

Simulated High-Fidelity Practice in the learning process of nursing students

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Nursing education has a long tradition in the use of simulation as a pedagogical method for the professional competences' learning. However, technological advances and the increasing health care complexity requires new challenges in the training process.

Simulated high-fidelity practice (SHFP) aims to mimic the clinical environment reality. With the extraordinarily realistic computerized mannequins, it is provided a high level of interactivity and realism to the participants (1). It allows for the development of instrumental, interpersonal and systemic skills, in a protected and controlled environment (2, 3) with the advantage of translating skills from the simulated context to the clinical practice reality.

This methodology constitutes a challenge and involvement of the actors in the teaching-learning process, not only in the teachers' capacity to implement them (requiring training and capability in the clinical scenarios preparation and learning objectives design), as well as student involvement in the preparation, execution and reflection of practices (4). The paper "Learning with High Fidelity Simulation" (5) reports the SHFP experience as an innovative institutional project in this teaching-learning methodology. Teachers were responsible for planning, implementing and evaluating as a pedagogical practice, developed by the pedagogical team that integrates the Simulated High-Fidelity Practice School Group at the Lisbon School of Nursing (Portugal).

Annually, about 300 students have the opportunity to develop a clinical scenario (previously available) in a controlled environment and without risk to clients. Each scenario/clinical situation is developed by 3 students, where each one plays a role (nurse, nursing student and observer) and 2 teachers, one controls the development of the scenario in the computer and another provides stimuli to the student's performance in response to the client's response.

The study aimed to understand the Nursing Degree Students (CLE) about the SHFP contribution to the learning of their professional competences (6). This paper describes in detail all the procedures either in the design of the scenarios or in the use of the qualitative approach as research methodology with contributions to and from practice.

82 students participated in the study played the role of nurse (4, 5), show satisfaction with the SHFP as it is an innovative and recent strategy that facilitates the awareness of their abilities and learning needs (7).

They consider that the SHFP allowed the competencies development (7, 8) and recognized that the different moments of the scenario contributed to the different domains. In the scenario's development stand out the professional, ethical and legal responsibility domains; the provision and management of care, and *debriefing* stand out in the professional development domain. From the student's statements, 407 enumeration units were obtained, 255 in the field of the provision and management of care, 151 in professional development and 1 in the field of professional, ethical and legal responsibility (4, 5). Regarding health care provision and management, it prevails categories such as: perceptive-cognitive (sensory/creativity, customer interpretation/clinical knowledge and thought); instrumental (acting capacity/intervention); interpersonal (interaction with the client); teamwork/assertiveness); affective (self-perception and coping) and time and space resources management, respectively with 109, 53, 79, 12 and 2 expressions/enumeration units (4, 5).

In *debriefing* the students value the reflection centred on themselves and the action in the context either in the performance or in the relation/interaction (with the team and the client). The professional responsibility, ethical and legal domain seems to have less expression in their reports. It highlights the need to review the scenarios to balance learning in the various competence dimensions.

The understanding of students perception about the competences developed allowed us to conclude that, when compared to other pedagogical methods, SHFP presents better results in terms of student satisfaction and self-confidence (9). The learning context allows to intervene without risk for the patient, which consequently aids the students to develop their autonomy, communication and security abilities in more complex care interventions situations (8, 10). It also allows the development of skills and attitudes that facilitate clinical reasoning and judgment (8, 11, 12). Students were involved in scenarios that enabled them to develop their leadership skills in health care and teamwork (10).

The SHFP is a fundamental methodology in the nursing students training, which reinforces the existing pedagogical practice in the studied context (4, 5).

This teaching-learning methodology requires teachers and students to be involved, rigorous and knowledgeable. As a consequence of the results obtained in the training process and positive feedback from the students, this project has seen the expansion of the SHFP teaching team and the construction of more varied and complex scenarios depending on the students' stage.



The diversity of conceptions and pedagogical strategies used by teachers and nurses from clinical contexts contribute to the professional identity learning. We believe that collaborative culture with health institutions, in a multidimensional process and in a translating knowledge perspective, can improve the population's quality of life (13).

It is necessary to continue to investigate this teaching practice in order to improve and adjust the methodology to the students' needs and to the gradual requirement of the competences to be developed in the different levels of training.

References

1. Meakim C, Boese T, Decker S, Franklin AE, Gloe D, Lioce L, et al.(2013) Standards of Best Practice: Simulation Standard I: Terminology. *Clinical Simulation in Nursing*.9 (6):S3-S11.
2. McCallum J. (2007) the debate in favour of using simulation education in pre-registration adult nursing. *Nurse Education Today*.27 (8):825-831.
3. Najjar Rana H, Lyman B, Michl N. (2015) Nursing Students' Experiences with High-Fidelity Simulation. *International Journal of Nursing Education Scholarship*. p. 27.
4. Presado H, Colaço S, Rafael H, Baixinho C, Félix I, Saraiva C, et al.(2016) A percepção dos estudantes de enfermagem sobre o contributo da PSAF para o desenvolvimento das suas competências. *CIAIQ2016*.2.
5. Presado MHCV, Colaço S, Rafael H, Baixinho CL, Félix I, Saraiva C, et al.(2018) Learning with High Fidelity Simulation. *Ciência & Saúde Coletiva*.23:51-59.
6. Regulamento N.º 190/2015. Regulamento do Perfil de Competências do Enfermeiro de Cuidados Gerais. *Diário da República*, 2ª série, Nº 79 de 23 de abril. 2015:10087-10090.
7. Baptista RCN, Martins JCA, Pereira MFCR, Mazzo A.(2014) Simulação de Alta-Fidelidade no Curso de Enfermagem: ganhos percebidos pelos estudantes. *Revista de Enfermagem Referência*.serIV:135-144.
8. Lewis R, Strachan A, Smith MM.(2012) Is high fidelity simulation the most effective method for the development of non-technical skills in nursing? A review of the current evidence. *The open nursing journal*.6:82.
9. Gore T, Leighton K, Sanderson B, Wang C-h. (2014) Fidelity's effect on student perceived preparedness for patient care. *Clinical Simulation in Nursing*.10 (6):e309-e15.
10. Dunn KE, Osborne C, Link HJ.(2014) Research Briefs High-Fidelity Simulation and Nursing Student Self-Efficacy: Does Training Help the Little Engines Know They Can? *Nursing Education Perspectives*.35 (6):403-404.
11. Goodstone L, Goodstone MS, Cino K, Glaser CA, Kupferman K, Dember-Neal T.(2013) Effect of simulation on the development of critical thinking in associate degree nursing students. *Nursing Education Perspectives*.34 (3):159-162.
12. Kelly MA, Hager P, Gallagher R.(2014) What matters most? Students' rankings of simulation components that contribute to clinical judgment. *Journal of Nursing Education*.53 (2):97-101.
13. Baixinho CL, Ferreira O, Marques FM, Presado MH, Cardoso M.(2017) Transição Segura: Um projeto da translação do conhecimento para a prática clínica. In: Costa AP, Sánchez-Gómez M, Cilleros MVM, editors. *A prática na investigação qualitativa:exemplos de estudos*. Aveiro: Lusomedia. p. 57-80