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# Video Reflection in Discharge Communication Skills Training With Simulated Patients: A Qualitative Study of Nursing Students' Perceptions

Sharon MacLean, RM, RN<sup>a,\*</sup>, Fiona Geddes, PhD<sup>b</sup>, Michelle Kelly, RN, PhD<sup>c</sup>, Phillip Della, RN, PhD<sup>d</sup>

<sup>a</sup>PhD Candidate, Registered Nursing Lecturer, School of Nursing, Midwifery and Paramedicine, Curtin University, Perth, Western Australia

<sup>b</sup>Research Associate, School of Nursing, Midwifery and Paramedicine, Curtin University, Perth, Western Australia

<sup>c</sup>Associate Professor, Director, Community of Practice, School of Nursing, Midwifery and Paramedicine, Curtin University, Perth, Western Australia

<sup>d</sup>Professor, Head of School of Nursing, Midwifery and Paramedicine, Curtin University, Perth, Western Australia

## KEYWORDS

simulation;  
discharge  
communication;  
student nurses;  
simulated patients;  
video-assisted  
reflection;  
debriefing

## Abstract

**Background:** The use of video-assisted reflection as part of the debriefing process is a growing area of interest in simulation-based education. To further develop knowledge in this field, this study explored nursing students' reflections on their experience and learning after independently viewing audiovisual recordings of themselves engaging in a patient discharge simulation.

**Methods:** A qualitative study design was used. Students demonstrated their discharge communication skills with simulated patients in three learning intervention groups. Each student privately viewed an audiovisual recording of their simulation session before attending a group debriefing. Audio recordings from 35 debriefing sessions were transcribed for both content analysis and thematic analysis. The sample included 141 nursing students enrolled in a Bachelor of Science (Nursing) program.

**Results:** Six themes and four subthemes were identified. Themes were realism, nonverbal communication, verbal communication skills, reflective learning, becoming a nurse, and patient needs. Two word clouds using [wordcloud.com](http://wordcloud.com) were generated from the content analysis of students' thoughts and feelings about the simulation experience.

**Conclusion:** Using simulated patients and video-assisted reflection when teaching communication skills resulted in students reporting a high level of self-awareness, confidence, and a sense of achievement. Students indicated that the process helped to gain a greater understanding of the importance of effective verbal and nonverbal communication skills during interactions with patients. Students reflected on the importance of engaging with patients and considering their postdischarge needs and well-being as part of discharge communication practises.

## Cite this article:

MacLean, S., Geddes, F., Kelly, M., & Della, P. (2019, March). Video reflection in discharge communication skills training with simulated patients: A qualitative study of nursing students' perceptions. *Clinical Simulation in Nursing*, 28(C), 15-24. <https://doi.org/10.1016/j.ecns.2018.12.006>.

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\* Corresponding author: [Sharon.maclean@curtin.edu.au](mailto:Sharon.maclean@curtin.edu.au) (S. MacLean).

## Background

The international patient safety guidelines for health care education ([International Society for Quality in Health Care, 2018](#)) outline the need for all health care workers

### Key Points

- Using video-assisted reflection when teaching communication skills resulted in students reporting a high level of self-awareness and confidence.
- A strength of this study is the application of two theoretical frameworks (NHET-Sim and Schön's reflection-on action) to inform simulation development and the debriefing/reflection process.
- A key finding was that students uniformly shifted from feeling anxious and stressed before the simulation and viewing, to feeling positive and enjoying the experience once they had completed the process.

to have knowledge and skills relevant to promote patient safety. Communication failures are recognized as one of the leading causes of error in health care ([Powers, Staton-Williams, Sheeler, & Howard, 2017](#); [The Joint Commission, 2014](#); [World Health Organisation \(WHO\), 2012](#)). In addition to policy, protocol, and workflow process changes, [Kellogg et al. \(2017\)](#) identified education and training as the most common strategy to strengthen communication for safety skills.

Patient safety is an essential component of nurse education ([Woods et al., 2017](#)). A key role of nurse educators is to ensure students are well prepared for clinical practice ([Nursing and Midwifery Board of Australia, 2016](#); [WHO, 2013](#); [Woods et al., 2017](#)). Nursing students must develop high-level

communication skills if they are to be effective and safe caregivers ([Kaplonyi et al., 2017](#)). However, a recent review by [Grant and Jenkins \(2014\)](#) found that communication training continues to be a low priority in nursing education.

