

Lessons learned during internship: experiences of recent medical graduates

Aprendizajes adquiridos durante el internado: vivencias de los recién egresados de medicina

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Summary

Background: To produce graduates of the highest quality, ongoing evaluation of the educational process is required. The undergraduate rotating internship is a fundamental stage in the training of general practitioners; therefore, assessing the learning they acquired will allow us to determine whether the objectives of the curriculum for this program are being achieved and what aspects need to be strengthened. The objective was to analyze the learning acquired during the undergraduate rotating internship from the perspective of graduates of the Medical and Surgery program and its relationship to the program's objectives and professional profile. **Methods:** This was a qualitative research study, with the participation of 15 graduates of the Medical and Surgery program at FESI-UNAM. After signing an informed consent form, they were conducted in a semi-structured individual interview. **English: Results:** The qualitative analysis grouped the information into six topics: 1) Development of critical thinking and clinical reasoning in rotations, 2) The hospital as a favorable environment for teamwork and effective communication, 3) The internship and the different scenarios of medicine, 4) Self-regulated learning during the internship, 5) Challenges of the internship: adaptation to complex environments, and 6) The internship as an essential academic cycle in the curriculum. **Conclusions:** The graduates of the Medical Surgeon program from the Iztacala School of Higher Studies showed a positive appreciation of the rotating internship, however, they consider necessary modifications in the respect for the staff of some health institutions and in the functions of the interns, in accordance with the established regulations (Draft Mexican Official Standard PROY-NOM-033-SSA-2023), to guarantee high quality training without compromising the physical and mental well-being of future physicians.

Keywords: learning; medical internship; general medicine; life experiences

Resumen

Antecedentes: Para tener egresados de la más alta calidad, se requiere una constante evaluación del proceso educativo. El internado rotatorio de pregrado es una etapa fundamental en la formación de los médicos generales, es por ello que la apreciación de los aprendizajes que adquirieron nos permitirá constatar si los objetivos del Plan de estudios de esta carrera se están alcanzando y los aspectos que se requieren fortalecer. El objetivo fue analizar los aprendizajes adquiridos durante el internado rotatorio de pregrado desde la apreciación de los egresados de la carrera de Médico Cirujano y su relación con los objetivos y perfil profesional de la misma. **Métodos:** La investigación fue cualitativa, con la participación de 15 egresados de la carrera de Médico Cirujano de la FESI-UNAM. Previa firma de un consentimiento informado, se les realizó una entrevista individual semiestructurada. **Resultados:** El análisis cualitativo agrupó la información en seis tópicos: 1)

Desarrollo del pensamiento crítico y razonamiento clínico en las rotaciones, 2) El hospital como entorno favorable para el trabajo en equipo y comunicación efectiva, 3) El internado y los diferentes escenarios de la medicina, 4) Aprendizaje autorregulado durante el internado, 5) Retos del internado: adaptación a ambientes complejos, y 6) El internado como ciclo académico esencial en el plan de estudios. **Conclusiones:** Los egresados de la carrera de Médico Cirujano de la Facultad de Estudios Superiores Iztacala mostraron una apreciación positiva del internado rotatorio, sin embargo, consideran necesarias modificaciones en el respeto del personal de algunas instituciones de salud y en las funciones de los internos, en apego a la normatividad establecida (Proyecto de Norma Oficial Mexicana PROY-NOM-033-SSA-2023), para garantizar una formación de alta calidad sin comprometer el bienestar físico y mental de los futuros médicos.

Palabras clave: aprendizaje; internado medico; medicina general; experiencias de vida

1. Introduction

Contemporary society demands general physicians with a comprehensive education that encompasses scientific, humanistic, ethical, and social dimensions, capable of responding to the complex health needs of the population. In this context, curriculum evaluation becomes an essential component to ensure that study programs are aligned with current social, institutional, and professional requirements (1). This process must be continuous, participatory, and focused on clear and specific criteria that allow for informed judgments, identify areas for improvement, and adapt training plans to advances in medical knowledge and the realities of the healthcare environment (2-3). As highlighted by several authors (4-6), curriculum evaluation should not be limited to verifying technical mastery, but should also consider the development of skills and/or values: effective communication, teamwork, and professional ethics, essential aspects of patient-centered care and collaborative medical practice.

