation-based medical education devotes a wide area to structured debriefing models using specific frameworks and terminology. Yet in a large number of low-resource sites throughout India, effective learning takes place through unstructured contextually relevant styles. This commentary is an experiential account elaborating insights from Basic Life Support (BLS) provider courses at four government medical colleges in Tamil Nadu where context-sensitive and adaptable feedback and debriefing occurs to meet learning needs without being directly guided by structured debrief models. We suggest that debriefing is not best understood in terms of adherence to named debriefing frameworks but rather as a mechanism for enabling deeper levels of reflection, promoting peer-based learning and transferring learning into real world clinical practice through techniques that make sense within educational culture.

Keywords: Simulation debriefing, BLS training, unstructured learning, resource poor settings, medical education India

Introduction

I can still recall my first experience of a simulation debriefing course. Guruji talked about the RCDP model passionately, Reaction, Cognition, Development and Performance. There was the PEARLS method, the Diamond technique, and many more of these methods that consisted in well worked out acronyms and worked out phases. Having worked in four government medical colleges across the state of Tamil Nadu, where did our training sessions fit into this taxonomic graph was veritably my question.

The reality was, they didn't. And yet, they worked.

This account is not a criticism of developed debriefing stratagems. Strong trials-based validity evidence supports use in well-resourced simulation precincts for these. It's not, however, an "argument" so much as a record of my experience of what I have seen be successful in our situation. A context where resources are extremely limited. where there

is often one teacher to 50-150 children per class; linguistic diversity is the norm and one size does not fit all. I write some thoughts about it here. I'd love for you to tell me whether and how these ideas resonate with your own thinking or practice. It is a challenge to ask ourselves whether the plethora of named debriefing approaches might be taking us away from what we know to be true. That is, effective learning occurs when faculty carve out space for meaningful reflection, regardless of the name of the framework.

Introduction to BLS training in Tamil Nadugovernment medical colleges

Step into any BLS training session in our medical college on a typical Thursday morning. The room is full with interns, plus residents and nurses now & then; sometimes first responders like police, teachers, etc. It may also unfold, predictably but naturally, in a predictable though organic fashion.

This starts with the lectures, which are spoken in Tamil with a smattering of English medical terms thrown in when necessary. Training is delivered using embedded videos of realistic resuscitation scenarios and facilitated by a facilitator (commonly an Emergency Medicine postgraduate trainee). These aren't simulation canter recordings produced by professionals; they're culled mostly from free educational resources, occasionally from other Indian hospitals and sometimes international.

The demonstration follows. The faculty member continues to perform the drill on the manikin while describing in plain language that everyone can understand. You do this feedback in experienced manner: 'Push now, you push like this'. The language switches back and forth between Tamil and English fluently, providing a linguistic bridge that can make high level ideas fully comprehensible.

Then comes the hand son practice. All of the participants have different levels of confidence when approaching the manikin. Some have witnessed cardiac arrests while doing clinical rotations; others have not. The errors start early like inadequate depth, improper hand placement, not allowing the chest to recoil, too little time between compressions for rhythm analysis.

Here's where the magic happens. It's a real time correction: "நில், நில்லு (stop, stop) your posture is wrong. Here, yes, like that. Now try again." There's no holding off for a formal debriefing. The learning is immediate, concrete and embedded.

A student struggles with rate. The teacher doesn't wait until the scene is over: "That's not good enough. Remember, ARR 'thai manne vanakkam' song tempo? Faster, yes, maintain that." Thanks to ARR ahman, we now have a universal rhythm that transcends culture for how quickly you should be pressing down on someone's chest.

Once everyone has practiced, the group regroups. The faculty gives summary. Then, without fail, the follow up: "So what happened to you? Any doubts?"

It's then that the true stories come out.

The unstructured symphony: debriefing that's not sure it's a debriefing

A third year MBBS proclaims: 'Sir, week before last I was in the Hospital in Medicine posting and a patient fell down on floor of ward. I froze completely. I couldn't remember anything. "But now, having done this today, I feel like I would know what to do."

"Another says: "When we were taught this in second year, it was theory. Watching CPR in videos, we thought it wasn't hard. But it's not the same as feeling how hard you have to press. My arms are aching already."