[Grant and Jenkins \(2014\)](#) recommend that more research into the efficacy of communication skills training using simulation-based education (SBE) is required. In line with this recommendation, our study reports on students' perceptions of their experience and learning when participating in a SBE program to improve patient discharge communication skills. A key focus is to examine the impact of video-assisted self-reflection before group debriefing. This study forms part of a comprehensive doctoral research project looking at the use of simulated patients (SPs) in communication education for undergraduate nursing students.

## Theoretical Frameworks

The Nursing Education Simulation Framework (NESF) ([Jeffries/NLN, 2012](#)) and Schön's reflective practitioner framework ([Schön, 1983, 1987](#)) inform this study. The NESF has five conceptual components: design characteristics, educational practises, facilitator characteristics, participant characteristics, and learning outcomes. Simulation design characteristics include objectives, fidelity (realism), complexity, participant support, and reflection/debriefing. Debriefing traditionally refers to the period immediately after the scenario when faculty and students critically examine the simulation experience ([Jeffries/NLN, 2012](#)).

Reflective practise is the process of learning from experiences to inform future practise ([Schön, 1987](#)). Schön identified two types of reflection: reflection-in-action and reflection-on-action. The former allows practitioners to reflect and critically think while they are performing an action, whereas the latter involves retrospective reflection on their performance. [Schön \(1987\)](#) advocates for the use of reflection-on-action in a risk-free environment such as during simulation debriefing.

## Simulation

Simulation in nursing education is used as a teaching methodology to provide participants with an opportunity to develop communication skills ([Maclean, Kelly, Geddes & Della, 2018b](#)), clinical judgement ([Lasater, 2007](#)), and clinical reasoning skills ([Levett-Jones & Lapkin, 2014](#)) in a nonthreatening learning environment. Increasingly, tertiary institutions are using simulation to ensure nursing students can perform clinical tasks, have effective communication skills, and have higher order thinking skills on graduation ([Levett-Jones & Lapkin, 2014](#)). As the use of simulation increases in nursing education, it is imperative that educators continue to improve their understanding on how simulation and the process of debriefing and video reflection influence student learning outcomes ([Levett-Jones & Lapkin, 2014](#); [Neill & Wootten, 2011](#)).

## Simulation Fidelity

The International Nursing Association for Clinical Simulation (INACSL) Standards of Best Practice: Simulation<sup>SM</sup> include fidelity as a criterion that must be implemented to provide effective SBE. Fidelity of the simulated environment is often enhanced by having a clinical setting, and using simulated patients, authentic scenarios and documentation that mimics the "real world." When teaching communication skills, the use of simulated patients, who can interact in real time, helps create a greater sense of realism for students ([INACSL Standards Committee, 2016a,b](#)). When students are engaged in the learning experience, they are more likely to reflect on critical elements,

such as patient safety, compassion, and management strategies (Hayes, Jackson, Davidson, Daly, & Power, 2017). Students' perceptions of realism are reported in this study as validation of the authenticity of the patient discharge communication scenario, setting, and use of simulated patients.

## Debriefing

An integral part of the simulation-based learning outcomes for this research was the debriefing and reflection processes. The process of debriefing refers to an activity that follows a simulation and is led by a facilitator (INACSL Standards Committee, 2016a,b). Debriefing can be classified into two main types: verbal debriefing (VD) and video-assisted debriefing (VAD) (Zhang et al., 2018). Effective VD is believed to link theory to practise and promotes critical thinking (Kelly & Guinea, 2017; Levett-Jones & Lapkin, 2014). Debriefing also provides students with a process to develop clinical reasoning skills through self-reflection and feedback (Levett-Jones & Lapkin, 2014). The debriefing phase has been described as the most essential component of reflection and learning (Dieckmann et al., 2009; Fanning & Gaba, 2007; Husebo, O'Regan & Nestel, 2015). In their review of simulation debriefing practises, Hall and Tori (2017) stated that debriefing should be based on a well-defined framework and that all simulation should have a planned debriefing session with a focus on self-reflection. Gantt, Overton, Avery, Swanson, and Elhammoumi (2018) examined the efficacy of three debriefing techniques (facilitated, self-debrief, and feedback) and recommended facilitated debriefing as the preferred approach by students and faculty. For this research, a blend of the Gather, Analyze, and Summarize (GAS) (Phrampus & O'Donnell, 2013) and Reflection-on-action (Schön, 1987) approaches were adopted when conducting facilitated debriefings.