In this sense, it has been pointed out that curriculum evaluation in medicine requires a qualitative approach that allows for the interpretation of training experiences from a comprehensive and contextualized perspective. Qualitative research not only enriches the understanding of educational processes, but also allows for the recovery of the voices of students, teachers and institutional actors, thus favoring a more inclusive and meaningful evaluation (6-7). This methodology, through interviews, observations and document analysis, facilitates the in-depth analysis of complex and evolving educational phenomena, and is especially useful for exploring how learning is constructed, perceived and transformed within the medical curriculum (5). Such an approach takes on special relevance in contexts of change, where pedagogical and technological innovation constantly redefines the competencies that future physicians must acquire (4).

Finally, curriculum evaluation in medical education, particularly during critical stages such as the rotating internship, allows for assessing not only the achievement of academic objectives but also the formative impact of clinical experiences on recent graduates. Several studies agree that these experiences contribute to consolidating clinical judgment, fostering critical reflection, and strengthening professional identity (3, 6). Consequently, it is essential that higher education institutions develop assessment mechanisms capable of integrating diverse learning, promoting continuous improvement, and ensuring relevant, ethical, and socially committed medical education. In the case of the Medical and Surgical program at FESI-UNAM, modifications were made to the curriculum in place since 1980 on January 25, 2016, known as the "Project to Modify the Curriculum for the Medical and Surgical Degree." Subsequently, on May 19, 2022, the Academic Council of Biological, Chemical, and Health Sciences (CAABQYS) approved the "Project to Adapt the Curriculum of the Bachelor's Degree in Medicine and Surgery." Among the training stages that comprise it, the undergraduate rotating internship, considered part of the final curricular stage in medical training, is a mandatory period of 12 uninterrupted months. This stage seeks to consolidate the theoretical and practical knowledge acquired during their training in previous semesters. Given

the importance of this training stage, this work aims to analyze the lessons learned, from the perspective of the program's graduates, in relation to the program's objectives and professional profile.

2. Methods

This research was qualitative and phenomenological. The sample was intentional (8) and consisted of 15 medical interns in social service, men and women graduates of the Iztacala Faculty of Higher Studies (FESI-UNAM), who completed the modified curriculum implemented starting with the 2017 generation. At the time of the interview, their ages ranged between 22 and 24 years. All participants had completed their academic training, so from now on they are identified as recent graduates. They completed their medical internship between July 1, 2021, and June 30, 2022, in various institutions of the health sector in Mexico, including units of the Mexican Social Security Institute (IMSS), the Institute of Security and Social Services for State Workers (ISSSTE), the Ministry of Health (SSA), and private hospitals. The participants rotated through primary, secondary, and tertiary care institutions, located primarily in the Metropolitan Area of the Valley of Mexico.

The first level included urban health centers with high demand for primary care, vaccinations, and preventive medicine. The second level comprised general hospitals offering basic specialties such as pediatrics, emergency medicine, general surgery, internal medicine, and gynecology. The third level was represented by highly specialized hospitals, particularly those of the ISSSTE (National Institute of Statistics and Census). The organizational culture of these units varied: in some cases, hierarchical structures with marked role differentiation were observed, while in others, more collaborative environments were identified, depending on the institution and the type of unit. It should be noted that these institutions maintain interinstitutional agreements with the National Autonomous University of Mexico (UNAM), which allow students to complete their clinical cycles and undergraduate rotating internships in accredited clinical fields. These agreements include provisions on the allocation of positions, academic supervision, and compliance with specific regulations, in accordance with the current legal framework, including the Draft Mexican Official Standard PROY-NOM-033-SSA-2023.

Data were obtained through individual semi-structured interviews, conducted based on a guide designed to explore the assessment of the undergraduate rotating internship as part of the Bachelor of Medicine and Surgery curriculum. The interviews were conducted between January and March 2023. Qualitative analysis was then conducted using axial or second-level coding, which allowed for the identification of common themes and patterns, as well as the development of categories and subcategories based on the similarities and differences found in the participants' responses.