"I remember as an intern on casualty, watching the senior residents doing CPR. It was so coordinated, like a team. It feels like we just need to practice that coordination, more than individual skills."

Let's pause here. What just happened? No model was referred to explicitly, but several of the principles of learning were revealed.

Pattern reveal involved the student uncovering that when stressed, theoretical knowledge does not necessarily translate into procedural memory. She didn't use the word "schema," but described the cognitive blueprint that failed her in time of need.

Deconstruction occurred when learners were forced to confront the gap between their perceived difficulty of CPR in contrast to the physical reality. The attitude of "CPR looks easy" turned into an embodied one.

Peer learning and the normalization of anxiety occurred when students spoke about freezing, physical fatigue, gaps between what they knew and what they could do. Every anecdote confirmed the idea of someone's beliefs and enhanced memorability via story.

Cognitive consolidation occurred as the teachers linked these experiences back to their learning intentions, forming mental structures that would be more permanent than the lecture content itself.

The whole process was ad hoc in that we did not follow any named framework. It was heavily structured in the sense that it provided conditions conducive to effective learning.

The flexibility advantage

One of the most surprising findings at four colleges was how flexible this strategy can be. No two sessions are identical. The debriefing morphs each time. It depends on

The level of the learners: For undergraduates, I need to focus more on foundational correction; for interns, concentrate on team dynamics and decision-making.

The mistakes that were noticed: When more than one student commits a particular mistake or misconception, it is shared immediately and reiterated in the closing.

When a reasonably intelligent question has arose, “What if we're by ourselves and there's no one to call for help?” the debriefing goes to it, even if that was not part of the original teaching plan.

The cultural moment: : During COVID-19, all conversation carried a focus on PPE and the risk of infection in resuscitation (as appropriate), drawing the debriefing at every session. This is, I submit, a feature and not a bug. Debriefing rules are needed that do not compromise comprehensiveness of debriefing. But yet be responsive to spontaneous or situational learning needs. The teacher who has to get through Phase 1 before moving on has the potential of missing that teachable moment when it wasn't planned.

Vernacular learning's cultural resonance

You cannot approach medical education in India without cautioning about linguistic overload. English is the language of instruction, the language of textbooks and papers, but seldom is it a language of emotional exploration or deep contemplation.

When a student speaks in Tamil, “நான் ரொம்ப பயந்துட்டேன் sir, அந்த patient collapseanappo (I was very scared, sir when that patient collapsed), the affective valence is preserved neither in phonetic nor meaning form if we write “I was very scared, hundreds of times forward sir” using only the monolingual translation of words. Codeswitching in debriefings encourages psychological safety for true reflection.

It's what makes learning stay. The use of everyday expressions, local analogies and culturally relevant examples. “இது rice போல pump உண்ணலை, not like you're gently pressing idli” (You need to pump this like rice, not like you're gently pressing idli). all meaningless in orthodox debriefing literature but transmitting biomechanical ideas with no loss of immediacy.

Structured, Western debriefing models which were primarily developed in English speaking contexts do not often take this linguistic dance into account. They take for granted a monolingual school atmosphere that, in fact, doesn't exist in the most of India.

The paradox of sophistication

The rapid emergence of debriefing models in the simulation literature is a meaningful contribution to our field. Every frame was the result of extensive research to fulfill common educational requirements. And so the RCDP model's focus on emotional responses, the PEARLS framework as a conduit to learner-centered discussion, and indeed Diamond debriefing with its conversational structure—all these are worthy artifices.

However, there's a paradox. The better debriefing gets, the more difficult it is to get a hold of. Training specific to these models is needed for faculty. And simulation centers need the resources to do them right. The language becomes technical, and reach

educators in resource-poor settings who might say, "We can't do hard proper debriefing because we have not been trained in these models."

However, the core objectives of debriefing are the same irrespective of the model:

- Facilitate reflection on performance
- Identify and correct misconceptions
- Reinforce correct practices
- Build learners' confidence

There are many ways that can accomplish these goals. It is not a question of one model fits all but rather whether the debriefing facilitates these outputs.

