Comparison of hospital contact models in medical student training

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Hospital contact is one of the fundamental pillars of medical education, representing the setting where theoretical knowledge acquired in the classroom is transformed into clinical skills, diagnostic reasoning, and a comprehensive understanding of the patient. The way this contact is structured, as well as when it is introduced into the curriculum, directly influences the academic, technical, and human development of the medical student.

Clinical teaching models vary widely across institutions, from schemes with early exposure and participation to those where entry into the hospital setting is delayed or predominantly observational. These differences not only determine the type of competencies acquired but also the way the student integrates into the healthcare team and develops their professional identity.

In this context, it is pertinent to analyse and compare the various hospital contact models implemented during undergraduate medical training, considering not only the number of hours and activities performed but also the degree of student participation, faculty supervision, and the academic and emotional impact this process entails. This article aims to describe and contrast two distinct educational experiences from the student's perspective, to reflect on the strengths and areas for improvement of each model in preparing future physicians.

At the Universidad Veracruzana, patient contact takes two forms: on the one hand, exposure to community clinical settings begins in the early semesters; courses such as sociodemography, epidemiology and ecology, health education, and communicable and non-communicable diseases enable students to visit communities where interventions are needed for certain vulnerable groups, allowing them to stand before a group of people who will ask them questions and often already identify them as doctors, seeking advice, suggestions, or even guidance as if they were general practitioners. This early exposure to patients who may question students fosters a sense of critical thinking that will be important for their clinical decision-making in a hospital setting; these activities also influence how they interact with real people.

At the same time that clinical rotations are underway, students are also encouraged to practice on simulators with activities appropriate to their semester, such as measuring blood pressure, capillary blood glucose, height, and weight. As students progress through their medical training, they are gradually trained to perform various clinical procedures.

As students progress through the semesters, the time comes when they can attend hospital-based clinical rotations.

At our university, we offer clinical rotations in the core subjects that form the foundation of medicine. Thanks to these rotations, students have the opportunity to integrate all the knowledge from the courses they have previously taken in their training.

There are additional resources that students can access, such as the Comprehensive Student Development Support Program (SDSP), an intensive course that addresses areas of opportunity students may have by combining knowledge with simulator-based practice. Although clinical rotations for students at the Universidad Veracruzana begin around the seventh semester, this is offset by the seven-year duration of the bachelor's program, which gives students more time to interact with patients before their internship or social service.

This type of training provided by the Universidad Veracruzana has enabled students, from the very early stages of their education, to become familiar with a more direct patient environment and, at the same time, to face challenges such as patient care, how to communicate with people, and how to present themselves before an audience. However, these are not the only activities students can undertake; the university also aims to ensure that students can conduct health diagnoses. That's why, in certain courses according to the curriculum, we are sent to communities to conduct a health diagnosis, identifying the health problems affecting that population, and implementing interventions to improve their health.

At the Autonomous University of the State of Quintana Roo, mandatory hospital contact begins in the fifth semester and is closely linked to the theoretical courses taken at the school.

Clinical rotations are aligned with subjects such as nephrology, cardiology, ophthalmology, and neurology, among others, allowing us to rotate directly with the corresponding specialists; this fosters an immediate integration of theory and clinical practice, enabling knowledge acquired in the classroom to take on an applied meaning from the early stages of training.

An active role characterizes the hospital-based contact model. Under supervision, we are allowed to perform basic procedures, such as blood gas analyses and catheter insertions, as well as to participate in simple administrative tasks (writing prescriptions, filling out clinical forms), always with the guidance and validation from the responsible staff foster hands-on learning in a controlled and safe environment.

The student distribution is approximately 10 to 20 students per semester at each hospital, which allows not only interaction with peers at the same academic level but also indirect learning from students in more advanced semesters. Schedules vary by rotation, with morning shifts (7:00 AM to 12:00 PM) or afternoon shifts (2:00 PM to 6:00 PM), amounting to an approximate weekly workload of 20 hours. There is a single day each week dedicated exclusively to academic activities, during which the corresponding theoretical subjects are taught from 7:00 AM to 8:00 PM.

Within the hospital setting, you are expected to examine patients, compile medical histories, and actively participate in the service's operations.

here is no direct legal or caregiving responsibility for the patient, but rather a strictly academic responsibility, which allows learning to depend largely on curiosity, initiative, and individual willingness. A significant strength of this model is the integration of the student as part of the healthcare team; medical and nursing staff typically support us within the service, allowing us to participate in examinations and clinical activities, which reinforces a sense of belonging and collaboration.

Clinical teaching varies by service; in areas such as internal medicine, where the patient load is high, much of the guidance comes from the interns. In contrast, in specialties such as cardiology, neurology, or ophthalmology, teaching is provided directly by the attending physician, who allows us to accompany them during consultations, procedures, and interconsultations. On occasion, topics are assigned for prior study, followed by explanatory sessions; however, teaching is usually predominantly spontaneous, taking place during rounds and supplemented by subsequent readings assigned by the attending physician.

From an academic standpoint, the impact of hospital exposure has been decisive. From my experience, learning medicine in the hospital accelerates the understanding of theory and makes it meaningful. Memorizing a drug is not the same as observing the patient who needs it, understanding their pathology, and grasping why that treatment is the right one in a real clinical context.

However, being admitted to the hospital also had a significant emotional impact. The start of clinical contact in the fifth semester was abrupt.

The first few days were overwhelming: the feeling of not knowing enough, the fast-paced hospital environment, and the constant exposure to critical situations led to saturation and overstimulation. This is intensified when facing patients with serious illnesses, prolonged hospital stays, deaths, intubated patients, or events such as cardiopulmonary arrests. While theoretical training addresses these scenarios from an academic perspective, there is insufficient emotional preparation to process them fully; this human component of hospital contact is typically learned implicitly through experience, which poses a significant challenge in medical education.

Exposure to clinical settings varies by program and university, with each institution tailoring its approach to meet its students' needs in the most effective way possible. Whether one way or another, clinical exposure is essential for medical students to develop in a clinical environment and to grasp what that entails. Therefore, we urge medical students to seek out clinical opportunities as early as possible, in accordance with their university's curriculum. Should students require earlier exposure than their program provides, they can opt for clinical or preclinical exchanges offered by SCONE, depending on their current semester.