ResearchArticle

Clinical mentorship for specialized care. Training paradigms and emerging challenges of assessment

Graciela Gonzalez Juarez*

PhD in Pedagogy. Titular professor of the National School of Nursery and Obstetrics of UNAM. Chairman of the Interdisciplinary Group on Research, and Innovation in Nursing (GIIIDEEE). Mexico

https://www.peertechzpublications.com

Check for updates

Summary

Introduction: The following research is developed within the framework of the Project 135 of the National School of Nursery and Obstetrics (ENEO), with the contribution of the GIIIDEE Group (Interdisciplinary Group of Innovation and Research of Educational Assessment in Nursery). The global context had many significant changes starting 2019, since the emergence of COVID-19, a phenomenon that had significant repercussions on the training and assessment of the clinical skills in real scenarios with important implications for internships in students of higher education, both undergraduate and postgraduate.

Theoretical framework: The theoretical referent is the Model of Reflexive Mentorship for Nursery. The clinical tutor is a professional specialist in nursery in charge of the clinical training of his/her students in real scenarios, in order to develop their critical thought, clinical judgment and decision making in the clinical field or community insert, both in metropolitan and foreign headquarters.

Objective: The main goal of this document is to identify the training challenges and the assessment of the clinical mentorship for the tutors specialized in mentorships, orientations and guides in the clinical practices that take place in real contexts at different locations of the Unique Program of Nursery Specialties (PUEE).

The methodology consisted on a bibliographical research in order to realize the state of art. The results show four important challenges for clinical mentorship at PUEE in the post-pandemic stage. The theoretical and methodological challenges are diverse in order to provide the mentorship as a unified policy with the commented perspectives that appear in the document. The teaching in situ and the formative assessment can potentiate the didactics in mentorship and the development of professional skills.

Introduction

The main goal of this document is to analyze the training challenges and the assessment of clinical mentorship for tutors specialized in mentorships, orientations and guides in the clinical practices that take place in real contexts at different locations of the Unique Program of Specialties in Nursery (PUEE).

The global context had significant changes starting 2019, since the emergence of COVID-19, a phenomenon which had significant repercussions in the training and assessment of the clinical skills in real scenarios with important implications for the internships in students of higher education, both undergraduate and postgraduate.

The dizzying context had an impact on clinical internships in our country's health system and, as a consequence, in the activities of mentorship that are carried out at the practice sites. Addressing the pressing issues from the Ministry of Health led to the design of the National Day of Healthy Distance, which promoted preventive actions such as hand hygiene, optimization of the emergency service, respiratory hygiene, conversion and hospital expansion; The development of clinical competencies took place within the framework of the "Strategic Nursing

Response Plan for COVID-19", which makes up a national training plan made up of: a) care interventions for front-line health personnel; b) use of personal protective equipment; c) care centered on the person (patient); d) response to attacks on health personnel; e) Nursing student interventions, and f) the analysis of needs to mitigate the shortage of Nursing human resources, in addition to attending training for emerging health demands and hospital reconversion.

The text *Nursing and COVID-19 in the voice of its actors* [1] is an effort aimed at recovering and giving a voice to the protagonists of this SARS-CoV-2 pandemic, which has resulted in radical changes in our behaviors and routines, in addition to the fact that we have faced unprecedented feelings derived from fear, progressive isolation and human losses in the world and in the country, due to a system that collapsed in its health, economic, social, cultural, labor, family and personal problems that have generated mental health problems, such as depressive disorders, stress, anxiety, social phobia, suicidal ideation, among others.

It is necessary to identify the keys and directions for the training of care specialists with implications for the evaluation of clinical tutoring as a space that enhances the development of skills of and for practice. "In the case of specialty studies in Mexico for June 2018, 305,204 members of the nursing staff were registered, both professionally and non-professionally, and only 7.60% correspond to post-technical specialists and 3.48% have a Postgraduate level" [2: 217].