In this study, the credibility or internal validity of qualitative research—defined as the coherence between participants' expressed experiences and their interpretation by the research team—was strengthened through *member checking*. This consisted of sharing preliminary results with interviewees, who provided feedback to validate the content, helping to ensure interpretive fidelity. Additionally, the analysis was conducted collaboratively by several researchers, fostering analytical triangulation. This enriched the understanding of the data and reduced the risk of individual bias in the interpretation of the reported experiences.

Reliability (equivalent to reliability in qualitative research) was ensured through systematic documentation of the analytical process, which included detailed coding records, thematic matrices, and justifications for methodological decisions. The involvement of multiple researchers in the analysis stage allowed for contrasting perspectives and consensus - building on interpretations, which strengthened both the traceability and internal consistency of the procedure.

Finally, confirmability was sustained through rigorous methodological transparency. Records were kept of every decision made during the analysis, and critical reflexivity among researchers was promoted through collective discussions, which facilitated shared knowledge construction.

Triangulation among researchers was also key to ensuring that interpretations emerged inductively from participants' testimonies, thus avoiding the imposition of preconceived notions.

Ethical considerations

This research was conducted based on the ethical principles established by Helsinki. Participation was voluntary, with the prior signing of an informed consent form. Participants were informed of the purpose of the research, guaranteed anonymity and confidentiality, and informed that they could withdraw from the study at any time if they so desired. The study was approved by the Ethics Committee of the Iztacala School of Higher Studies, UNAM (CE/FESI/092024/1814).

3. Results

The assessment of medical graduates regarding the modified curriculum implemented in the 2017 class was grouped into ten categories that describe the importance of the undergraduate rotating internship in meeting the curriculum objectives and creating the professional profile of graduates (Table 1).

Table 1. Relationship of the rotating internship with the objectives and profile of the curriculum.

Aspects of the Objective and Profiles that are part of the Study Plan of the Medical Surgeon Career modified and implemented in the 2017 generation	
<i>Contributions of the rotating internship to the objectives of the curriculum Curriculum implemented in the 2017 generation , according to the graduates.</i>	1. Analysis of the social and scientific foundations of the profession
	2. Insertion in the different medical settings
	3. Incorporation into the postgraduate program
	4. Adaptation to complex and changing environments
	5. Participation in health and public health systems
<i>Contributions of the rotating internship to the professional profile of the Study Plan and its implementation in the 2017 generation , according to the graduates.</i>	6. Critical thinking and clinical reasoning
	7. Methodological capacity in sciences and humanities
	8. Self-regulated learning
	9. Effective communication and teamwork
	10. Ethical and professional domain in the practice of medicine

To facilitate understanding of the context in which the testimonies are expressed, labels were added at the end of each quote. These include the participant's gender and the type of institution where they completed their medical internship: ISP (Public Health Institution) and ISPr (Private Health Institution). This information allows for better understanding of the experiences described without compromising anonymity.

1. Analysis of the social and scientific foundations of the profession

The practice of medicine seeks a balance between scientific foundations and profound social responsibility. From the graduates' perspective, this training phase not only provided them with essential clinical knowledge and skills for their professional practice but was also key to understanding the role of medicine in society. The scientific foundations of the program, across the various disciplines, are aligned with the goals of training competent and technically skilled professionals. However, participants emphasize the importance of also addressing the social and cultural aspects of healthcare, elements that contribute to forming a dynamic professional profile that must respond to the needs and specificities of the population in which they serve. During clinical care in the various services of the internship program, physicians learn about the specificities of access to healthcare services, cultural diversity, and public health, knowledge considered by graduates as elements that complement their medical training. In this sense, there is an alignment between the

objectives of the degree, which seeks to train comprehensive professionals, and the professional reality they experience when facing a complex social environment, where the social determinants of health play a crucial role:

“During my internship, I learned constantly, especially about diagnosis and treatment. As I rotated through different specialties, I met many patients, each with a different background. This allowed me to understand the importance of adapting medical care to their social environment and recognize the barriers they face in accessing diagnosis or treatment.” (Woman, ISP)

