TITLE PAGE

PONDERING PRACTICE: ENHANCING THE ART OF REFLECTION

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ABSTRACT

Aims and Objectives

The aim of this paper is to describe the effect that immersive simulation experiences and guided reflection can have on the undergraduate nurses' understanding of how stressful environments impact their emotions, performance and ability to implement safe administration of medications.

Background

Patient safety can be jeopardised if nurses are unsure of how to appropriately manage and respond to interruptions. Medication administration errors are a major patient safety issue and often occur as a consequence of ineffective interruption management. The skills associated with medication administration are most often taught to, and performed by, undergraduate nurses in a controlled environment. However, the clinical environment in which nurses are expected to administer medications is often highly stressed and nurses are frequently interrupted.

Design/Methods

This study used role play simulation and written reflections to facilitate deeper levels of student self-awareness. A qualitative approach was taken to explore students' understanding of the effects of interruptions on their ability to undertake safe medication administration. Convenience sampling of second year undergraduate nursing students enrolled in a medical surgical subject was used in this study. Data were obtained from 451:528 (85.42%) of those students and analysed using thematic analysis.

Results

Students reported increasing consciousness and the importance of reflection for evaluating performance and gaining self-awareness. They described self-awareness, effective communication, compassion and empathy as significant factors in facilitating self-efficacy and improved patient care outcomes.

Conclusions

Following a role play simulation experience student nurses reported new knowledge and skill acquisition related to patient safety, and new awareness of the need for empathetic and compassionate care during medication administration. Practicing medication administration in realistic settings adds to current strategies that aim to reduce medication errors by allowing students to reflect on and in practice and develop strategies to ensure patient safety.

Key words

Interruptions, reflection, undergraduate nurses, medication administration, role-play

SUMMARY BOX

What does this paper contribute to the wider global clinical community?

- Simulated strategies in controlled settings can enhance student nurses skills in managing interruptions during medication administration
- Highlights the effects of interruptions on stress levels
- Reinforces the importance of reflection for undergraduate nurses

INTRODUCTION

Despite considerable efforts to mitigate, medication error reduction remains a global issue of concern (Cloete 2015; Hayes et al 2015). Interruptions during medication administration have been acknowledged as a primary causes of errors producing stressful environments for both nurses and patients (Jennings, Sandelowski & Mark 2011; Westbrook et al. 2010). Given that not all interruptions during medication administration can or indeed should be eliminated (Clark & Flanders 2012; Flynn et al. 2012), interruption management strategies are essential to minimise associated stress, reduce medication errors, and improve patient outcomes. Supporting undergraduate nurses to manage their emotions and performance in stressful environments during medication administration is an area which to date has received little attention in research. Building self-awareness in undergraduate nurses through simulation experiences and reflection on individual performance is one step towards improved understanding and self-efficacy.

BACKGROUND

Reflection and reflective thinking are not new concepts. Educational and nursing theorists have long described the impact that reflection has on the individuals' response to new or challenging experiences (Benner, 2001; Kolb 1984; Schon 1983; Tanner 2006). The reflective process includes three key skills: describing the experience, critically analyzing the experience, and developing self-awareness, (Boud 1985; Horton-Deutsch & Sherwood 2008). Utilising reflective learning in undergraduate nurse education encourages a deeper understanding of experiences, related underlying concepts, and can result in more positive patient care and outcomes (Tanner 2006).

When planning reflective learning experiences for undergraduate nurses it is important to consider that each individual undergraduate student nurse brings with them a unique story and level of experience which will impact on their interactions and decision making (Tanner 2006). These experiences may have been lived, witnessed or heard and can have occurred within the clinical environment or educational facility, or elsewhere. Immersive experiences that are followed by considered reflection, enhance learning, improve understanding of differing perspectives, encourage questioning of actions and emotions, and commonly result in improved levels of self-awareness (Boud, 1985; Kolb 1984).

