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A Pilot Study to Explore Novice Debriefers' Post-Simulation Debriefing Experiences

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Abstract

Introduction. Effective **debriefing** of simulation-based experiences is critical for learning. Approximately 33% of health professions instructors are **debriefing** novices. However, specific faculty development needs of novice **debriefers** has not been studied. This study examines how health professions instructors approach **debriefing** when they are new to **debriefing** simulation-based experiences.

Methods. This pilot qualitative study used a thematic analysis approach to explore novice debriefers' experiences in conducting post-simulation debriefings. Eligible participants engaged in one-hour semi-structured interviews. Recruitment continued until data saturation was reached. We reviewed verbatim interview transcripts, hand-coded the data, and formed codes into themes.

Results. Nine novice **debriefers** participated. The overarching theme "I'm on my own…and they're on their own," reflects **debriefers**' view that they are on their own, without resources. **Debriefers** also believe learners should identifying their own errors. Three main themes emerged: "Deep divide between me and the learners" portrays a separation between **debriefers** and learners in terms of expectations, roles, and responsibilities. "Winging it" depicts **debriefers**' making-up their own **debriefing** approaches. "**Debriefing** quality: missing pieces of the puzzle" portrays novice **debriefers** unaware of criteria for effective **debriefing**.

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Conclusions. Novice **debriefers** in this study perceived that they were on their own, having little to no **debriefing** training and mentorship. Study participants expressed **debriefing** struggles in several areas including discussing errors, facilitating learner participation, and assessing **debriefing** quality. Our findings shed light on **simulation** as a growing specialty by health profession educators and it is critical that resources are devoted to faculty development for **debriefing skill acquisition**. These findings can serve as a basis for future studies on debriefer **skill acquisition**.

Keywords
debriefing < simulation/gaming, debriefers, novice, skill acquisition, simulation < simulation/gaming

Introduction

Expertise of the debriefer is critical in ensuring learners achieve the best possible learning outcomes. (Husebø et al., 2013; The INACSL Standards Committee, 2016). Debriefers need a specific skill set in order to balance several priorities, including: covering all learning objectives, facilitating reflection, incorporating teaching and feedback, managing student questions, maintaining psychological safety, and at the same time, allowing conversation to flow (The INACSL Standards Committee, 2016). As the use of simulation in health professions education continue to expand rapidly, many instructors find themselves to be novice debriefers in this teaching paradigm.

It is critical that debriefing is conducted by facilitators competent in debriefing (The INACSL Standards Committee, 2016). However, prior studies showed that a significant percentage of debriefers are new to simulation (Fey & Jenkins, 2015; Waznonis, 2015). Up to 33% of debriefers had under two years of experience (Waznonis, 2015); they may be limited in their abilities to use debriefing to its full potential (Dreyfus & Dreyfus, 2005). Student learning outcomes may be negatively impacted by the significant proportion of novice debriefers who lack formal, structured opportunities for debriefing expertise acquisition.

Currently, very little research has focused on debriefing approaches used by debriefers at any experience level. To date, research focused on debriefing practices by novice simulation instructors in healthcare has not been conducted. However, findings from available studies revealed that large gaps exist in debriefer competence and debriefing quality assurance. National studies examining debriefing practices in U.S. nursing education programs demonstrated that a majority of debriefers did not receive formal training in debriefing (Fey & Jenkins, 2015; Waznonis, 2015). Additionally, debriefers reported low rates of using any specific model to guide their debriefing practice; only 18% in one study (Waznonis, 2015) and 31% in another (Fey & Jenkins, 2015). Of further concern, only a minority of nursing programs reported having a process for instructor debriefing skill advancement in place (Fey & Jenkins,

2015). Many debriefers rely on trial and error to improve debriefing skills (Krogh et al., 2016; Waznonis, 2016).

Understanding the approaches used by novice debriefers is critical in informing faculty development needs. The purpose of this study is to examine how health professions instructors approach debriefing when they are new to debriefing simulation-based experiences.

Conceptual Framework

The Dreyfus Model of Skill Acquisition (Dreyfus, 2004; Dreyfus & Dreyfus, 1980) posits that in learning a particular set of skills, individuals progress through a series of five predictable stages: novice, advanced beginner, competence, proficiency, and expertise. Individuals tend to exhibit behaviors characteristic to their developmental stage. In this model, novices lack insight into *what is the big picture*? Instead, they focus on following context-free rules in a rigid, detached manner. When the situation deviates from expected, novices lack the skills to manage the situation. This study applies Dreyfus's description of novices to those who are new to debriefing.