2. Insertion in the different medical settings

During their internship, students have the opportunity to rotate through different medical specialties. This experience allows them to explore a variety of fields such as outpatient clinics, emergency departments, operating rooms, administrative activities, research activities, etc., which helps them understand the differences in clinical practice in each area and teaches them to adapt to the varied policies, procedures, and organizational culture of each area or service. Exposure to different settings facilitates graduate decision-making regarding whether to practice as a general practitioner or enter a specialty or postgraduate research program in the health field. This encourages them to enroll in a postgraduate specialization program or a postgraduate program in the different areas of medical research, fulfilling one of the specific objectives of this curriculum:

“The surgical rotation was one of the most meaningful. I enjoyed participating in procedures, consultations, and patient follow-up. This experience helped me visualize myself as a surgeon, and that’s why I decided I wanted to pursue a residency in that field.” (Female, ISP)

3. Incorporation into the postgraduate program

The process of entering postgraduate medicine (medical residency and/or master's degree) represents a decisive transition for graduating physicians, as it marks the shift from a focus on general medicine to specialized training. They often perceive it as a natural continuation of their professional development, in which the knowledge, clinical skills, and experience acquired during the internship will be deepened in a more complex and demanding context. From their perspective, the medical internship allowed them to identify areas of interest for their future specialization. Therefore, this stage allowed graduates to reflect on the professional profile they wish to build, aligning their personal interests with available specialization opportunities or postgraduate programs in the different health science disciplines. The balance between the practical knowledge acquired during the internship and the broader objectives of medical training provides them with a foundation to confidently face the challenges of postgraduate medicine, knowing that they have developed both the scientific competence and the commitment necessary to perform in the various opportunities for professional growth:

“My academic goals have always been clear. I chose this program because I’m passionate about it. I want to pursue a medical residency, continue learning new things, and continue growing professionally.” (Male, ISPr)

4. Adaptation to complex and changing environments

For graduates, internships are a challenging academic experience. They are a fundamental part of medical training and play an important role in helping students adapt to changing and complex environments. This contributes significantly to their professional growth:

“The internship was the most challenging year of my training. I learned a lot, and I’m leaving with the satisfaction of having acquired knowledge and being able to contribute to the team.” (Male, ISP)

Interns face a wide range of academic and healthcare environments, each with its own dynamics, procedures, and challenges. This exposure helps them adapt to diverse scenarios. The new learning dynamics, being part of an interprofessional team, and clinical decision-making and responsibility for these decisions have a positive impact on the graduates, who meet the professional profile proposed by the curriculum. They demonstrate the ability to adapt, resolve conflicts, and make critical decisions in challenging situations, as well as effective stress management—all essential attitudes for professional growth in such a demanding field.

“Although it was a very demanding stage, the internship helped me become more tolerant, manage stress, and work as a team player. It broadened my perspective on what it means to develop professionally as a doctor.” (Male, ISP)

However, this academic cycle is demanding in terms of time, both physically and emotionally. Overwork, exhausting hours in healthcare, teamwork, and family separation are some of the factors that impact the physical and emotional health of physicians in training. They must learn to effectively manage their time and implement strategies to fulfill their academic and clinical responsibilities:

“During boarding school, I neglected myself a lot. I lost my appetite, I was always tired, and I often went a day without eating.” (Male, ISP)

“Being away from my family and in such a demanding environment caused me anxiety and depression. I needed psychological support to move forward.” (Woman, ISP)

Therefore, this training cycle involves academic, personal, and professional changes that allow students to develop skills in adaptability, decision-making, teamwork, time management, and personal growth. These are essential for their professional practice and for developing in a constantly changing environment. However, it is essential to implement key changes in areas such as schedules, regulations, and adequate nutrition and rest. These changes, if implemented, ensure the quality and safety of patient care in relation to international standards. Clinical practice guidelines and evidence-based medicine; clinical education is also enriched in a structured, supervised manner, honoring the work of each member.