The COVID-19 pandemic, thanks to which the world seems to have stopped, emphasized the weakness of the care economy and with it the fact that the world's caregivers could not take care of themselves to take care of others, as stated by Bonaventura [3]. The new reality demands interventions that allow them to protect themselves from contagion, protect people or patients, and help maintain safe care environments [2: 219]. Given this, teaching self-care is essential through a culture of health maintenance and thereby promote empowerment among users and focus their attention on the most vulnerable groups, with a view to reducing the inequality gap in health access to services.

Faced with this panorama permeated by heterogeneity and human uncertainty, postgraduate studies are a highly relevant training route. In the case of specialties, the Unique Nursing Specialization Program (PUEE) is applied in the offices and fields that are opened in the different states. The data of the PUEE teachers are shown in Figure 1.

As can be seen, some fields of knowledge have been in operation for 25 years, while others have been in operation for less than 6, and if we add to this the diversity of geographic, academic, and social settings, tutoring takes on highly relevant dimensions in situated contexts deformation. The PUEE teaching staff is made up of 142 teachers, mainly subject teachers (Figure 2).

The degrees that the teachers hold are specialists, although some also participate with a master's degree and doctorate, but they are fewer, especially to the extent that the headquarters is far from the metropolitan area, where the bulk of the offer of this program is concentrated, which operates in 19 foreign locations. Historical enrollment went from 72 to 616 students during the period from 1999 to 2023, that is, it increased by 755.56 percent.

The evaluation of the clinical tutoring is carried out through questionnaires and objective tests that focus on the results and corresponds to a traditional training based on memorization. It is necessary to transcend the standardization of theoretical and practical knowledge in real scenarios, since it is limited to account for the experience that guides the roles of academic support between the tutor and the tutored and its effects on student learning [4].

The educational paradigms that theoretically and methodologically support teaching through clinical tutoring follow the foundations of socio-constructivism and the contributions of on-site teaching, the qualitative evaluation devices proposed by image pedagogy in health sciences and training in clinical tutoring with a gender perspective.

Methodology

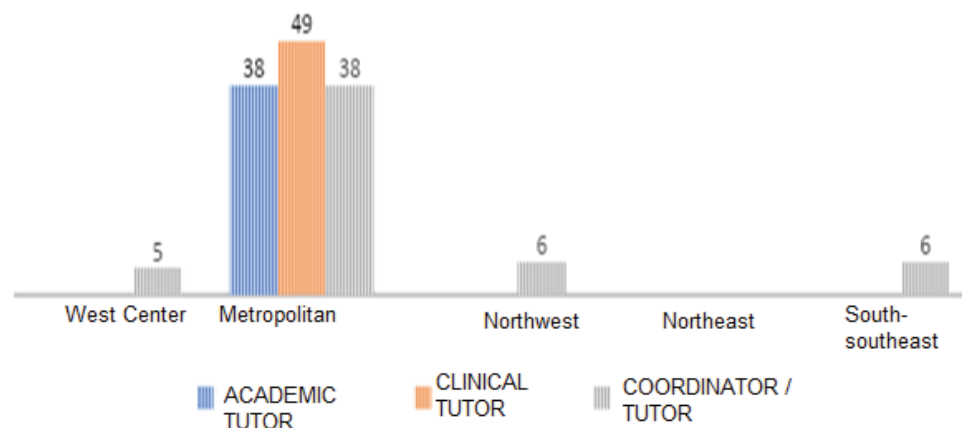Documentary research carried out using the following