Method

This pilot qualitative study used a thematic analysis approach (Braun & Clarke, 2006) to explore novice debriefers' experiences in conducting post-simulation debriefings.

Sampling.

Study participants were selected through purposive sampling. They were recruited from a large, mid-Atlantic simulation center via posted flyers, and emails sent via the simulation center electronic mailing list, which included physicians, nurses, allied health professionals, educators, and researchers from the simulation center's geographic area. Inclusion criteria were: 1) currently work in roles that include teaching with simulation and debriefing, 2) able to participate in an in-person interview at the simulation center, and 3) self-identification as a novice debriefer. Individuals employed by the simulation center were excluded from the study. Recruitment continued until there was data saturation.

Data Collection.

Each participant was interviewed once by authors GN or DL, using a semi-structured format, with a set of pre-determined, open-ended questions. Example questions included: *what comes to mind when you hear the term 'debriefing', tell me about a time that your debriefing went well, and how would you describe your debriefing technique*. Interviews lasted 50 to 60 minutes. They were audio recorded, and transcribed verbatim by a 3rd party transcription service.

Data Analysis.

We independently reviewed the transcripts and separately hand-coded the data. We also sorted the codes into categories and coherent patterns across all the data to form initial themes. This process was conducted iteratively until each theme was defined and named based on its core meaning.

Rigor and Trustworthiness of Findings.

Both authors are experienced instructors in teaching debriefing as an instructional tool.

Ethics.

Approval for this study was granted by the NYU School of Medicine Institutional Review Board prior to commencing the study. A research assistant obtained written consent for participation as well as for audio recording. Participants who completed the interviews were given a $25 gift card.

Results

Sample.

The final sample included nine participants: four physicians, two nurses, two paramedics, and one physical therapist. All self-identified as novice debriefers, with debriefing experiences ranging from two months to 15 years, with the median experience being 2 months. Participants work at four different healthcare organizations in a metropolitan area in the US. All names were redacted to protect participant confidentiality.

The over-arching theme was identified as "I'm on my own…and they're on their own." The three main themes identified were "Winging it," "Deep divide between me and the learners," and "Debriefing Quality: missing pieces of the puzzle."

"I'm on my own….and they're on their own."

This overarching theme portrayed a broad pattern that the novice debriefers approached their debriefings with a feeling that when it comes to debriefing, they are on their own, Participants felt they were on their own to figure out how to conduct the debriefing, how to give feedback, and determining whether their debriefings were effective or not. Even when some participants co-debriefed with another instructor, they each worked in silos. Participants also believe that learners are on their own. They felt learners should not necessarily expect assistance in the form of direct feedback and teaching from the debriefer. Instead, learners should should teach themselves what they did wrong and how to correct their errors.

Winging It.

Most participants described their overall approach to conducting debriefing as "winging it." They perceived that they had minimal or no debriefing training, nor guidance from an experienced debriefer. Instead, they were on their own to make up their own approach as they went along. One participant explained:

> "I would say my general technique is just kind of wing it….Because I feel like I haven't had much training or really read about how to debrief in depth, I feel like I just kind of wing it a lot of the times, I guess, or just sort of generally try to guide people through it in a way that I feel like people were when I was the trainee."

A different participant shared a similar approach:

> "I'm just going to go in and have a conversation. I kind of know what I want to teach, maybe I do, maybe I don't, but I'm going to wing it. We'll just have a conversation about how things went and about what people were uncomfortable with."

Participants did have some general ideas of what debriefing should be about, even though they were winging it. For example:

> "I guess I'm at least vaguely aware of the idea that the debriefing shouldn't be a one-way flow of information. It's not just me telling this is what happened and this is how you do this or this is how you should do that, or this is what you missed, because that's probably not useful or not, certainly not engaging for them."

However, even though they have general ideas of debriefing, the vast majority of participants were not aware of any debriefing models. Almost all participants started their debriefing with "how did that go" or "how do you think it went," then followed up with broad, open ended questions. However, participants also reported that the broad questioning approach often did not generate much interaction or discussion with the leaners:

> "I remember thinking to myself, 'If I just start with open ended questions, then I'll get what I need and then I can move on and get to my teaching points'… and that didn't work…at that time it was unclear to me why that necessarily didn't work…I remember asking people, 'How do you think that went' and there was kind of like crickets, and actually figuring out how to get people to participate in the debrief was tough."