## Video-Assisted Debriefing

To complement VD and boost learning, VAD involves the use of audiovisual capture and reviewing in the debriefing process (Zhang et al., 2018). VAD can provide participants with an opportunity to review, reflect upon, and discuss key elements of the simulation (Levett-Jones & Lapkin, 2014; Reed, Andrews, & Ravert, 2013). Faculty and student perceptions of VAD have been reported in the literature (Beaird, Nye, & Thacker, 2017; Bussard, 2016; Ha, 2014; Krogh, Bearman, & Nestel, 2015; Reed et al., 2013; Royle & Hargiss, 2015). According to Krogh et al. (2015), faculty felt that the value in using VAD depended on equipment, scenario design (realism), learning objectives, and the participant group dynamics. Challenges in VAD identified by Krogh et al. (2015) included distractions during the debriefing process which diverted the student and facilitator's discussion from the learning outcomes. From a

student's perspective, Ha (2014) and Karlsen, Gabrielsen, Falch, and Stubberud (2017) reported that while students found watching the video to be tiresome and humiliating, it boosted self-confidence for some students. Reed et al. (2013) also observed that VAD enhanced students' self-confidence and self-reflection. A point to note is that the studies described previously used VAD in a group setting, having the students watch excerpts of other students or their performance as a group.

Two studies in nursing investigated the impact of providing individuals with the opportunity to review their performance independently (Beaird et al., 2017; Bussard, 2016). Specifically, in communication skills training with simulated patients, Beaird et al. (2017) found positive trends but not significant group differences in students' self ratings of their communication skills between those who watched videos of their performance within 36 hours after the simulation and debriefing session, and a control group with no opportunity for video reflection. In a qualitative study, Bussard (2016) observed positive learning outcomes for 20 nursing students who were given the opportunity to view videos of their performance up to a week after participating in high-fidelity simulation.

Building on the successful use of video-reflexive ethnography to improve clinical practise (Iedema, Mesman, & Carroll, 2013), Gough, Yohannes, and Murray (2016) applied a video-reflexive approach in simulation education with physiotherapy students. Students independently reviewed their own video. Students reported value in this opportunity, as they were able to verbalize their clinical decisions and clinical reasoning skills. Levett-Jones and Lapkin (2014) described VAD as the gold standard for debriefing; however, few well-designed studies support VAD effectiveness on student learning outcomes. In sum, evidence indicates that students learnt from simulation with or without VAD (Ha, 2014; Reed et al., 2013); however, the extent to which VAD impacts learning and optimal viewing protocols warrants further investigation.

## Study Aim

Nurses acquire theoretical knowledge about communication during their tertiary training; however, what students learn in a classroom is not always transferred to and enacted during clinical practise. Simulation is an evidence-based pedagogy to bridge the theory to practise gap (NLN/ Jeffries, 2012). Although clinical experience through simulation provides an opportunity to improve nursing skills, Schön (1983, 1987) believes that more meaningful learning happens through the process of self-reflection. The implementation of video-assisted, reflective practise following a simulation may help students embed their professional knowledge and skills, gain better self-awareness, and increase their readiness for clinical practise (Levett-Jones & Lapkin, 2014).

Although the benefits of using simulation to enhance student nurses' learning are well accepted, research about participants' experiences and perceptions of video-assisted reflection in simulation and education are limited (Alhaj Ali & Musallam, 2018; Zhang, Mörelius, Goh, & Wang, 2018). To our knowledge, minimal studies in nursing communication skills have used a combination of independent viewing of audiovisual (AV) recordings for self-reflection before participation in a group debriefing following simulation. The purpose of this study was to examine nursing students' perceptions and learning experiences after participation in a patient discharge simulation with independent AV reflection time and group debriefing. Specifically, we sought to explore students' thoughts about (1) the simulation experience, (2) having the opportunity to watch the AV recording privately and independently, and (3) the patient's needs during and after the discharge process.