5. Participation in health and public health systems

The medical internship represents a key stage in which medical students have the opportunity to integrate into healthcare systems and become part of the dynamics of public health. During this stage, they face real-life scenarios in which they actively participate in the provision of services, allowing them to acquire a practical understanding of how healthcare institutions operate, their administrative processes, and the strategies implemented to serve the population:

“The internship had a very positive impact on me professionally. I learned many procedures and understood how healthcare institutions operate. Seeing the workload motivated me to want to contribute to improving the public healthcare system.” (Male, ISP)

From the graduates' perspective, the exposure to health systems and public health programs helped them better understand inequalities in access to services, as well as the importance of teamwork to ensure quality care. Furthermore, this experience provided them with tools to identify the most common health problems, evaluate available resources, and propose viable interventions, reinforcing the profile of a physician not only focused on individual patients but also committed to collective well-being. Thus, the internship period served them as a platform to directly experience structural challenges such as limited resources or the saturation of hospital and/or health system services. It also provided an opportunity to develop adaptability, teamwork, and leadership skills necessary to face the challenges of professional practice in real-life settings. Thus, the learning derived from their participation in health and public health systems not only strengthens their technical

training but also contributes to developing socially responsible physicians, prepared to play an active role in promoting and improving health at the community level:

“From the perspective of a physician responsible for several patients, I better understood the healthcare system and was motivated to continue studying to improve care conditions.” (Male, ISP)

“During my internship, I learned a lot about the inner workings of a hospital and dealing directly with patients. I also realized that healthcare work must truly be a team effort, even though sometimes not everyone is willing to cooperate.” (Woman, ISP)

6. Critical thinking and clinical reasoning

For graduates, interns face a variety of cases that promote the development of clinical reasoning and diagnosis, as well as evidence-based and ethical decision-making—skills necessary for physicians to perform safely and successfully. These skills are strengthened at the primary and secondary levels of care through collaboration in diagnostic, therapeutic, medical-surgical, and rehabilitation procedures for various conditions affecting different age groups. These skills are implemented in hospital rounds, surgical procedures, outpatient consultations, and preventive medicine. Medical interns experience uncertainty when faced with a difficult clinical case, but by performing the activities described above and with the help of current information technology, clinical guideline reviews, evidence-based medicine, and peer collaboration, among others, they hone their ability to make increasingly accurate diagnoses that allow them to make the most appropriate decisions possible.

“I consider the most important learning experience was in the doctor-patient relationship, clinical interventions, and consultations. All of this allowed me to develop as a healthcare professional and strengthen my diagnostic and therapeutic skills.” (Male, ISP)

7. Methodological capacity in sciences and humanities

During their medical internship, graduates not only delve deeper into the scientific aspects of medicine, using the clinical and scientific method in activities such as diagnosis and treatment, but also, by delving into different medical settings, develop a broader understanding of the humanistic dimensions of healthcare. This training phase allows students to consolidate their ability to approach clinical problems from an analytical perspective, applying the principles of the scientific method in decision-making. Graduates also recognize that the humanistic approach has been essential to their professional development. Aspects such as effective communication with patients and understanding the social and cultural contexts in which clinical practice takes place are perceived as valuable skills, complementing their training and enabling them to offer comprehensive care. This relationship between science and humanities not only shapes the professional profile of graduates but also prepares them to face the challenges of a constantly evolving medicine, with a focus on the needs and values of patients. Thus, the training received during the internship provides them with technical tools and enables them to be reflective, empathetic professionals capable of adapting to the challenges of contemporary medical practice:

“The humanistic component of medicine was very meaningful to me. I learned to treat people beyond the diagnosis. I remember many names, stories, and situations that left a lasting impression on me and made me reflect on the value of every life.” (Woman, ISPr)

“Internship exposed me to many different conditions. I lost my fear of diagnosing and modifying treatments. Furthermore, by working with such diverse patients, I understood that one treatment isn't enough; you have to know how to listen, communicate with empathy, and understand their emotional and social needs.” (Male, ISP)

8. Self-regulated learning

Self-regulation of learning involves the student's ability to evaluate their own performance and seek opportunities for improvement. During this academic cycle, graduates consider that they have developed the ability to reflect on their work, identify areas for improvement, and implement measures to address these deficiencies. They report that during their internship, the acquisition of practical skills takes on greater importance compared to theoretical learning; the uninterrupted presence in the different services and the daily care of a large number of patients allows them to acquire new clinical skills to diagnose, treat, and monitor the progress of patients in the different areas:

"Even though I didn't know everything, I had to face real-life situations. I had to recognize my shortcomings, study, and improve every day. Doing this consistently for a year prepares you for the future." (Woman, ISP)