Some participants reported they conducted minimal or no debriefing after the simulation scenario. One participant recounted that their debriefing included instruction, but was missing the key element of reflection:

> "In the beginning it was just simulat[ing] a patient, and then the teaching occurred, so there wasn't really a reflection. For example, we had a patient with asthma or myocardial infarction…and I explained to them this is what the patient problem was and what you should have done.... It was more about the knowledge and also about the skills, but didn't really reflect."

Another participant explained debriefings were minimal when learners performed well:

> "When I have a class of refresher students that are really on point…then my debriefing is kind of slim to none…we're high fiving at the end because it's just like, "You did this awesome. You did this awesome." That's as far as debriefing goes because they don't show a lot of room for improvement for me to be like, "You should do this or this."

In summary, novice debriefers in our study navigated how to conduct debriefings on their own, and their common approach is winging it, and hoping for the best.

Subtheme: See one, Do one, Teach one.

A traditional method of training in medical education is *see one, do one, teach one*. Health professions educators have argued that this method is no longer an effective learning strategy (Kotsis & Chung, 2013; Rodriguez-Paz et al., 2009). Unfortunately, all participants in our study reported that they resorted to See one, Do one, Teach one. Most have not even had the opportunity to observe another instructor debrief. Instead, they had no other resources to draw from besides previous experience of having been debriefed as a learner. For example, one participant explained:

> "I think a lot of it was observation, because we've gone through so many sims as part of our training that standard format is, that plus delta model, so that's kind of what I've adopted. Then asking those standard questions of was there a clear team leader, how do you think the communication was. These are the standard debriefing setup that I've observed, and that's just what I emulated."

Another participant indicated their debriefing approach was based on what they experienced as a learner:

> "It was kind of sometimes was one-sided. Not everyone would participate.... [there was] a lot of listening and a lot of telling, but no engagement. Some would participate; some wouldn't. Not everyone would get involved, and it was really not a structure."

A few participants were handed a written guide to follow, but did not receive instructions on how to use it, or had a chance to practice beforehand. One shared:

> "I remember the first time I facilitated a sim as a chief resident, I kind of got the packet of what the sim was supposed to be and what I was supposed to make sure we covered in the debrief, but not really any instruction as to how to do that debrief."

Many participants did not have any mentors who can model the behaviors. A participant with 15 years of teaching experience in explained:

> "I think because I haven't felt that I had enough contact with a mentor, or someone who could model the behaviors that I'm trying to learn. So it's self-education right now. When you start as a novice in something, you kind of look to model the behaviors of somebody who's doing it well. And that's why I feel like I'm work in progress, because I felt to a certain extent, I'm kind of stumbling around and trying to achieve this debriefing process little by little without actually having a consistent exposure to it."

"Deep divide between me and the learners"

This theme portrays a sense of disconnect between the participants and their learners. They seem to be on opposing sides when it came to debriefing. Participants often did not communicate their feedback, opinions, or emotions with their learners. They felt frustrated when the learners were quiet, or when they performed poorly in the scenario. Several described their experience as "pulling teeth." One participant commented:

> "That was like I was pulling my teeth or it was just dragging…...they're shy, they don't want to speak up, they don't want to participate……then you ask questions and it's just you and the crickets."

Participants also described feeling frustrated at the learners when they performed poorly in the simulation scenario. One participant expressed:

> "I was really quite dismayed at how bad they were….I was surprised at how badly it went….The difficult part was trying to have a bit of a poker face with not letting them know how disappointing that was because these are people that have done BLS and ACLS courses…..that was probably the toughest part, was to try to have this conversation to let them know what went wrong without my jaw being on the floor the entire time, like how are you guys this bad?"

Additionally, all participants reported feeling uncomfortable giving negative feedback. Their default approach was to elicit self-critique from the learners instead. For example:

> "The positive was always taken well. The negative, I'll try to get them to explore and let them come up with the mistakes they did. How they want to address them."

Similarly, another participant expressed:

> "Rather than me tell them, 'You didn't do something. You should do it next time.' [I'd rather] they come to the realization, 'Oh, we missed anaphylaxis. We need to identify that and properly treat it and now we know that.' I think that's more beneficial than me saying, 'You guys didn't do this. What were you thinking?'"

