

Pilot experience, incorporation of the structured objective clinical examination in the bachelor's degree in nursing. Italian Hospital. Buenos Aires

Damian Wolff ^[0009-0003-7409-0627] and Ana María Mosca ^[0000-0002-6792-6639]

¹ Hospital italiano, Buenos Aires, Argentina

² Instituto Universitario del Hospital Italiano de Buenos Aires
damian.wolff@hospitalitaliano.org.ar

Abstract. Since 2002, the nursing career has worked to achieve a recognized and trained professional profile that responds to people's health needs. In this framework, a pilot test was applied to the third year of nursing as another strategy, to know the technical and clinical competencies achieved. The call to participate was voluntary. Awareness was raised through talks and videos. Then the specification table was made, validated by expert teachers, the topics of the stations were some minimum contents of the programs. Ten students participated in the experience and rotated through twelve stations, achieving a high percentage for the skills of: dose calculation and parenteral hydration, application of subcutaneous heparin, guard pass, bladder catheter insertion in men, and cardiac resuscitation.

Keywords: Nursing, exam, experience.

1 Introduction

Since 2002, the nursing career at the Italian Hospital University Institute (IUHI) has worked to achieve a professional, trained and recognized profile that responds to the health needs of people throughout their lives in different areas. levels of attention and complexity. The course adopted the model of Dr. Virginia Henderson, who developed fourteen items to search for unmet needs in the subject of care. This model allows the student to be trained in a theoretical, systematic assessment, which is complemented with critical analysis, disciplinary knowledge and technical-practical skills that professional practice requires. The current undergraduate curriculum evaluates eleven competencies, namely: Professional competence, in assistance, in practical procedures, in health promotion and prevention, in communication, in analyzing information, scientific foundation, approach to practice, with attitudes adequate, ethical perspective and legal responsibilities, approach to practice with appropriate disciplinary judgment in care decisions, understanding of the role of nursing in health systems and personal development. These are evaluated by the teacher during the teaching-learning process, when the student applies the checklists.

2 Theoretical Framework

Evaluation during the educational process plays a fundamental role. Reason why methodologies must be sought that, in addition to meeting criteria of validity, objectivity and trust, are in accordance with the teaching method.

Various research shows that the Objective Structured Clinical Examination (OSCE) is one of the options used in health to assess competencies, allowing students to test their knowledge. Solá Pola¹ showed that in nursing the reliability figures exceeded the minimum recommended by international standards.

The bachelor's degree in nursing at the University Institute of the Italian hospital combines these competencies proposed for the graduate profile, with the minimum contents requested by the Ministry of Education through resolution 2721/15². On the other hand, each competence implicitly includes the model adopted by V. Henderson, who proposes fourteen items for the detection of unmet needs. This theory and model is presented by Irigibel-Uriz X.³ as a paradigm of integration, focusing on the person as a whole.

This last consideration is combined with what Gomez Rojas, J.⁴ states when he explains that professional competencies are attributions or duties linked to the professional figure that encompass the set of achievements, results, lines of action and achievements of a profession. That is, abilities and skills that are necessary to achieve throughout the career.

The current nursing career curricula in our country do not document the incorporation of the structured objective clinical examination. (ECO) as a final evaluation instrument for measuring the graduate's competencies. Only one article from 2016 from the University of Business and Social Sciences (UCES) was found documented. In where the objective was to evaluate the competencies professionals in nursing students 3rd and 4th⁵ the same refers to the difficulty for the scope of competencies related to English applied, research methodology, exam physical, neurological assessment and CPR.

In particular, Sanhueza Lesperguer⁶ points out the importance of promoting autonomy, meaningful learning and a positive perception of performance. Estrada Zapata⁷ also states that this strategy develops the critical thinking of new generations of nurses, facilitating the training of autonomous nurses, empowered in their role and capable of carrying out reflective practice. Due to the aforementioned, it is considered necessary to include the OSCE for the evaluation of technical and non-technical competencies.

3 Methods

A descriptive, quantitative, prospective and cross-sectional study was carried out. The instrument was applied to third-year nursing students in an intentional sample. After raising awareness through talks and explanatory videos regarding the implementation of the structured clinical examination, participants were invited to register voluntarily. Each station was evaluated with the checklist that the student incorporates into his

training. It was administered by evaluators external to the program. The topics for the stations were taken from the minimum contents of the programs that the student takes throughout the degree. Then the specification table was created, which was validated by expert teachers. The experience was carried out with ten students who rotated through twelve stations. They addressed dose calculation, parenteral hydration plan, application of subcutaneous heparin, guard pass, patient mobilization technique and body mechanics, peripheral catheter placement and drug administration, family education, use of air chamber, urinary catheter in men, placement of intramuscular tetanus vaccine and cardiac resuscitation.