Figure 1: Distribution of tutors by headquarters according to the regions of ANUIES, cycle 2023-1.
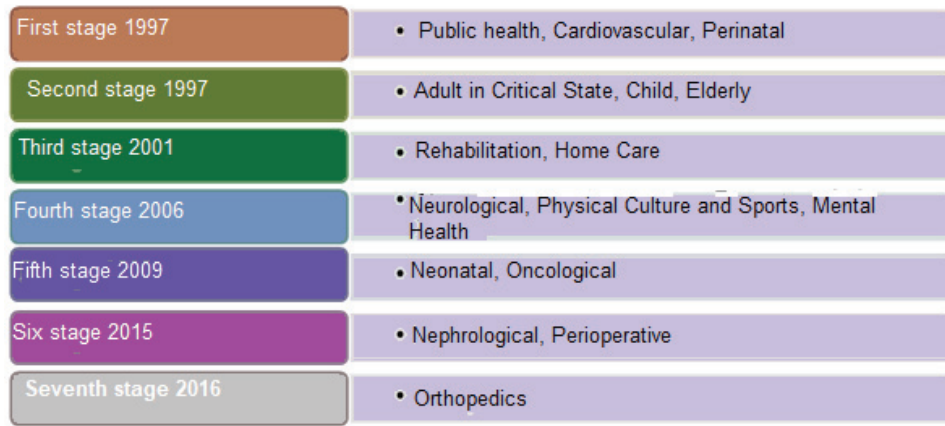Source: Own elaboration based on data from the PUEE Academic Secretariat.

Figure 2: Stages of the Knowledge fields of the PUEE.
Source: Head of Postgraduate Division.

descriptors: Preceptorship OR mentors OR mentoring, in English and Spanish; AND education, nursing, graduate, in English and Spanish; Boolean NOT baccalaureate NOT undergraduate was used, in English and Spanish languages.

Delimiters

Studies published during the last 5 years, research articles and systematized reviews. The search was carried out in Table 1.

Situated training paradigms and implications for the evaluation of postgraduate clinical tutoring

Underlying all educational practice is a more or less finished perspective of what educating implies and how to carry out said work, which is made up of general ideas that can integrate a paradigm; in the sense that Kuhn proposed [5], they are tacitly shared by most people to guide their work in an educational institution, but on which no reflection is made.

They are based on shared visions that coexist in conscious or unconscious planes in which there are both elements that favor and others that slow down the educational work [6]. A group that interacts closely for some time articulates its doing, thinking and saying together with the vision of things, in such a way that educational institutions integrate their own paradigms, which are learned, accepted and lived in the community. These paradigms are applied in the training of higher education students, in such a way that they guide the purposes of tutoring, the roles of the tutor and the tutor [7], some of these visions can be recovered for the evaluation of clinical tutoring, as discussed below:

A) Cognitivism: Tutoring seeks to provide techniques and strategies to facilitate the codification and organization of professional/disciplinary knowledge.

The *purpose* is to model effective techniques and strategies to codify and organize knowledge; It guides tutors towards the mastery of more precise and complete knowledge, in addition to organizing and producing information and knowledge and recovering the cognitive processes of students by identifying

Table 1: Searches in databases of 2018-2022.

Database	PubMed	BVS	Scopus	BIDIUNAM	Google Scholar Search Engine
Quantitative, qualitative or mixed research articles.	36	44	14	191	80
Reviews	8	2	2	12	9
Source: Self-made.					

prior knowledge, both cognitive and metacognitive strategies, and the motivational aspects involved in learning.

The *evaluation* is aimed at the use of objective tests and evaluation systems that assess competencies related to critical thinking.

B) Humanism: Tutoring seeks to promote the self-realization of students.

The *purpose* is to contribute, through its weighting, to the achievement of personal and professional goals of the tutors, for which it traces routes to achieve them.

The *evaluation* is strengthened with self-assessment, where the students, with their own criteria, are in a more adequate position to determine the learning achieved for the development of reflective thinking, the experience and the practice of self-realization of the person.

C) Psychogenetic constructivism: Tutoring helps to organize and restructure professional/disciplinary knowledge, poses challenges and confronts tutors through dialogue and problem solving.

The *purpose* is to restructure schemes on professional/disciplinary knowledge.

The *evaluation* is aimed at assessing the effect of strategies that promote the development of reflective thinking and the achievement of cognitive learning objectives.