Some participants tried to point out the negatives in an indirect way:

> "I think sometimes I hesitate to call out the negative things, things that I think we're missing. And so sometimes the way I do it is I suggest that I might have missed it if they did something. So I didn't see you use rebreather did you? Just in case I missed it, because I don't like that interaction when you say to somebody, "well, you didn't do this." And they say, "well, yeah, but I did." I prefer that they kind of own up and realize that that could have been done differently or if they did do it well fine they say they did it and I didn't see."

Some participants even felt disbelief when learners were not forthcoming with the self-critique:

> "I try and correct it. At that point, I'm telling them what the correct answer is. I am giving them the correct answer. But I can often times get members of the group to point it out. I think when the scenario doesn't have any of the team members finding an error, then I feel like I'm scratching my head. So ask the team members, 'Did any of you guys recognize that this was not correct?'"

In summary, dynamics between participants and learners were oppositional, instead of being on the same side.

Debriefing Quality: Missing Pieces of the Puzzle.

Participants did wish to conduct debriefings well, however, they were missing key knowledge as to what constitute a good quality debriefing. Instead, they used their own personal criteria. Almost all participants only had "learners were talking" as the sole criterion of debriefing success:

> "To be completely honest with you, I'm not sure what you mean by "go well." I feel like what happens is because we leave a lot of time for the debrief period, we're usually able to sort of corral everybody into a space where people are talking and revealing what they want to know and that kind of stuff. If I were to say something didn't go well….would be one where the residents just weren't talking at all."

Similarly, another participant's felt it was a success if it didn't feel like "pulling teeth":

> "The ones that went well had a lot more to do with the students that were more open to the process. So if it went well, I think it was because I felt like I wasn't pulling teeth….the students weren't overly quiet, or not very responsive to my questions, or they just look blankly at me saying nothing."

Another participant felt the debriefing went well if they elicited learners to share their thought processes:

> "[If they made] an incorrect decision…was there a knowledge gap there that we could then fill…or if they really did have the correct thought process but they carried it out incorrectly, then maybe you could say, 'Well, what did you notice happen with the vital signs after that? The patient decompensate, so what you think? Do you think maybe we should've done something else?' Then just kind of getting them to think through it."

Discussion

This pilot study aimed to explore how health professions instructors approach debriefing when they are new to simulation. Participants in our study started to teach with simulation without debriefing training. Instead, the novice debriefers were on their own to figure out how to conduct debriefings. Our study adds to current debriefing research by providing empirical data on the approaches and challenges of novice debriefers. To date, this is the first study to address this topic.

Our findings support previous research which showed a large percentage of debriefers did not receive training, and did not use structured approaches in debriefing (Fey & Jenkins, 2015; Waznonis, 2015). Additionally, our findings demonstrated that without training and mentorship, novice debriefers are likely not able to conduct debriefings in accordance with the recommended best practices of using a structured approach, maintaining psychological safety, and promoting reflection (Husebø et al., 2013; Kolbe et al., 2015; Tannenbaum & Cerasoli, 2013; The INACSL Standards Committee, 2016). Our novice debriefers resorted to using "winging it" as the main debriefing approach. Even with their best efforts, debriefings still felt like "pulling teeth." They felt frustrated with poor learner performance, and at the same time struggled with providing critical feedback. As a result, learners were often left on their own to figure out what they did wrong and how to improve.

The novice debriefers in this study exhibited behaviors characteristic of novice performers as described by the Dreyfus model. They were trying to follow rules such as "I need to ask open ended questions," and "Start the debriefing with 'how do you think it went?'" However, when they encountered silence, the novices were stumped. They also lacked insight in achieving the broader learning goals for debriefing. Instead, they focused on using "learners were talking" as a marker of success.

One unexpected finding was that a participant with more than 10 years of experience teaching Basic Life Support and Advanced Cardiovascular Life Support still

self-identified as a novice debriefer. This participant stated that in more than 10 years, she did not have a mentor to provide her with debriefing feedback. Ericsson (2008) pointed out that amount of experience and expertise often do not correlate, and absence of deliberate practice likely leads to premature automation of performance. It may be possible that in this case, absence of deliberate practice with a knowledgeable mentor was an underpinning factor in arrested development in debriefing skill acquisition.

