

Importance of research skills in the training process of medical students

Importancia de habilidades investigadoras en el proceso formativo de estudiantes de Medicina

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Training in research skills is an aspect that is included in both the old and the redesigned curriculum of the Medicine Degree at the University of Antofagasta (Chile). In the former, a minor adjustment was made to the curriculum that involved merging the subjects of Epidemiology and Biostatistics into two new ones: Epidemiology and Scientific Research I (corresponding to the third semester of the curriculum) and Epidemiology and Scientific Research II (taught in the fourth semester). The purpose was that in the first phase students would acquire basic knowledge in scientific research methodology; while the second involved the development of an exploratory-descriptive research project that addressed public health problems with regional or national relevance, but without data collection - although students had to propose a data tabulation process consistent with the methodology -. This was basically due to the reduced time available for the subject and the students' semester academic workload. However, the final objective of formulating a research proposal using the scientific method was fully achieved. In addition to the knowledge of the scientific field, in the subject of Epidemiology and Scientific Research I, students were instructed on the ethical principles that inspire the development of studies with human beings, regardless of their nature (social and/or biomedical); the role of Ethics Committees. In addition, they learned the protocol by which research proposals are evaluated at the University of Antofagasta.

The experience of the old curriculum was positive, as it responded to the weaknesses detected in the accreditation processes of the Medicine Degree and to the importance of using epidemiological indicators for the generation of knowledge and/or proposals for intervention on health-disease processes. Both the curricular innovations of the old curriculum and the redesigned one that is currently in force are milestones that could have an impact on the development of studies that explore the interest of medical students in the development of scientific research during their training stage.

In a study conducted in a private medical school in Lima, Peru, which implemented a strategy for training scientific research competencies incorporated into the curriculum design, the perception of students regarding attitudes towards scientific research was analyzed, being positive in the following statements - with mentions higher than 90% in the response categories that referred to agreement: scientific research has a relevant role in the field of medicine; the results obtained in our patients improve thanks to ongoing research in the field of medicine; and conducting research during studies at the Faculty of Medicine is important (1).

In the search to generate spaces for growth in quantitative, qualitative and mixed research skills in medical students at the University of Antofagasta, the Specialty Internship II has been implemented since 2023, whose objective is to apply the scientific method in a specific research project in medical, biomedical and public health sciences; thus, the knowledge and understanding of areas of professional interest is deepened, allowing the intern to explore, expand their competence in the discipline, and contribute to long-term personal and professional growth. Research in medical sciences allows us to advance and contribute new knowledge and resources at a dizzying pace. Attending to current demands, epidemiological and social factors that need to be analyzed to provide significance to professional performance in medicine (2).

The design, implementation and presentation of a descriptive research allows students to reflect on the process, identify successes and failures in the development of the process, as well as assess the contribution of their results to the generation of science and health problems relevant to the population. Developing applied research from the authorship itself has generated great challenges for students, from being able to ask themselves what their professional interests are, self-examination of research skills, professional role, projections, among others. This analysis-reflection process in the training process is essential, since it allows generating strengthening strategies - if necessary - to comply with what is indicated in the curriculum in terms of transversal competences or to meet the objectives set individually.

Currently, taking as a reference the progress of the internship, it is proposed to establish strategies that promote the publication or dissemination of the results obtained in the research, encouraging the active search for scientific events that allow the participation of students, with the aim of acquiring greater skills in research presentations and, above all, maintaining interest in carrying out disciplinary activities.

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