D) Sociocultural constructivism: Tutoring seeks to contribute to incorporating students, in a full and legitimate way, into

professional work, for which it designs scaffolding and help adjusted to the learning of tutors and generates conditions for them to participate in social and cultural practices typical of professional work, such as intervention or research projects, as well as practices of professional work through activity and dialogue with peers and experts.

The *purpose* is to compare actual and potential developmental competencies with aids in situated contexts and to show the appropriation and mastery of mediational instruments, such as writing and cooperation.

The *evaluation* involves the design of situated interactive and interventional situations of teaching and authentic assessment that recover the complexity of social learning.

Postgraduate clinical tutoring: Feedback as a basis for developing skills

1. Evaluation has been a weakness for education, given the prevalence of a traditional system based on exams designed and developed for face-to-face attendance, but which does not work in the midst of the health emergency, with the opening to new resources that are here to stay. Nicol and MacFarlane-Dick [8] make an interesting bet on formative assessment that promotes self-regulation conducive to a social environment that recognizes the diversity of students through a seven-step model that is presented below:Clarify what is expected of the student's execution, since with technological platforms greater precision is required, both from the apprentice and from the teacher.

2. Facilitate self-assessment, which is a little-investigated modality in times of confinement, but which is very effective for students to know their potential and their areas of opportunity, and to establish a personal improvement plan.

3. Provide qualitative and not just quantitative feedback on their progress.

4. Establish a horizontal dialogue channel between teachers and students.

5. Offer positive motivation and self-esteem through progress and achievement of the goals set and not personal executions.

6. Provide opportunities to reduce the learning gap with effective strategies and scaffolding in the context, situation and potential of the students.

7. Use feedback to improve teaching.

This critical feedback path is a baseline to promote metacognition and the achievement of autonomous goals in students under the supervision of an expert: the teacher.

Clinical mentoring: Inter-professional and collaborative reflective practice

Clinical mentoring has been addressed primarily at the undergraduate level. Tuning models for nursing [9] involve a training process that is carried out by a nursing professional with clinical and teaching experience for the development of clinical skills in real scenarios for the development of critical thinking skills, interpersonal skills and teamwork with pedagogical support in a planned and coordinated manner, "In the approach to the professional role and their ability to become autonomous professionals with problem-solving capacity and with a positive attitude towards the exercise of their profession" [9: 81].

The notion of clinical tutoring is articulated with that of preceptorship, a practical experience in medical and health-related services that takes place as part of an educational program in which the professionally trained student works outside the academic environment under the supervision of a professional established in the field of knowledge and developed to promote critical thinking skills, interpersonal skills and teamwork. Provides situations that favor learning in a particular way. It focuses on generating integral people of benefit to themselves and society [6: 92]. As a mediating agent, the tutor, through clinical tutoring, guides and motivates students and promotes learning techniques, planning and scheduling of activities and promotes self-assessment, self-knowledge in support and collaboration with other professionals

According to Buck, this type of teacher builds "their own training career [...] living the need to learn to learn" [10: 23-24]. They are not dedicated to teaching as their main occupation and their main source of income is not located in teaching; they have heterogeneous characteristics in terms of age and experience in the educational field [10]. Clinical tutoring is a complex practice in health, specifically in nursing, since it requires addressing the hexagon of possibilities shown in figure 3.

The clinical practices designed in the postgraduate curriculum involve innovative didactics of the teacher through the perspective of situated teaching, with the figure of the tutor as a facilitator of learning, and includes a cultural appropriation of the space in which it is carried out, where the participant live an experience that involves their thoughts, their affectivity and the action they undertake [11], in addition to additional inputs (such as the rules that regulate the activities to be carried out in those spaces), the community in which the students are inserted and a division of work that incorporates rules that regulate the activity [12].

