**Confidence and deeper learning: Simulated practice within pre-registration nurse education**

**Abstract-**

This research illuminates final year student nurses’ perceptions of simulation during their nurse education. A qualitative phenomenological research study was undertaken, which utilised a sample size of eighteen final year student nurses as the data source, undertaking semi-structured interviews from a United Kingdom (UK) Higher Education Institution (HEI). Data analysis was undertaken by using Interpretative Phenomenological Analysis (IPA). Findings suggest that student nurses perceive simulation to be a useful additional educational tool, which can aid their confidence and encourage deeper learning. The relevance of this research coincides with the potential addition of more simulated time within the forthcoming new educational standards.

**Introduction**

This research illuminates the final year student nurses’ perceptions of their simulation experiences through their nursing education. By understanding this can allow for simulation to be utilised effectively as an educational tool, and can strengthen the argument for its use in nursing education, and subsequently aid the enhancement of patient care.

**Literature**

There are currently many challenges to the clinical learning environments, such as placement pressures because of high demand, the ability to be able to assess students properly, and reinforces the theory learned. A way of attempting to resolve some of these practice issues, has been the use of clinical simulation (McNamara, 2014; Adamson, 2010). The use of simulated practice has been advocated as a strategy that is being utilised globally to attempt to lessen the issue of a potential reduction in quality and quantity of placements, and higher student numbers (McNamara, 2014; Adamson, 2010). Simulation has been said to be a representation of a real clinical environment and situation that involves some role-play within a scenario (Jeffries, 2005). Although, this is not always the case as undertaking simple clinical skills can also be perceived as simulation (Jeffries, 2005).

Clinical simulation within nursing has always been undertaken in some degree, such as undertaking some clinical skills. However, this is now somewhat more in vogue through the utilisation of high fidelity simulation, involving the use of mannequins and often the recording of students, with students often being able to view their performance following the simulation scenario taking place. The NMC (2010) identify the use of clinical simulation within nursing education, and their educational standards now include the use of up to 100 hours per year as formal simulated time. There is a body of knowledge which is beginning to support the use of simulation within nurse education, as a teaching and learning strategy, and it is agreed that the use of simulation provides students with a safe environment in which to practice their learned skills, and develop clinical decision making (Au et al, 2016; McNamara, 2014; Oberleitner, Broussard and Bourque, 2011; Sanford, 2010).

Often clinical simulations occur with other members of the multidisciplinary team, to aid the realism of the scenario, but also to develop the skills of the student nurses and other disciplines to work with one another, as clinical staff within hospitals will very rarely work in isolation. As such, simulation is a key component of how students can learn, and this is both through the working with other multidisciplinary team members and also as a way of academic staff observing students working in practice, albeit in a simulated environment. McKimm et al (2010) highlighted the importance of educating future health professionals to work in collaboration with others, although collaborative and multidisciplinary working as a concept has been acknowledged for decades.

**Methods**

To allow the research questions to be answered, to gain student nurses’ perceptions of their simulation experience through their nursing education, this research was conducted using a qualitative approach. The sample who were examined had high fidelity simulation once each year in their pre-registration nursing curriculum, and had lower fidelity simulation at least twelve times per year. Over a number of years, qualitative methods have grown in popularity (Silverman, 2011; Saks and Allsop, 2011; Cousin, 2009; Denzin and Lincoln, 2003; Bryman and Burgess, 1994). Qualitative research suits exploration of lived experiences; providing a detailed, rich picture of the phenomenon, that allows the researcher to get closer to what is being researched (Punch, 2005; Taylor et al, 1995). Qualitative data is concerned with sense making, meaning, and subjective experience (Willig, 2001). This links to the constructivist phenomenological approach (Todres and Holloway, 2010), that I have adopted. Phenomenology aims to discover and develop understanding of experiences as identified by those living the experience (Rebar et al, 2011; Polit and Beck, 2010).

Qualitative sample sizes are often small (Punch, 2005). The total sample size utilised were eighteen final year student nurses. This was from a total population of 98 student nurses in a year group. Sixteen participants were female and nine were under twenty-five years of age. There was a varied mix of participants who had previous experience, and those who would be deemed typical undergraduates. Purposive sampling was used as the sampling strategy.