While the findings were mostly expected, we believe the rich descriptions provided by the data may point to a larger issue: how simulation as a unique field of professional practice is being perceived by general health professions instructors outside of simulation. Novice debriefers in our study thought that simulation education can be delivered effectively without initial training and ongoing deliberate practice. Our findings showed there is a lack of knowledge about markers of debriefing quality. This perception is reflected in our findings that the *see one, do one, teach one* model was thought to be sufficient preparation for conducting debriefings. Some participants were assigned to conduct debriefing by their supervisors with no preparation or only minimal preparation, which indicates that their supervisors hold this perception as well. Yet when our novice debriefers started debriefing, they did not anticipate the complex challenges involved, and did not have the tools to manage the situation. As a result, debriefing quality was suboptimal.

Implications for Practice.

As the need for debriefing training grows, a key consideration also emerges: how to ensure debriefing training programs are tailored to fit specific needs of program participants (Cheng et al., 2015; Peterson et al., 2017). Our findings provide additional empirical evidence of the specific needs. Instructors in simulation faculty development programs may consider incorporate our study findings in the following ways: 1). Discuss the themes from this study with program participants. For participants who are new to debriefing, understanding the challenges and feelings common to novice debriefers can help normalize their experiences, and potentially decrease anxiety and self-doubt in the learning process. Additionally, this knowledge can serve as a basis for self-reflection to help novice debriefers gauge their own debriefing skill acquisition progress. For both instructors and participants beyond the novice stage: understanding common perceptions and challenges of novices is also important. Having this knowledge can strengthen any peer-feedback and coaching efforts (Cheng et al., 2015, 2017) used in faculty development programs; participants with more experience can tailor their feedback to novices with these themes in mind. 2). Discuss published standards of best practices with novice debriefers. Our findings showed that novice debriefers in our study were generally unaware that debriefing quality benchmarks exist, but instead, used their own personal criteria to determine debriefing success. Beyond learning the relevant debriefing methods (Cheng et al., 2015), novice debriefers also need to gain knowledge of published standards of best practices (The INACSL Standards Committee, 2016), and be able to use this knowledge to benchmark their own debriefing successes.

As the body of knowledge in healthcare simulation grows, simulation-based education is also forming into a distinct profession. The mistaken belief that conducting simulation and debriefing did not require specific preparation may be related to a perception that simulation is not a distinct field of practice requiring faculty development. Perhaps the larger health professions educator community are not aware of the growing specialization of simulation. Additional efforts to promote the perception of simulation as a field of study with a unique body of knowledge are needed.

Limitations.

An inclusion criterion for this study was self-identification as a novice debriefer. The reason for using this criterion was that we could not find a definition of novice debriefer in the literature. This is a limitation, because the sampling may be biased towards those who felt they were novices, and excluded those who didn't self-identify as novice, but may actually exhibit characteristics of novices in actual debriefing practice; it may be biased towards a self-selected group who have concerns about their own debriefing skills. Additionally, this study was limited to participants from the single geographical area. It may be possible that novice debriefers from different areas in the United States, or from different countries, may have different experiences.

Future Research.

Research on the debriefing skills of novice debriefers can be expanded to include studies using different types of qualitative and qualitative methods, and also expanded to a variety of geographic and institutional settings. Research on debriefer skill acquisition may also be expanded to include more advanced debriefer levels. To date, literature on debriefing skill development is limited. Krogh et al.(Krogh et al., 2016) interviewed peer-nominated expert debriefers, and found that expert debriefers are honest and curious, used structured debriefing methods, were able to think on their feet, and could select the debriefing method best suited to the situation at hand. Future research may focus on examining the approaches of debriefers at the advanced beginner, competence, and proficient stages. Cheng et al. (Cheng et al., 2019) adapted the Dreyfus model and proposed a three-stage model of debriefing, which included discovery, growth, and maturity stages. Researchers may consider testing this conceptual model with a variety of qualitative and quantities methodologies.

Conclusions

Debriefers need a wide-ranging set of skills in order to conduct engaging, psychologically safe debriefings that cover all learning objectives. Novice debriefers in this study were on their own, having little to no debriefing training and mentorship. Study participants expressed debriefing struggles in several areas including; discussing errors, facilitating learner participation and assessing debriefing effectiveness. Our findings shed light on simulation as a growing specialty by health profession educators,

and it is critical that resources are devoted to faculty development for debriefing skill acquisition. These findings can serve as a basis for future studies on debriefer skill acquisition.

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