A line of work in research especially in the United States in which the preceptorship is traditionally a time-limited one-toone relationship between the Nurse Practitioner (NP) student and experienced practitioner that incorporates concise objectives with learning opportunities [13-15]. Preceptor allows the practicing NP the unique opportunity to support the profession and prepare NP students to be competent and successful. It also provides the practitioner the opportunity to pass on knowledge, resources, and experience, as well as increased confidence and the ability to teach the things they wished they had learned in their own programs, and is important to NP professional role development [16].

Figure 3: Clinical tutoring: the hexagonal model of training in the PUEE.
Source: Self-made.

The investigate specialized nursing students' experiences of supervision during clinical practice [17] and to compare students who were satisfied with the supervision with those who were dissatisfied with respect to a) organization of supervision and number of preceptors, as well as time allocated by preceptors for b) supervision, c) reflection, d) discussion of intended learning outcomes, and e) assessments of students' performance by preceptors. This study indicates that supervision, in terms of discussions and reflections, of specialized nursing students is significant for learning experiences and satisfaction during clinical placement.

Other studies research the clinical preceptor experiences were reported for postgraduate training is very important for the development of learning domains, competencies and elements of clinical practice and immersion [18] or studies in Ireland that have focused on the perspectives of undergraduate students for the clinical learning environments [19]. The conclusion there is a general gap in studies of this nature because they are focused on outdated teaching strategies but there is not enough research of clinical assessment in real clinical practice.

Situated teaching: Qualitative evaluation devices with the support of educational technologies

The tutoring training/assessment paradigms that we mentioned earlier have not been sufficiently articulating between what happens in the classroom or school and the real practices in the lives of the actors. A model that provides a solution to this limitation is that of situated teaching, which came to combine two relevant perspectives to propose approaches that were well received in the areas of health that contain curricula with significant percentages of practical training and refer to the experiential perspective from learning by doing, to reflective thinking and training through reflective practice. It is an integrating proposal made by Díaz–Barriga [11], which recovers the educational metaphor of sociocultural

constructivism and authentic evaluation. With this integration, the author proposes the following strategic learning approaches with highly challenging implications for the evaluation of clinical mentoring in real practice spaces Table 2.

On the other hand, the presence of clinical competencies and the need to respond socially to the certainty of knowledge achieved at the higher level in the field of medicine, has focused on two lines of evaluation from two perspectives: The Objective Structured Clinical Examination (ECOE) [21–23] in medicine, but also in nursing [24] and dentistry [25], as well as the Educational Model to Develop Professional Activities (MEDAPROC) [26], which is specified below. These perspectives, due to their scope and the institutional dynamics at the National Autonomous University of Mexico (UNAM) that have been incorporating the figure of the tutor in training with formalization through the curriculum, make this a scenario of great complexity and great challenges.

The nursing teacher had an emerging awakening to educational technology [27: 276]: "We started a semester that we knew would be unforgettable because of everything we expected, we understood that it was time to show that we were prepared for the changes that were in sight in the future in nursing, but we never imagined that this year we would be challenging a pandemic and health personnel would be at the forefront of the battle, each one from their place carrying out teaching, research and the hospital environment". The educational paradigms serve as research references regarding educational intervention and professional practice in real contexts in nursing.

Conclusions

The model that articulates clinical tutoring as a reflective practice contains a humanistic dimension of reflective tutoring for teaching care that is left loose in the specialties postgraduate curriculum, both in the structure and in the formative

Table 2: Situated Teaching Strategies and Implications for Evaluating Clinical Mentoring.