Ethical approval was granted through the HEI in which the study took place. Informed consent was provided by participants following them receiving full information relating to the research study. Participants signed the consent forms as a demonstration that they were providing informed consent. Participants understood that their anonymity would be protected and that confidentiality would be maintained. Pseudonyms were used to ensure this. Anonymity relates to ensuring that the participant is not identifiable to the information that they provided (Parahoo, 2006), this was guaranteed to all participants. However, it was made clear that should a participant have disclosed an issue, which raised questions around patient care being compromised, or anything else that could be perceived as breaching the NMC Professional Code (2015), this would then have to be acted upon. The necessary arrangements were made to comply with the UK Data Protection Act (1998) with regard to computer storage and confidentiality. Participants were anonymised through being given randomly allocated pseudonyms, by the researcher.

Within qualitative research, the use of interviews as a data collection method can be adopted in many differing ways. Gray (2014) separates interviews into structured, unstructured or semi-structured. Structured interviews often produce quantitative data, whereas unstructured and semi-structured often produce qualitative data (DiCicco-Bloom and Crabtree, 2006), the approach for this research was semi-structured. Healthcare researchers (DiCicco-Bloom and Crabtree, 2006) often use individual in-depth interviews, this allows a further exploration of attitudes and experiences which can be expanded upon during the interview, allowing for a rich insight. Importantly the use of interviews correlates with the use of the underpinning constructivist perspective (Mojtahed et al, 2014).

Interviews are a way of people discussing their interpretations of the world in which they live (Cohen, Manion and Morrison, 2007). This closely aligns to the principles of phenomenology, supporting why interviews were used as the method of data collection. As a theoretical perspective, phenomenology uses relatively unstructured methods of data collection (Gray, 2014); this allows the individual to expand on their responses to highlight their lived experience, without being constrained by set questions.

Interviews are said to require high-level interpersonal skills (Oppenheim, 1996), which is akin to nursing. Part of the skill of interviewing includes the ability to give support without adding bias, putting the respondent at ease and asking questions in an interested manner (Oppenheim, 1996). Clucas and Chapman (2014) in a study which utilised final year student nurses, also noted how the use of interviews allowed for a flexible, yet thorough, approach to exploring responses.

This research used IPA as the method of data analysis. The main aim of IPA is to explore in detail the personal and lived experiences of participants (Lyons and Coyle, 2007). This closely aligns with the phenomenological lens used within this study, and so makes it the most appropriate method of data analysis for the study. The aim of IPA is an exploration of how participants make sense of the personal and social world, including particular experiences or events for participants (Smith and Osborn, 2008). It is the examination of final year student nurses’ perceptions that is the purpose of this research. The use of IPA is growing within qualitative research, particularly within social and health sciences, due to its commitment to examining how people make sense of life experiences (Smith, Flowers and Larkin, 2009) and this correlates with the approach to investigating this phenomenon.

**Results**

Participants discussed positively, how they felt that the mandatory clinical simulation they undertook, was effective in linking practice and theory. A further positive aspect of the curriculum mentioned by participants was an optional advanced resuscitation course, this included high fidelity clinical simulation, which all final year students took part in. It was highlighted that these sessions had tested both clinical ability and participants perceived that it enabled their critical thinking to be improved, in a safe environment. Victoria explains further,

*“The advanced resuscitation course was amazing, I was petrified before doing it, but after it I just felt such a sense of achievement, I really felt at that point that everything had come together, don’t get me wrong it is horrible being examined by your Lecturers, but it was such a good experience” (Victoria)*

Justin and Emma discuss their experience in the use of the simulated practice,

*“I know I was really nervous, but I think the thing that I enjoyed most about doing the simulations and the resuscitation course was that I really felt that everything sort of was coming together, as I had to show that I could do certain skills and had to back up and reason why I wanted to do certain things” (Justin)*

*“Throughout the whole programme simulation has helped me so much, I feel that it has helped to consolidate my learning, for instance if I haven’t experienced something that my colleagues had and I had wondered about it, then if I had it in simulation it really helped me link the theory to the practice” (Emma)*

The majority of participants expressed how these opportunities were perceived to be beneficial to their feelings of preparedness to register. Participants did suggest they felt anxious throughout the simulation process, but all reaffirmed how this aided their confidence for the future when practising as registrants. It was noted how participants felt simulation was beneficial through working with the wider multidisciplinary team, such as medical and pharmacy students. Participants also stated they found it easier to link the theory and practice in the simulation. It appears that the inter-professional simulation assists with this, whilst also allowing the student to demonstrate theory and practice linking. Marlene shows her confidence through undertaking clinical simulation,

*“It’s nice you know to know that your tutors will be there and you can perform well and put all of the things that you have learned together, especially when you can show off to other disciplines about how much you know, when the expectation is that they, like the Doctors will know more than you, it’s quite liberating actually” (Marlene)*

Findings suggest that students perceive clinical simulation as a tool, which allows them to demonstrate their linking of theory to practice, and how this develops their confidence. Furthermore it could also be suggested that as an educational tool, the participants demonstrated deeper learning through the simulation.