## Methods

### Study Design

A qualitative, descriptive approach was applied to explore reflective debriefing in SBE. As reported in MacLean, Geddes, Kelly, and Della (2018a,b), three study groups were established based on a patient discharge communication training protocol: T1—control group (no intervention); T2—information group (readmission risk factor information provided); and T3—information and interaction group (readmission risk factor information and teach-back provided). The simulation sessions took place in a purpose-built simulation space at the university during nonteaching periods. All students completed (a) the discharge scenario, (b) independent video-assisted reflection, (c) standardized debriefing in a group of 3 to 5.

### Sample

A convenience sample of 141 students enrolled in a Bachelor of Science (Nursing) program in a large metropolitan university voluntarily enrolled in the study. Participants for this study met the following criteria: (1) second- or third-year nursing students; (2) had attended a clinical placement in an acute care setting; (3) agreed with the study procedure and purpose; and (4) had completed the course curriculum discharge module.

### Ethics

The study was approved by the university's human research ethics committee (approval no. 151012). Participation did not impact on students' course outcomes. The students completed the simulation during semester breaks and were

not engaged in curricular activities with the researcher. Participation in the study was voluntary, and students were free to withdraw without prejudice at any stage. All videos and outcome data were electronically encoded and stored according to university ethics and requirements.

## Procedure

The study involved a number of phases: simulation/scenario design; SP training; creating student groups and providing prebriefing; simulation sessions; audiovisual self-reflection/evaluation; and debriefing/focus groups. For this study, the scenario design, video reflection, and debriefing/focus groups have been reported in detail. The procedure of SP recruitment and training has been reported elsewhere (MacLean, Geddes, Kelly & Della, 2018a).

### Scenario Design

Communication involves a complex interconnected range of verbal and nonverbal skills. In this study, the students had well-defined, task-directed communication skills to focus on. Employing the NESF framework (NLN/Jeffries, 2012), a patient discharge communication scenario was created. The NESF integrates learner-centred, sociocultural, and constructivist learning theories. Using this framework allows nurse educators to provide participants with scenarios that are both theoretical and evidenced based. Contextual details depicted a patient over 65 years of age with type 2 diabetes. The patient is discharged home from hospital with a new diabetic medication. The scenario was authenticated by a diabetic educator, two registered nurses, and two academics who have expertise in both clinical and simulation education.

### Simulation Sessions and Video Reflection

Supervised individual simulations were run concurrently in two fully equipped simulation laboratories in the university's School of Nursing. Audiovisual recordings were taken of each student with both the ceiling camera system and a Go Pro camera. A Go Pro camera was used so that each student could watch their AV recording on a laptop in a private viewing room immediately after the simulation and before the group debriefing. This gave students an opportunity to reflect on their performance and communication skills independently, without feeling embarrassed or anxious about peer review.

### Group Debriefing Interviews

Once the students had viewed their AV recording, facilitated debriefing took place in a confidential environment. When applying GAS and Reflection-on-action (Schön, 1987)

frameworks for debriefing, the instructor initially engages, explores, and explains the events that occurred retrospectively. Listening helps the instructor understand what the students think and how they feel about their simulation experience. The analyse/evaluate phase provides students time to reflect on their learning and generate discussion on improvement. Finally, in the summarizing and extending phase, an overview of the key take-home messages that the students have learnt is formulated (Phrampus & O'Donnell, 2013).

The debriefing was facilitated by the researcher who was formally trained in debriefing, and all sessions were audio-recorded with participant consent. The questions were developed by the researcher and reviewed by an expert panel for face validity.

The following questions from the debriefing interview guide were asked:

1. How would you describe the simulation you just completed?
2. How do you think watching the AV recording by yourself has developed your communication skills?
3. What are your thoughts/feelings on how your patient will manage once they are discharged home from hospital?
4. Describe in one or two words how you felt when you were informed you were being filmed in the simulation and had the opportunity to watch it back.
5. Describe in one or two words how you felt once you had completed the simulation and watched the AV recording.