Name of the strategy	Definition	Implications for the evaluation of clinical mentoring
Situated project method	Strategy directed by the group-class that is oriented in a specific production with tasks that imply active roles of the students in cooperative situations.	Spontaneous and requested self-assessment for the reflective analysis of the tasks accomplished, of the achievements and personal and group limitations. Instruments and scales oriented both to the project and to creativity and scientific thinking are used. The pedagogical performance of the teaching staff is valued, which in terms of tutoring is directed to the periodic supervision of the plan and development of the project, the processes and productions of the students, forms of organization and joint work.
Service-based learning in the community	Located practices or learning in situ in real scenarios. Pedagogical approach with active participation in organized service experiences linked to the needs of a community.	The evaluation of tutoring continues to be a challenge, however, qualitative methodologies are used to influence the learning or achievements of the students, but also the educational experience itself. The self-assessment process is strengthened to identify the culture, the context, the philosophy, the purpose, the pedagogical practices promoted by and for accountability. Clinical tutoring within the framework of multi and interdisciplinary teamwork and situated exercises, demonstrations and simulations.
Learning mediated by the new Information and Communication Technologies	Tutoring practices with the use of educational technology to enhance skills in real scenarios with the support of various resources when these constitute true cognitive tools.	The evaluation of tutoring continues to be a challenge, however, qualitative methodologies are used such as digital narratives, the pedagogy of the image with *Photovoice* in some postgraduate contexts with a didactic and evaluation perspective [20], the digital portfolio, rubrics, among others.

Source: Self-made, based on Díaz-Barriga [11].

evaluation and results to judge the quality of reflexive clinical tutoring in the Unique Nursing Specialization Program.

The pandemic showed the weaknesses of the health system to attend to the SARS–CoV–2 emergency and the importance of having specialists in fields of knowledge, such as respiratory nursing and care management. The social dimension of clinical practice is once again subject to technical rationality by not incorporating the socio–humanistic foundations that give sense and meaning to experiences and experiences as socially constructed facts. Experience as a social fact recognizes that sociocultural constructed meanings are inherent in the researcher's practices and can produce methodological biases and incur discrimination through symbolism.

References

1. Zárate-Grajales A, Ostiguin MR, Castro A, Valencia C. Enfermería y COVID-19: la voz de sus protagonistas. México: UNAM. 2020.

2. Morán Peña L, Cruz Martínez L. Un imperativo en condiciones de pandemia: el proyecto del Centro de Atención Telefónica en Salud Mental de la ENEO. En Zárate-Grajales R, Ostiguin Meléndez CA, Castro R, Valencia Castillo RB. Enfermería y COVID-19 La voz de sus protagonistas. México: UNAM. 2020.

3. Boaventura DS. La cruel pedagogía del virus. Coimbra: Almedina. 2020.

4. Zárate-Grajales R, León-Moreno Z, Cicerón-Arellano I, Rodríguez-Jiménez S, Pacheco-Arce A, Navia-Rivera M. Tutoría Clínica de Enfermería para el fortalecimiento del aprendizaje de los alumnos en la práctica hospitalaria. Revista Enfermería Universitaria. 2005; 2(3):23-27.

5. Kuhn T. La estructura de las revoluciones científicas. México: Fondo de Cultura Económica. 2004.

6. García-Córdoba F, Trejo-García FRL, Rabadán-Calvillo R. La tutoría una estrategia que potencia la formación de profesionales. México: Limusa. 2007.

7. De la Cruz FG. Tutoría en Educación Superior: análisis desde diferentes corrientes psicológicas e implicaciones prácticas. Revista de Investigación Educativa. 2017; 25: 35-59.

8. Nicol DJ, MacFarlane-Dick D. Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. Studies in Higher Education. 2006; 31(2): 199-218.

9. Carrasco P, Dois A. Perfil de competencias del tutor clínico de enfermería desde la perspectiva del personal de enfermería experto. Revista de la Fundación Educación Médica. 2020; 23.

10. Buck B. Reformar la FP hacia la formación permanente: retos para la docencia. Revista Europea de Formación Profesional. 2005; 36.

11. Díaz-Barriga. F. Enseñanza situada. vínculo entre la escuela y la vida. México: McGraw Hill. 2006.

12. Baquero R. Del experimento escolar a la experiencia educativa. La "transmisión" educativa desde una perspectiva psicológica situacional. Perfiles Educativos. 2002; 24(97-98), 57-75.