**Discussion**

Findings from this research indicate that student nurses perceive clinical simulation to assist them in linking theory and practice. The findings demonstrated student nurses enjoyed their learning through clinical simulation, due to it being undertaken in a safe environment, allowing them to ask questions and be involved in situations that they may not have seen, or have had limited experience with. By undertaking the simulated experiences, this afforded student nurses an opportunity to reflect upon their previous experiences and ask questions, which they may not have had the opportunity to do before. According to the NMC (2010) guidance, student nurses can undertake 100 hours of simulated practice per year, and this is likely to increase in nurse curricula with the new standards. The use of simulation within nursing education is growing (Sundler, Petterson and Berglund, 2015) and this coincides with the evolving complexity of healthcare, and many technological advances.

Recent research (Berragan, 2014, 2011; Arthur, Levett-Jones and Kable, 2013; Moule, 2011) into clinical simulation for nursing undergraduates, found that the simulated sessions provided the opportunity for students to develop clinical skills, solve problems, and reflect upon their practice. The findings of this research links with previous literature (Haraldseid, Friberg and Aase, 2015; Stokes and Kost, 2009) in terms of participants stating they felt more able to problem solve, reflect, and work in difficult situations, alongside the link between theory and practice being evident for them once they had completed their simulation. The use of simulation has been said to improve the ability to critically think, and participate in clinical decision-making (Haraldseid, Friberg and Aase, 2015; Stokes and Kost, 2009) and the findings of this research highlighted how participants stated they enjoyed being tested to think in real life scenarios, and as such they perceived that this aided their theory and practice linking. In terms of clinical simulations developing the critical thinking nurse, this aligns with the NMC’s (2010) requirements, which is extremely positive.

Participants approached simulation as a tool to learn positively, as an addition to their normal university teaching and clinical placements. Participants discussed how this was because they were aware the patients, and they, were safe in the environment, and that they could reflect upon their performance with an expert, who could then guide them as to how to improve in the future. Haraldseid, Friberg and Aase (2015) discuss how simulation should work as part of the link between theory and practice, and should complement both. Students demonstrated it was due to the realness of the simulation that allowed them to learn. The students’ approach to learning was to ensure that they did learn in a deep way, as they could enact the theory and practice that had been learned at university into the clinical setting, whilst still being guided and supervised by a professional.

The findings of this research support the use of simulation to support theory and practice linking, as participants state it assists with supporting their clinical practice, through not only the method of teaching that it uses, but also because of the way that they can see how the theory they learn directly supports their practice.

**Conclusion**

The aim of the study was to explore the implications of student nurses’ perceptions of the simulation that they had experienced during their nursing education. This research illuminates how student nurses perceive the simulation that they experience during their education to be useful for their education, not only in terms of providing them, confidence but also through aiding the development of deeper learning. The use of simulation within nursing education is likely to become more of a key focus within the future NMC standards. While there are disadvantages to simulation, and nothing can replace real patient contact, the current challenges to within practice placements can equally be as concerning. It is clear that simulation has its merits and should be used as an additional tool, to ensure that a well-rounded professional is ready to enter the workforce following their education. This includes learning the correct skills and knowledge for practice, understanding how theory and practice link, and meeting the prescribed curricula in terms of regulatory bodies. It is imperative that student nurses are adequately prepared with the skills, knowledge, and experience to practice, not only now but also for the future. This is in terms of providing holistic, compassionate, and sensitive care for patients when they are vulnerable, and simulation may become a fundamental tool for achieving this goal within nursing education.

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3 questions for reflection

1. What are your experiences of clinical simulation
2. Do you feel that your learning was effective when undertaking clinical simulation?
3. How has your practice evolved through undertaking clinical simulation?