4 Results

The results were analyzed by station and by student. The technical and clinical competencies achieved in the stations related to education and CPR had the lowest percentages between 50 to 60% unlike other stations such as dose calculation, hydration plan preparation and drip calculation, which exceeded between 70% and 80%.

5 Discussion

It is considered that this instrument standardizes and objectifies the evaluation of the competencies and contents offered by the degree in accordance with the opinion of the author Alarcón Á.⁸ of the nursing degree at the San Sebastián University, who comments that this method allows objectivity and standardization, enabling all students to face the same situation, under the same conditions. On the other hand, Rushfort⁹ claims that it has greater objectivity than any other practical assessment and its wide range of different examiners reduces the risk of bias and is viewed positively by students and teachers. Reduces chance and increases equality of experiences between students. Confirming this expression when applying this instrument in the IUHI career.

Romero S¹⁰ explains that this exam format allows the incorporation of various evaluative instruments that simulate clinical situations. The power of this format lies in the mixture of evaluation methods, so that it is able to sufficiently explore three of the four levels of Miller's pyramid: know, know how and demonstrate how. Although nursing students constantly perform around 30 techniques per year during their studies, this does not mean that they are subjected to the stress and anxiety described by several authors, including Delavar et al¹¹ in their article Using the objective structured clinical examinations in undergraduate midwifery students.

In this experience, many of the students, due to these variables, were unable to solve the different situations, even though they had performed some of these techniques in advance.

6 Conclusions

This experience demonstrated in the results presented which aspects must be reinforced and resumed in the students' learning, as well as some of the attitudes and communication skills.

7 Limitations and Future Research

It is considered that although the experience was positive, a larger population is required to be able to predetermine whether the present results are close to those that could have been obtained from a larger population.

References

1. Solá Pola Montserrat. Pruebas de evaluación clínica objetiva y estructurada (ECOPE) para estudiantes de enfermería. *Revista rol enfermería*. 34(7/8): 512-519, jul.-ago. 2011. pág. 1995-2009
2. Ministerio de Educación. Resolución 2721/15. <https://www.boletinoficial.gob.ar/detalleAviso/primera/135700/20151109>
3. Irigibel-Uriz Xabier. Revisión crítica de una interpretación del pensamiento de Virginia Henderson: Acercamiento epistemológico al libro de Luis, Fernández y Navarro. *Index Enferm* [Internet]. 2007 Nov [citado 2023 Jul 05]; 16(57,): 55-59. Disponible en: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1132-12962007000200012&lng=es.
4. Gómez Rojas. Las competencias profesionales. *Revista mexicana de anestesiología*. Artículo de revisión. Vol. 38. No. 1 enero-marzo 2015 pp 49-55 <http://www.medigraphic.com/rma>
5. Garay F y col. El Examen Clínico Objetivo Estructurado como sistema de evaluación del logro de competencias en Enfermería. *Revista Científica*. Vol. 23, N.º 2, 2018 (jul – dic)
6. Sanhueza Lesperguer ET, Otondo Briceño M. Metodologías activas en Educación Superior para mejorar los procesos de aprendizaje en estudiantes de enfermería. *Index de Enfermería* 2020; 29(4):257-61. Disponible en: <http://ciberindex.com/c/ie/e12751> [acceso: 13/10/2021]. [Links]
7. Estrada Zapata K. Pensamiento crítico: concepto y su importancia en la educación en Enfermería. *Index de Enfermería* 2019; 28(4):204-8. Disponible en: <http://ciberindex.com/c/ie/e12403i> [acceso: 13/10/2021]. [Links]
8. Alarcón Á. Incorporación del Examen Clínico Objetivo Estructurado (ECOPE) en la Carrera de Enfermería. *Rev. Educ Cienc Salud* [Internet]. 2013; 1 0(1):18-22. Disponible en: <https://dialnet.unirioja.es/servlet/articulo?codigo=4750349>
9. Rushforth HE. Objective structured clinical examination (OSCE): Review of literature and implications for nursing education. *Nurse Educ Today* [Internet]. 2007; 27(5):481-90. Disponible en

[https://www.ncbi.nlm.nih.gov/pubmed/?term=Objective+structured+clinical+examination+\(OSCE\)%3A+Review+of+literature+and+implications+for+nursing+education](https://www.ncbi.nlm.nih.gov/pubmed/?term=Objective+structured+clinical+examination+(OSCE)%3A+Review+of+literature+and+implications+for+nursing+education).

10. Romero, S. ECOE: evaluación clínica objetiva estructurada. *Educación Médica Permanente*, 1. *Med Fam*. 2009; 2:127–32. Disponible en: <http://sedici.unlp.edu.ar/handle/10915/8526>
11. Delavar MA, Salmalian H, Faramarzi M, Pasha H, Bakhtiari A, Nikpour M, et al. Using the objective structured clinical examinations in undergraduate midwifery students. *J Med Life* [Internet]. 2013; 6(1):76–9. Disponible en: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3624653&tool=pmcentrez&rendertype=abstract>