Reflective practice is expected of health professionals (Smith & Trede 2013). Applying this concept to nursing is a process whereby the clinician is able to review experiences through thoughtful analysis and evaluation, in order to guide or improve future practice (Bulman & Schutz 2008). This includes reflection on and in practice (Schon 1983) and is ideally instinctive during all aspects of nursing care. However, reaching a point at which reflection becomes instinctive requires guidance and repeated training and should be considered as an everyday process. Thoughtful evaluation of outcomes encompassing identification of new knowledge is essential in order to progress understanding.

Transferring the skills required by undergraduate nurses to reflect on practice must also be encouraged when teaching medication administration, particularly in relation to interruption management strategies. The significance of learning these skills is clear considering nurses spend between 16 and 40% of their time in medication administration related activities (Potter et al. 2005; Westbrook et al. 2011), and that

interruptions to those activities are one of the leading causes of medication errors (Clinical Excellence Commission & Health 2013).

Tanner (2006) described the importance of noticing, interpreting, responding to, and reflecting on experiences and 'thinking like a nurse' (p 209). Thinking like a nurse is complex and involves engaging with patients; being empathetic and compassionate; and maintaining the patient's wellbeing as central to all care. It also requires incorporating expert knowledge and clinical reasoning to each situation in order to achieve sound clinical judgements and optimal patient outcomes (Tanner 2006). Making sound clinical judgments when managing interruptions to the medication administration process requires consideration of individual patient's needs. However, many of the current approaches to interruption management strategies such as the wearing of tabards with 'do not disturb' written on them, discourage communication and spontaneous response to those individual needs and are potentially counterproductive. Nursing relies on appropriate and timely communication with both colleagues and patients; and isolating the nurse from these interactions brings with it concerns for patient safety (Hayes et al. 2014). Furthermore, the rigidity with which some current strategies are undertaken can compromise the delivery of compassionate care (Flynn & Mercer 2013).

Caring, empathy, and compassion sit at the core of the nurse-patient relationship and have been associated with nursing since its inception (Jackson & Borbasi 2010; Rider et al. 2014; Straughair 2012). The British Nursing and Midwifery Council have embraced a 'culture of compassionate care' or the 6C's in which caring and compassion are considered to be essential competencies (Commissioning Board Chief Nursing Officer & NH Chief Nursing Adviser 2012). Caring is a complex

concept involving emotional responses such as connectedness, as well as more tangible physical responses such as gentleness (Daly & Jackson 2005), and is intrinsically bound with empathy and compassion. Empathy runs deeper than simply imagining what it would feel like to be in the place of another, it requires an appreciation of the impact that their actions may have on another's situation. Compassion then, incorporates empathy, caring, reflection, and self-awareness, and requires a level of engagement, intervention and action (Rider et al. 2014).

Caring, empathy and compassionate care are enhanced through reflection and self-awareness (Sanso et al. 2015). Self-awareness allows the nurse to move beyond what is in front of them to discover what lies beneath. This is of particular importance when faced with dynamic and stressful situations that may elicit heightened emotions. A lack of understanding of the manifestations of those emotions can affect a students' ability to perform (Smith 2008). Being able to reflect on and evaluate practice and performance is a key component in enabling appropriate responses to difficult situations. Nurse educators are tasked to develop appropriate teaching and learning strategies to facilitate an increased understanding of the significant role that compassion, empathy and caring play in all aspects patient care (Pryce-Miller & Emanuel 2014; Straughair 2012).

The environment and individuals with whom undergraduate student nurses work is ever changing. Effectively evaluating complex situations in the clinical environment can be challenging for beginning practitioners. This is particularly true of identifying and applying suitable interruption management strategies and understanding the role of caring and compassion in that process. Pryce-Miller and Emmanuel (2014) suggest that a variety of teaching methods including role-play simulation should be

embraced to encourage students to view patients holistically, and build essential communication skills. Combining simulation with opportunities for students to reflect on practice can be one way to enhance the holistic nature of patient care related to medication administration.

THE STUDY

Aim

The aim of this study was to explore the effect that immersive simulation experiences and guided reflection could have on the undergraduate nurse's understanding of how stressful environments impact their emotions, performance, and ability to implement the safe administration of medications.