## Data Collection and Analysis

Data collection took place over a 12-month period and consisted of three 1-week blocks of simulations. Each simulation lasted approximately 12 to 15 minutes per student, with a maximum of five students rostered for each session. Immediately after the simulation scenarios and video review, group debriefings with three to five students were conducted. In total, 35 debriefing sessions were held, lasting between 26 and 47 minutes (mean = 38 minutes). The debriefings were audio-recorded and professionally transcribed. The recordings and scripts were then listened to and reviewed by the first author for accuracy. In the whole process, Guba and Lincoln's (1985) principles of transferability, confirmability, credibility, and dependability were used to ensure trustworthiness.

Qualitative content analysis and thematic analysis are two commonly used approaches in data analysis of nursing research (Braun & Clarke, 2006; Mayring, 2000; Vaismoradi, Turunen, & Bondas, 2013). Despite the similarities between the approaches, the difference lies in the ability of content analysis to quantify data. This study

utilized both approaches. All themes and content descriptors were initially identified, compared, and validated in a subsample of transcripts (30%) drawn from across the three data collection periods by three reviewers, the first author (S.M.) and corresponding authors (M.K. and F.G.). Once consensus was reached on themes, the remaining transcripts were analysed and any variations moderated as required. Thematic analysis (Braun & Clarke, 2006) was used, and a matrix of themes and subthemes was created to represent responses to the first three debriefing questions. Content analysis (Mayring, 2000) was applied to questions 4 and 5 and results are displayed as word clouds. Wordclouds.com is a free online word cloud generator used to create the clouds. Words that appear more frequently in the source data have greater prominence in the word cloud.

## Trustworthiness

The rigour or trustworthiness of the data was assured through the components of credibility and dependability (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5583643/>; Lincoln & Guba, 1985). Credibility was achieved through an iterative process of each author independently deciding on concepts, before collaboratively coming to an agreement on the themes/subthemes and quantifying word cloud information. Dependability was achieved by maintaining an audit trail documenting the coding decisions made by the research team.

## Results

A total of 137 females and four male participants with a mean age of 27.67 years (SD = 8.54) completed the simulations. Most of the students were Caucasian with English as their first language (n = 112). Students of other ethnicities, with English as a second language, included Chinese, Indian, Sudanese, European, South East Asian (n = 29). Eight SPs (six females and two males) over the age of 65 years were purposely recruited through the university's SP database (M = 65.67 years, SD = 2.50), as the scenario was based on a patient over 65 years of age. Thematic analysis identified six themes and four subthemes: (1) realism; (2) nonverbal communication, with subthemes listening and body language; (3) verbal communication; (4) reflective learning, subthemes safety, and confidence; (5) becoming a nurse; and (6) patient needs. Quotes are used to represent themes, with emphasis added on occasion. Two-word clouds generated from the content analysis reflect students' thoughts and feelings about the simulation experience.

## Theme 1—Realism

Students spoke about their experience in the simulation in terms of "how realistic" the scenario, task, patient, and

setting were. Students described the clinical interaction as being engaging and authentic which supported self-reflection on their learning experience.

It was realistic because the patients had real concerns and worries that you could empathise with.

**The scenario immerses you into it**, which is probably a lot easier than using mannikins. The discussion with the patient is realistic and exactly like a patient you would look after in hospital.

## Theme 2—Nonverbal Communication

### Listening

The importance of having effective listening skills was identified by students. They described how watching themselves on video gave them a greater awareness of their lack of ability to sit and listen to their patients.

I think the one thing I noticed was that I am a little too quick to answer, I need to take a step back and listen more to my patients.

It's definitely more about listening to what your patient's needs are and actually answering their questions until they are satisfied and you're not rushing them home.

### Body Language

Students recognized that their nonverbal communications including body language, posture, and awareness of non-purposeful hand movements impacted on how they might be perceived by their patient. Feelings of concern over students' hand gestures, poor posture, and positioning were raised.

I realized that I fidget, and while I am being friendly when I watched myself on video, I thought my fidgeting showed I was disengaged.

I liked how I communicate with the patient; however, I wish I had sat down on the chair next to the patient so it was more personal.

