

Self-learning in the design of assessment instruments: possible solution to guarantee the objectivity of introductory dermatology clerkships

Dear Editor,

Learning in medicine and assessment systems are a topic of constant research and interest for both students and teachers. The difficulties that may arise in third world countries, where the student does not always have the opportunity to have full access to their clinical practice, in addition to the dilemmas that exist in the lack of training of teachers in medical education, can cause underestimation in the qualification and perception of the knowledge of an undergraduate student. This situation can significantly affect a student's emotional health. Yoon et al¹ conducted a study with the objective of evaluating the relationship between the dermatology clerkships assessment system and the student's perception of how they were assessed. The authors found that the students perceived the assessment system as non-transparent, subjective and arbitrary, which has a negative impact on the performance of those being assessed and the credibility of the knowledge acquired. We consider it prudent to refer to the need for students to receive training or discover the initiative of self-training on the design of assessment instruments, so that they can be observers and critics of the assessment system applied to them.

We are constantly facing situations that force us to make changes with respect to medical education and student assessment mechanisms. During the current pandemic, it was a challenge to come up with a virtual or hybrid assessment system to evaluate the knowledge acquired during the transition to a new reality, which was more complex in residents or undergraduate students developing clinical and surgical skills². Continuing medical education is essential. However, it is not only necessary to know the content to be learned, but also to ensure that the basic knowledge has been acquired³. Although some strategies proposed and reproduced by medical students have been described, which facilitate the development of theoretical concepts and prac-

tical skills, without the need to be under pressure on the assessment system of medical schools, it is also necessary to establish a system that considers real aspects of the capabilities that the student possesses⁴. Generally, medical schools use the classic evaluation instruments: written tests and practical evaluation in medical rounds.

To counteract this monotony and enrich the dynamics of interaction during student assessment, we propose training in the design and use of assessment instruments, so that the students themselves guarantee that they will be evaluated objectively and competently, and that such assessment will be in accordance with the context of each course. Synthesized evidence has found that the perception of practice preparation and the way of assessment substantially impacts the transition to clinical knowledge⁵. There are many items to take care during this process (clinical skills refreshers, clarification of roles and expectations, demystification of healthcare hierarchy and assessment processes and student-student handovers)⁵, which cannot be taken into account during the use of classical assessment instruments, thus violating this dynamic and not guaranteeing a healthy perception on the part of the student. The priority would be to get a favorable grade, although it cannot be guaranteed that the student will know how to use this knowledge in the real context⁶.

There are many assessment tools that can be used in medicine: role simulation, clinical cases with active feedback, use of portfolios, constructive criticism in blogs and wikis, passive medical rounds (at the beginning, while transitioning), creation of flashcards, writing of monographs or scientific articles; all these techniques help to consolidate knowledge and to reproduce it during practice. Studies have found that by involving the development of clinical skills in a context different from the academic curriculum of the career, students have greater interest, better self-learning and get better

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This work did not receive funding. All authors declare that there exist no commercial or financial relationships that could, in any way, lead to a potential conflict of interest.

Received: December 27th, 2021

Accepted: February 11th, 2022

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results in their grades⁷. This is probably due to the lack of pressure to obtain high grades in an elective course, or because of the organization that elective courses generally have⁷. This is a very useful technique when trying to improve the undergraduate student's perception of clerkships.

Questionnaires such as the SETMED-L (Student Evaluation of Teaching in MEDical Lectures)⁸, is one of many that can be found in the literature, which help to evaluate the process of teaching and knowledge acquisition by students. Very good results have been observed with respect to its use and reproducibility⁸. In this order of ideas, knowing aspects related to the design and use of different assessment instruments will allow the student to find different routes to strengthen his own knowledge in an easier way, and he will feel satisfied, and his perception will change substantially. Tools and questionnaires exist, each of them should be socialized and reproduced to know the results in each context. However, we must always ensure the mental health of the student, the satisfaction and perception of his career, and help him to develop autonomy and confidence in his performance.

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REFERENCES

1. Yoon J, Said JT, Thompson LL, Molina GE, Richards JB, Chen ST. Medical student perceptions of assessment systems, subjectivity, and variability on introductory dermatology clerkships. *Int J Womens Dermatol.* 2021; 7(3):323-330.
2. Lozada-Martínez I, Bolaño-Romero M, Moscote-Salazar L, Torres-Llinas D. Letter to the Editor: 'Medical Education in Times of COVID-19: What's New in Neurosurgery?'. *World Neurosurg.* 2020; 143:603.
3. Miranda-Pacheco JA, De Santis-Tamara SA, Parra-Pinzón SL, González-Monterroza JJ, Lozada-Martínez ID. Medical interest groups and work policies as emerging determinants of a successful career: A student perspective - Correspondence. *Int J Surg.* 2021; 92:106020.
4. Ortega-Sierra MG, Beltran-Hoyos GE, Benjumea-Velásquez AM, Bossio-Martínez IM, Lozada-Martínez ID. Surgery Interest Groups in Medical Schools: Mentoring Factory. *J Surg Res.* 2021; 267:209-210.
5. Surmon L, Bialocerkowski A, Hu W. Perceptions of preparedness for the first medical clerkship: a systematic review and synthesis. *BMC Med Educ.* 2016; 16:89.
6. Seligman L, Abdullahi A, Teherani A, Hauer KE. From Grading to Assessment for Learning: A Qualitative Study of Student Perceptions Surrounding Elimination of Core Clerkship Grades and Enhanced Formative Feedback. *Teach Learn Med.* 2021; 33(3):314-325.
7. Sheu L, Goglin S, Collins S, Cornett P, Clemons S, O'Sullivan PS. How Do Clinical Electives during the Clerkship Year Influence Career Exploration? A Qualitative Study. *Teach Learn Med.* 2021 Apr 1:1-11.
8. Müller T, Montano D, Poinstingl H, Dreiling K, Schiekirka-Schwake S, Anders S, et al. Evaluation of large-group lectures in medicine - development of the SETMED-L (Student Evaluation of Teaching in MEDical Lectures) questionnaire. *BMC Med Educ.* 2017; 17(1):137.