Design

Three main themes were formulated from analysis of the study: Calm to Chaos: engaging with the complex nature of clinical practice; Learning to Liaise: team work for positive patient outcomes; and, Pondering Practice: enhancing the art of reflection. With the intention of disseminating a meaningful understanding of the identified themes, the findings were divided into three separate papers (Jackson et al 2014). This paper presents results from the theme 'Pondering practice: enhancing the art of reflection' and its associated sub-themes (see table 1).

The role-play simulation experience from which the data and findings in this paper were drawn, was designed to represent a realistic scenario in which students may find themselves in the clinical environment. The study design was underpinned by both nursing and educational theoretical perspectives (Benner 2001; Kolb 1984; Tanner 2006). Jeffries Simulation Framework (Jeffries 2005), and Arthur's quality indicator statements for simulation (Arthur, Levett-Jones & Kable 2010) were used to

further inform the scenario design. A qualitative approach to this study was taken to elicit a meaningful understanding of the student perspective.

Benner's 'novice to expert' describes a nurses journey to competence as a five stage process. These stages include novice, advanced beginner, competent, proficient and expert (Benner 2001). The simulated experience described in this paper occurred within the second year of a three year undergraduate nursing degree. By this stage in their journey to registration nurses have had limited clinical experience and as a consequence limited medication administration experience, placing them within either the novice or advanced beginner phase. The level of complexity of this intervention was therefore tailored to be appropriate for novice and beginning practitioners. Combining Tanner's clinical judgement model (Tanner 2006) which requires students to notice, interpret, respond and reflect, with Kolb's theory of experiential learning (Kolb 1984) paved the way for an interactive environment and scenario that not only encouraged engagement and role immersion but also deep reflection on that experience. Literature informed the choice of interruptions used during the simulation to those commonly reported within the clinical environment (Biron, Lavoie-Tremblay & Loiselle 2009; Palese et al. 2009; Relihan et al. 2010).

The simulation took place in the clinical laboratory environment as part of a 2 week case study. In the week prior to the simulation, students were given the opportunity to review the case study and the relevant pathophysiology and pharmacology, as well as practice related clinical skills in the second week of the case study. Prior to the commencement of the simulation activity students were oriented to the scenario environment. Working in groups of five, students self-selected one of the five available roles. The role chosen by each student dictated whether they administered or received medications, caused interruptions or observed peer performance. The

roles comprised; medication recipient (MR), confused patient (CP), interrupting nurse (IN), administering nurse (RN), and observer (OB). They were briefed on each of the roles and given role specific lanyards to prompt actions during the simulation. Each student was also supplied with role specific props to encourage engagement (Kesten et al. 2010; Prescott & Garside 2009). Immediately preceding the simulation experience they received a clinical handover.

To encourage reflection and deep learning each student was then involved in two debriefing experiences. The first on completion of the role-play within their group of five, then again as a larger class group prior to the finalisation of each laboratory session. The importance of continuing the reflective process beyond debrief is paramount to deep learning and understanding (Kolb 1984; Lasater 2009). Therefore the students were encouraged to submit written reflections that were completed in their own time prior to the end of semester.

Sample/participants

The role-play was embedded as a routine learning activity for 2nd year undergraduate nursing students (n=528) enrolled in a medical-surgical nursing subject at two campuses of a large urban Australian University during 2013. Students were recruited to provide reflective data using convenience sampling.

Data collection and analysis

To draw on the individual student perspective, data were collected from non-assessable student written reflections. Students were considered to have opted out of the study if they did not complete the reflection. All data were gathered by the first author and de-identified at the time of collection. Thematic content analysis was

used to identify, analyse and inform emerging patterns or themes within the data (Braun & Clarke 2006). Braun & Clarke (2006, p. 81) describe it as a method that is appropriate to both “reflect reality and to unpick or unravel the surface of reality”. Due to the large amount of data generated it was necessary to use a clear and systematic process. A framework described by Guest, MacQueen and Namey (2012) was used to guide the analysis. The raw data was read and reread until broad or common themes and patterns were identified and coded. Key themes and sub themes were initially identified by the first author then examined by the research team until consensus and validation of findings was reached.