When unstructured doesn't mean unintentional

Now, lest you think I'm saying in promoting unstructured debriefing is that we should promote helter-skelter teaching: Let me be clear that advocating for unstructured debriefing is not the same as advocating for haphazard teaching. Those BLS sessions that I have seen work all seem to have the following ingredients:

- Explicit learning goals: The faculty has a clear sense of what they want students to accomplish by the end of the session.
- Active observation: Teachers pay close attention as their students practice hands-on, mentally cataloguing common mistakes and individual difficulties.
- Feedback loops: The corrections occur in real time as needed and not delayed, so there is no practicing wrong over and over.
- Chance to pause: People have time to talk afterwards, however briefly.
- Overview and enforcement: Key points are summarised and related to clinical application.

Such elements are present in structured models as well. " The distinction is not one of pedagogic strength, but of the flexibility and linguistic accessibility with which an approach can be implemented.

The evidence question

It's a fair question for critics to ask: Where is the evidence that unstructured debriefing works just as well?

This issue uncovers a key problem in the research of medical education. The validation studies for debriefing models are generally performed in well-resourced environments with simulation centers, trained faculty in small groups of learners. The applicability of such studies to a government medical college of rural Tamilnadu (40 students, 1 manikin

and no video cameras), where faculty are bombarded with thrust upon them competing priorities is debatable.

Lack of evidence does not imply evidence of absence. Have students that take (and pass) BLS certifications, perform well during clinicals, feel prepared should something actually happen. While anecdotal, these outcomes matter.

Additionally, education studies in low-resource settings show over and over again that contextual adaptation wins out versus adherence to rules set in stone. The same is presumably true for debriefing. Quite simply, an energised, engaged instructor deploying responsive transfer-congruent debriefing is likely to achieve better outcomes than a disengaged educator robotically following a template they don't understand or buy in to.

Lessons for the wider simulation community

There are several implications of my observations for medical education:

Firstly, we need to differentiate the principals of debriefing from debriefing protocols. The principles—reflection, feedback, consolidation—are universal. The protocols are contextual tools. There is a danger in prioritizing one set of protocols that those not “trained” in such models cannot successfully support learning.

Second, there a need for further research in low resource settings on how to effectively debrief. There is a risk that the existing literature which reflects high-resource environments, might infer that complex infrastructure is a prerequisite for good simulation education.

Third, the languages used in debriefing were diverse. English-language, dominated medical education research can fail to take into account the diversity of learning that takes place in different languages and through code-switching.

Flexibility should be acknowledged as a pedagogical asset. Real-time responsive debriefing to learner needs, emergent queries, and errors seen may generate a more agile learning environment than structure-bound debriefing.

Ultimately we need to praise and codify what works at the local level, instead of presuming that models imported from afar are necessarily stronger. We need to record and disseminate the collective experiences of so many trainers/educators across India who have trained thousands of health-care personnel in adapted, contextually relevant approaches "that worked" as brought out by others.

A modest proposal

I'm not recommending that we throw it all away with our formal debriefing models. These frameworks are useful for simulation centres with facilities and trained faculty. But instead, I suggest we have a more adaptive mentality:

Be aware that there are a variety of good methods of debriefing ranging from prescriptive follow up to deliberately unstructured.

Validate the effect of field modified debriefing practices across a range of environments through research.

Educate faculty in debriefing principles, rather than enforcing models of instruction.

Develop tools to facilitate debriefing in resource-limited, multilingual environments.

Promote reflective practice so educators are continually asking themselves what's working and why, and changing their tactics based on learning results rather than protocol adherence.

Conclusion: the fancy name fallacy

Walking out of BLS class last Thursday, I heard two students conversing: "That really helped, da. Now I see why we do every single step."

No one mentioned RCDP. No one cited PEARLS. No framework was named.

But learning happened. Deep, meaningful, clinically relevant learning.

Perhaps that's the real lesson. In our need to-develop ever-more-glossy plans of how to do this, we may be in danger of forgetting what truly underpins effective debriefing: care-full educators supporting learners to reflect (and wonder) on their work; wrestling with meaning and finding something new about themselves or what they chose do so.

Maybe that simple local model, so achieving of outcomes, responsive to change, respectful of culture and embraced by both participants and faculty, maybe that isn't second-best relative to the named models. Maybe it's simulation-based medical education doing what it ought to: Changing to meet the needs of learners.

The next time someone asks me what model of debriefing we use, I might respond with this: "We use the one that works here. It doesn't have a fancy name. But our students are learning to save lives. And isn't that the only model that really counts?"

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