

Two Universities, One Academic Landscape: A Comparative Study of Scientific Output in Mexican Public Institutions



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Training in research constitutes an essential component of contemporary medical education, as it provides students with tools for the critical analysis of scientific literature, evidence-based decision-making, and the generation of knowledge applied to clinical practice. Beyond academic output, early exposure to research promotes the development of transversal skills such as analytical thinking, scientific curiosity, and an understanding of the scientific method as an integral part of medical practice.

However, the way in which research is incorporated into medical curricula shows considerable variability among institutions. In some models, research is integrated in a structured and progressive manner throughout the degree program; in others, participation in research is conceived as a complementary component that depends largely on the individual initiative of students and the availability of academic spaces for its development.

At the Universidad Veracruzana, research is considered a complementary resource in student training. The first contact students have with research occurs through the subject of Research Methodology, which is an essential requirement for completing their Experiencia Recepcional and producing a final project for graduation. Although research does not have a formally established space within the undergraduate medical curriculum, the university promotes research stays during the winter and summer periods.

These programs help students fulfill the necessary academic credits and, more importantly, open new perspectives that encourage more critical thinking during clinical decision-making, while also exposing them to alternative professional pathways within the medical field.

Students also have the opportunity to participate as research assistants to university-affiliated researchers, and in some cases, they may receive a scholarship, which helps promote academic retention. Students may approach researchers directly and request their supervision. Once accepted, they have the opportunity to learn through participation in clinical or experimental research activities. In either case, students may choose to collaborate with researchers whose lines of inquiry align with their own interests.

The Delfín Summer Program represents another valuable opportunity for students to engage in research. This annual call for applications includes the Universidad Veracruzana as a participating public institution. Through this program, students can complete research stays in different regions of Mexico and even abroad, offering a unique opportunity for students from various disciplines, including medicine.

The different modalities offered by the Universidad Veracruzana and its associated institutions are of vital importance in facilitating early exposure to research and allowing students to explore areas that are not commonly encountered during medical training. Through research participation, students can strengthen their curriculum vitae and apply for new opportunities that require prior research experience.

Additional research opportunities for students include participation in various academic associations, which provide platforms for presenting posters, conducting literature reviews, submitting abstracts, or offering students the necessary tools to develop the academic product of their choice.

At the Universidad Autónoma del Estado de Quintana Roo, exposure to research is perceived primarily as a complementary component of the medical degree. Although opportunities for scientific initiation exist, they are not always part of a clearly defined or widely known pathway among the student body. As a result, participation in research activities is often linked to the individual interest and proactive engagement of the student.

The curriculum includes a course focused on research methodology, aimed at providing theoretical foundations of the scientific process. This subject plays an important introductory role, although its approach is mainly conceptual. Access to research opportunities is generally identified through individual initiative, direct contact with faculty members, or engagement with specific academic spaces.

Information regarding calls for applications or ongoing projects is not always centralized in a single channel, which may limit awareness among interested students.

Previous research experience can facilitate integration into research projects and collaborative teams, as it allows students to become familiar with scientific dynamics and methodological processes. In contrast, students without prior exposure may perceive research as a complex or distant field, even when motivation exists. In such cases, early guidance and mentorship are particularly important.

It is important to note that more recent academic curricula show a trend toward placing greater emphasis on research training through the inclusion of a higher number of research-related courses. This approach reflects institutional recognition of the importance of research in medical education and represents an opportunity to strengthen early and structured engagement with scientific activity.

Although the ways in which each university promotes research may differ, they share a common goal: to strengthen student training by providing new opportunities that broaden perspectives on the medical profession and complement clinical education. Today, it is indisputable that medical students cannot limit their training solely to clinical practice. Medicine is continuously evolving, and in order to evolve alongside new advances, it is essential for students to learn how research is conducted from the earliest semesters of medical school.