Ethical considerations

Participant autonomy, privacy, emotional wellbeing, and right not to be involved were recognised. Informed consent stressed the voluntary nature of participation and that all data would be de-identified. Posters, handouts and verbal communications outlined the risks and benefits of the experience. To ensure safe storage of data and participant confidentiality and anonymity all data remain locked in a secure location. Ethics approval was obtained from the relevant ethics committee.

RESULTS

Summary of Findings

Of the 528 students enrolled, 451 submitted a written reflection. Students identified the importance of reflection in order to evaluate performance, identify impacts of interruptions and formulate management strategies, and gain self-awareness. They described self-awareness, effective communication, compassion and empathy as significant in facilitating self-efficacy and improved patient care outcomes.

Role identification was used to categorise student responses; medication recipient (MR), confused patient (CP), interrupting nurse (IN), administering nurse (RN), and observer (OB).

KEY THEME: PONDERING PRACTICE: ENHANCING THE ART OF REFLECTION

The realistic nature of this role-play simulation experience provided participants the time to thoughtfully consider their current practices, resulting in a deeper level of understanding of their existing skill set and consideration of new possibilities for improved practice. Academic teaching staff facilitated student discussion during debriefing which enabled students to make links between these discussions and strategy formulation which could be expanded on in the written reflections.

Sub-theme: Reflecting on the patient perspective: gaining insights into compassionate care

Taking on the role of the patient and reflecting on the experience during debriefing facilitated group discussions related to what it felt like to be in a vulnerable position. Unexpected anxieties and shifts in power were highlighted by students who played the patient role in their written reflections and at times exposed self-absorbed reactions:

> *'It was a good opportunity to reflect on the patient experience, what made me anxious and powerless and how I [as the patient] did not have insight or interest in what the nurse had to achieve' (MR)*

The deep role immersion and reflective exercises that followed the role-play simulation afforded students an opportunity not only to feel the raw emotions that

can be elicited for some patients when their health care needs are not being met, but also discuss and reflect on the impacts of those feelings:

> *'As a patient I felt more worried that my condition is deteriorating and the nurse is not being able to concentrate on me due to the interruption caused by another patient. Though I knew the nurse was having a hard time, I needed to focus on my problem and try to get her attention' (MR)*

As a result of the role immersion students described new insights related to the concepts of compassion and empathy, reporting increased understanding of how patients may feel in the clinical environment:

> *'Acting as a patient assisted helping me learn about a patient's feelings and how they would want to be treated in hospital' (CP)*

> *'It's a fun experience and does open up your eyes to the importance of prioritising care, time management and empathy.' (OB)*

These insights and translated directly for some into considering strategies specific to addressing the patients' emotional needs:

> *'Giving the patient a time frame enables the patient to feel that they are not being ignored' (MR)*

Regardless of the role they played in the simulation it was important to ensure each student had the opportunity to gain similar insights. Debriefing exposed all participants to fresh perspectives and an improved understanding of what it had felt like to be 'on the other side', highlighting the need for holistic, empathic and compassionate care:

'I can understand the patients' feelings when they are in hospital. Therefore I can care for them more holistically' (RN)

Sub-theme: Evaluating performance: identifying, consolidating and integrating management strategies

When evaluating performance of both self and others, students reported how the experience highlighted the significance of team work, and timely and appropriate communication with both patients and team members. Making links between interruptions and loss of concentration is necessary before management strategies can be formulated. Students were able to articulate that they had not previously considered the impacts of interruptions, and were able to identify the effects of interruptions on cognitive ability:

'I did not pay much attention to interruptions before the simulation. Now based on my experience, I can conclude that interruptions can affect concentration significantly' (OB)

'It's hard to focus on your work when someone is distracting you' (CP)

Others remarked on how the interruptions had affected their ability to think clearly or even at all:

'The interruption influenced logical thinking and undertaking the tasks that had already been planned….the brain just went blank' (CP)

Students acknowledged the importance of experiencing scenarios in which they might find themselves in the clinical environment. Being afforded the time to reflect on the pros and cons of strategies that could be used in an interrupted environment allowed students to gain insights into their own performance whilst in a safe space:

'It showed a realistic scenario in which I am likely to find myself after graduating, it allowed us time to break it up and analyse it, and reflect on positives and negatives and come up with strategies to perform better next time' (IN)

'I can see that this is a very likely scenario and it has allowed me to reflect upon my own assumptions of my practice and how they can be challenged in order to develop my own clinical skills' (MR)

'It allows for the opportunity to debrief and plan how you'd handle this type of situation in real life' (CP)

As a result of being exposed to this reality based scenario, students were able to reflect on how to use a variety of strategies. They displayed differing levels of insight into how to manage the interruptions, some described employing creative strategies such as trying to distract the confused patient or *'striking a deal' (MR)* with the interrupting nurse for assistance in return for checking her fluids. Several students expressed the need to *'…offer help and work as a team…' (IN),* rather than wait to be asked for help. Others were prescriptive in their appraisal, focussing solely on the 'importance of performing the 6 rights' irrespective of what was happening around them. Some students simply stated that they felt *'…prioritising care is essential' (OB),* however did not expand on what that meant to them.

Sub-theme: Confronting the reality of self: building awareness of the manifestations of emotion and performance ability.

Reflecting on, acknowledging and confronting emotions that may arise as a result of challenging situations is necessary as part of the process towards self-awareness and the provision of good quality and compassionate care. Once it was

acknowledged by the students that loss of concentration and challenging emotions had occurred, the next crucial step was to be able to identify the flow on effects. Linking poor concentration and difficult emotions such as frustration with lowered levels of care was identified by several students:

> *'It caused the RN to become frustrated, flustered at times, and nearing a state of [being] overwhelmed. There were moments when the RN nearly forgot simple tasks like washing hands and checking allergies because the intense stress she was under skewed her actions of practice.' (OB)*

> *'I found it extremely difficult to concentrate on the main priorities and began to forget the basic needs for the patients. The interruptions were frustrating' (RN)*

The foundation for learning began during the briefing and role-play which was then built on during debriefing and further extended into the written reflection. The variety in strategy development was discussed during debriefing to encourage student reflection and identification of appropriate interruption management strategies for use in the clinical environment. The importance of exposing students to challenging experiences to improve knowledge and skills required in practice was identified by students:

> *'…it gave me an idea of how I can handle a situation where there are many tasks at hand, and to be able to keep calm. It also helped me to understand that during times of stress and pressure it is quite easy to forget many of the basics learnt…it was also a good revision of knowledge of how to handle this kind of situation in a safe environment; where mistakes are able to be made without anyone getting hurt.' (MR)*

The possible negative manifestations that the stressful situation in which they had found themselves, and the frustration levels they may have felt, was reported by some students:

> *'There is a fine line between assertive and rude and this needs to be considered…I learnt to use other resources available to me' (CP)*

In these situations, expert debriefing is required to facilitate an understanding of how heightened emotions can manifest within stressful environments. It allows the opportunity to reflect on alternate strategies to manage and the possibility of improved outcomes:

> *'[debriefing] was an opportunity to brainstorm options' (MR)*

Sub-theme: Connecting the dots: linking interruptions with making mistakes.

Linking theory to practice is an ongoing struggle in undergraduate nursing education. This is especially true for interruption management during medication administration. It is accepted that well designed simulation experiences can facilitate improvement in bridging this divide often referred to as 'closing the gap'. The role-play simulation described in this paper elicited student responses in which they reported being guided to make links to practice:

> *'Simulation is the platform where we can make mistakes, reflect, correct and learn as much as we can. It resembles clinical practice where we acquire, develop, and explore knowledge and skill into reality. I enjoyed my role as RN and experienced how interruption can interfere with the nursing role' (RN)*

The students made links between the interruptions they had experienced during the role-play and how their resulting emotional state might affect patient care and outcomes:

'Interruptions can be very annoying and time consuming that can affect productivity, patient's outcome and cause major consequences which may be costly and life threatening' (RN)

Direct links between inadequately managed interruptions and the risks of errors were frequently reported by the students:

'The interruption affected concentration as I was unsure how to prioritise the task at hand, and it was hard to think about what should be done next. Important details in giving medications were easily forgotten….I may have made a medication error' (RN)

These impacts were not only identified by the students as pertaining to the patient receiving the oral medications, but also to the intravenous medication that required checking under pressure from another RN. Students reported a heightened understanding of their responsibilities related to appropriate and thorough checking of all medications, in all situations; and gained improved awareness of how easy it was to make a mistake:

'I could see how easily it could create an error in giving the wrong medication, not observing the patient actually swallow the medication and whether the nurse I was interrupting actually paid enough attention to what I was asking her to check' (IN)

DISCUSSION

This paper reports on the effect that immersive simulation experiences and reflective learning can have on the student understanding of the impact of stressful environments on emotion and performance during the administration of medications.

Nurses are expected to reflect both on and in practice in order to learn to navigate the dynamic environments in which they find themselves and provide optimum patient care (Schon 1991; Ebb 2008). Written reflections and role-play simulations such as the one described in this paper, provide an opportunity for students to participate in this reflective process. They are challenged and empowered through the discovery of new knowledge, skills and strategies that they can call upon when faced with the real world of clinical practicum.

Patient safety related to medication administration involves more than just methodically working through the 6 rights of medication administration. Safe care and improved patient outcomes related to medication administration insist that nurses are cognizant of not only the patients' physical safety by attending to the 6 rights, but also take into consideration the patients' emotional well-being by responding appropriately, and maintaining compassion and empathy (Daly, Speedy & Jackson 2014; Straughair 2012). This study fostered student reflection, facilitating thoughtful responses. Students reported improved understanding that choices they made when interrupted impacted patient physical and emotional well-being. Students identified the need for a holistic approach to care incorporating concepts related to empathy and compassion while maintaining a process for safe medication administration. Although not specific to interrupted medication administration, findings from another simulation based study involving role-play also reported an improved concept of the need for holistic care (Kaddoura 2010).

The ability to reflect on how to achieve holisitc and compassionate care has been identified as necessary in the effective education of nurses (Straughair 2012). Compassionate care, though accepted as fundamental in all aspects of nursing

education as well as when providing quality nursing care, can however be eroded by organizational restraints specific to some nursing tasks (Flynn & Mercer 2013; Pryce-Miller & Emanuel 2014). This is especially true of medication administration where initiatives to reduce interruptions include strategies such as wearing tabards displaying the words ‘do not disturb’ and the introduction of ‘no interruption zones’ (Anthony et al. 2010; Hayes et al. 2014; Relihan et al. 2010). Initiatives such as these can insinuate power and control over patients and contradict the understanding that compassionate care requires collaboration between the nurse and patient. Straughair (2012) identified that compassionate care includes working together with our patients, not assuming power within the relationship. Assumption of power in the nurse patient relationship was observed within this study as some students playing the role of the RN were reported as attempting to manage the interruptions caused by the confused patient in an aggressive or rude manner. In circumstances where emotions led to these behaviours, expert debriefing was required to facilitate an understanding of how heightened emotions can manifest within stressful environments.

Identifying the risks associated with interruptions and inappropriate management strategies requires a depth of self-awareness whereby students are able to evaluate experiences in order to gain new perspectives (Horton-Deutsch & Sherwood 2008). Effective communication between nurse and patient that conveys caring and compassion is key to not only ensure that patients feel empowered within their healthcare journey but also to enable nurses to make sound clinical judgements related to the prevention or interception of medication errors. Unpacking the individual emotional impacts of stressful environments encourages links to be made between outside influences, emotional responses and their effects on patient

outcomes. The pressure students were put under during this role-play led to a range of different emotional reactions both positive and negative including enjoyment, anxiety, frustration, anger, and powerlessness. These were discussed during debriefing following the role-play, then further reflected on in the guided written reflections in order to encourage deep thinking and improved self-awareness.