## Theme 3—Verbal Communication

Specific aspects of verbal communication, including the tone, volume, and speed of voice, were recognized as being critical for effective nursing care. Students spoke about the importance of speaking clearly and at a pace that would allow patients to understand all aspects of the discharge information.

It was really interesting to watch yourself back, as I haven't seen myself nurse before. I realize I talk too fast and need to slow down.

I talk with a really high pitch voice; I'm worried about that in clinical practise.

**I realized watching the Video I cut patients off a lot**, I need to slow down and listen to the patient more.

## Theme 4—Reflective Learning

The fourth theme, reflective learning, includes two overlapping subthemes relating to the safety of the learning environment and improved confidence gained as an outcome.

### Safety

Students described watching the AV on their own as a unique opportunity to reflect on their performance without feeling embarrassed or judged by faculty or classmates. This allowed them time to understand their strengths and weaknesses and to consider their own learning needs.

**I found watching the scenario back on my own built my confidence**, you can receive feedback without being embarrassed. The learning was great as I can see what I need to improve on.

**When you told us it was just us watching the video on our own I felt relieved**. It's really positive just having that moment to yourself for self-reflection, as you are nervous that you are going to look like an idiot in there, you can laugh at yourself.

### Confidence

Despite initial reservation about the simulation, students indicated their confidence grew once they realized how well they performed in the scenario. Their comments included the following:

I usually walk out of exams or simulations thinking oh my goodness, I am an absolute failure. Being able to watch the video back I could actually see how well I did, so it definitely improved my confidence.

**I think this simulation has pushed me to deliberately** go out of my way to increase my own education, think critically, be confident, and be even more reflective in the future.

Students were asked to consider how patients would manage once they were discharged home from the hospital. The themes identified from this question were thinking like a nurse and patients' needs.

### Theme 5—Becoming a Nurse

Students said that watching the scenario helped them consider how their thinking and actions as a nurse were developing and how this impacted on their patient.

I'm thinking too much like a nurse and what I think is important. Sometimes you need to take a step back and think what the most important information for the patients is. So, it made me realise this and that I got the main points out.

The main thing as a nurse is you hope you have given patients enough information that they can manage well at home and not represent again.

### Theme 6—Patient Needs

Students talked about being aware of their patients' well-being and the importance of ensuring that patients feel confident and can manage their care after discharge.

It is actually really important to encourage the patient to participate in their own care when they are going home. So I liked watching the video back as I could see I gave my patient confidence to manage at home.

There's so much more to think about, it's not just how they [patients] use the medication but how they're going to get to their GP in a week's time. It's helping patients become confident in using health practitioners as well, and to ask how they are feeling.

I didn't give her [patient] enough time to tell me what she was feeling, if she was feeling ok to go home. She did say that she was feeling anxious, I really picked up on that although I didn't think I let her discuss all of her concerns with me.

### Student Affect—Word Clouds

The results for questions 4 and 5 are displayed in two content word clouds. The first cloud (Figure 1) shows students' initial thoughts and feelings towards being filmed in the simulation and having the opportunity to watch the scenario back as part of the reflection process. Most students described feeling anxious, nervous, and worried. They

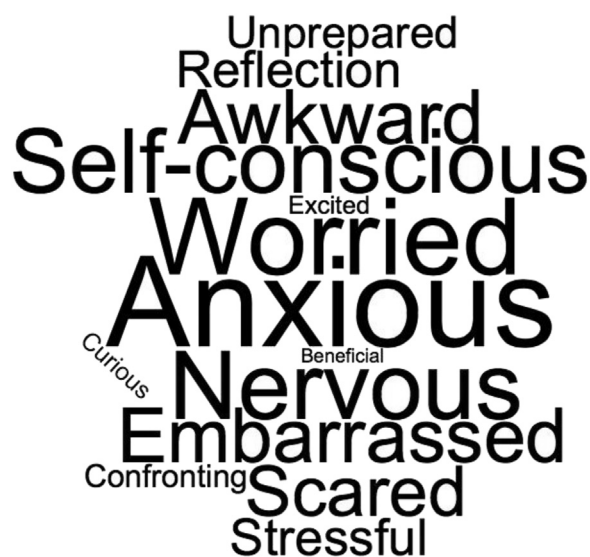


Figure 1 Presimulation experience.

initially felt awkward and self-conscious about watching themselves. However, students also stated that they were curious and excited about the simulation and felt the experience would be beneficial.