As the academic cycle progresses, physicians in training assume greater responsibility for patient care, gain experience, make better decisions, and develop self-confidence and self-regulation skills in their professional practice. However, theoretical learning is limited to specific spaces and activities such as visiting or classroom lectures. It is important to consider that the decrease in theoretical learning spaces, where there is less academic support for students, in turn forces them to develop organizational and self-regulated learning skills. Therefore, it is necessary for institutions and internship programs to complement clinical teaching and theoretical instruction, with academic support, supervision, and feedback being key elements to ensure that graduates acquire solid knowledge and develop effective skills during this cycle:

"I think I needed to learn more theory. I felt limited. The little that the attending physicians and residents taught me was useful, but I had to learn a lot of it on my own." (Woman, ISP)

9. Effective communication and teamwork

In the graduates' experience, interns work as a team across different areas and services, forming interprofessional teams. They share ideas, discuss, and make collective decisions during rounds, procedures, and in individual service sessions. These skills are essential for developing clinical judgment and implementing appropriate solutions to persistent healthcare challenges:

"Internship teaches us to work as a team with fellow residents, physicians, nurses, lab technicians, and orderlies. We learn to support each other for the good of the patient." (Male, ISP)

Likewise, rotations involve interacting with patients and their families, which fosters communication skills and the ability to treat people as biopsychosocial beings with empathy, respect, and the ability to understand each individual's context. These skills improve the quality of service provided and enrich the doctor-patient relationship within healthcare services, fostering meaningful learning for the student by promoting the practice of medicine with ethical and professional mastery and the ability to analyze the scientific and psychosocial foundations of the profession.

"Understanding the patient's context helped me better target treatments and identify individual risks. Knowing their social environment allowed me to communicate better with them and gain their trust." (Woman, ISP)

10. Ethical and professional mastery in the practice of medicine

During their medical internship, graduates consolidate their clinical knowledge and face situations that require them to apply ethical principles. Through direct interaction with patients, clinical decision-making, and collaboration with the interdisciplinary team, graduates acquire an understanding of the ethical responsibility inherent in medical practice. From the graduates'

perspective, the medical internship allowed them to internalize the values of medical practice. Furthermore, managing ethical dilemmas, such as confidentiality, informed consent, and decision-making, was perceived as an experience that helped develop a well-rounded professional profile. This ethical learning strengthens the profile of a professional committed to equity and human dignity in the practice of their profession.

The medical internship also allowed graduates to recognize the importance of professionalism in terms of conduct, interpersonal relationships, and commitment to continuous improvement. Thus, the ethical and professional mastery acquired during the internship constitutes a central element in consolidating the profile of a physician who is not only technically competent but also morally responsible. During the medical internship, graduates consolidate their clinical knowledge and face situations that require them to apply ethical principles. Through direct interaction with patients, clinical decision-making, and collaboration with the interdisciplinary team, graduates acquire an understanding of the ethical responsibility involved in medical practice:

"The internship allows you to experience what it's really like to be responsible for patient care. It motivates you to do things as well as possible." (Male, ISP)

"You realize that studying is vital. If you do something without the proper knowledge or make a mistake, the patient is the one who suffers the consequences. It's very hard to witness someone die from something you perhaps could have done better." (Woman, ISP)

The medical internship: an essential academic cycle in the curriculum

For graduates, maintaining the internship is a fundamental element in training competent physicians committed to high-quality medical care. They consider it important to maintain this academic cycle as part of the 2016 curriculum, providing opportunities to establish a solid professional profile, capable of working in various areas of the health system, applying the clinical method, understanding the human being and their health-disease process as a biopsychosocial phenomenon, and possessing the skills to provide quality medical care.