Compassionate, empathetic care is integral to both the perception and role of the nurse and results from the insightful meditation on experiences and the cultivation of self-awareness through evaluating performance (Sanso et al. 2015). If a nurse is able to engage with the feelings, needs and emotions of their patients at a more visceral level, empathetic and compassionate care is more likely to follow. These are critical skills that must be fostered in undergraduate nurses not only to enhance learning but also to improve patient outcomes. Participants in the role-play experience described in this paper reported that students displayed a beginning understanding of self and the impacts of the nurse on the patient experience – the more stressed they became the more errors they made and the more anxious and powerless the patients felt.

Several students recounted displaying limited ability to perform safely in the face of interruptions. Although not specific to interruptions to the medication administration process, The Royal College of Nursing (2013) recently published a report in which nurses reported high levels of stress at work resulted in them not feeling able to carry out their work safely. Heightened emotions and displaying behaviours that directly resulted from being put under pressure were commonly reported as a direct result of the interruptions encountered during the role play described in this paper , including loss of focus, poor concentration and overwhelming feelings of frustration.

The direct correlation between stress from working in pressured environments and altered cognition and performance has long been acknowledged (Reason 1990). Many of the students reported attempting to prioritise the interruptions, however they acknowledged that the stress they were under often derailed that process and resulted in errors being made. The link between interruptions, increased stress or pressure, the errors and possible consequences such as missing steps in the medication administration process were also made. Supporting students to make links between interruptions, loss of concentration and their consequences, requires a response whereby they are encouraged through debriefing and written reflection to identify strategies to manage when faced with similar situations in the future.

Debriefing is an essential component of the simulation and reflective learning process (Arthur, Levett-Jones & Kable 2010; Jeffries 2005). Literature confirms that timely and appropriate debriefing leads to improved knowledge and skill levels that are readily transferrable from the classroom into the clinical environment (Cant & Cooper 2011; Rochman et al. 2012). This role-play, and the debrief that followed, facilitated the opportunity to discuss a variety of actions and reactions to the stressful environment in which the students had found themselves. It provided a platform for extended and considered reflection in the form of written reflections to deepen the learning experience. Openly discussing what it felt like to be either one of the two patients or the nurses in the role-play provided rich perspectives that revealed how powerless students had often felt in the roles. Students reflected that if the situation had been handled differently, effective communication skills could have been utilised so that appropriate empathetic and compassionate care could be achieved.

Best practice education that ensures newly graduated nurses are adequately prepared for practice has been a source of debate for many years (Tanner 2010). It

is essential that nurses gain insights into the links between lack of self-awareness, poor communication, inadequate management of interruptions and the risk of error. Introducing immersive and reflective learning experiences that encourage undergraduate nurses to develop a beginning understanding of the impact of stressful environments on emotion and performance in a safe environment may lead to improved patient safety during undergraduate training and beyond. This study demonstrates that students can gain otherwise unattainable insights into the patient perspective and providing compassionate care through facilitated debriefing of immersive simulation experiences and reflection on practice.

LIMITATIONS

As this study took place in a single urban university further work would be required in different settings to enhance potential for generalizability. However, there is potential for transferability. Although the high participation rates strengthen the study findings, individual interviews with the students could facilitate elaboration on some of the identified concepts and may provide a deeper understanding of the data collected and analyzed from the written reflections.

CONCLUSIONS

This study adds to the pool of current strategies that aim to reduce medication errors. It describes an innovative role-play simulation in which students were able to identify new strategies to manage interruptions, gain a deeper level of self-awareness and consider not only patient safety but how empathetic, compassionate care must be incorporated into tasks such as medication administration. Empowering nurses with the knowledge and skills required to manage in an interrupted

environment at an undergraduate level increases the likelihood of transferring these skills as newly graduated nurses.

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CONFLICT OF INTEREST

Three of the authors work within the research setting.

FUNDING

The study was carried out as part of doctoral work. No funding was requested.

TABLE 1 – KEY THEME AND SUBTHEMES

KEY THEME	SUBTHEME
Pondering practice: enhancing the art of reflection	1. Reflecting on the patient perspective: gaining insights into compassionate care 2. Evaluating performance: identifying, consolidating and integrating management strategies 3. Confronting reality of self: building awareness of the manifestations of emotion and performance ability 4. Connecting the dots: linking interruptions with making mistakes

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