The second-word cloud (Figure 2) displays students' thoughts and feelings once they had finished the scenario and had watched the AV recording independently. All students described the experience in positive terms including enjoyable, reflective, useful, educational, and informative. The most frequent response was that the learning experience gave them more confidence in their communication skills and performing a patient discharge.

### Discussion

The purpose of the present study was to explore the efficacy of video-assisted self-reflection in a communication skills simulation. Students' initial responses highlighted realism as an important factor in the simulation experience.



Figure 2 Postsimulation experience.

Students believed that the use of SPs in the scenario provided an accurate portrayal of a patient being discharged home from hospital, which strengthened their capacity to engage in and reflect on the learning task. These responses have also been identified in nursing and interprofessional education studies using SPs, with the findings indicating SPs provide a realistic, authentic approach to learning (Beaird et al., 2017; Curran, Reid, Fitzgerald, Heath, & Mullins-Richards, 2015).

Students' reflection-on-action (Schön, 1987) occurred after the simulation was completed during both the independent viewing of their performance and the group debriefing. By participating in the simulation and VAD, students were able to identify strengths and weaknesses in their communication skills. These results are consistent with Gough et al. (2016) and Bussard (2016) who identified that the value gained by students participating in simulations was enhanced by reviewing their own video. By watching themselves, students were able to reflect on the importance of listening and not interrupting patients when they are speaking. Comments indicated that self-reflection fostered a greater appreciation of the need for patient-centred care, and the importance of making sure patients understood all the relevant information. These findings are consistent with previous research in health (Pawlikowska, Zhang, Frances, Van Dalen, & Vleuten, 2012) which has found doctors and nurses to be verbally dominant in their interactions with patients. Our results suggest that students were aware that adopting a patient-centred approach to allow more discussion with patients is essential.

The results also highlight students' recognition that they are becoming a nurse. Students were able to critically reflect on their ability to make clinical decisions, anticipate patient needs, and provide patients with the most relevant information before discharge from hospital. Having full responsibility for discharging their patient gave the students' time to build rapport and focus on their patient's emotional and physical well-being. This triggered reflection on how important it is to be available to patients, to understand individual patient needs, and to discuss and clarify essential discharge information.

As highlighted by Gantt (2013), taking part in SBE can increase anxiety for students. A final and key finding in this study was that students uniformly shifted from feeling anxious and stressed before the simulation and viewing, to feeling confident and enjoying the experience once they had completed the process. This finding is consistent with previous research by Karlsen et al. (2017) who found that despite feeling anxious, students' feelings moved towards self-awareness and confidence in their ability after VAD. While our study did not measure the impact of stress on performance, results indicate that students believed that completing the scenario individually and watching their AV recording in private helped them overcome feelings of anxiety and inadequacy and allowed time to reflect on what

they achieved in the simulation before the debrief. In sum, students' comments indicated that having the opportunity to see that they performed competently during the scenario improved their confidence and self-efficacy about their communication and discharge skills.

## Strengths and Limitations

A strength of this study is the application of two theoretical frameworks (NESF and Schön's reflection-on action) to inform simulation development and the debriefing/reflection process. This study examined the effectiveness of AV debriefing from the student perspective and is unique in having allowed the students time to individually watch and reflect on their own scenario performance immediately after the simulation and in privacy, before group debriefing. The results of our study should be interpreted with the following limitations. First, the study was implemented at a single university so the generalizability of our results may be limited. Second, the time required for each participant to individually review their own AV may be excessive for some institutions or programs. Finally, no direct comparison of the efficacy of independent viewing against group viewing was made.

## Conclusion

The main finding of this study is that students reported having greater confidence in their communication and discharge skills after the simulation. Having the opportunity to watch their performance independently supported students' individual learning needs and increased their ability to self-reflect and level of confidence. Although students often feel anxious about being filmed and the prospect of viewing their performance, this cohort appreciated the opportunity and value of self-reflection that independent viewing of their AV recording offered for learning. There is a need for additional research comparing different methods of independent and group video-assisted debriefing in communication skills training.

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