13. Barker ER, Pittman O. Becoming a super preceptor: a practical guide to preceptorship in today's clinical climate. J Am Acad Nurse Pract. Mar 2010; 22(3):144-9. doi: 10.1111/j.1745-7599.2009.00487.x. PMID: 20236398.

14. Bazzell AF, Dains JE. Supporting nurse practitioner preceptor development. The Journal for Nurse Practitioners. 2017; 13, e375–e382.

15. Fulton CR, Clark C, Dickinson S. Clinical Hours in Nurse Practitioner Programs Equals Clinical Competence: Fact or Misnomer? Nurse Educ. 2017 Jul/Aug; 42(4):195-198. doi: 10.1097/NNE.0000000000000346. PMID: 27922898.

16. Berg JA, Hicks RW, Roberts ME. Professional growth and development: A lifetime endeavor. J Am Assoc Nurse Pract. 2017 Aug; 29(8):429-433. doi: 10.1002/2327-6924.12491. PMID: 28795540.

17. Sundler AJ, Blomberg K, Bisholt B, Eklund A, Windahl J, Larsson M. Experiences of supervision during clinical education among specialised nursing students in Sweden: A cross-sectional study. Nurse Educ Today. 2019 Aug; 79:20-24. doi: 10.1016/j.nedt.2019.05.009. Epub 2019 May 9. PMID: 31085423.

18. McCarthy B, Murphy S. Assessing undergraduate nursing students in clinical practice: do preceptors use assessment strategies? Nurse Educ Today. 2008 Apr; 28(3):301-13. doi: 10.1016/j.nedt.2007.06.002. Epub 2007 Aug 13. PMID: 17706327.

19. Kamphinda S, Chilemba EB. Clinical supervision and support: Perspectives of undergraduate nursing students on their clinical learning environment in Malawi. Curationis. 2019 May 23; 42(1):e1-e10. doi: 10.4102/curationis.v42i1.1812. PMID: 31170797; PMCID: PMC6556865.

20. González Juárez. G (en prensa) Percepción de autoeficacia en estudiantes de enfermería con formación interprofesional. México: UNAM-ENEO.

21. Martínez GA, Soto-Estrada G. Examen Clínico Objetivo Estructurado ¿El reto

a vencer para ejercer la medicina? Revista Digital Universitaria. 2018; 19(6): 2-12. Link: http://doi.org/10.22201/codeic.16076079e.2018.v19n6.a12

22. Ticse R. El Examen Clínico Objetivo Estructurado (ECOE) en la evaluación de competencias de comunicación y profesionalismo en los programas de especialización en Medicina. Revista Médica Herediana 2017; 28(3). Link: https://doi.org/10.20453/rmh.v28i3.3188

23. Martínez GA, Trejo MJ ¿Cómo realizar un ECOE? Metodología de Investigación en educación médica 2019;7(28): 98-107. Link: https://doi.org/10.22201/facmed.20075057e.2018.28.18123

24. Almodóvar I, González R, Ibáñez L, Sánchez P (2021) La evaluación clínica objetiva estructurada ECOE, una oportunidad para el aprendizaje en Enfermería. Medicina en Español 30(4): 280-281.

25. Espinosa-Vázquez O, Martínez-González A, Sánchez-Mendiola M, Leenen I. Análisis de un examen clínico objetivo estructurado en odontología desde la teoría de la generalizabilidad. Investigación en Educación Médica 2017; 6(22). Link: https://doi.org/10.1016/j.riem.2016.09.001

26. Hamui SL. Las actividades profesionales confiables: un paso más en el paradigma de las competencias en educación médica. Revista de la Facultad de Medicina 2015; 58(5).

27. Pantoja SNN, Hernandez HJA. El docente en enfermería: su despertar emergente ante la tecnología en la educación. Enfermería y COVID-19: la voz de sus protagonistas. México: UNAM. 2020.