"I think internships should remain part of the curriculum. It's the only real opportunity we have to get involved in hospital work." (Male, ISP)

"It is necessary to preserve it, but with clearer rules, better supervision, defined schedules, and respectful treatment of inmates." (Woman, ISP)

4. Discussion

The undergraduate internship represents a key stage in the training of physicians, as it allows them to consolidate acquired theoretical knowledge and develop practical skills essential for professional practice. This study, focusing on the experiences of graduates, offers a comprehensive view of the strengths and areas for improvement of this academic cycle. It is confirmed that the internship fosters a deep understanding of the social and scientific foundations of medicine, providing an environment where medical interns acquire not only clinical knowledge but also a social perspective on health care, as several authors point out (9-10). Even so, (5, 11-12) there remains a need to strengthen ethical and cultural components, as well as a reflective approach to medical practice. Furthermore, research suggests that the internship can also be a period of tension between the formal values of the curriculum and the implicit practices of the clinical environment (13-14).

Rotating through various specialties allows students to explore multiple areas and medical settings, facilitating their integration into diverse clinical contexts. This aspect broadens their practical skills and promotes informed decision-making about their professional future (15-17). However, the lack of clear guidelines in some services and the long work hours can hinder optimal utilization of this experience (18-20). Some authors (21) have emphasized that the absence of

institutional standards exacerbates these gaps by leaving the quality of training in the hands of hospital settings. Furthermore, graduates' perception of this stage as a bridge to specialization coincides with studies that highlight that accumulated clinical experience is a determining factor for success in admission and performance in medical residency programs (22).

Graduates highlight the development of skills to adapt to complex and changing environments. Exposure to high-pressure situations teaches them to manage stress, work as a team, and make clinical decisions in real time. However (20, 23), adverse effects on physical and mental health—such as burnout and anxiety—demand urgent reforms to create safer learning environments. Along these lines, other authors (24-26) support the need for institutional policies that prioritize student mental health. Interns also value the practical approach to health systems, as it allows them to identify structural inequalities and develop leadership, although they also face frustration due to the scarcity of resources (27-28). Although critical thinking and clinical reasoning are strengthened by constant practice (29-30), their effective consolidation depends (31) on adequate supervision and formative feedback.

Finally, humanistic and ethical training is reflected in graduates' ability to make responsible clinical decisions and act with integrity. Despite the overload of care tasks, competencies such as self-regulation of learning, interprofessional collaboration, and effective communication are developed (32-34). However, these competencies are more effectively strengthened in institutions that integrate academic support, faculty leadership, and a critical approach to the hidden curriculum (35-36). Consequently, the rotating internship should be conceived not only as a phase of intensive practice, but as a comprehensive training space that demands institutional commitment to guarantee quality medical education, centered on the student and the patient.

In this context, the findings align with the fundamental principles of the Curriculum for the Medical and Surgical Program at the Iztacala School of Higher Studies, which recognizes the undergraduate rotating internship as a crucial stage for consolidating comprehensive medical training. This plan promotes an educational model based on the integration of biomedical, clinical, ethical, and sociocultural knowledge, with a strong emphasis on clinical practice, collaborative work, and the ability to respond to the real challenges of the healthcare system. The results of this study show that these competencies begin to consolidate during the internship; however, they also reveal areas that require more decisive institutional interventions, particularly regarding the emotional well-being of interns, the clarity of training objectives, and the quality of clinical supervision. Based on these findings, it is considered pertinent to propose complementary curricular adjustments that reinforce the objectives of the curriculum in force since the 2017 class. The recommendations include:

1. Strengthening academic and psycho-emotional support throughout the internship.
2. Implementation of uniform evaluation criteria across different hospital locations.
3. Inclusion of spaces for critical reflection, allowing students to identify and address tensions inherent in the hidden curriculum.
4. Guaranteeing adequate training conditions in clinical fields through inter-institutional agreements aligned with a humanistic, ethical, and community-based approach.

5. Conclusions

- Based on the experiences of recent graduates, this study confirms that internships allow for the consolidation of essential skills for medical practice, but also reveals significant structural and pedagogical challenges that limit their training potential.
- While internships facilitate adaptation to complex environments and facilitate integration into various fields of medicine, they also have issues that must be addressed, such as the grueling working conditions and lack of academic supervision, which impact both the theoretical training and the physical and mental well-being of interns. This stage must be

optimized by regulating schedules, duties, and teaching support, in compliance with current regulations.

- Internships play an essential role in training competent and socially responsible physicians. However, they must guarantee adequate training and well-being conditions, which is essential to meeting quality standards in medical education.

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